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AN INVESTIGATION INTO THE BARRIERS AFFECTING THE ADOPTION OF ISO 9001:2015 CERTIFICATION IN ARABIC COUNTRIES: A CASE STUDY OF LIBYAN SERVICE AND MANUFACTURING INDUSTRIES (LSMI)

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Abstract

The study aims to investigate and analyse the barriers that affect the adoption of ISO 9001:2015 certifications, a quality management system, in Libyan Service and Manufacturing Industries (LSMI), and to identify how these barriers can be overcome. A review of the literature revealed a major gap in studies in this area of the quality management system and fills a gap in knowledge explicit to Libya. The paper adopts a case study approach to collect the data. It summarises the results from face to face semi-structured interviews conducted within LSMI, using template analysis to analyse the data from the case study. This study highlights the strong potential of ISO 9001:2015 in affecting organisational performance improvements. The study also offers a beneficial source of information for organisations, which are still lagging far behind when it comes to ISO implementation. The distribution of the current study results by the LSMI will lead to knowledge transfer and help organisations, among Arabic and developing countries, in the process of achieving standardisation. The study's results can support those organisations to deal with domestic customers and serve the local market, in addition to helping the LSMI find a place in the international market by seeking ISO 9001:2015 certification. The results have practical implications for the governments, the LSMI, experts and quality managers. The originality of this paper is to fill the gap in knowledge in this area, which is explicit to Libya. It contributes to the literature and professional practice by offering new insights into the barriers for the implementation of ISO 9001:2015 in LSMI.

Keywords: ISO9001:2015, Reasons, Motives, Obstacles, Barriers, LSMI, Libya.

1. INTRODUCTION

In recent years, the ISO 9001:2015 quality management system (QMS) has been widely accepted and adopted as a national/international standard by most of the industrial countries. The ISO 9001standard is the most popular standard of quality management system around the worldwide organisations. In addition, the ISO 9001:2015 standards were developed to achieve customer satisfaction. The progressive increase in applications from manufacturing firms, for approval to standards such as ISO 9001:2015, suggests that quality certification has been, and continues to be, viewed as important to a competitive position (Purwanto et al., 2020 and Bounabri et al, 2018). As many organisations have discovered that the key to customer satisfaction and competitive success lies in emphasizing and achieving product and service quality as a strategic weapon in performing business (Rybski et al., (2017); Tricker, R. (2016); Mehfooz and Saeed Lodhi, (2015); cianfrani et al, 2009; Magd, H.A.E, 2006; Hill, N et al., 2002 and Crosby, P. B. (1996).

Singhal and Singhal (2012) identified that ISO 9001, first introduced in 1987 by the International Organisation of Standardisation ISO among the ISO 9000 series (Such as ISO 9000, ISO 9002. ISO 9003 and ISO 9004), is an international standard that assists more than one million organisations around the world by providing a set of requirements for developing and demonstrating an effective documented QMS.

Tricker, R. (2016) pointed out that numerous quality standards have been developed and adopted over the years, with the ISO family of standards representing an international consensus on good management practices that have the aim of ensuring that an organisation can deliver products or services that meet the customers' quality requirements. Besides, the ISO standards can be applied to any type of organisation (private or public including government services) independent of the size of the organisation or the kind of products manufactured or services provided (Hussein et al., 2017). ISO 9001:2015 accreditation of organisations has been a subject of considerable interest because product quality guarantee has become one of the prime factors to be considered in the present time of highly competitive industrial activity.ISO 9001:2015 accreditation is still a new issue for the organisations in Libya, a developing country these organisations need to establish a new strategy towards accreditation focuses on the difficulties and barriers to implementation of ISO 9001:2015 in such a culture (Talib, F., & Rahman, Z. (2015).

According to the latest results of the ISO 9001 survey (2019) which shows an estimation of the total number of valid ISO 9001:2015 certificates 878 664 and a total number of sites 1

180 965 were issued on 31st December 2019 in 201 countries and economies around the world. As mentioned, little research has been carried out in the Arab world and particular Libya, as to why barriers to ISO 9001:2015 adoption might exist. However, what is clear is that the adoption of ISO 9001:2015 certifications in Libyan service and manufacturing industries is very low in comparison to other Arabic countries, as illustrated in Table1 and Figure 1,2. The latest results of the ISO 9001 Survey are for 2019 which show an estimation of the number of valid certificates and number of sites covered by the certificates for each country as of 31 December 2019.

Table 1: Number of ISO 9001:2015 Certificates issued and sites to end of 2019.

No	Arab Countries	Number of ISO 9001:2015 certifications	Sites
1	United Arab Emirates	3,839	5,558
2	Egypt	2,271	2,521
3	Saudi Arabia	2,206	3,020
4	Tunisia	1,105	1,408
5	Morocco	1,066	931
6	Qatar	827	1,169
7	Oman	636	978
8	Kuwait	587	733
9	Lebanon	576	666
10	Jordan	562	669
11	Algeria	499	1,082
12	Bahrain	435	575
13	Iraq	85	97
14	Sudan	83	99
15	Syrian Arab Republic	82	94
16	Palestine	33	34
17	Libya	28	31
18	Yemen	10	10

Source: Adopted from (ISO 9001 SURVEY, 2019).

Figures 1 and 2 presents the numbers of ISO 9001:2015 certifications and sites in the Arab countries in descending order. The country heading the Top ten ranking with the larger number of certificates at the end of 2019 in the United Arab Emirates followed by Egypt whereas Libyan comes in the seventeen places with 28 certified originations which is very low comparing to the Arabic countries.
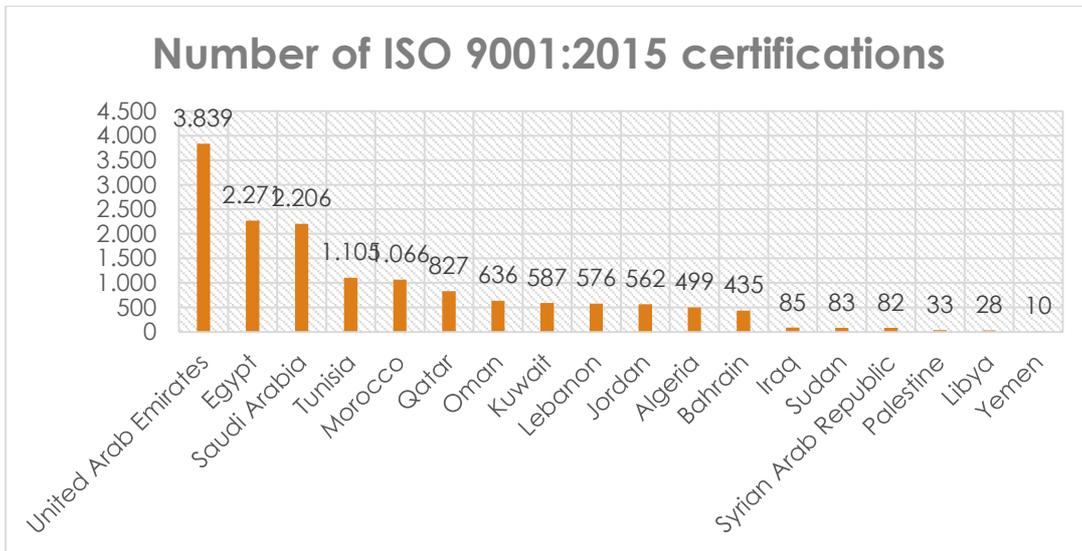
Figure 1: Number of ISO 9001 certificates issued to end of 2019.
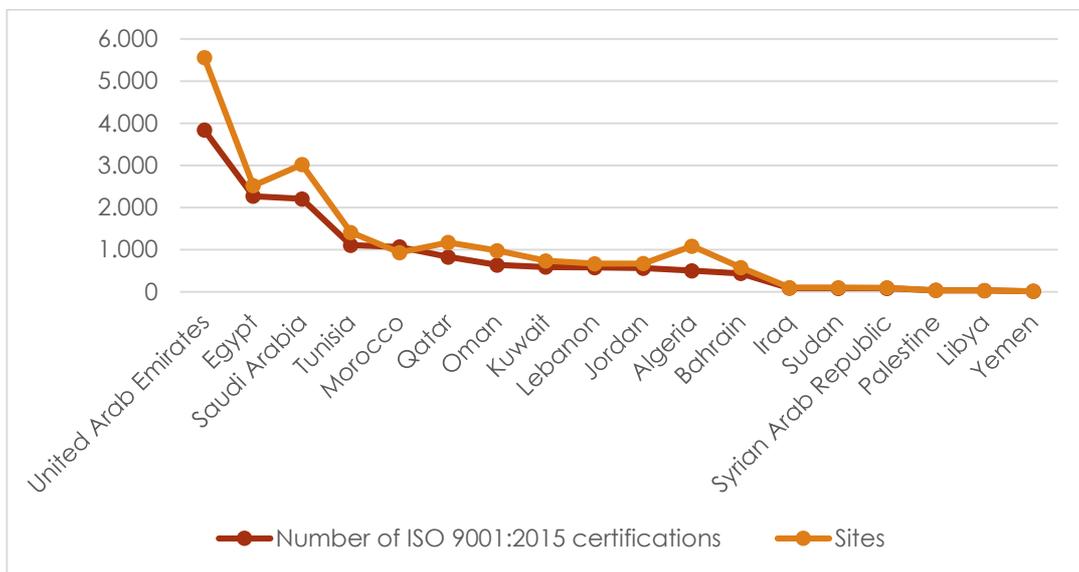
Figure 2: Number of ISO 9001 certificates and sites to end of 2019.

Source: Created from (ISO 9001 SURVEY, 2019).

A key question to ask following this evidence is why is the adoption of ISO 9001 so low in Libya. This in turn raises a further question of what the barriers to adoption are and whether they might be specific to Libya. Therefore, the study is exploratory in nature and seeks to collect data related to the difficulties that affect the implementation of ISO 9001 in Libyan service and manufacturing industries.

Libya is still considered as a „developing country" and until recently had little investment internally or from foreign companies therefore, the implementation of any type of quality management system was deemed unnecessary. However, since the imposed sanctions were lifted, service and manufacturing organisations alike are being inspired to improve their business in order to achieve a better position in an extremely competitive market place. The challenges that ensue compel the management of those organisations to transform their long-standing traditional management systems (Aamer et al., (2020); Tricker, R. (2016). Hence, improving business performance by implementing a successful QMS will have a positive impact in many areas, e.g. increased market share, improved service provision, increased productivity and streamlined procedures and processes.

When more Libyan companies embark on the application process, and they fully understand the concept of ISO 9000 standards, they will identify the benefits that will dramatically improve their standing in both local and international markets. Fulfilling the requirements means a constant striving to produce top quality goods and services which in the long-term can only be seen as beneficial.

Therefore, this study aims to investigate and analyse the barriers that affect the adoption of ISO 9001:2015 certifications, a quality management system, in Libyan Service and Manufacturing Industries (LSMI), and to identify how these barriers can be overcome. A review of the literature revealed a major gap in studies in this area of the quality management system and fills a gap in knowledge explicit to Libya.

The study's contributions lies in providing a more complete picture of the difficulties affecting and challenges arising during implementation of ISO 9000, quality management system (QMS) in Libyan service and manufacturing industries. The research will review and discuss the most importance of ISO 9001:2015 QMS implementation. Organisations of all types and sizes find that using the ISO 9001:2015 standard helps them: organize processes, improve the efficiency of processes, and continually improve. This will help Arabic organisations and LSMI to have a comprehensive understanding of what factors that they have to focus on in order to achieve a successful organisation quality management system that meet customers'

need and the goal of organisation. Arabic industries and LSMI can use these results as a guide to develop and implement an industry management system that complies with ISO 9001:2015. Moreover, the present study seeks to fill the gaps in the current literature debate on the prospects of ISO 9001:2015 factors that affect the development of QMS.

The rest of the study is structured as follows.. The first section sets out the key literature and identifies the gaps in knowledge that lead to an explanation of the research background, including an explanation of the significance of this research and the aim of the research and the main research questions. The second sections presents the research strategy, data collection methods and data analysis techniques, which includes the background to the research philosophy, research approach and selection of data collection methods. The third section discusses the results of the study; revealing which and why barriers to ISO 9001:2015 adoption and implementation might occur in Libya and how this relates to existing literature. In the final section, conclusions are drawn and recommendations are made as to how this research may be used by professional practitioners or by Libyan authorities whilst also considering the limitations of the research.

2. RELEVANT LITERATURE

The process of implementing ISO 9001:2015 certification a QMS may appear simple at first, especially given the increasing numbers of ISO 9001:2015 certified organisations over years there are so many barriers to overcome when taking the decision of implementation. Certification does not guarantee a fluent QMS implementation, as the process brings inevitably change to the organisation. Many forces acting against it create barriers, such as resistance, commitment and flexibility issues when the implemented change is not managed the best way possible. Although there has been considerable interest in the improvement of business management in Libya, the study of quality management has been significantly less prominent, a situation that is also found in other Arabic countries (Jayasundara and Rajini, 2014; Talib and Rahman, 2015). It is therefore valuable to examine the reasons why many organisations fail to be familiar with and understand the advantages of ISO 9001:2015.

The philosophy of quality, inherent in ISO standards, requires employees and managers across all departments in the organisation to work together to identify and resolve quality problems. However, empirical evidence often shows that the implementation of ISO 9001:2015 meets many different barriers in organisations throughout the world among others, Al-Refaie et al (2012); Ashrafi and Bashir (2011), Ashrafi, (2008); Sampaio, et al 2009; Al-Zamany et al,(2002), just a few in the Arab world such as Ismail-Salaheldin, (2003); Curry and Kadasah

(2002); Al-Khalifa and Aspinwall (2000), Hesham and Magd (2007), Al-Najjar and Jawad (2011). Specifically, and emblematic of many of these studies, Bounabri et al, (2018) and Hamadameen and Wali (2019) suggest that the major difficulties faced in implementing ISO 9001:2015 are the low level of involvement of top management and employees, a poor flow of information (for the functioning of the quality system), resistance to new responsibilities, a lack of appropriate technical knowledge, and difficulty in the communication of new tasks and functions for each job. Once implementing change, there are continually obstacles that are involved, as Aamer et al., (2020) quoted, such as lack of communication, lack of top management commitment, misunderstanding of the aims and process of change and resistance.

Although the literature on QMS in general and ISO 9001:2015, in particular, is significant, there is a limited focus on barriers and problems with ISO 9001:2015 and even more so when examining Arabic countries. For brevity here, in Table 2, the authors identify six key papers that provide an Arabic country context and which highlight well the key reasons stated in the literature why organizations may have difficulties with the implementation of ISO 9001:2015.

Table 2: Common obstacles of implementing ISO 9001:2015 identified by various authors with different Arabic Countries.

Authors	Country	Identified Barriers to implementing ISO 9001:2015 QMS
Aamer et al., (2020) Al-Awlaqi and Aamer. (2019)	Yemen	•Lack of qualified personnel; • lack of trust between the employees and their manager; •Lack of financial resources; •Organizational resistance to change; •Lack of experience in establishing quality systems; • Cultural and employee barrier; •Difficulties in motivating staff participation; • Lack of continuous training programs and quality education; •Absence of financial support for the implementation of ISO 9001.

Hamadameen and Wali (2019)	Iraq	•Organizational barriers: human resource, attitude towards quality, management, culture, interdepartmental relations, machines and equipment, materials, quality-related information, method, training, and finance. • Cultural and employee barrier; • Lack of understanding the importance of certification; • Lack of continuous training programs; •Language barriers and lack of awareness.
Bounabri et al,(2018)	Moroccan	• Resistance to change by employees; • Lack of communication; •Absence of qualified and professional personnel in ISO Certification. •Bureaucracy of documentation and poor interdependence between departments in organisations; • Poor top management commitment and insufficient training were also ascertained to be obstacles to QMS implementation in Morocco.
Hussein et al,. (2017)	Lebanon	• Lack of awareness on ISO 9001; • Resistance to change; • Terminology used in ISO 9001; • Commitment of top management; •Existence of an accreditation system; •Lack of resource availability.
Aqoulah et al,.(2016)	Jordan	•Organizational resistance to change •Lack of qualified personnel; •Lack of continuous training programs; • Cultural and employee barrier; • Resistance to change by employs; •Lack of understanding and knowledge of ISO standards and QMS.

Form table 2 where it can be said that there is literature to support the following points:

• The shortage of Arabic studies, not one on those studies was carried out in Libyan organisations. This supports the originality of this research and adds another contribution to the field;

• Most common barriers in studies mentioned in Table 2 are: Top management related issues (Organisational resistance to change; lack of commitment and inadequate leadership), Resistance to change by employs and lack of resources availability;

• All Arabic countries mentioned in Table 2 experienced human resources barriers to QMS implementation such as issues related to understanding the purpose of ISO 9001:2015 certification, requirements of the standard in addition to lack of competence in the field.

Clearly, there is a large amount of information in this literature, but to summaries, the key factors for ISO 9001:2015 failure include, a lack of top management support and commitment, the resistance of employees towards change, a lack of understanding of the ISO requirements, inadequate training and quality knowledge, a low level of quality awareness and culture, the allocation of personal responsibilities and constraints on resources such as manpower, time and finance.

Wali and Hamadameen (2019) claimed that in order to havea successful organisational change, good change management is important to ensure to get the desired results. Aamer et al., (2020) reported that change management is a specific approach of management by using specific technics and tools to ensure a successful change implementation, based on prosocial definition of change management as a set of processes and tools used to lead the people side of change in order to attain the desired results.

3. RESEARCH METHODS

The study included two phases, in the first phase email interviews were conducted, followed up by telephone interviews to provide a greater degree of flexibility. To obtain a general perspective on difficulties regarding the implementation of ISO9001:2015, the interviews were focused on Quality professionals most likely to be aware of all aspects of the certification process. In the second phase of the study, semi-structured interviews were carried out to gain more in-depth information.

Interview guides were developed from a pilot study and the research strategy was designed to increase the validity and reliability of the interview questions. As a research strategy, a case study approach was adopted to gain a depth of understanding of the information necessary to identify and investigate the barriers regarding the LSMI implementation of ISO 9001:2015. Also, following a constructivist viewpoint, it was appropriate to apply an interpretive paradigm, which is integral to qualitative research (Denzin and Lincoln, 2005), and which is also consistent with this as an exploratory study. The nature of the data collected from the case studies were qualitative transcripts of the semi-structured interviews held with case study participants.

The data collected from the case studies were analysed using Template Analysis. King (2017) defines template analysis as a particular approach to analysing qualitative data: "The data involved are usually interview transcripts but may be any kind of textual data including diary entries, text from diary entries, text from electronic "interviews" (email) or open-ended question responses on a written questionnaire." King, (2017).

The purpose of template analysis is basically to provide the reader with an overview of the key themes emerging from the mass of information garnered from the interviews. The themes and codes are defined by King (2017) as relevant features of the participant's accounts and the process of identifying the themes. The essential purpose of Template Analysis is to provide an overview of the key themes and sub-themes emerging from qualitative data, where those themes and sub-themes are features of the data that are relevant to the research questions. It is essentially a qualitative data reduction and categorization exercise. In this case, the research questions focus on the need to understand the barriers to the adoption of ISO9001:2015 across a range of different circumstances. An initial template for analysis of the data was subsequently created using the codes presented in table 2. This enabled adjustments to be made to the themes and sub-themes as the analysis evolved before developing the "final" template, although King (2017) further states that because there are other ways of interpreting qualitative data sets there is no stage where you can say with absolute certainty that the template is finished.

In this study, this Final Template is the one where no further propositions were emerging from the case studies and could be assumed to be an exhaustive listing of all propositions that explain why barriers to ISO 9001:2015 adoption in Libya occur?

Utility of Template analysis
techniques

Company (1) Professional.1

Company (2) Professional.2

Company (3) Professional.3

1- Interviews

Next interview

Recorded via: semi-structured interviews

Interview-Guide (questions)

Template Analysis

Initial template: Literature + Interviews Guide + my personal experiences and knowledge

Broad Themes

Themes

Sub themes / Initial High Code
E.g.3.1 Awareness /Training

Sub themes/ Initial Low Code
e.g. 2.1.1. Lack of employee awareness

Final Template

Summary of low Code

Source: Own Creation

After King (2017).

4. RESULTS

Table 2 presents the 'final template' reached for the study, the following template was produced using the transcriptions from the interviews carried out with the 10 respondents in the case study (LSMI), and comprises different first-order propositions grouped into 6 second-order sub-themes. The column on the right identifies each of the initial propositions directly identified from the interview transcripts, and the left-hand column identifies the higher-order sub-theme within which these propositions can be grouped, under the overall subject of reasons for seeking ISO 9001:2015.

Table 3: Template Analysis results of barriers to ISO/IEC 9001:2015 adoption according to respondents.

Themes	Sub-Themes Initial High Code	Sub-Themes Initial Low Code
1. Barriers to ISO/IEC 17025adoption.	1.1Awareness /Training	**1.1.1.** Lack of employee awareness of the concept of QMS. **1.1.2.** Inadequate training. **1.1.3.** Training programs take time. **1.1.4.** Lack of directed guidance for the employees to understand the ISO 17025 requirements. **1.1.5.** Lack of free advice. **1.1.6.** Lack of available information in Arab language **1.1.7.** Lack of government programs that are needed to support quality activities. **1.1.8.** lack of technical knowledge.

	1.2. Organisational Culture	**1.2.1**. Lack of management support and commitment. **1.2.2.** Difficulties in accepting new approach/direction. **1.2.3**. Employee absenteeism. **1.2.4**. Lack of Accountability. **1.2.5.** Lack of trust in the Libyan Training. **1.2.6.** Wrong person in the wrong position. **1.2.7.** The difficulty of having arguments or discussions with the managers. **1.2.8.** Bureaucratic administration. **1.2.9.** Setting targets and then being held accountable by higher-level management. **1.2.10.** Large workforce. **1.2.11.** Economic Crisis. **1.2.12.** Financial support difficulties.
	1.3. Internal Resistance	**1.3.1.** No desire to change. **1.3.2.** Increase in workload by an increase in the documentation. **1.3.3.** Unwillingness to change from the existing system. **1.3.4.** Process of ISO 9001 too complicated. **1.3.5.** Bureaucracy.
	1.4 Expertise	**1.4.1.** Absence of experts. **1.4.2.** Shortage of skilled personal. **1.4.3**. No accredited local agencies. **1.4.4.** calibration difficulties.
	1.5 Cost	**1.5.1.** Cost of contracting foreign consultants. **1.5.2.** Training Programmes are costly. Calibrations are costly. **1.5.3.** Lack of documentation and Materials. **1.5.4.** Consultation process.

		1.5.5. Unavailability of a locally accredited calibration and accreditation body.
		1.5.6. High cost of certification.
	1.6. Quality Manual	**1.6.1.** The presence of foreign languages documents + Manual in English.
		1.6.2. Lack of people to translate.
		1.6.3. Lack of English quality language courses and Arabic translator.
		1.6.4. Lack of available information in the Arab language.

According to the answers given by all respondents, it's clear that the most significant problem was a lack of employees awareness and difficulty in understanding the purpose of ISO 9001:2015, because of this, employees have been very resistant to the introduction of ISO 9001:2015 standards, which is seen as a lot of extra and possibly unnecessary work partly due to the dogma associated with working with the current system for a long time and them not wanting the challenge of learning new skills.

This sits comfortably with propositions by Al-Najjar et al. (2011) and Al-Refaie et al., (2012) but as Crosby (1996) proposed, it is more likely that poor management creates such quality problems and, as discussed by Hussein et al,. (2017); and Elsmuai and McCollin, (2013) problems with training and skills may be more related to a lack of awareness of skills requirements than the actual training itself, which came through in the template analysis as shown where there was a clear lack of information, education and training programs available on quality issues.

The second significant problem area is related to organizational culture barriers, where barriers occur due to, resistance to change, wrong people in the wrong position, inappropriate managerial traditions, relationships with supervisor, the relationship of individuals, people involved in attending meetings, the celebration of social events, ease of adjustment to new requirements, senior managers taking time to talk informally to employees, more co-operation than competition between different departments. These findings were similar and consistent with other Arabic researchers such as (Aamer et al., (2020); Al-Awlaqi and Aamer. (2019); Bounabri et al. (2018); Hussein et al,. (2017); Ashrafi (2008); Zaramdini. (2007); and Al-Zamany et al. (2002).

Internal resistance is identified by the respondents as another problem area. Where there was no desire to change, the Process of ISO 9001:2015 too complicated, Unwillingness to change from the existing system and bureaucracy. These problems and difficulties were consistent and supportive of previous studies, for example, Fonseca et al., (2019); Talib & Rahman (2015); Mosadeghrad (2014); Al-Najjar & Jawad (2011); Hesham & Magd (2007), and Kumar & Balakrishnan (2011). Similarly, a lack of relevant expertise including an absence of Libyan professionals and experts in this field, which in turn led to the contracting of external organisations to carry out training created further barriers to adoption and implementation. Furthermore, the unavailability of a locally accredited calibration and accreditation body that issue ISO 9001:2015 certifications means dealing with foreign institutions which causes delays in obtaining the certificate as well as the absence of accredited institutions that assess the trainers and coaches that adopt the training programs on ISO 9001:2015 and the cost of contracting foreign consultants. This again is consistent with studies carried out by (Aamer et al., (2020); Kumar & Balakrishnan (2011); Al-Najjar & Jawad (2011) and Ashrafi Rafi (2011) where they indicated that a lack of 'local' experts in QM is a barrier to ISO 9001:2015 implementation.

The ultimate barriers to ISO 9001 to emerge as sub-themes from the respondents' answers were related to Cost and issues related to the Quality manual itself. In terms of the former, respondents identified that training programs, quality calibrations, and consultation processes were the most costly items that created reduced adoption rates and although these are unlikely to be specific to Libya, there was also felt to be a lack of accessible Libyan documentation and all materials were in foreign languages, principally with the Manual being in English. Combined with the fact that there was a lack of Quality-qualified people to translate, a lack of English Quality-based language courses with Arabic translators and a lack of available information in the Arab language, this has serious implications for the success or failure of the ISO 9001 implementation, and could again drive up costs.

Several organisations have found it necessary to translate the manual into Libyan, but this normally results in ambiguities, effectively making the quality system more costly and less efficient. These findings are similar to another study by Aamer et al. (2020); Bounabri et al. (2018); Aqoulah et al. (2016) and Al-Najjar & Jawad (2011) where they indicated that the relatively high cost of the certification is a barrier facing most organisations. It is generated by training, time, and consultancy fees to facilitate the registration process. Ashrafi and Bashir (2011) identified that the lack of financial capacity to meet implementation costs and

maintaining QMS costs in Egyptian organisations is one of the barriers affecting the adoption of ISO 9001standards. The findings indicate the urgent need to ensure that proper training and awareness education programs on ISO 9001 standards are available and provide solutions to overcome these barriers during the implementation process.

5. CONCLUSIONS

From the results presented in the Template Analysis above, one can glean a number of recommendations that could be put in place, to both aid organisational performance and increase adoption of ISO 9001:2015 certification in Libya:

- Resolve the lack of quality awareness when implementing the QMS including top management; managers and employees.

- Refresher courses could be conducted to ensure employees and managers are familiar with what is required of them. Also, to resolve the problem of unawareness of new employees towards the standard, in-house adaptations of external training sessions can be conducted for them.

- To increase management support in the implementation process, the government and organisation management should support their employees by motivating them and providing more information in Arabic about ISO requirements including the quality manual.

- Resolve the lack of information regarding ISO 9001:2015 standards introduction where most of the documentation is written in English, and little has been translated in Arabic. Hence within a quality management system, there is a need to ensure that all documentation of the quality management system should be written in Arabic to help the employees understand the system.

- To increase the number of local agencies and Libyan experts in the ISO 9001:2015 field the Libyan National Centre for Standardisation and Metrology (LNCSM) should train more people thus reducing the problem of the lack of expertise and support those companies by opening more local accreditation agencies to reduce the cost of accreditation and solve the problem of the high cost associated with the auditing process, as some of these agencies charge substantial fees.

- The Libyan government and LNCSM must provide more information, conferences, training, awareness, and seminars. This should then increase the number of certified companies so that Libya's rank in the Arab list of companies holding ISO certification becomes more in line with other Arab countries.

6. LIMITATIONS OF THE STUDY AND FUTURE STUDIES

No major constraints were found while conducting the study. However, the research was limited to LSMI only. Furthermore as far as conducting the interviews was concerned, there was a limit imposed upon the maximum duration of the individual interviews, as they were taken during normal working hours and thus the respondents could not afford to spend more time with the researchers. Hence, using quantitative approach is recommended for future studies.

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ANTECEDENTS OF KNOWLEDGE HIDING IN ORGANIZATIONS: A STUDY ON KNOWLEDGE WORKERS

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Abstract

The purpose of this research is to reveal the antecedents of knowledge hiding. In this context, workplace ostracism, abusive supervision, organizational injustice, distrust in coworkers, and career ambition were addressed as the antecedents of knowledge hiding. Research data were collected from employees of companies operating in the information technology (IT) industry in the İstanbul region of Turkey. Structural equation modeling (SEM) was used to test the hypotheses. According to the findings, workplace ostracism, abusive supervision, organizational injustice, distrust in coworkers, and career ambition positively and significantly affect knowledge hiding. The explanatory power of antecedents in relation to knowledge hiding is substantial *(R^2 = 0.702)*. As a result, this research contributes to the literature by testing a comprehensive research model on the antecedents of knowledge hiding.

Keywords: *Organizational Behavior, Knowledge Hiding, Knowledge Workers, IT Industry*.

1. INTRODUCTION

In the management literature, knowledge hiding has attracted considerable attention since the seminal study of Connelly et al. (2012). Knowledge hiding is a common behavior in organizations. Organizations use different management styles to facilitate information sharing among employees. But, it is unrealistic to think that all employees want to share their knowledge (Xiao and Cooke, 2019). Many employees deliberately hide the knowledge demanded by organizations and colleagues. This fact is named knowledge hiding in the literature (Connelly et al., 2012; Zhao et al., 2019). Many employees in organizations do not share and hide their knowledge with others. Effective knowledge management is the main source of competitive advantage for organizations today (Gagné et al., 2019). In the literature, it is emphasized that knowledge hiding can have a negative effect on a firm's ability to be competitive and innovate (Černe et al. 2017; Butt, and Ahmad, 2019). Organizations can only benefit from individual knowledge when employees share their knowledge with other organization members (Burmeister et al., 2019). Therefore, it is necessary to find an answer to the question why employees hide their knowledge. This research aims to reveal the antecedents of knowledge hiding in order to find an answer to this question. The research model developed based on the purpose of the research is presented in Figure 1. Connelly et al (2019) emphasized that "there will be instances where the overall construct is of interest; in these cases, the entire measure should be used" (p. 780). Since this research aims to reveal the antecedents of the overall construct of knowledge hiding, not the antecedents of the individual dimensions of knowledge hiding, the above suggestion of Connelly et al. (2019) was followed.

This research is conducted on knowledge workers. Knowledge hiding is very common among such employees (Fong et al., 2018; Abubakar et al., 2019). In knowledge-intensive industries, it is valuable to be knowledgeable, and all benefits such as pay and promotion are linked to it. Therefore, knowledge workers can increase the benefits they obtain in the organization by hiding their knowledge from others (Jha and Varkkey, 2018). When the literature is examined, it is seen that the majority of studies focus on the consequences of knowledge hiding (Bogilović, Černe, and Škerlavaj, 2017; Fong et al., 2018; Arain et al., 2020) and there are relatively few studies examining the antecedents of knowledge hiding (Connelly et al., 2012; Zhao and Xia, 2017). In this study, workplace ostracism, abusive supervision, organizational injustice, distrust in coworkers, and career ambition are investigated as the antecedents of knowledge hiding. As a result, this research is expected to contribute to the literature as it tests a comprehensive research model on the antecedents of knowledge hiding.
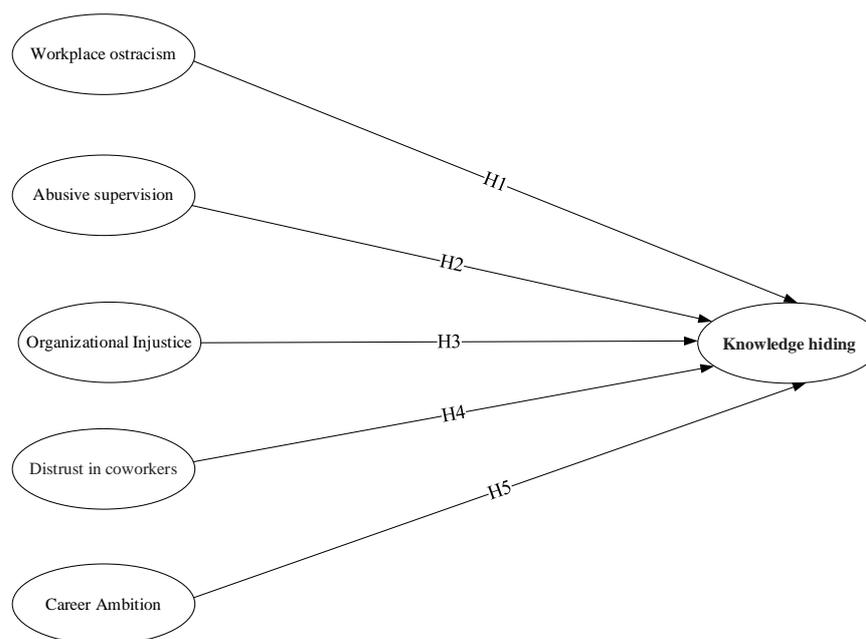
Figure 1. Research model

2. LITERATURE REVIEW

2.1. Knowledge Hiding

Knowledge hiding is "as an intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person" (Connelly et al. ,2012, p. 65). Connelly et al. (2012) determined that the concept of knowledge hiding consists of three dimensions: evasive hiding, playing dumb, and rationalized hiding. Evasive hiding refers to giving false knowledge to the other party or making a fallacious promise for a response, although there is no intention to share knowledge in reality. Essentially, evasive hiding includes distraction and deception (Connelly et al., 2012). Playing dumb refers to pretending not to know the knowledge requested or to pretend not to understand what the person asking for knowledge is talking about (Connelly and Zweig, 2015). Rationalized hiding refers to providing justifications and explanations in order not to provide the knowledge to the person requesting knowledge. Rationalized hiding is not necessarily a scam, but instead includes providing reasonable explanations to hide demanded knowledge (Connelly et al., 2019).

2.2. Workplace Ostracism and Knowledge Hiding

Workplace ostracism is defined as "the extent to which an individual perceives that he or she is ignored or excluded by others" (Ferris et al., 2008; p. 1348). Workplace ostracism can

have negative consequences for organizations. For example, Zhao, Peng, and Sheard (2013) found that Workplace ostracism positively influences counterproductive work behavior. In this regard, workplace ostracism may increase knowledge hiding. This relationship mechanism can be explained based on the reciprocity principle of the social exchange theory (Blau, 1964). According to the principle of reciprocity, the individual perceiving a negative treatment responds to the other party with a negative behavior (Cropanzano and Mitchell, 2005). In other words, when the first party perceives that they are treated negatively, they will behave negatively towards the second party (Gürlek and Yeşiltaş, 2020). Previous studies emphasize that individuals who experience negative experiences in the workplace tend to hide more knowledge (Connelly et al. 2012; Riaz, Xu, and Hussain, 2019). When excluded individuals are faced with a request for knowledge, they may tend not to cooperate and may hide information (Zhao et al., 2016). Based on the above theoretical discussion, the following hypothesis has been proposed.

H$_1$. Workplace ostracism has a positive effect on knowledge hiding

2.3. Abusive Supervision and Knowledge Hiding

Tepper (2000) defined abusive supervision as "subordinates' perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact" (p. 178). Abusive supervisors tend to mock, yell, and humiliate their subordinates (Feng and Wang, 2019; Gürlek and Yeşiltaş, 2020). Knowledge hiding may occur as a reaction to abusive supervision (Khalid, Gulzar, & Khan, 2020). According to the displaced aggression theory, the person who is treated badly can show her/his reaction to a more appropriate target rather than directly to her/his supervisors (Dollard et al., 1939; Hoobler and Brass, 2006). Generally, employees can show their reactions to other organization members instead of directly showing them to their supervisors due to retaliation and fear of being fired (Gürlek, 2020a). When employees see abusive treatment by their supervisors, they can try to take revenge by hiding knowledge from targets such as colleagues (Khalid et al., 2018). Based on the above arguments, the following hypothesis has been put forward. Based on the above arguments, the following hypothesis has been developed.

H$_2$. Abusive supervision has a positive effect on knowledge hiding

2.4. Organizational Injustice and Knowledge Hiding

Organizational injustice is defined as "an employee's belief that he or she (or someone else) has been treated unfairly" (Ambrose, Seabright, and Schminke, 2002, p. 950). Employees

may feel wronged if they feel that their rewards (awards, bonuses, promotions, etc.) are not proportional to their contribution (Jahanzeb, De Clercq, and Fatima, 2020). This bad experience affects their behavior negatively (Greenberg, 2010). Employees who experience injustice in the organization face sad and devastating consequences. Emotionally, individuals experience anger in the face of injustice and often try to correct the injustice they suffered by retaliation (Barclay and Skarlicki, 2009). In other words, employees who suffer injustice may try to equalize the score by hiding knowledge (Khalid et al., 2018). Hence, employees can hide their knowledge as a result of the injustice they experience. Researchers assume a relationship between organizational injustice and hiding knowledge (Huo et al., 2016; Jahanzeb, De Clercq, and Fatima, 2020). Perceived unfair treatment may increase hiding knowledge (Connelly et al. 2012). Based on the above theoretical background, the following hypothesis has been proposed.

H3. Organizational injustice has a positive effect on knowledge hiding

2.5. Distrust in Coworkers and Knowledge Hiding

Distrust in coworkers refers to the employee's confident negative expectations regarding coworkers' behavior (Lewicki, McAllister, and Bies, 1998; Liao and Chun, 2016). Interpersonal relationships affect whether the employee is likely to knowledge hiding (Arain et al., 2019). It is stated that employees tend to hide knowledge from coworkers they do not trust (Černe et al., 2014; Connelly and Zweig, 2015). When the level of distrust of the employee towards his / her coworkers is high, the possibility of hiding knowledge may increase (Wang et al., 2019; Singh, 2019; Butt and Ahmad, 2019) Based on the above theoretical discussion, the following hypothesis is presented.

H4. Distrust in coworkers has a positive effect on knowledge hiding

2.6. Career Ambition and Knowledge Hiding

In our age, knowledge is indisputably the main driving force of individual and organizational development (Gürlek, 2020b). Knowledge gives power, success and status to employees who own it (Jha and Varkkey, 2018). Knowledge is regarded as a factor that employees can use to improve their status in the organization. Individuals seeking power and position within the organization tend to hide or accumulate information. Individuals with a desire for power may try to make themselves indispensable for the organization by hiding information (Webster et al., 2008). In this regard, career ambition can increase knowledge hiding. Career ambition refers to the desire of employees to reach higher status positions within the organizational hierarchy (Gürlek, 2020c). Employees can raise their power and status in the

organization by possessing and controlling knowledge. Therefore, ambitious employees can develop a very strong psychological ownership of knowledge and can hide it from others (Peng, 2013). Individuals who want to climb the career ladder quickly can use their knowledge for their own purposes rather than sharing them with others. Therefore, career ambition can trigger Knowledge hiding. Based on the above arguments the following hypothesis has been proposed.

H_5. Career ambition has a positive effect on knowledge hiding

3. RESEARCH METHOD

3.1. Sample

Data were gathered from employees of companies operating in the IT industry in the İstanbul region of Turkey. The convenience sampling method was used to select both companies and employees. In order to collect data, HR managers were contacted and the purpose of the research was explained. Subsequently, they were asked to assist in data collection. A total of 18 companies agreed to participate in the research. While part of the questionnaires was delivered physically to the managers in the companies, the other part sent online. Managers were asked to distribute questionnaires to employees. A total of 500 questionnaires were delivered to companies. A total of 327 usable data were returned.

3.2. Scales

Knowledge hiding was evaluated using a 12-item scale developed by Connelly et al. (2012). Connelly et al (2019) stated that "there will be instances where the overall construct is of interest; in these cases, the entire measure should be used" (p. 780). This research aims to reveal the antecedents of the overall construct of knowledge hiding, not the antecedents of the individual dimensions of knowledge hiding. For this reason, knowledge hiding is addressed with a holistic approach within the scope of the research, and the overall measurement of knowledge hiding is focused. Overall measurement is consistent with the recommendation of Connelly et al. (2019). Workplace ostracism was measured using a 10-item scale developed by Ferris et al., (2008). Abusive supervision was measured using Tepper's (2000) short version of the Abusive supervision scale (Mitchell and Ambrose, 2007). Mitchell and Ambrose (2007) shortened the scale considering the active acts of abuse of the supervisors. This scale consists of five items. Organizational injustice was measured using a four-item scale developed by Hodson et al. (1994). Distrust in coworkers was measured with five items adapted from the study of McAllister, Lewicki, and Bies (2000). Career ambition was evaluated with four items from Van Vianen's (1999) study. The Turkish validity of the career ambition scale was

previously conducted by Gürlek (2020c). Therefore, the Turkish form of the scale was obtained from the researcher. Since all the other scales used in the study were taken from the English literature, a linguistic validity study was conducted. The scales were translated into Turkish using the back translation method (Brislin, 1976).

3.3. Data Analysis

Research hypotheses were tested with SmartPLS statistical software using PLS-SEM (Ringle et al., 2015). Hair et al. (2011) specified that "If the research is exploratory or an extension of an existing structural theory, select PLS-SEM" (p. 144). Considering that the relationships between the variables examined in this study have not been adequately examined, this research is exploratory. Therefore, it is convenient to use PLS-SEM. The research model was tested following the two-step approach (Anderson and Gerbing 1988). In the first step, the measurement model was tested to verify the validity of the measurements used. In the second step, the structural model was tested.

4. RESULTS

4.1. Measurement Results

Considering the above-mentioned suggestions of Connelly et al. (2019), knowledge hiding is included in the measurement model as overall structure. Besides, other variables are included as the first order because of their one-dimensional nature. Measurement model results are presented in Table 1. Average Variance Extracted (AVE) values were used to evaluate convergent validity. It was seen that AVE values were above 0.660. Therefore, convergent validity was established (Fornell and Larcker, 1981). Composite reliability (CR) values were used in the construct reliability (CR) assessment. It was determined that the CR values were above 0.900. Accordingly, composite reliability was fulfilled (Bagozzi and Yi, 1988). Finally, it was seen that Cronbach's Alpha values were above 0.80. Accordingly, each structure had internal consistency (Nunnally, 1978).

Table 1. Measurement model results

Variables	*C .Alfa*	CR	AVE
Workplace ostracism	0.945	0.954	0.722
Abusive supervision	0.872	0.907	0.661
Organizational injustice	0.873	0.913	0.725
Distrust in coworkers	0.871	0.912	0.722
Career ambition	0.897	0.928	0.764
Knowledge Hiding	0.943	0.951	0.617

First, Heterotrait-Monotrait (HTMT) criterion was used to evaluate the discriminant validity. As seen in Table 2, HTMT values were found to vary between 0.526 and 0.827. HTMT values lower than 0.85 indicates that the discriminant validity was fulfilled (Henseler et al., 2015). Second, Fornell-Larcker criteria was also used to control the discriminant validity. It was found that the square root of each AVE (values in bold) is greater than the inter-construct correlations (see Table 2). This result shows that discriminant validity was fulfilled (Fornell and Larcker, 1981).

Table 2. Discriminant validity

HTMT criteria	1	2	2	4	5	6
1.Organizational injustice						
2. Knowledge Hiding	0.706					
3. Workplace ostracism	0.535	0.688				
4.Distrust in coworkers	0.526	0.762	0.827			
5.Career ambition	0.696	0.784	0.538	0.645		
6.Abusive supervision	0.585	0.730	0.629	0.601	0.813	
Fornell-Larcker criteria						
1.Organizational injustice	**0.852**					
2. Knowledge Hiding	0.654	**0.785**				
3. Workplace ostracism	0.512	0.659	**0.850**			
4.Distrust in coworkers	0.476	0.692	0.755	**0.850**		
5.Career ambition	0.625	0.729	0.505	0.574	**0.874**	
6.Abusive supervision	0.530	0.668	0.577	0.527	0.729	**0.813**

4.2. Hypotheses Tests

According to SEM results, SRMR value is 0.070. According to this result, the research model fits well with the data (Hu and Bentler, 1999). Test results are shown in Table 3. According to the findings, workplace ostracism positively and significantly affects knowledge hiding ($\beta = 0.138$; $p < 0.05$). Abusive supervision positively and significantly affects knowledge hiding ($\beta = 0.147$; $p < 0.05$). Organizational injustice affects knowledge hiding positively and significantly $\beta = 0.215$; $p < 0.001$). Distrust in coworkers positively and significantly affects knowledge hiding ($= 0.252$; $p < 0.001$). Career ambition positively and significantly affects knowledge hiding ($\beta = 0.279$; $p < 0.001$). According to these findings, H_1, H_2, H_3, H_4 and H_5 were supported. When evaluated in terms of explanatory power, the total variance of knowledge hiding explained by antecedents is quite high *($R^2 = 0.702$).*

Table 3: Hypothesis test results

	β	t value	p value	Result
H₁: Workplace ostracism -> Knowledge hiding	0.138	2.225	0.05	Supported
H₂: Abusive supervision -> Knowledge hiding	0.147	2.343	0.05	Supported
H₃: Organizational injustice-> Knowledge hiding	0.215	4.804	0.001	Supported
H₄: Distrust in coworkers -> Knowledge hiding	0.252	3.715	0.001	Supported
H₅: Career ambition -> Knowledge hiding	0.279	5.546	0.001	Supported

5. Conclusion and Discussion

In the literature, there has been considerable interest in why employees share knowledge, while there is little interest in why they hide their knowledge (Singh, 2019). Knowledge hiding is common in organizations. For example, Peng (2013) reported that 46 of the knowledge workers hide knowledge. It is reported that Fortune 500 companies lost at least 31.5 billion dollars annually due to problems in sharing knowledge (Babcock, 2004). Therefore, there is a need to reveal the antecedents that contribute to knowledge hiding in the workplace. In other words, it is necessary to find an answer to the question of why employees hide their knowledge. Based on the question above, this research aimed to reveal the antecedents of knowledge hiding. The research sample consists of knowledge workers from the IT industry. The reason why the research was conducted on knowledge workers is that knowledge hiding is observed intensively among such workers (Jha and Varkkey, 2018).

Research findings show that workplace ostracism, abusive supervision, organizational injustice, distrust in coworkers, and career ambition positively and significantly affect knowledge hiding. Accordingly, employees who are excluded by other organization members in the workplace hide the knowledge they have. This finding is consistent with previous literature (Zhao et al., 2016; Riaz and Hussain, 2019). Verbal and non-verbal hostile behaviors of supervisors trigger employees to hide information. This finding is consistent with previous theoretical assumptions (Khalid et al., 2018; Feng, and Wang, 2019). Employees who perceive unfair treatment hide more information. In this regard, organizational injustice is among the determinants of information retention, consistent with the previous theoretical background (Jahanzeb et al., 2020). According to the findings, distrust in coworkers triggers knowledge hiding. This finding confirms the assumptions of Connelly et al. (2019). In addition, individuals who want to gain power and position within the organization tend to hide knowledge. Ambitious employees develop very strong ownership of knowledge and hide it from others.

This research provides the following contributions to the literature and practitioners. The majority of previous research has focused on the consequences of knowledge hiding (e.g.

Bogilović et al., 2017). However, there are relatively few studies examining the antecedents of knowledge hiding (e.g. Zhao and Xia, 2017). For this reason, this research contributes to the literature by testing the five antecedents of knowledge hiding together around a comprehensive model. Moreover, this research contributes to practitioners by showing the factors that cause employees to hide knowledge to organizations and managers.

This research has several limitations. This research is cross-sectional. Future research may collect longitudinal data. The research was conducted on a limited sample. Future research could be conducted on larger samples. This research focused on knowledge workers working in the information technology industry. Future research could be conducted in other industries. Within the scope of the research, five antecedents of knowledge hiding were identified. Other studies may test more comprehensive models. Although this research addresses the antecedents of knowledge hiding, it does not examine the conditions under which employees hide knowledge. In this regard, future research can include moderator variables in the research model.

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CHANGES IN THE QUALITY OF THE LOAN PORTFOLIO IN THE POLISH BANKING SYSTEM

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Abstract

The aim of this study is to examine the impact of changes in market conditions, the financial standing of enterprises and banks` capital requirements on the quality of the corporate loan portfolio in the Polish banking sector before and during COVID-19. The methodology of changes in the quality of the loans portfolio (QLP) corresponds to the methodologies used by central banks, e.g. by National Bank of Poland (NBP) and International Monetary Fund (IMF). This research applied Vector Error Correction Model (VECM) and also impulse response functions and decompositions of variables. This research used quarterly time-series data during 2009–2020 and a simple moving average filter (SMA). The empirical results of the VECM confirmed the importance of indicators of revenues, economic development (GDP), investments and costs of obtaining revenues on the part of corporations and total own funds on the part of banks. Evaluation of the EC1 indicates that the strongest correction of the deviation from long-term equilibrium occurs in the case of the revenues from the overall activity of corporations (ROAC), GDP equations and gross fixed capital formation (GFCF) and costs of obtaining revenues from the overall activity of corporations (CROAC) equations. Results of the analysis of the impulse function and variance decomposition confirmed the importance of market indicators and the financial situation of companies in explaining changes in the QLP. Analysis of the QLP response to impulses from the explanatory variables confirmed that the strength of the influence of these impulses increased over time. In the 4th quarter, the strongest QLP responses to impulses came from: CPI, ROAC and GDP. Nevertheless, in the 19–20th quarter (5th year) of the forecast, the QLP response was the strongest, including apparently against ROAC and CPI. Results of QLP decomposition indicate that in the 1st quarter these changes are fully accounted for with their own forecast errors. In the 4th – 20th quarter, their own changes lose significance and mainly by CPI, ROAC and GDP grow in significance, with less importance of other variables. The added value of the analysis is that QLP research confirmed the pro-cyclical nature of lending activity in Poland in the verified years. The empirical results may be of practical use by banks in modeling the dynamics and quality of the corporate loan portfolio. These findings provide insights for future asset quality reviews (AQR) required by European supervision.

Keywords: *Corporate loan portfolio, Loan impaired, non-financial corporation, Polish banking system, VECM.*

1. INTRODUCTION

In case non-performing loans (NPLs), i.e. when customers do not meet their agreed repayment arrangements (for 90 days or more), the bank must set aside more capital on the assumption that the loan will not be paid back. This reduces its capacity to provide new loans. Limiting lending on the part of banks means limiting the sources of financing investments among enterprises and, further, increases unemployment in the economy. If bank has too many bad loans on its balance sheet, its profitability will suffer because it will no longer earn enough money from its credit business. In addition, it will need to put money aside as a safety net in case it needs to write off the full amount of the loan at some point in time. To be successful in the long run, banks need to keep the level of bad loans at a minimum so they can still earn a profit from extending new loans to customers. The important negative effects of the increase in the NPLs rate in the banking sectors of e.g. the Member States include: cross-border risks and side effects for the economy and the EU financial system, risks of financial fragmentation and hindering the restructuring processes of banking sectors.

Supervision of the quality of loan portfolio (including NPLs), is one of the key areas of risk reduction in the European banking sector. European Council notes that the financial crisis and ensuing recessions, together with structural factors, accompanied by inadequate loan origination practices, have left the banks in some Member States with high ratios of NPLs (European Council, 2017). The statistical data of the European Central Bank (ECB) show significant differences in the amount of NPLs in the banking sectors of EU countries (e.g. 41.6% Greece, 20.9% Cyprus, 11.2% Portugal, 7.8% Ireland, 6.3% Poland and 1.6% Germany, 1.2% United Kingdom and 0.9% Luxembourg in Q1.2019) (ECB, 2020a; European Commission, 2019b). Therefore, as part of the work of the ECB and new programs are being developed to support the reduction of NPL rates.

Monitoring the quality of the corporate loan portfolio in the banking sector results from *prudential regulations*. As part of its package of proposals on NPLs put forward in March 2018, the Commission proposed a Regulation amending the Capital Requirements Regulation ('CRR') (Regulation EU 575/2013, European Parliament, 2013), introducing a 'statutory prudential backstop' in order to prevent the risk of under-provisioning of future NPLs (Regulation EU, 2019/630, European Parliament, 2019). The regulation was adopted in April 2019 and it requires banks to have sufficient loan loss coverage (i.e. common minimum coverage levels) for newly originated loans if these become non-performing exposures (NPEs). In case a bank does not meet the applicable minimum coverage level, it has to deduct the

shortfall from its own funds. The above-mentioned reasons determine that monitoring the quality of the loan portfolio in the Polish banking sector is the area of the monetary policy of the NBP and the supervision of The Polish Financial Supervision Authority (PFSA), and adequately in the structures of the European Union (EU).

Because the quality of the loan portfolio depends on the borrower's creditworthiness and this ability depends on the financial condition of enterprises, external conditions (macroeconomic indicators) and on the banks' side, capital neutralizes credit risk - these variables were taken into account in the modeling.

Therefore, the aim of this study is to examine the impact of changes in market conditions, the financial standing of enterprises and banks` capital requirements on the quality of the corporate loan portfolio in the Polish banking sector before and during COVID-19.

2. LITERATURE REVIEW AND EMPIRICAL STUDIES

According to European Central Bank (ECB, 2020a, 2020b) a bank loan is considered non-performing when more than 90 days pass without the borrower paying the agreed installments or interest. Non-performing loans (NPLs) are also called "bad debt". In detail, the ECB has performed a comprehensive assessment and developed criteria to define loans as nonperforming if they are: 1) 90 days past due, even if they are not defaulted or impaired, 2) impaired with respect to the accounting specifics for U.S. GAAP and International Financial Reporting Standards (IFRS) banks, 3) in default according to the Capital Requirements Regulation (CRR).

The quality of the loan portfolio depends on the exposure to banking risks, especially credit risk. Among the credit risk factors, there are internal factors – endogenous inside business entities and external factors – endogenous in the environment of enterprises and independent of them[1].

In terms of credit risk parameters, the following should be mentioned:

• default risk, the measure of this risk is the PD parameter (*probability of default*),

• risk of loss, the measure of this risk is LGD (*loss given default*),

• exposure at default, the measure here is the EAD parameter (*exposure at default*).

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[1] In the estimated econometric model, these internal factors are related to the variables of the financial situation of corporations, and to external factors – market (macroeconomic) variables.

An inseparable element here is the rating of borrowers – the rating of entities or in the case of retail loans – scoring. A similar situation is related to the risk in banking activities. The bank's credit policy and credit portfolio management are adjusted to the internal and external factors (independent from them) (Matuszyk, 2017).

As part of maintaining financial stability, banks conduct: 1) surveillance of current financial market conditions to assess the risk of shocks, 2) macro-prudential surveillance framework, 3) analysis of macro-financial linkages and 4) surveillance of macroeconomic conditions. These activities are aimed at improving the quality of the loan portfolio. These variables are taken into account by the authors of the research when modeling credit risk, non-performing loans, quality of the loan portfolio or performing the so-called stress tests to assess future losses at banks (Pastor and Serrano, 2005; Yiping, 2008; Bhansali, Gingrich, Longstaff, 2008; Głogowski, 2008; Pastor, 2020). In their research, these authors and also International Monetary Fund (2003) take into account various macroeconomic indicators, including the corporate and banking sector as well as the capital market, etc.

Moreover, due to the interactions between risks at the bank, the risk of the balance sheet structure is important for the quality of the loan portfolio and the capital maintained in the context of security. As part of the concept of required capital, attention should be paid to the theory of economically required capital, according to which the value of economic capital for most institutions (in this case banks) should be higher than the regulatory capital required by the BASEL concept (Generst and Brie, 2013; Basel Committee on Banking Supervision, [2014]). The above-mentioned capitals, international supervisory standards of risk management pay special attention to maintaining adequate levels of: the solvency ratio, leverage and liquidity ratios, and capital buffers.

The quality of the loan portfolio is calculated as the ratio of the non-performing loans (impaired loans) and advances to the gross value of total loans and advances (NBP, 2020). Non-performing rates (NPLs) are loans where the borrower has difficulties to make the scheduled payments to cover interest and/or capital reimbursements. When the payments are more than 90 days past due, or the loan is assessed as unlikely to be repaid by the borrower, it is classified as an NPL.

Asset quality monitoring is a key area of supervision in banks, alongside liquidity and profitability. The asset quality analysis mainly involves calculation: 1) NPLs to total loans, 2) NPLs less provisions to capital and 3) sectoral distribution of loans to total loans (IMF, 2003).

Elevated levels of NPLs may affect financial stability as they weigh on the viability and profitability of the affected institutions and have an impact, via reduced bank lending, on economic growth. More specifically, high stocks of NPLs can weigh on bank performance through two main channels:

1.   NPLs generate less income for a bank than performing loans and thus reduce its profitability, and may cause losses that reduce the bank's capital. In the most severe cases, these effects can put in question the viability of a bank, with potential implications for financial stability.

2.   NPLs tie up significant amounts of a bank's resources, both human and financial. This reduces the bank's capacity to lend, including too small and medium-sized enterprises, which rely on bank lending to a much greater extent than larger companies. In turn, this negative effect in terms of credit supply also reduces the capacity of businesses to invest, affecting economic growth and job creation, hence creating a tangible effect on the real economy (European Commission Services, 2020; European Commission, 2019a; 2019b).

For these reasons, the Commission and other EU authorities have long highlighted the urgency of taking the necessary measures to address the risks related to NPLs (European Commission Services, 2018; 2019). In order to reduce the high NPL stocks, the EU agreed on a comprehensive set of measures outlined in the "*Action Plan to Tackle NPLs in Europe*" (European Commission Services, 2020), which is currently being implemented.

In practice used, the assessment of the quality of the loan portfolio is one of the three stages of the assessment of financial institutions enforced by the Board of Supervisions European Banking Authority (BoS EBA) i.e .: 1) asset quality review (AQR), 2) stress testing (Virolainen, 2004; Jakubik and Schmeider, 2008), and 3) risk review and assessment (ECB, 2018).

As the increase in the NPL rate depends significantly on credit risk, it is worth paying attention to its components. Credit risk consists of general (systemic) risk, resulting from the impact of the macroeconomic situation and economic cycles on borrowers, and specific risk, related to factors specific to a given bank, such as credit policy or quality of credit risk management. Losses in the loan portfolio are therefore a function of both general risk and specific risk (Bhansali, Gingrich and Longstaff, 2008).

The pro-cyclicality of lending activity (*boom and bust cycle*) (Agelini *et at.,* 2010) is observed in the banking sector. Losses on banks' credit portfolios tend to follow the business cycle, falling during a recovery and increasing during a recession. Banks determine the level of these losses by means of loan loss provisions. As reserves reduce the value of revenues, their pro-cyclicality may contribute to the volatility and pro-cyclicality of bank profits and, consequently, of bank earnings and retained earnings. There is evidence that the amount of debt recovered during a recession is lower than during an expansion. The results of Frye's (2000) research, based on Moody`s data, show that the recovery during reviews is about 1/3 lower than during the expansion period. Recently, it was the outbreak of the crisis related to COVID-19 that had an impact on changes in the economic situation of corporations (borrowers), and thus on the quality of the loan portfolio (NPLs), as well as the banks' credit policy.

For example, according to NBP (2020) data the total value of loans in the banking sector in Poland showed a general upward trend in the years Q1.2010-Q1.2020 (from PLN 217.9 million to PLN 401.6 million). Only the period Q2.2020-Q3.2020 brought a decrease in the total value of loans (PLN 383.6 million and PLN 375.5 million). The NPL ratio showed a downward trend from 12.3% to 8.3% in the period Q4.2010-Q1.2020.[2] On the other hand, the last two analyzed quarters, brought an increase in the NPL ratio, respectively: 8.7% in Q2.2020 and 8.9% in Q3.2020. The indicated increase in the NPL ratio in the period Q2-Q3.2020 results from an acceleration in the dynamics of the value of impaired loans (PLN 33.3 million from Q1.2020 to PLN 33.5 million in Q2.2020) with a weakening of the dynamics of the value of loans without impairment from PLN 368.2 million in Q1.2020 to PLN 342.3 million in Q3.2020.

Furthermore, in the entire period Q1.2009–Q3.2020, the structure of the loan portfolio in the Polish banking sector showed stable shares, i.e. around 91–92% in terms of without impairment loans and around 9–8% of the value of impaired loans. Due to the fact that the Polish economy has not experienced the effects of the cyclical recession so far (Q3.2020), the scale of a marked deterioration in the corporate loan portfolio has also not occurred. The indicated changes in the loan portfolio (Q2.– Q3.2020) and increases in NPL rates were mainly caused by the reduction of economic activity and, consequently, lower income. According to Central Statistics Office (CSO, 2020) in Poland, while in Q4.2019 the value of net revenues

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[2] The decline in total loans was also due to a decline in demand for loans from borrowers due to the uncertain macroeconomic situation related to the COVID-19 pandemic.

from the total activity of corporations amounted to PLN 147 311 million, it decreased to PLN 23 901 million in Q3.2020.

Nevertheless, in the longer term, the NPL ratio depends on many market conditions determining the rate of economic growth and influencing changes in borrowers' creditworthiness.

3. RESEARCH METHOD

The study used quarterly data gathered from the National Bank of Poland (NBP), Central Statistics Office (CSO) and Organisation for Economic Co-operation and Development (OECD.stat, 2020). The data were analysed using Gretl-2020a-git. The analysis method of data using Vector Error Correction Model (VECM), which is derived vector autoregression (VAR). These matters addressed to determine short term and long term between variables. Several stages of testing the test data using the unit root test to know the data is stationary or not stationary. Then, test models use 1) the determination of the optimal long lag systematic models, 2) cointegration relationship test exists determines the distance and close range of variables, 3) test to determine the VECM large independent effect variable against dependent on both long term and short term.

As already mentioned, the QLP is calculated as the ratio of the non-performing loans (impaired loans) and advances to the gross value of total loans and advances (NBP, 2020) and adequately for non-financial enterprises.

Changes in the QLP of non-financial corporation's (dependent variable) is calculated by: the market factors, the financial standing of enterprises and banks` capital requirements (independent variables) in the Polish banking system. A final formula for the QLP function was developed:

$$\text{QLP}_t = \propto_0 + \propto_1 GDP_t + \propto_2 CPI_t + \propto_3 WIBOR_t + \propto_4 ROAC_t + \propto_5 CROAC_t + \propto_6 + GFCF_t + \propto_7 CAR_t + \xi_i \qquad (1)$$

Where:

QLP_t – Quality of the loan portfolio of non-financial corporations

GDP_t – Gross domestic product

CPI_t – Consumer price index

$WIBOR_t$ – Warsaw Interbank Offered Rate

$ROAC_t$ – Revenues from the overall activity of corporations

$CROAC_t$ – Costs of obtaining revenues from the overall activity of corporations

$GFCF_t$ – Gross fixed capital formation

CAR_t – Capital adequacy ratio

ξ_i – random component

t – period

In the study attempts to assess the quality of the loan portfolio granted to non-financial corporations, therefore, respectively, impaired loans and total loans granted to these corporations (included in the so-called phase III, portfolio B) were taken into account (NBP, 2020).

In the methodology of explaining the sources of changes quality of the loans portfolio used the methodology: NBP (2020) and IMF (2003) and e.g. Matthewes, Guo and Zhang (2007), Maggi and Guida (2010). The study period includes 47 quarters data for the period Q1.2009–Q3.2020. All variables were smoothed by simple moving averages.

To verify the stationarity of the analysed time series, the Augmented Dickey-Fuller (ADF) test was used, estimated with the use of the regression equation in the following form:

$$\Delta_{yt} = \mu + \delta_{t-1} + \sum_{i=1}^{k} \delta_i y_{t-1} + \epsilon_t \qquad (2)$$

The value of the test statistic was calculated with the use of the formula:

$$ADF = \frac{\tilde{\delta}}{s_{\tilde{\delta}}} \qquad (3)$$

where δ means the parameter evaluation, and s_δ is the parameter estimate error.

For all analysed variables it was found that they lacked stationarity of time series, but a unit root a = 1 occurred at process I (1). A comparison between test τ statistics and critical values of these statistics shows that in the case of basic variables, the series are non-cointegrated and variables are non-stationary because the test probabilities are above 0.05. On the other hand, in the case of first differences, variables are mostly stationary and series are co-integrated to the order of 1 (Table 1).

Table 1. Augmented Dickey–Fuller (ADF) test

Variable	Null hypothesis: unit root appears	with absolute term (const)	
		test statistic: τ_ct (1)	asymptotic *p*-value
QLP	a = 1; process I (1)	-0,5848	0,8717
GDP		-2,8553	0,0508
CPI		-2,9281	0,0422
WIBOR		-0,9373	0,7769
ROAC		-2,0557	0,2631
CROAC		-1,0594	0,7338
GFCF		1,6944	0,9997
CAR		-4,0593	0,0071

Source: The author's own calculations.

To verify the conclusions drawn on the basis of the ADF test, the KPSS (Kwiatkowski-Philips-Schmidt-Shin) stationarity test was carried out, where the null hypothesis assumes a sequence stationarity, whereas the alternative hypothesis assumes the occurrence of the unit root. The initial test model can take the following form:

$$\gamma t = \beta t + rt + \xi t \qquad (4)$$

where: $r_t = r_{t-1} + u_t$, where ξ_t and u_t are a stationary and a white-noise random component, respectively. On the other hand, the KPSS test statistic is calculated with the use of the formula:

$$KPSS = T^{-2} \sum_{t=1}^{T}(\sum_{t=1}^{t} e_i)/\hat{\delta}^2 \qquad (5)$$

where e_i denotes residuals, and $\hat{\delta}^2$ is a long-term variance estimator (Kufel, 2011).

An ultimate confirmation of stationarity requires an additional test, e.g. KPSS (Table 2).

Table 2. KPSS stationarity test results (lag truncation = 3)

Specification		QLP	GDP	CPI	WIBOR	ROAC	CROAC	GFCF	CAR
without a trend	Test	0.945821	1.15961	0.36233	1.02753	1.12756	1.12623	1.0187	1.2107
	Critical value of the test	0.352 (10%); 0.462 (5%); 0.722 (1%)							

Source: The author's own calculations.

The lag order for the VAR/VECM model was determined on the basis of estimation of the following information criteria: the Aikake information criterion (AIC), Schwartz-Bayesian

information criterion (BIC), and Hannan-Quinn information criterion (HQC). According to these criteria, the best, that is, minimal values of the respective information criteria are: AIC = 2, BIC = 2 and HQC = 2, with the maximum lag order 3. Ultimately, the lag order 2 was accepted.

In order to analyze stability of the VAR model, a unit root test was applied. The test indicates that in the analyzed model equation roots in respect of the module are lower than one, which means that the model is stable and may be used for further analyses.

Co-integration was verified using two tests: the Engle-Granger and Johansen tests (Johansen 1991, 1992, 1995). Their results comprehensively confirmed co-integration for lag 1. This is proved by the values of the test statistic τ_e which are lower than critical values $\tau_{critical}$, levels of asymptotic p-values and integrated processes $a = 1$ and I (1), at the significance level $\alpha = 0.05$ (Table 3).

Table 3. Results of the Engle–Granger co-integration test

Specification	QLP	GDP	CPI	WIBOR	ROAC	CROAC	GFCF	CAR
Unit root appears	a = 1, process I (1)							
test statistic τ_c τ_e (asymptotic p-value)	-0,204236 (0,9356)	-0,668505 (0,8527)	-1,15919 (0,6942)	-0,872538 (0,7975)	-1,9247 (0,3211)	-1,67249 (0,4454)	-0,615025 (0,865)	0,513939 (0,9873)

Source: The author's own calculations.

Testing cointegration aimed to find a long-term relationship between variables. Using the strong testing methods Johansen Cointegration, cointegration relationship variables if it can be concluded there is a long term relationship between variables. Results of the Johansen test (including trace and eigenvalue) show that at the significance level of 0.05, co-integration to the order of one occurs.

Due to the occurrence of unit element in all the time series and the existence of cointegration between the model variables, it was possible to extend and transform the model into vector error correction models (VECM).

4. ANALYSIS

4.1. VECM Model

Co-integration was verified by means of the Engle-Granger and Johansen tests which confirmed the occurrence of co-integration and thus justified the use of the VECM model for the lag order 2 and co-integration of order 1.

In accordance with the Granger representation theorem, if variables y_t and x_t are integrated to the order of I (1) and are co-integrated, the relationship between them can be represented as a vector error correction model (VECM) (Piłatowska, 2003).

The general form of the VECM can be written as:

$$\Delta Y_t = \Gamma_1 \Delta Y_{t-1} + \Gamma_2 \Delta Y_{t-2} + \ldots + \Gamma_{k-1} \Delta Y_{t-k+1} + \pi Y_{t-k} + \varepsilon_t =$$
$$= \sum_{i=1}^{k-1} \Gamma_i \Delta Y_{t-i} + \pi Y_{t-k} + \varepsilon_t, \tag{6}$$

where:

$$\Gamma_i = \sum_{j=1}^{i} A_j - I, \qquad i = 1, 2, \ldots, k-1, \ \Gamma_k = \pi = -\pi(1) = -\left(I - \sum_{i=1}^{k} A_i \right)$$

and I is a unit matrix.

Vector Error correction model estimates a long-term and short-term advance of the dependent with the independent variables. In the test of VECM, the QLP became dependent variable while: GDP, CPI, WIBOR, ROAC, CROAC, GFCF and CAR became independent variables.

The results of the VECM model confirmed the importance of revenues, economic development (GDP), indicators of investments, costs of obtaining revenues on the part of corporations and total own funds on the part of banks in short and long term relationship. The estimation results indicated that mainly short-term variables as: CPI, WIBOR, capital adequacy ratio (CAR) and gross fixed capital formation (GFCF) on the lag one significant negative effect i.e. there was decreased impaired loans and an improvement in QLP. Evaluation of the EC1 indicates that the strongest correction of the deviation from long-term equilibrium occurs in the case of the revenues from the overall activity of corporations (ROAC), GDP, GFCF and costs of obtaining revenues from the overall activity of corporations (CROAC) equations (Table 4).

Table 4. The Results of VECM in the short term and in the long term

Variables	Coefficient	T-statistics		
Short term relationship				
d_ma_QLP_1	0,644931	4,6620		
d_ma_GDP_1	0,000021	0,9608		
d_ma_CPI_1	−0,095861	−0,5307		
d_ma_WIBOR_1	−0,236702	−0,7249		
d_ma_ROAC_1	0,000025	1,6450		
d_ma_CROAC_1	−2,44049e-05	−1,5690		
d_ma_GFCF_1	−2,81359e-05	−0,7511		
d_ma_CAR_1	−0,435419	−1,2680		
Long term relationship				
Variables	Coefficient	T-statistics	R2	DW
d_ma_QLP_1	0,0015	0,9314	0,7185	2,0668
d_ma_GDP_1	−51,0287	−2,454	0,8374	2,0067
d_ma_CPI_1	−0,0002	−0,04651	0,7258	2,1243
d_ma_WIBOR_1	0,0015	1,995	0,8959	1,8384
d_ma_ROAC_1	−140,5800	−2,833	0,7809	1,6292
d_ma_CROAC_1	−25,2582	−0,1722	0,5946	1,9766
d_ma_GFCF_1	25,6813	2,248	0,6147	2,2184
d_ma_CAR_1	0,0003	0,3802	0,6458	2,2345

Note: VECM system, lag order 2, observations 2010:2-2020:3 (T = 42), cointegration rank = 1, case 3: Unrestricted constant.

Source: author's own calculations.

In order to verify the correctness of the VECM model results, two tests were carried out verifying occurrence of autocorrelation, i.e.: Autocorrelation Ljung-Box Q' test, lag order for test = 2, and ARCH test = lag order for test = 2

Ljung–Box tests (LMF, LM, Q) were conducted to verify autocorrelation for the lag order 4. The verifying statistic using the autocorrelation coefficient function (ACF) in the_form Q' and empirical *p*-value levels higher than the nominal $\propto\ = 0.05$ let us conclude that there is no autocorrelation in the residual process (Kufel, 2011).

The ARCH test results indicate that in the examined model of the residual-based process (four variables), the ARCH effect was not observed because LM test statistics are lower than the levels of χ^2. This means that there is no autoregressive changeability of the conditional variance and there is no need to estimate model parameters by means of weighted least squares method. Thus, the results of both the tests confirm credibility of the VECM model and allow for conclusions drawn on their basis.

4.2. Impulse Response Functions and Variance Decompositions

Analysis of the QLP response to impulses from the independent variables confirmed that the strength of the influence of these impulses increased over time. In the 4th quarter, the strongest the QLP responses to impulses came from: CPI, ROAC and GDP. Nevertheless, in the 19th–20th quarter (5th year) of the forecast, the QLP responses were the strongest, including apparently against ROAC and CPI.

The QLP showed declining trends in response to impulses (decreased NPLs) from: the QLP`s own changes, GFCF, CROAC and CPI. It`s mean that these factors an improved quality of loans portfolio. The QLP showed increasing trends in response to changes: ROAC, GDP, WIBOR and CAR.

When interpreting the responses of the QLPs, it is worth emphasizing that the NPL rate showed a downward trend in the analyzed period 2009-2020. This downward trend resulted from the prudential norms which actually determined the tightening of the creditworthiness test and thus the reduction of below-standard claims in banks' portfolios. Thus, the expected impact of the following variables: QLP, CPI, GFCF and CAR on the responses of the QLP responses were confirmed.

The QLP responses come from the remaining variables were weakly and also related to the tightening of prudential standards. The GDP growth stimulated the growing demand for loans globally, while the variables: ROAC and CROAC are strongly dependent on changes in the economic growth (Table 5).

Table 5. Prediction of the response of the impulse function over time from Q1 to Q20

	1Q-20Q	QLP	GDP	CPI	WIBOR	ROAC	CROAC	GFCF	CAR
Independent variables	QLP	↓	↓	↓	↓	↓	↓	↓	↓
	GDP	↑	↓	↑	↑	↓	↓	↑	↑
	CPI	↑	↑	↓	↑	↑	↑	↑	↑
	WIBOR	↑	↓	↓	↓	↓	↓	↓	↓
	ROAC	↑	↓	↑	↑	↓	↑	↑	↑
	CROAC	↓	↑	↑	↓	↓	↓	↑	↑
	GFCF	↓	↑	↑	↓	↑	↓	↓	↓
	CAR	↓	↓	↑	↓	↑	↓	↓	↓

The header row above the variable columns spans "Dependent variables".

Source: author's own calculations.

Next, the QLP and other explanatory variables were analyzed by means of variance decomposition in the forecast horizon of 20th quarters. Results of QLP decomposition indicate that in the 1st quarter these changes are fully accounted for with their own forecast errors (100.0%). In the 4th–20th quarter, their own changes lose significance (below 1.0%) and mainly by CPI (about 58.2%), ROAC (25.6%) and GDP (11.4%) grow in significance, with less importance of other variables. Thus, the share of GDP in explaining changes in the QLP (NPLs) confirms the pro-cyclical nature of lending to the corporate loan portfolio.

On the other hand (in turn), the analysis of the decomposition of explanatory variables shows, that the QLP (NPLs) was significant a factor in explaining the changes in the first period: WIBOR (about 22.3%), CPI (12.2%), GFCF (5.3%) and CAR (3.3%). In the subsequent periods of the forecast, the degree of explanation of the QLP in the investigated explanatory variables decreases to a level below 1.0% in the 20th quarter.

5. DISCUSSION

The results of the VECM model, the impulse response function and the variance decomposition confirmed the importance of the economic development and financial situation of companies for changes of the quality of loans portfolio in Polish banking sector. The results of the study are consistent with the results of other authors analyzing changes in the portfolio of non-performing loans or changes in credit risk.

Monitoring of the analyzed indicators in the study and others is the subject of analyzes, e.g. by the IMF (2003). The IMF collects these indicators under the so-called financial soundness indicators (FSIs) to evaluate: 1) banking sector financial strength, 2) banking sector vulnerability (asset quality, liquidity and sensitivity to market risk) 3) corporate sector (e.g. leverage ratio, return on equity, earnings to interest and principle payments).

Therefore, in further researches on the explanation of changes in the QLP, should be taken into account more explanatory variables. In addition to QLP analyzes, the research should focus on the leverage ratio and the cost of capital in the banking sector. Then changes in QLP could be more accurately diagnosed. The next step in the work on the QLP may be e.g. stress tests. These tests allow forecasting and estimating changes in the loan portfolio in advance. Moreover, these tests are also recommended under macroprudential regulations for EU banks.

6. CONCLUSIONS

The analysis of the quality of loans portfolio (QLP) of non-financial companies shows that there was a long-term downward trend confirming the improvement in this portfolio in Poland

in the period Q1.2009–Q1.2020. However, the last two analysis quarters, brought an increase in the NPL ratio, respectively: Q2.2020 (8.7%) and Q3.2020 (8.9%). In the entire period Q1.2009–Q3.2020, the structure of the loan portfolio in the Polish banking sector showed stable shares, i.e. around 91–92% in terms of without impairment loans and around 9–8% of the value of impaired loans. Due to the fact that the Polish economy has not experienced the effects of the cyclical recession so far (Q3.2020), the scale of a marked deterioration in the syndicated loan portfolio has also not occurred.

Analysis of the QLP response to impulses from the explanatory variables confirmed that the strength of the influence of these impulses increased over time. In the 4th quarter, the strongest QLP responses to impulses came from: CPI, ROAC and GDP. Nevertheless, in the 19th–20th quarter (5th year) of the forecast, the QLP response was the strongest, including apparently against ROAC and CPI. This confirms the important influence of market indicators on changes in the QLP (and NPLs).

Results of QLP decomposition indicate that in the 1st quarter these changes are fully accounted for with their own forecast errors. In the 4th–20th quarter, their own changes lose significance (below 1.0%) and mainly by CPI, ROAC and GDP grow in significance, with less importance of other variables. The share of GDP in explaining changes in the QLP confirms the pro-cyclical nature of lending to the corporate loan portfolio.

Thus, the results of the impulse response were confirmed by the results of the variance decomposition, indicating the importance of market and financial factors both in the volatility and the degree of explanation of QLP in the Polish banking sector. Also, the results of the NPLs research confirmed the pro-cyclical nature of lending activity in Poland in the verified years.

Resuming, in the period 2009–2020 there was a long-term trend of improving the quality of the loan portfolio of non-financial companies, which was mainly result of changes market (macroeconomic) factors and financial situation of corporation's factors.

Further researches on the explanation of changes in the QLP, should be taken into account more explanatory variables. These researches should focus on the leverage ratio, the cost of capital in the banking sector and stress tests. These tests allow estimating changes in the loan portfolio in advance. Moreover, these tests are also recommended under macroprudential regulations for EU banks. The role of stress tests as an important instrument for enhancing the stability of financial institutions and the need further work on stress testing are also discussed in EU and the development of the banking union.

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CONCRETISING THE HAZY LINK BETWEEN DIGITAL BUSINESS MODELS AND DYNAMIC CAPABILITY IN THE AGE OF INDUSTRY 4.0: A RESEARCH AGENDA

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Abstract

Following three industrial revolutions, today, we have been experiencing the fourth industrial revolution, widely known as "Industry 4.0". In the age of Industry 4.0, digitalisation is of great importance since it fundamentally sparks off incorporating different technologies and transforms traditional business models into digital business models. In this shift, among various approaches, adopting the dynamic capability principles is especially critical for organisations due to its inherent nature of anticipating changes and responding to ever-changing conditions. This being the case, in order to keep up with the recent changes in the business ecosystem and to achieve competitive advantage, developing existing capabilities and providing new capabilities- digital and non-digital- become indispensable for the redesigned business models of organisations. Yet, on this matter, the extant literature remains vague for revealing the link between these two concepts. Accordingly, this research aims to concretise the hazy link between the concept of digital business model and the dynamic capability approach. Consequently, the current state analysis conducted in this research sheds light on the key role of dynamic capabilities in digital business models, which was insufficiently discussed by previous researchers. Additionally, the outcomes and proposed research agenda hold a potential to pave the way for focusing more on extant and emerging capabilities that organisations need to possess while implementing digital technologies.

Keywords: *Competitive Advantage, Digital Business Models, Dynamic Capability, Industry 4.0.*

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1. INTRODUCTION

To date, the business environment has gone through four industrial revolutions. Among these, steam engines initiated the first industrial revolution while incorporating electric energy stimulated the second (Buhr, 2015) and information and communication technologies accelerated the third revolution (Barreto et al., 2017). Today, in the fourth industrial revolution, originated in Germany, various digital-based technologies, such as cyber-physical systems, big data, internet of things, internet of services, cloud computing, are placed at the centre of different research. In general, emerging digital technologies in this revolution have removed the boundaries between the place of production and the place of consumption. Besides that, new technologies have also paved the way for new practices to be used by organisations. As a result of these progresses and potential opportunities, the fourth industrial revolution, commonly known as "Industry 4.0", has received particular attention by both academics and practitioners in the business domain.

On the other hand, despite this growing interest, there is still a lack of understanding in the society regarding the concept and technologies of Industry 4.0 and, therefore, there is a need for clarification of Industry 4.0-oriented advancements (Alcácer and Cruz-Machado, 2019). More specifically, on the practical side, it is imperative to consider the effect of changes stemmed from digital technologies on business models. In this sense, the emerging nature of Industry 4.0 needs to be appropriately adopted by decision-makers in organisations since applying a holistic strategic perspective is critical for the fit of approaches into the proposed digital business model innovations (Loonam et al., 2018). In this need, as Teece (2017) underlined, possessing strong dynamic capabilities is key and helps organisations to obtain competitive advantage. However, there are insufficient discussions on what skills and abilities are needed for these emerging technologies (Freitas Junior et al., 2016). That is to say, the literature on business model change towards digitalisation and adopting the dynamic capability approach is still in its infancy (Witschel et al., 2019) and, as such, reveals vagueness about the link between these both concepts. Accordingly, this exploratory research sets out to concretise the hazy link between the concept of digital business model and the dynamic capability approach.

In order to achieve this research aim, the paper is organised as follows. In Section 2, the background information on digital business models and the dynamic capability approach is shared while in Section 3, the current state of the intersection of both concepts is discussed and

a research agenda is proposed. Finally, the research is concluded with remarks and insights into the discussed subject matters.

2. THE BACKGROUND OF THE LINK BETWEEN DIGITAL BUSINESS MODELS AND DYNAMIC CAPABILITY

In this section, the shift from traditional to digital business models is initially explained and, then, the dynamic capability approach is introduced. Overall, the noted discussions in two sub-sections provide a basis for understanding the link between these concepts, which leads up to a proposal of a research agenda, as indicated in the following section.

2.1. From Traditional to Digital Business Model

First of all, it is worth noting that there is no widely accepted definition of the business model concept and definitions vary depending on the purposes of researchers. Nevertheless, there are also several common points highlighted by different researchers. For instance, according to Osterwalder and Pigneur (2010, p. 14), a business model describes "*the rationale of how an organization creates, delivers, and captures value*". In a similar vein, Teece (2010, p.191) stated that a business model "*describes the design or architecture of the value creation, delivery and capture mechanisms employed*". As can be deduced from these broadly mentioned descriptions, there is a general consensus among academics and practitioners that it is a strategic tool to enable organisations to hold competitive advantage, although various expressions exist on the definition of a business model.

Fundamentally, after introducing information and communication technology in the third industrial revolution (Barreto et al., 2017), the fourth industrial revolution emerged as the combination of physical and network structures (Maslarić et al., 2016). The elements of Industry 4.0 allow organisations to gain strategic advantages over others, and to become (or remain) competitive in their sectors. The information technologies developed during this revolution, especially the digitalisation of production, consumption, and manufacturing, have changed the conditions of business ecosystem by enabling faster as well as more efficient exchanges of knowledge and information. Failing to follow these advances can make organisations decline and lose their competitiveness. Therefore, today, organisations strive for redesigning their business models by following these changes and are in quest for implementing applicable digital technologies in their digitally-driven business models.

Although diverse technological developments have recently occurred in business models with a shift from traditional to digitally-driven models (Jerman et al, 2019), the non-uniformity

is also same in the definition of a digital business model. To exemplify, Weill and Vitale (2001, p.34) characterised e-business models as "*a description of the roles and relationships among a firm's consumers, customers, allies, and suppliers that identifies the major flows of product, information, and money, and the major benefits to participants*". In parallel, the differentiating characteristics of digital business models were generally summarised by Remane et al. (2017) as follows: digital products and services can be reproduced with zero marginal cost and become more valuable as more users join, value is established in practice, the balance between various stakeholders is found on digital platforms. The researchers also stated that bikesharing, carsharing, ridesharing, and intermodal travelling types are among the examples of digital business models.

In this new era, organisations see their roles less in industries yet more in virtual platforms where customers and organisations work together to sustain products and services. In this progress, the organisations that align their internal processes with external digital technologies hold a potential to leverage strategic advantages in their industries (Loonam et al., 2018). For this attempt, it is crucial to determine critical success factors and capabilities affecting business models. In this regard, as Jerman et al. (2019) emphasised, leadership and management orientation becomes prominent since business models are alive platforms. However, despite these changes and transformations in organisations and their business models, numerous organisations, especially the small- and medium-sized companies, face a difficulty of understanding new digital technologies and their influences on business models (Muthuraman, 2020). In this vagueness, the dynamic capability approach holds a great potential to depict the set of required skills in this change and to scientifically explain this need (Witschel et al., 2019).

2.2. The Dynamic Capability Approach

The concept of dynamic capability dates back to early 1990s. As a concept, it was initially introduced by Teece and Pisano (1994) as the capacity of an organisation for transforming its knowledge into actions by considering internal and external parameters. According to Teece (2017), capabilities, which are referred to as the activities that allow organisations to generate a particular outcome, can be ordinary and dynamic. In this sense, the researcher indicated that ordinary capabilities are about the skills to manage current production plan whilst dynamic capabilities are inherently future-oriented and have an interrelationship with strategies.

Theoretically, the concept of dynamic capability stems from sensing business opportunities, seizing them, and transforming current assets to responsive resources and is based on the fact that, if an organisation holds resources and competencies without dynamic

capabilities, it then becomes competitive in a short term (Augier and Teece, 2009). For overcoming this limitation, the dynamic capability approach advocates that organisations need hard-to-imitate capabilities in order to achieve sustainable competitive advantage and should reconfigure internal resources with external changes. This being the case, several capabilities, such as managerial skills, employee abilities, and leadership styles come to the fore more in this competition while reshaping business models in line with emerging advancements. That is to say, the critical role of adopting the dynamic capability approach is of utmost importance for competitiveness of organisations in the business domain.

As a result, given the recent changes relying on digital technologies in this era, the dynamic capability approach remains as suitable for understanding the offers of digitally-driven business models, as Witschel et al. (2019) noted. Indeed, foreseeing changes, responding to advancements, and adjusting business models in the business environment are among the intrinsic activities of the dynamic capability concept (Teece, 2017). Therefore, the link between the dynamic capability approach and digital business models is centred at the focal point of this research.

3. THE INTERSECTION OF DIGITAL BUSINESS MODELS AND DYNAMIC CAPABILITY

In this study, in order to concretise the hazy link between digital business models and the dynamic capability approach, the extant literature was reviewed in a structured manner. In this regard, several keyword pairs were mainly searched within the abstracts, titles, and keywords of the peer-reviewed articles and reviews indexed in three databases, which are: ABI/INFORM Global, ScienceDirect, and Scopus. Moreover, the identified keyword pairs were searched at two stages. In the first stage, the keyword pairs were as follows: "*digital business model*" ; "*industry 4.0*" whereas the following keyword pairs were used in the second stage: "*digital business model*"; "*dynamic capability*". After these two stage searches, nine studies were revealed from the selected databases; however, only five of them were accessible via the university database system of the author and these studies constituted the main body of the literature of this research.

Generally speaking, the studies accessed in this research showed that different topics were emphasised by previous researchers. For instance, Muthuraman (2020) aimed at causally connecting the components of business models with the characteristics of digital technologies in order to comprehend the impact of technology on digitally-driven business models, where cloud computing, internet of things, machine learning, robotics, mobile technology, and big

data are of critical importance. Cezarino et al. (2019) focused on the Brazilian context and explored the relationship between the concepts of Industry 4.0 and circular economy, through structuralism, in order to reveal the potentials and limitations of these concepts in implementation. In the smart manufacturing concept, Alcácer and Cruz-Machado (2019) initially drew attention to the guidance of the Reference Architecture Model Industrie 4.0 and introduced the key Industry 4.0 components for manufacturing systems and, then, presented their final remarks based on the discourses. To sum up, these three studies show that the link between the dynamic capability approach and digital business models were largely neglected and the discourses remained rather technical.

Regarding capabilities in terms of the smart concept, Jerman et al. (2019) examined the changes of business models of an organisation, which is a smart factory, and identified the key factors that affect the business model by using the semi-structured interview technique with managers of the case company and the content analysis. Their findings showed that machines will have a major change to be used wisely in production, followed by the employees during creativity expression. Moreover, the key factors indicated by the researchers were as follows: top management and leadership orientations, motivation of employees, collective wisdom, creativity, and innovations. Similarly, in a more related study in line with the purpose of this research, Witschel et al. (2019) examined how and under what conditions companies develop and implement digital business models, through a multiple case studies of leading German firms from different industries, and concluded that companies need to adopt the dynamic capability approach for responding to changing external conditions. Their empirical findings demonstrated that there is a moderating role of the organisational context on the relationship between dynamic capabilities and business model change and there needs to be an alignment between strategy, organisational design and suitable leadership mindset.

All in all, the reviewed five studies in this research unfolded that the intersection of digital business models and the dynamic capability approach is currently a nascent area and still in need of further studies to clarify the haziness between these two concepts. In the age of Industry 4.0, bridging this gap is especially crucial since digitalisation has an increasing trend and impact in the business environment and the dynamic capability is a robust approach to explore both the current practices and the forward-looking expectations. In this respect, based on the reviewed literature, it becomes clear that digital business models need to be encompassed by existing critical and emerging capabilities -digital and non-digital- , such as creativity, knowledge sharing, integration with different stakeholders (e.g. customers, partners), agile and

innovative thinking, leadership and management orientation, awareness and motivation of employees. Accordingly, in today's complex and ever-changing business ecosystem with the progress in digitalisation, digitally-driven business models tend to require considering both extant and emerging dynamic capabilities, particularly by advancing the existing critical capabilities.

4. CONCLUDING REMARKS

Following three industrial revolutions, the fourth industrial revolution, widely known as Industry 4.0, offers significant advancements to the business ecosystem. In the new digital era, implementing emerging technologies can cause a strategic advantage in competitiveness of organisations. However, given the academic and practical progress in relation to Industry 4.0 technologies, it is explicit that approaching to Industry 4.0 without giving particular emphasis on the connection between digital business models and dynamic capabilities can remain meager. In this regard, although some researchers have already made efforts to conceptually and technically emphasise the need of the dynamic capability approach in business model change towards digital business models, the link between these two concepts has received very limited interest, and, as such, causes vagueness in the business domain. Accordingly, this research aimed at concretising the hazy link between digital business models and the dynamic capability approach.

In order to achieve the aim of this research, the extant literature was initially reviewed through identified keyword pairs conducted at two stages. As a result of the discussions made in relation to the reviewed studies, the present research has provided some insights into the intersected area of the subject matters. First, the current state analysis performed by virtue of the structured literature review revealed that there is a research gap in the area of studying digital business models and the dynamic capability approach from the strategic viewpoint. In this respect, it can be concluded that the outcomes of this research enrich the literature since existing small number of studies remain predominantly technical and case-based. Additionally, both the mentioned outcomes and the needed capabilities summarised in this research offer to shed light on the intersected area and to advance the clarity of the hazy link between these two concepts in terms of both academic and practical aspects. Thus, relying on these insights, the study provides a research agenda that also calls for further research in the focused area. In this sense, in future studies, digital and non-digital capabilities needed in digital business models can be empirically and conceptually recognised by adopting the strategic management

perspective for different contexts rather than providing a technical discussion or practicing a case-based approach.

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CONTEMPORARY TRENDS IN THE MANAGEMENT OF INTERNATIONAL CONCERNS

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Abstract

The aim of the study is to identify trends in the management of international concerns. The focus was on centralized and decentralized management systems. Questions about purpose: (1) In what direction is the management of multi-entity organizations – international concerns? (2) Is there a trend towards centralization or decentralization of management? (3) Is there a tendency to create Shared Service Centers (4) Are the internal entities of the groups exercising an increasing range of functions and decision-making powers, or are they limited? (1) An analysis of the literature in the field of centralization was performed decentralization of management (2) Conducted research in international concerns from the automotive and mining industries. The study shows that in recent years the tendencies to centralize management have intensified and the flexibility of organizational structures of multi-entity organizations is varied and depends on the type of complex organization. Despite the trend towards centralization of management in the automotive and mining industries, in the automotive industry this process is slower and some internal units of automotive concerns perform a wide range of functions and decision-making powers. The results presented in the article can be used by other multi-entities organizations to redesign the existing organizational solutions in terms of functions and structures.

Keywords: *Multi-entity Organization (concern), Parent Company, Subsidiary, Centralization, Decentralization, Corporate Functions, Flexibility.*

1. INTRODUCTION

In the market arena, alongside classic enterprises, multi-entity organizations operating on an international and global scale function. Their common feature is the presence of a decision-management center in the form of a superior unit (parent company) and subordinated units (daughter companies). The parent unit acts as the management center. It imposes on its subordinate entities goals, strategy, rules of operation and enforces their implementation. The role of subordinated units is to implement decisions (strategies) and generate value for the multi-entity organization. They are strongly dependent on the company's headquarters in their activities. Hence, their level of decision-making independence and the impact on important decisions made there are usually limited.

One of the forms of multi-entity organizations is a concern. Its characteristic feature is the existence of uniform management on which the companies of the concern depend. In the concern, the parent company, apart from managing the development of the entire concern, also deals with operational activities, it has its core business. As a rule, the companies of the concern have limited freedom of decision-making (Theisen M.R. 2000, p. 15). Observations of economic practice, as well as management theory indicate that efficiency, quality, flexibility and innovation are becoming the categories that set the directions for the development of the organization in the 21st century. The importance of competent employees, IT systems, including information and communication technologies, automation and robotics (Industry 4.0), artificial intelligence (Birkinshaw, J.M. 2018; Iansiti M., Lakhani, K.R. 2020) as well as organizational culture is growing. The political and legal situation in the world is changing (Kunisch S., Menz M., Collis D. 2020, p. 4.), cultural conditions (Baum JAC, Haveman HA 2020, pp. 268-272), competition, the requirements for the organization. Global value chains have emerged (Strange R., Humphrey J. 2019, pp. 1401–1413; Hernandez V., Pedersen T. 2017, pp. 137–150).

These factors, as well as many others (including Covid 19), force managers of superior units to make a number of decisions regarding the functioning of subsidiaries, often located outside the home country of the company's headquarters. Their impact can be two-way. On the one hand, they may affect the increase of the scope of performed functions (tasks) and decision-making powers of subordinate units, thus favoring the decentralization of management. On the other hand, they may have an impact on limiting the scope of the functions performed and decision-making powers by subsidiaries for the benefit of the superior unit or Shared Service Centers, which in turn leads to centralization of management. But also under the influence of

these factors / phenomena, tasks may be outsourced to external companies. The use of outsourcing at the level of subsidiaries limits their functions and decision-making powers, and thus the decision-making autonomy. The issues being analyzed in the study are complex and its importance is raised in the scientific literature. The problem of centralization and decentralization is one of the most difficult problems, both in the theory of organization and management, and in economic practice. It takes on a deeper meaning and complexity in multi-entity structures (Kreft 2004, p. 83), and thus also in international corporations. Parent companies interfere in the functional spheres of subsidiaries, decomposing the established distribution of functions and decision-making powers towards centralization or decentralization of management. Both solutions have specific advantages and disadvantages, which are revealed in various conditions.

The aim of the study is to identify trends in the management of international concerns. The focus was on centralized and decentralized management systems. The following research questions were risen around the problem: (1) In what direction is the management of multi-entity organizations - concerns? (2) Is there a trend towards centralization or decentralization of management? (3) Is there a tendency to create shared service centers. (4) Are the internal entities of the companies exercising an increasing range of functions and decision-making powers, or are they limited? The article consists of two main parts. The first presents theoretical issues and the second presents the results and conclusions of the research.

2. LITERATURE REVIEW

2.1. Towards Flexibility of Multi-Entity Organization Structures

The changes taking place in the environment of large economic organisms caused by the intensification of competitive activities in almost all sectors of the economy, pressure on costs while striving to maintain the optimal quality of goods and services supplied to the market, force management boards and supervisory boards to adopt a new approach in managing subsidiaries (Sobotkiewicz 2011, p. 434). They force the management to make changes in the organizational structure of the company, providing the company with greater flexibility and operational efficiency (Lachiewicz, Zakrzewska-Bielawska 2010, p. 23). It is becoming more and more difficult to forecast and plan for the long term. It is also more difficult to predict the effects of decisions made, even at lower levels of the organization. The flexibility of the organization is a kind of panacea for the increase in turbulence in the environment (Krupski 2005, pp. 7-13). Flexibility is a specific reaction to the uncertainty of the operation of an organization (company) (Osbert - Pociecha 2008, p. 9). Flexibility as the ability to cope with

uncertainty is associated with the ability to respond to (predictable and unpredictable) changes by creating and selecting reversible options for functioning and development, as well as creating ways and means of changing these options while maintaining business continuity and the optimal involvement of expenditure and time (Krupski 2008, p. 24). J. Brilman, on the other hand, indicates that this organization is flexible, the structure and culture of which enables it to quickly adapt to the needs of customers and the requirements of the competition (Brilman 2002, p. 391). The author distinguishes short decision-making processes, a flat structure, and empowerment of executive employees as a feature of a flexible organization. Thus, the organizational structure can be more or less flexible. It may be more or less susceptible to changes taking place in the organization's environment. Organizational structures of international concerns (Table 1) are also characterized by a varying degree of flexibility, as shown in Figure 1. From the features presented in Table 1, it is worth paying attention to the feature of the management method, which allows to distinguish more or less centralized systems. If the companies of the concern operate in the same industry or cooperate with each other in order to produce a finishedproduct, greater centralization of management is required than in the case of the conglomerate type. Therefore, it can be assumed that as a result of the choice of the economic business, the level of economic independence of subsidiaries is determined, and thus the scope of the functions and decision-making powers. A given type of concern requires a different location solution for functions and decisions. On the other hand, the effect of flexibility in the structures in question can be achieved by decentralizing management.

Hence, it can be assumed that the most flexible form is a conglomerate concern that conducts diversified activity in various industries, and the least is a cooperative concern, in which daughter companies are dependent on each other through production phases, they closely cooperate with each other, creating a large economic organism within the concern that needs more time to adapt to new changing conditions.

Table 1. Characteristics of multi-entity organizations - concerns

Characteristic features	Types of international concerns		
	Industry	Cooperative	Conglomerate
The method of grouping daughter companies in a concern	Subsidiaries manufacturing the same or similar product (they operate in the same industry)	Subsidiaries cooperate with each other in the production of the finished product	Subsidiaries are involved in different activities and operate in various industries

Internal cooperation between subsidiaries of the concern	Possible cooperation in the field of R&D, procurement, sale	Strong cooperation in the production of the finished product	Lack
Working area	Specific region allocated by the parent company	The area is limited to territorially located subsidiaries for which components are delivered for further processing.	Without limits
Type of management of subsidiaries	It provides opportunities for centralization and decentralization of the management of subsidiaries	There is a tendency to centralize management	There is a tendency to decentralize management
Development opportunities of daughter companies	Limited by industry development	Possibility to increase production for the internal and external needs of the concern	Limited by industry development

Source: own study

Figure 1. Flexibility of the structure of an international concern
Source: own study

2.2. Centralization or Decentralization of Management in Multi-Entity Organizations?

The problem of centralization and decentralization of management should be considered at the level of the distribution of corporate functions and decision-making powers between the parent company and its subsidiaries. Werr, Blomberg and Lowstedt, while conducting their research, concluded that there are so-called hierarchical relations (Werr A., Blomberg J., Löwstedt J. 2009, p. 451) showing the division of power and responsibility. The corporate functions include production, sales, marketing, research and development, IT, HR, finance (Goold M., Campbell A. 2003; Neilson G.L., Wulf J., 2012; Kunisch S., Menz M., Collis D.,

2020). Changes taking place in the environment of the organization favor the separation of new functions. While certain corporate functions such as IT, marketing, HR, and finance exist at most firms, new functions, in areas such as risk management and compliance are emerging (Kunisch S., Menz M., Collis D., 2020, p.15) .

Centralization of functions and decision-making powers in multi-entity organizations means moving them up vertically to the level of the parent unit. On the other hand, decentralization is a reverse process, it favors the movement of functions and powers downwards to subordinate units. Regardless of the target location of the function, particular attention should be paid to equipping the entity receiving the function with the necessary human, material, financial and information resources. As a result, it will allow for efficient and effective performance of the tasks that make up the content of the function. In the context of the above statement, we can say about two extreme, opposite choices. In the case of centralization of functions, the parent unit interferes with the scope of functions of the subordinate units, receiving them and locating them in the company's headquarters. The company's headquarters provides the company's operating units with centralized services, such as: HR, IT or media purchasing (Menz M., Kunisch S., Collis D.J., 2015, p. 645). On the other hand, the decentralization of functions is accompanied by the process of enriching the functions performed at the level of subsidiaries as a result of locating new functions there. As a result, it leads to the implementation of new tasks, stimulating the activity of local personnel, increasing their involvement in business processes. The decentralization of functions is conducive to increasing the position of an individual in the group. The transfer of functions in a multi-stakeholder organization, vertically, between a parent company and a daughter company, or vice versa, is influenced by certain factors (Table 2). It can be assumed that the more corporate functions and with them decision-making powers are located in a daughter company, there will be a tendency to decentralize management. If the parent company will take away the functions and decision-making powers from the daughter companies, there will be a tendency to centralize management. Decentralization is a compromise between the higher knowledge of local managers and the loss of control in the company's premises (Acemoglu D., Aghion P., Lelarge C, van Reenen and Zilibotti F., 2007, pp. 1759-1799.).

Table 2. Potential factors for locating corporate functions in a multi-entity organization

Direction of location of corporate functions	Potential factors
Centralization corporate functions at the parent company level	- cost reduction (employment restrictions at the level of subsidiaries) - maintaining the cohesion of a multi-entity organization - uncertainty of the environment - restrictions on the access to qualified personnel in the region of the subordinate unit's location - protection of specialist knowledge (research and development, marketing, sale) - focus on the main domain of activity of subordinated entities
Centralization of corporate functions at the level of the Shared Services Center	- cost reduction in the long term - reduction of duplicate auxiliary functions - stopping the process of growth number of functions in subsidiaries - eliminating duplicate functions - optimization of employment at the administrative and "pure" executive level - conducting a common purchasing, sales, marketing, investment, renovation policy, etc. - increase in productivity and efficiency of work, - effective use of staff competences - gathering specialist and expert knowledge, developing it and using it outside the structure of a multi-entity organization
Decentralization corporate functions	- increasing the involvement of local staff in business processes - talent management orientation - good financial condition of a multi-entity organization - access to qualified staff in the region of the subordinate unit's location - experience and qualifications of the personnel (market, organizational, technological) of the subordinate unit - the laws of the host country - financial and material resources owned by a subsidiary

Source: own study

Nowadays, the Shared Services Center plays an increasingly important role in centralization processes. It is an internal economic unit with the status of a plant or company in which specialized knowledge, skills and competences are collected. B.P. Bergeron (2003, p. 3) defines a Shared Service Center as a common strategy in which a group of functions is concentrated in a semi-autonomous business unit focused on performance, value generation, savings and better service to internal customers of the parent corporation. In turn, B. Quinn, R. Cooke and A. Kris (2000) define the Shared Service Center as a new creative business strategy. As a rule, SSC serves internal economic entities by providing them with a number of services

supporting their subject of activity. Hence, auxiliary functions (e.g. accounting, marketing, personal development, purchasing, etc.) are located in SSC. Shared Service Centers began to develop on a large scale in the 1980s as a response to the optimization of general costs of running a business. B. Bergeron (2003, p. 3) sees such a localization solution as a function primarily of maximum efficiency, savings and quality in the use of human and organizational resources. S. Wang and H. Wang (2007, pp. 281-290) took a similar position. The researchers found that the Shared Services Center provides long-term cost savings, knowledge sharing, and staff development and retraining. F. Keuper and Ch. Oecking (2008) analyzed the profitability of the operation of the Shared Services Center of major international corporations. Analyzes carried out by researchers show that Philips has reduced costs in intermediate areas by about EUR 170 million, German Post World Net has reduced financial accounting costs to about 40%. However, the greatest benefits were recorded in the IT function. Oracle saved about \$ 1 billion, Siemens IT reduced its budget by about EUR 800 million. In the 21st century, the outsourcing of functions was facilitated, which potentially threatens the advantages of the internal functions of shared services, and thus limits the role and size of the parent company (Kunisch S., Menz M., Collis D., (2020), p. 10). In fact, however, each stage of the value chain, from research and development to sales, can be centralized at the corporate level (Kleinbaum A.M, Stuart T.E. 2011, pp. 7-8).

In the literature on the subject, an attempt was made to empirically verify the degree of centralization / decentralization of management in international multi-entity organizations. `The results of the research in this area are presented in Table 3.

Table 3. Selected research on centralization / decentralization of management in multi-entity organizations

Author / year	Description	Research conclusions
Kunisch S., Müller – Stewens G., Campbell A., (2014)	A study of corporate functions among the 761 largest corporations in North America and Europe.	Companies with business units or divisions have become more capable of standardizing and centralizing their operations, and traditional headquarters functions such as finance, HR, IT, marketing and strategy have grown in size and impact. In the meantime, new features emerge in areas such as risk management. Almost a third of companies reported an increase in corporate functions - and less than 10% reported a reduction - from 2007 to 2010. Leaders in three out of four companies believed that the impact of their corporate functions had increased.

(Kraśniak J. 2012, s. 138)	Study of the decision-making autonomy of foreign subsidiaries located in Poland. Research functions: sales and marketing, IT, production, finance, human resources. The research covered 60 subsidiaries operating in Poland	The level of autonomy of subsidiaries was placed at the level of 1.3 on a three-point scale, where 3 was the highest value, meaning a very high level of autonomy of subsidiaries and 1 - a low level of autonomy. The greatest autonomy was noted in terms of human resources (2.3) in all sizes of the surveyed companies. The smallest in the sphere of production and finance (average result was 0.6).
(Zając Cz. 2012, s. 167).	Research on social aspects of human resource management in subsidiaries of international capital groups located in Poland. The research was conducted in the years 2002-2010 in the same 10 companies.	- loss of managerial and operational independence, resulting in limiting the decision-making powers of the management and limiting innovation and creativity, - elimination or strong limitation of many functions in subsidiaries - interference of the parent company in strategic and operational management in the subordinated companies, - limiting production (the scope of services provided) and specialization, - centralization and outsourcing of many functions, - numerous organizational changes as a result of slimming, flattening and making organizational structures more flexible
(Stępień B. 2009, s. 318)	Research on the autonomy of subsidiaries. The study covered 35 production branches of international companies operating in Poland.	- the most centralized area is investments in real estate and machinery, - moderate level of centralization and supervision applies to commercial, marketing, supply and distribution activities, - the least centralized area of decisions is the area of shaping the employment policy. However, taking into account the industries, it was noted that Polish branches enjoy the greatest autonomy in the food industry (compared to the machinery and plastic industry) in making decisions in the sphere of trade and supply. There was also a slight increase in the discretionary power with the age of the subsidiaries.
(Broszkiewicz A. 2008, s.27-29)	Assessment of the impact of industrial groups on the functional spheres of subsidiaries with foreign capital. The research covered 50 subsidiaries located in Poland.	The group is strongly influenced by production and technology (3.84) as well as procurement and sales (3.46). The research showed that in terms of financial management, groups exert an extremely strong influence on subsidiaries (average result 4.58). On the other hand, the greatest interference by groups was recorded in the sphere of investment and development (4.64). A five-point scale with 5 being the group's greatest influence. Only in the area of the personnel function, local managers have greater freedom in making decisions (2.18). The degree of group interference in this case turned out to be the lowest.

(Listwan T., Stor M., 2008, s. 286)	Research on management problems of managerial staff in subsidiaries of international organizations. The research was conducted in 2008 among 35 subsidiaries.	On the basis of the research, the authors indicated the postulates of rationalizing the personnel function, including in terms of reducing the degree of centralization of functions and extending the scope of autonomy in subsidiaries.
(Sobotkiewicz D. 2005, s. 150-153).	Autonomy study in terms of the marketing function among 30 subsidiaries of foreign concerns located in Poland.	All decisions in the field of marketing research, product research, prices and promotion are made in the parent company of international concerns. Only in the case of distribution, subsidiaries had greater decision-making independence. Moreover, it was found that subsidiaries mainly perform the executive elements of the marketing function and the mother company - planning and control. Managers, on the other hand, have limited decision-making independence in the field of marketing.

Source: own study

The research results presented here indicate that the greatest interference of the parent unit in the functions of subsidiaries concerned production, finance, supply, sales, development and marketing, and investments, and the smallest in terms of the personnel function. The interference of the parent unit with the functions and powers of the subsidiaries favors the centralization of management. Therefore, it is worth asking the following question at this point, what causes this state of affairs, tendencies towards centralization of management? The answer to this question is not simple, but an attempt can be made to indicate several factors that cause the tendency to centralize management today, they are:

- dynamic development of information technology and IT programs facilitating the transfer of information within the organizational structure and programs supporting decision-making at various levels of the organizational structure,

- in the area of almost all corporate functions, computer programs are used to facilitate the collection, processing and transmission of data.

- Industry 4.0 concept,

- a tendency to concentrate many corporate functions, previously implemented at the level of subsidiaries in the company's headquarters or in created Shared Service Centers, treated as business strategies in the 21st century,

- limiting the role of subsidiaries to the implementation of basic functions (e.g. production) with broad support of auxiliary functions performed by the company's headquarters or shared service centers.

3. RESEARCH METHOD

The main problem comes down to the question: What is the tendency in the management of multi- entity organizations - international concerns? The following research questions were risen around the problem: (1) Is there a trend towards centralization or decentralization of management? (2) Is there a tendency to create Shared Service Centers. (3) Are the internal entities of the companies exercising an increasing range of functions and decision-making powers, or are they limited?

The research was conducted in the years 2010-2018 in the same four multi-entity organizations - international corporations operating in Poland, Germany and China. The research consisted in analyzing the changes taking place in the location of functions and decision-making powers and the reasons causing them. The method of analyzing the content of organizational documents and an individual interview (direct and telephone) with a list of open questions were used. The sequence of the methods used was as follows. Once a quarter, organizational structures, documents introducing changes to the structures of the surveyed companies, and documents published on the websites of the surveyed organizations were examined. The analysis of these documents made it possible to initially recognize changes in location of functions and permissions. The results of these studies were the basis for an interview with managers of parent unit in the field of factors causing changes. The research was conducted in all internal enterprises of multi-entity organizations, both in the parent company and in its daughter companies.

4. ANALYSIS

The research was conducted in four multi-entity organizations in 2010-2018. In total, twenty daughter companies of international concerns were examined. The characteristics of the international concerns are presented in Table 4.

Table 4. The characteristics of the international concerns

Number of the concern	Location of the parent company	Country of the location of the subsidiaries (their number)	Industry	Type of concern
I	Germany	Germany (3), Poland (2) China (1)	automotive	cooperative
II	Germany	Germany (1), Poland (1) China (1)	automotive	industry
III	Poland	Poland (6)	mining, metallurgy	cooperative
IV	Poland	Poland (5)	mining	industry

Source: own study

The actual directions of the location of functions and decision-making powers in multi-entite organizations are presented in Table 5.

Table 5. Changes in the location of corporate functions and decision-making powers in the international concerns in 2010-2018

Changes in the location corporate functions	International concerns																				
	I						II			III						IV					
	Location of subsidiaries																				
										Poland											
	Poland	Poland	China	Germany	Germany	Germany	Poland	China	Germany	1	2	3	4	5	6	1	2	3	4	5	
Personel				C																	
Personal development	D		D				D	D		C	C	C	C	C	C	S	S	S	S	S	
Low and organization	D		D																		
Product management	D		D																		
Research and development	D		D				C														

Pre-serial planning	D		D												
IT			D												
Quality planing					C										
IT					D	D						S	S	S	S	S
Controlling					D	D										
Strategic purchases					D	D										
Sale					C	C	C	C	C	C	C	C	C	C	C
Marketing												C	C	C	C	C
Finances					S	S	S	S	S	S	C	C	C	C	C
Purchasing					S	S	S	S	S	S					
Training					S	S	S	S	S	S	S	S	S	S	S
Accouting												S	S	S	S	S
Internal Logistics												S	S	S	S	S
Recruitment of employees												S	S	S	S	S

C – Centralization, D-Decentralization, S - Shared Service Center, empty field – no changes

Source: own study

The analysis of the collected empirical material leads to the following conclusions:

- In the automotive industry, decentralization of functions and decision-making powers occurred in three subsidiaries, centralization along with decentralization in two subsidiaries, and no changes in the analyzed period were recorded in four companies. It is worth emphasizing here that in the Polish subsidiary of the second surveyed concern, in 2011-2017, there was a tendency to decentralize functions and decision - making powers , and from 2018 centralization processes began, which are to intensify in the coming years. These elections changed the character of the organizational structure of the subsidiary from conceptual - design - operational to "pure" operational. The intention of the headquarters is to strengthen the operational role of

the company and focus its attention on executive matters, thus limiting its scope of activity in terms of concept and design. The centralization was mainly due to relieving the crew from conceptual and development works and reducing the size of the planning and construction services of the daughter company. In subsidiaries located in China, an increase in their functions and decision-making powers has been observed. The location of research and development in the Polish and Chinese subsidiaries was to create new technical and innovative solutions in manufactured components and finished products, as well as the creation of new products. In general, the research shows that the reasons for decentralization in the surveyed companies were the experience and qualifications of staff, access to qualified staff in the region, orientation towards talent management, financial resources owned by subsidiaries, increasing involvement in business processes and relieving the parent company from tasks performed for subsidiaries. In addition, in the case of product management, a particularly important premise was the independent acquisition of automotive projects by the company, and in the case of personal development, care for development, career planning and reducing fluctuation of the employed staff. On the other hand, in the field of IT, the development of IT and implementation of new IT systems in the company was indicated. On the other hand, the separation of controlling was accompanied by care for the local analysis of financial results (revenues, costs, efficiency - profitability). In the analyzed period, there was no separation of the Shared Services Center in the structure of automotive concerns. The research results presented here justify the conclusion that even in the same concern, daughter companies may have a different range of functions (greater or smaller) and decision-making powers (broader or narrower).

- In the declining industry (mining, metallurgy) there is a tendency to deprive subsidiaries of their functions and decision-making powers and locating them in the parent company or in the Shared Services Center. This process started in 2011 and is still ongoing. The parent companies together with Centrum Usług Wspólnych provide services to their daughter companies. As a result of these changes, subsidiaries may focus on their core business - mining. However, these changes were accompanied by the processes of merging many organizational units of daughter companies and reducing the size of their organizational structures. The centralization of functions and decision-making powers was aimed at improving organizational effectiveness and efficiency, eliminating duplication of functions, but also, in the longer term, reducing employment. In mining organizations, although various functions were subject to the centralization process, the same premises for centralization in favor of the parent company were noted. These were the reduction of costs and the release of subsidiaries from the implementation

of a number of auxiliary tasks not related to the main subject of activity, which can be successfully performed for them by the company's headquarters. On the other hand, the reasons for the creation of the Shared Services Center were the pressure to reduce costs, stop the expansion of auxiliary functions in plants, conduct a common policy for all companies, e.g. in the field of procurement, financial, accounting, IT, recruitment, training functions, effective use of staff, including reduction of jobs, concentration of knowledge and competences in one place, providing services to entities outside the group. There is no doubt, however, as indicated by the respondents, that reducing costs (including employment) was the main premise for creating a Shared Services Center.

5. DISCUSSION

• Research and literature analysis showed that there is a tendency towards centralization of management in multi-entite organizations.

• In declining industries such as mining and metallurgy, there is a tendency to centralize the same functions and decision-making powers in all subsidiaries. As a result, the role of daughter companies is reduced to their core activities (coal mining, processing).

• The importance and role of the parent company in the management of subsidiaries is growing. The number of functions performed by the parent company is increasing. In addition, in her current work, she is supported by the Shared Services Center, treated as a central business unit.

• Establishing a Shared Services Center is a response to reducing the operating costs of daughter companies. There was a tendency in mining concerns to creation the Shared Services Center as an important strategic direction of the concerns.

• Even within the same automotive group, subsidiaries may have different functions and decision-making powers. Their decision-making autonomy may vary. The closer the daughter company is geographically located to the company's headquarters, the greater the tendency to centralize management. Therefore, subsidiaries of automotive concerns located in China show decentralization tendencies. On the other hand, subsidiaries of mining concerns, located close to the company's headquarters show centralization tendencies.

• Manufacturing for the group's internal needs also favors the centralization of management. This can be seen in the case of some automotive companies and all mining companies.

• There are factors of centralization and decentralization of functions and decision-making powers. Locating functions in company headquarters and Shared Service Centers resulted from specific reasons. Most often, head office managers indicated reducing operating costs at the level of daughter companies and the head office's striving to limit the number of auxiliary functions at the level of daughter companies - this concerned centralization. On the other hand, competences, qualifications, and experience of employees of the daughter companies contributed to decentralization

• The study shows that in recent years the tendencies towards centralization of management have intensified, and the flexibility of the organizational structures of multi-entity organizations is diversified and depends on the type of concern. Industry and cooperative concerns tend to centralize. However, despite the tendency to centralize management in the automotive and mining industries, this process is slower in the automotive industry, and some internal units of automotive concerns perform a wide range of functions and decision-making powers.

6. CONCLUSION

The choice of the method of managing subsidiaries - centralized or decentralized - should be preceded by numerous analyzes, the results of which, as a result, will help to optimally make the right choice. Currently, there is a tendency in economic practice to centralize management. The importance and role of the parent company and its Shared Services Center is growing. Therefore, the autonomy of daughter companies is limited as a result of limiting their functions and decision-making powers. The role of headquarters managers of international concerns is to select and implement solutions that facilitate the achievement of goals, improve the quality of processes, reduce operating costs or eliminate duplicate functions. The right choice is important because the quality of tasks and decisions depends on where the function is performed. The author is aware that the limitation of the study population to four multi-entity organizations does not fully illustrate the current trends in the market in terms of centralization / decentralization of management. It also does not show the dominant trends in specific functions of the organization. However, the intention of the research was to indicate the issues, not fully explored in the latest literature, as well as to show potential further directions of research.

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DEVELOPMENT OF SOCIAL ENTERPRISES AND THEIR IMPACT ON SOCIETY:

ALBANIA CASE

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Abstract

Social enterprise has special attention to the developed countries by researchers from different fields. In Albania, this concept is relatively new, consequently, there are no many studies of socioeconomic character. This study intends to analyze the impact of social enterprises in Albania society. The information used was based on multiple sources, considering the nature of it. The aim of the study was the exploration of the model of social enterprise. Data was gathered using direct observation. Interviews were analyzed using thematic analysis. Literature research was conducted, such as: legal framework, reports, theory, and research studies. The main findings showed that social value created depends on the nature of entrepreneurs in the Albanian context. As a result, it contributes to a better understanding of the role of social enterprises and the impact in social development. It ends up with an effort to reflect the conclusions emerging from the study.

Keywords: *Social Enterprises, Social Value, Challenge.*

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1. INTRODUCTION

In the last decade, social enterprises are considered an important vehicle towards a fair society, by contributing to economic and social development. In many European countries, there is a growing trend of social enterprises contributing to social issues (Partner Albania, 2019). For this reason, many governments and political-economic institutions, like OECD (2013) and the European Commission (2011) final are shifting their focus towards stimulation, and support of social enterprises (DISOCI, 2020). Although there is no widely accepted definition of social enterprises, the most common knowledge is that it is uses of start-up companies and other entrepreneurs to develop, fund, and implement solutions to social, cultural, or environmental issues (Twuijver M., et al 2020). The social enterprises are deemed as socially entrepreneurial organizations where business and nonprofit organizations merge. It can be understood as an intercessor that combines social purpose with the spirit of the entrepreneur (Partner Albania, 2019). The latter field was social entrepreneurship is regularly cited is microfinance, since the Nobel Peace Prize was awarded to Mohammad Yunus (Benjamin H. & Alex N., 2012). The concept has become increasingly evident in commercial markets, academic discourses, and policymaking. It has become a fashionable construct in recent years.

Social entrepreneurship has got special attention to the developed countries by researchers from different field. Even nowadays, entrepreneurship and enterprise have become an important research area. Still, in Albania, it is nearly absent in academic research until the end of the 1990s, because of the context of the country (IDEA, 2020). This paper aims to examine the different factors shaping the social enterprise and proposes some current differences like the development of social enterprise in Albania. In this process, it was shown how specific factors have differently shaped the conceptualization of social enterprise, including its organizational forms, legal structures, and supportive environment. The development of social enterprises in Albania is still in the early stages of its development. It is relatively new, and consequently, there are no many studies. The first social enterprises have developed their activity before 2000, and have mainly had a nonprofit status. Over the years, two main forms have been known in the country: i) Traditional enterprises that are business organizations that produce, sell a product, and service to maximize personal benefits ("shareholder value") and (ii) development organizations (nonprofit organizations, charities) that aim to maximize social benefits ("social value") through their social problem - solving activities, mainly by donated funds (donations, grants).

In Albania, social enterprises are regulated by the Law (No. 65/2016) "On Social Enterprises in the Republic of Albania," followed by several bylaws issued over three year. The legal package, as time, is not implemented yet, due to unclear and cumbersome regulations, marking a missed opportunity for the social enterprises in Albania (Partners Albania, 2019). However, some laws dealing with social issues or environmental issues cover some areas. This area needs to be further researched. Developing a social model is complex. The importance of social entrepreneurship, is not only in the economic context, but also in the social field, consequently, social entrepreneurship seeks to be recognized and addressed in Albanian context.

2. LITERATURE REVIEW

2.1. Nature and Size of the Social Enterprises

It is commonly agreed that the entrepreneur is an agent of change, especially in a growing world of free enterprise and capitalism. It is believed that social enterprises are related to the development of society (changes in science and technology, innovation, electronic literacy, new legislation, etc.) and for deepening social problems (rural development, the inclusion of persons with disabilities, equality. Ducker (1985) defines entrepreneurship as the ability to do something independently by responding to change and taking advantage of opportunities. An entrepreneur is a person who visions a particular business venture and then creates it, basically, the originator of a new business venture and a new organization for that venture. The entrepreneur perceives opportunities that other business executives do not see or not care about it. Other definitions of entrepreneurship include innovation, the production of a new product or service, risk-taking (EJBM, 2015). It was found (Laze, 2019) that social entrepreneurship or initiatives are predominantly younger than their traditional entrepreneurship and are mainly represented in the pre-start-up or infancy stage of the entrepreneurial process, which at first sight could be attributed to the relative newness of the phenomenon in Albania. A group of researchers, (Rawhouser, Cummings and Newbert, 2019) argued that goal of these entities is the creation of social impact and tried to define social impact to be able to measure it correctly. Social entrepreneurs are described as "new engines for reform" (Dees, 2007). Social entrepreneurs are in pursuit of "sustainable solutions to problems of neglected positive externalities" (Santos, 2009). Social enterprise combines economic development with social, business with social inclusion, brings innovative solutions to social problems (INSEAD, 2009). The social enterprise achieves its social mission through: i) Reinvesting profits; ii) Employment of those who are striving comes to work or are left out of the labor market; iii) Provide social,

medical, and education services to vulnerable individuals or groups who do not have them at their disposal; iv) Investments or changes in the business to protect the environment; v) Contributing or developing cultural activities in the community. Although no single definition exists, it is commonly agreed that the entrepreneur is an agent of change, especially in a growing world of free enterprise and capitalism.

Under social entrepreneurship in this paper is meant a process through which social problems are solved innovatively. In other words, in social entrepreneurship, there are innovative solutions for social problems that change the system and motivate the entire society to move in a new direction (Hervieux and Voltan, 2018). So, in social entrepreneurship, success is measured by positive return to society by achieving various social-economic and environmental goals. Meanwhile, social impact has been conceptualized in the literature using different concepts: social value, (Santos, 2012) social performance (Mair and Marti, 2006), social returns, (Emerson, 2003) social return on investment (Hall, Millo and Barman, 2015) and social accounting which, although similar, represent distinct constructs. Nicholls (2006), "Innovative and effective activities that focus strategically on resolving social market failures and creating new opportunities to add social value system by using a range of resources and organizational formats to maximize social impacts and bring about changes" (Tayşir, 2019). Moreover, social impact has been studied in education, health care, environmental sustainability and poverty (Rawhouser, Cummings and Newbert, 2019). Analysis based on value generation, value capture, and value sharing (Rispal and Servantie, 2016) provides important insights into the specificity of social enterprise research.

There are two schools of thought, introducing the concept of social enterprises, emerged in the USA. *First*, the "earned income" school of thought has embedded a strategy undertaken by organizations, which generate incomes supporting their social mission (Partner Albania, 2019). Later on, this approach expanded, involving even for-profit organizations, with a social aim (Yunus, M., 2010). *The second* school of thought, "Social Innovation," emphasizes the central role of social innovation dynamic led mainly by the social entrepreneur, who possesses the features to follow a social mission such as dynamism, creativity, and leadership (Petrella and Battesti, 2014).

While in Europe, European Commission has defined a social enterprise as being "an operator in the social economy whose main objective is to have a social impact rather than make a profit for their owners or shareholders. It operates by providing goods and services for the market in an entrepreneurial and innovative fashion and uses its profits primarily to achieve

social objectives. It is managed openly and responsibly, in particular, involves employees, consumers and stakeholders affected by its commercial activities" (Twuijver M. et al., 2020). There is growing recognition across the EU of social enterprise as a business model supporting economic growth and social progress. Since 2012, the European Commission has been promoting a series of policies on social enterprise under the Social Business Initiative, focused on creating the right ecosystem of support to drive the growth of social entrepreneurship (ESELA, 2015). According to the European Commission (2013) the social enterprises are: "those for which the social or societal objective of the common good is the reason for the commercial activity, often in the form of a high level of social innovation, those where profits are mainly reinvested with a view to achieve this social objective, the method of organization or ownership system reflects their mission, using democratic or participatory principals, or focusing on social justice". In Europe, social enterprises are active in a wide spectrum of activities and many different fields, including social services, education, housing, the environment, culture, the arts, and tourism, through new activities such as renewable energies, fair trade, and transport (EC/OECD, 2013). Meanwhile, three main dimensions of a Social Enterprise that have been developed in the scientific literature are: i) *social dimension*: a primary and explicit social purpose; ii) *entrepreneurial dimension:* engagement in continuous economic activity; iii) *governance dimension*: the existence of governance mechanisms to ensure prioritization of the social purpose and which demonstrate sensitivity to different stakeholder interests (ESELA, 2016). *The first dimension*, "sociality," refers to the social and environmental focus of social entrepreneurship. Such a focus may be identified through the creation of public goods and positive externalities. Six fields or domains are natural settings for social entrepreneurship initiatives: 1. welfare and health services; 2. education and training; 3. economic development; 4. disaster relief and international; 5. social justice and political change, including race and gender empowerment; 6. environmental planning and management. *Second dimension,* "innovation*,"* has much in common with models found in commercial entrepreneurship (e.g., Schumpeter's idea). The *third dimension*, the market orientation that is manifest in a variety of ways in social entrepreneurship, most obviously for-profit social enterprise form (Nicholls and Cho, 2006). Based on how social enterprises integrate these building blocks, different typologies of social entrepreneurship have been proposed.

In Western Balkans countries where SEs could have positive impacts, yet the concept of SE and social investment is not widely known, often lacking a legal framework and support structures for SEs to develop and flourish (Phillips, De Amicis, and Lipparini, 2016). The sector

of social enterprise in all the Balkan countries and Albania is still at its beginnings. There is little or no quantitative or qualitative data on the size of the SE sector, on the scope of services, and on the impacts, it delivers (Partner Albania, 2016). However, no measured data exist about the number of social enterprises amongst Albanian SMEs. (Agolli, Haska and Hoxha, 2019). The number of social enterprises in the country is still quite small because of many reasons, often contradictory, such as: the economic level, the low level of responsibility towards society, the way understanding of the role/contribution of the individual in society, overestimating the role of the state. Law mentions the possibility of developing support schemes apart from some initiatives of private projects or organizations, there is no strong public support scheme for social enterprises. The focus of social enterprise development in Albania has been the creation of jobs paid to those people who are usually unable to hire or undertake an income-generating activity (Partners Albania, 2019). Nevertheless, attempts have been made to give a snapshot of the field in different contexts.

In Albania, the development of social enterprises has mainly had a nonprofit status. Existing social enterprises in Albania are incorporated as: i) nonprofit organizations (associations, centers, and foundations), ii) sole proprietors or limited liability companies, and iii) companies of reciprocal cooperation and cooperatives (Law No. 65/2016). Social enterprises in Albania are generally focused on providing basic social services dependent on the needs of the environment in which they operate. These include social services for people: children with disabilities, health and community services, kindergartens, and other social services targeted at vulnerable groups (Project idea, 2018). So, the Albanian context, social enterprises are seen as hybrids at the end of their non-profitable and profitable goals. The social value they create depends on the motive of entrepreneurs. Social entrepreneurship is positioned between these two forms. It lends out the best elements of both: from a traditional enterprise it lends "financial sustainability approach" (self-generating the necessary income through an economic/trade activity), and by developing organisms, lends itself to the primary goal of "maximizing social benefits" (by taking on contributing to solving one or more social problems). Both traditional entrepreneurship and development organisms have a huge impact and importance for society.

According to the interview with Marku Sh., (Yunus Managing Director for the Balkans) he explains: "The fact that in our country is trying to promote social entrepreneurship does not shadow their importance at all and do not try to replace them, rather they are complementary and fill a gap that exists between them" (Project idea, 2018). Social enterprises in Albania face with many additional difficulties compared to traditional enterprises such as:

-Need more support, including technical, financial, fiscal, promotional support, etc.

-Need more clarity on public sector policies and simplified procedures. Many of these initiatives are being undertaken individually by private entrepreneurs who wish to contribute to a particular social issue or sometimes from a non-profit organization within the scope of their mission /objectives.

-They are meeting more conditions to exercise their activity as a social enterprise for what their counterparts or other non-profit organizations or private businesses offer similar services (see law no.65/2016).

-They are meeting many problems in the current law itself, despite an apparent government commitment to being present in this sector. The law provides for unnecessary over-regulation. "Without get into the details of the law, I am convinced that any over-regulation of this new sector of the economy can, in many cases, be discouraging in the emergence of new social enterprises or hampering the exercise of the activity of those who choose to enroll" (Marku, 2019).

-Shortcomings of public and private models, to focus on the importance of social enterprise. The list of difficulties faced by social intercourse is by no means exhaustive, especially in the Albanian context.

In the 21st century, entrepreneurship has been extended the way they act, taking in consideration environmental or humanitarian goals, and even the concept of the political entrepreneur. Though a modern movement for social enterprise appears to be developing simultaneously around the world, there are important regional differences in what the term means and how it is supported and developed (Kerlin, Medford and Mass (editors), 2009). Differences in the regions appear to be explained, at least in part by the different regional socio-economic contexts. Most importantly, the social enterprise appears to draw on those dominant socio-economic factors that offer the most strength in the region (Kerlin, 2006). Meanwhile, OECD, (2013) argued that the national context plays an important role in shaping the characteristics of social enterprises in terms of sector specialization, funding, and employment.

Today, many activities in the field of local community development, and in the field of achieving higher goals of society, can be classified as social entrepreneurship (Mair and Martı, 2006). Social entrepreneurship is seen as differing from other forms of entrepreneurship in the relatively higher priority given to promoting social value and development versus capturing economic value. Interest in social entrepreneurship grows when the state and enterprises face challenges such as growing inequalities in society and social exclusion.

2.2. Challenges and Perspective of the Development of Social Enterprises

Social entrepreneurship is a modern concept. In developed countries, social enterprises develop faster than government-funded activities. In developing country, including Albania, social enterprises aim to improve areas that lack government support. A social enterprise is a business that operates differently, striving to achieve a social purpose.

Today more companies that act as social enterprises in Albania operate with non-profitable more than profitable status. Initiatives were undertaken over the years to promote the development of social enterprises. The first successful social business models have been set up in Albania; however, social entrepreneurship, social enterprise, and social business are still new and less widespread. Our research showed that still very few have embraced the principles of social enterprise and most of them are NGOs that depend on grant funding.

The first attempts to draft a law on social entrepreneurship have started in 2010. In 2016, the Law No.65/2016 "On Social Enterprises in the Republic of Albania" (Partner Albania 2019) is approved by the parliament without the consent of the social enterprises' sector in the country. The law was seen as an important step in institutionalizing efforts to support marginalized groups suffering from social exclusion and non-integration into the labor market. Furthermore, the areas where social enterprise operate are defined by the law and limited in scope to include: employment of marginalized people, social services, education, health protection, environment, promotion of tourism, culture, and heritage, promotion of the development of local communities, sports activities and youth employment. After the approval of the law and the bylaws, still, no nonprofit organization has obtained the status of social enterprise. Some of the debates raised on this new regulatory framework are argued in the paper "Analysis of the Legal Framework on Social Enterprises," such as: i) Lack of a clear definition of the concepts such as "social entrepreneurship" and "social enterprise"; ii) Granting the status of "social enterprise" only to nonprofit organizations by leaving out all other existing legal forms (private companies, cooperatives, credit-savings associations) which meet the principles of social entrepreneurship, is one of the major concerns of the legal framework; iii) Determination of a set of economic and social criteria accompanied by a range of penalties and ambiguities on which criteria apply to obtain the status and which to maintain it creates a burden for social enterprises if one takes into account their insufficient capacities; iv) Failure to consider support forms from the local government and public procurement is one of the main gaps in the legal framework; v) The use of profit entirely for the development and expansion of social enterprise's activity without determining the forms, moreover being subject to profit tax

(regardless that the profit is reinvested), is an essential constraint for social entrepreneurs (Partners Albania, 2019).

Social enterprises are businesses set up to fulfill a social and, or environmental mission (e.g., tackling social problems, improving communities, people's life chances, or the environment). They generate revenue from selling goods and services in the open market, but they reinvest their profits back into their social mission. Social enterprises can operate in most fields of business and industry. They typically fulfill the following requirements: i) Continuous economic activity; ii) An explicit aim to benefit the community; iii) A high degree of autonomy; iv) A citizen-led initiative (civil society); v) A significant level of economic risk; vi) Democratic decision-making, not based on capital; vii) Some level of paid work; viii) A participatory nature, involving those affected; ix) Limited profit distribution (WISE Report, 2009). This model tested in other Balkan and European countries has not resulted successful, when social enterprises have been considered exclusively as mechanisms to involve marginalized groups. (Partners Albania, 2019).

In terms of economic criteria, the law; envisages that social enterprises will constantly produce goods and, or provide services (Agolli, Haska, and Hoxha, 2019). Regarding social criteria, the law generates some confusion by not clarifying the separation between an non profi organization and its social enterprise's activities: the law presents the social enterprise as a completely new entity. However, as other instructions should have been issued are still pending, the law is not yet functional. Therefore, no organization has yet received its social enterprise status (Borzaga et al, 2019).

The concept of social enterprise is still unclear and far from being fully acknowledged in Albania. Generally, the social enterprise achieves its social mission through: Reinvesting profits; Employment of those who are striving comes to work or are left out of the labor market; Provide social, medical, and education services to vulnerable individuals or groups who do not have them at their disposal; Investments or changes the business to protect the environment; Contributing or developing cultural activities in the community. Social enterprise has a very important role in significant consequences in the labor market to polarization and exclusion of people in society (Agolli, A., Haska A., Hoxha J., 2019). So, the development of social enterprises will ensure the financial stability, contribute for the development of the Albanian economy, and social inclusion of vulnerable and marginalized groups. Although some of the leading Albanian promoting social entrepreneurship has been active in the regional network, still there is a lack of network support infrastructure for social enterprises in the country

(Partners Albania, 2017). Also, there is a lack of systematic inclusion of entrepreneurial learning and university-business cooperation within academia in Albania. Social enterprises are not subjects of formal education system.

Stakeholders to strengthen the capacity have to identify and to develop innovative policies that enable the development and empowerment of social enterprises in Albania. As it was agrued by Andjelic and Petricevic (2020) the biggest challenge is the awareness among key stakeholders and recognizing the value of social entrepreneurship. Other challenges include facilitating supportive mentorship and widening of the social business support network, creating diversity and new technology start-up enterprises, development of disadvantaged and/or distant areas, funding, the absence of business angels or investors. Most of the challenges correlate with the need for funding for the support structures, in order to continue to work on their and the capacities of other enterprises. Some of the challenges are also seen in the insufficient networking at the regional and EU levels.

The findings of the paper showed that the law does not contribute to a clear definition of social enterprise in Albania: i) according to the law; only nonprofit organizations are eligible for social enterprise status; ii) it is mandatory for social enterprises must employ marginalized groups and provide social services to disadvantaged groups. Besides, the sector still suffers from the lack of a comprehensive legal framework and fiscal incentives such as subsidies and tax exemption on profits. The approach of the Albanian legal framework is focused entirely on the Work Integration Social Enterprise Model. According to the law; only non-profit organizations providing goods and services in the sector of development of local communities, social services, promotion of health, education services, culture and cultural heritage, promotion of tourism, environmental protection, employment mediation, and youth employment. Law could be a very good incentive to develop the area of social intercourse. Still, since often such incentives do not agree with interest groups and have not become part of the wider public debate, it seems that it has brought and a widespread lack of implementation. The social enterprise profile in Albania is focused on four dimensions: the general identity, the nature of the social mission, ownership structure, governance, and financial structure. Some social enterprises operate in the country and are registered with different legal status. Challenges for the development of social enterprise remain: i) lack of legal framework; ii) investment in capacity and consultancy; iii) lack of understanding of values; iv) lack of training and capacity building; v) lack of funds to foster their development; vi) lack of knowledge of positive practices in the region and international level.

Despite progress being made to put social entrepreneurship on the political agenda, far, no policy is tailored specifically for the implementation of social enterprises (Agolli, Haska and Hoxha, 2019).

3. RESEARCH METHOD

Determining the study methodology is a key process in conducting research, given that the research methodology orients the path that the study will follow to answer the questions raised and determines the tools needed to conduct the research (Robson, 2002). The research approach is based on the descriptive method through the collection of primary data using a semi-structured interview and secondary data obtained from nacional and international reports studies in the field of study.

This paper aims to highlight the importance of the need to understanding the nature of social enterprises and their impact on society. The purpose of this research was the exploration of the main factors, situation, and development of social enterprises in society, with a focus on the model of social enterprise in Albania. It also identifies and addresses the challenges of social enterprises as agents of creating social value. In able to achieve the goals of the paper, the following research questions are used:

- What is the situation and the nature of social enterprises in the country?
- Which is the factors model of social enterprises?
- What are the challenges and perspectives of the development of social enterprises in society?

The information used for this study is based on different sources, considering the nature of it. Study instruments:

Analysis of documentation, study with the qualitative method, making a historical presentation of the nature and challenges of social enterprises in Albania, review of the literature as well as a policy analysis of government initiatives in the impact of social enterprises. Literature research was conducted with documents and analysis affecting issues that focus on social enterprises sector.

Meetings / Interviews / Focus Groups with key stakeholders - interest was interviewed based on semi-structured individual interviews / meetings as well as through focus group techniques based on the discussion guide. Taking in consideration the recent situation, the opinion was obtained through teleconferences and e-mail.

Discussion Guide - semi-structured interviews and discussion guidelines was prepared to receive information from stakeholders. The main use is to be used in order to guide the report through balanced and impartial interviews.

Comparison analysis, qualitative method, making this study the comparison and the ideal model of development of social enterprise in Albania.

Interview - qualitative interpretation of the findings, includes 15 semi-structured interviews with people who lead social enterprises, which have been identified by their positions in the field.

A qualitative methodology involving 15 interviews with people who run institutions that focus on social entrepreneurship, based on the law operational definition of social enterprises No.65/2016 "On Social Enterprises in Albania." The primary means of data collection involved semi-structured interviews, which were self-administered by the respondents using an online tool for the data collection. Also in some case free conversations (on line) are used. Free conversations are a method that can gather very interesting information, as the Albanian sociologists Zyhdi Dervishi points out, in such conversations the participants are more relaxed, speak longer and more openly (Dervishi, 2003). The online videos calls resulted to be very valuable for the study by offering more deep and extended information on the subject.

At the beginning of the study it was intended to conduct 50 interviews, but at its conclusion 15 interviews were successfully conducted. The interviews took place in the period of June - July 2020, while the enterprises had started working under strict safety protocols. The choice of social enterprises involved in the study was conditioned by the possibility of finding and setting contacts with them and on their willingness to be part of this study. For achiving the propose the database of Partners Albania is used, as it has a great experience working with social enterprises and non-for-profit organizations. By the data, it resulted that 10 of the persons interviewed were female and 5 of them male. Regarding to the type of the social enterprises 8 non-for-profit organizations, 7 forprofit entities are involved.

Also, secondary data were used by direct observation, analysis of various articles in the written media; as well as the use of relevant literature resources. Literature research was conducted such as: research of the legal framework; studies of organization reports operating locally, regionally, and internationally; theory and research studies of authors that have contributed to this field, as well as analyzing the needs of target groups and documents affecting issues that focus on social enterprises.

The study was conducted in three main phases:

A.   Qualitative documentary study and literature review, the information obtained from which serves to design questionnaires for the second phase, the qualitative one.

B.   Qualitative study through interviews with experts, persons or stakeholders who are engaged in this field.

C.   Data were analyzed using thematic analysis. More importance has been given to qualitative methods due to the nature of the problem in this study.

The limitation of this study was the lack of quantities data regarding the impact of social enterprise. Also, the findings cannot be generalized to the entire social entrepreneurship sector. *Second*, the study focuses only on Albania experiences, which limits its international applicability. *Third*, the analysis concerned the institutions, which were difficult to measure their manifestations, quality, and strength of impact. Besides all, the study contributes to the answer to the call for more quantitative and qualitative research and, at time argues the need for more in-depth studies suggesting a variety of challenges to practice, policy, and research in this area to Albania context. Based on these findings, conclusions, as well as recommendations for practice and research, are offered.

4. ANALYSIS

4.1. The Factors Model of Social Enterprises in Albania

Entrepreneurship is not a new concept. It can be traced back as far as the 18th century. Today, entrepreneurship is developing very quickly in all countries. Social enterprises are considered the best solution for addressing existing gaps in social service delivery. Entrepreneurship is often discussed under the title of the entrepreneurial factor, entrepreneurial initiative, and entrepreneurial behavior and is even referred to as the entrepreneurial "spirit." The entrepreneurial factor is understood as an entrepreneurial function that refers to the discovery and exploitation of opportunities or the creation of an enterprise. Entrepreneurial behavior is seen as behavior that manages to combine innovation, risk-taking, and pro activeness (Miller, 1983). In other words, it combines the classic theories of Schumpeter's innovative entrepreneur (Schumpeter, 1976). Entrepreneurial initiative covers the concepts of creation, risk-taking, renewal, or innovation inside or outside an existing organization. Meanwhile, the entrepreneurial spirit emphasizes exploration, search, and innovation, instead of the exploitation of business opportunities on managers.

The entrepreneurial function - can be conceptualized as the discovery of opportunities and the subsequent creating new economic activity, often via the creation of a new organization (Reynolds, 2005). Therefore, according to the research studies (Domingo and Salvador, 2005) three basic ideas explain the appearance of entrepreneurial activity: *first,* focuses on the individual; in other words, entrepreneurial action is conceived as a human attribute, such as the willingness to face uncertainty (Kihlstrom, and Laffont,1979). Accepting risks, the need for achievement McClelland, (1961), which differentiate entrepreneurs from the rest of society. *The second* fundamental idea emphasizes economic, environmental factors that motivate and enable entrepreneurial activity, such as the dimension of markets, the dynamic of technological changes (Tushman, and Anderson, 1986) and the structure of the market –normative and demographic (Acs and Audretsch, 1990) or merely the industrial dynamic. *The third* factor is linked to the functioning of institutions, culture, and societal values. These approaches are not exclusive (Shane, Scott and Andrew, 2000) given that entrepreneurial activity is also a human activity and does not spontaneously occur solely due to the economic environment or technological, normative, or demographic changes.

Meanwhile, Kolvereid and Obloj (1995), through a study involved 11 different transition countries, identified the following as the most important environmental factors affecting social enterprise development: i) Government policies; ii) Social-economic conditions; iii) Financial and non-financial assistance; iv) Environment stability; v) Workforce readiness. Considering these factors, we will try to argue how environmental factors and the profile of the Albanian entrepreneur affect the development of social enterprises in Albania as a country in transition.

Government policies: Social enterprises are recognized in two of the Albanian government's policy documents: The National Strategy for Employment and Skills 2014-2020 and the Investment and Business Strategy for 2020. Despite progress made to put social entrepreneurship on the political agenda, far, no policy is tailored specifically for the implementation of social enterprises (EU, 2019). Government funding is still undeveloped, as stated by support structures and stakeholders. Foreign aid for development projects is usually very structured and implemented through grants while private funds often lack structure. Moreover, there are some incentive schemes for cooperatives – special financial schemes for agriculture and tourism (Andjelic and Petricevic, 2020). According to the interviews "the Albanian Government's investment in social protection must increase, if the country is to reach European standards. Also, exchanging positive experiences with colleagues working outside Albania is very enriching for us because it gives us new ideas and helps us create new networks to be able to replicate initiatives in the country".

Social-economic conditions: Albanian social enterprises face a daily survival challenge in an informal market. At these issues most of the findings of the interviews showed that social enterprises stressed a lack of public recognition and the absence of a 'solidarity culture.' Social enterprises deal with an unfair competition associated with administrative burdens and bureaucracy, which reduces their chances of creating consistency and financial sustainability. As Ribotta, (UN Women Officer in Albania) said: "The passion of women and men who put a social mission at the heart of their business creates added value that benefits the most vulnerable or marginalized. Social entrepreneurs are citizens who do not stop in front of inequalities but instead decide to act, find a need and meet it – supporting sustainable change."

Environmental factor stability: The Albanian social enterprise debate has not yet reached the public. Neither have academic institutions begun researching the topic. The concept is understood and used only by social enterprise practitioners, and some institutional actors. Some social enterprises have attempted to cooperate and network with one another, but these attempts have not yet materialized in concrete actions. The findings showed that there is a lack of awareness campaigns, practical guidelines, procedures that can deal with the status of social enterprises, etc.

According to a study by Partner Albania (2018) the fiscal regime is very restraining. The components are not in line with EU Directives for social enterprises and European practices. The law; does not provide space for social enterprises to use different forms of investments, or remuneration, or increase wages for their employees This restrictive approach puts into question mark the sustainability of social enterprises in terms of human capacities and does not enable them to absorb talents and experts. Overall, still, the legal and regulatory framework presents many challenges and issues to be addressed to create a supportive environment for civil society organizations. The legal framework on social enterprises needs to be amended, addressing the actual legal barriers to social enterprises.

Financial and non-financial assistance: The European Commission (EC, 2017) is biggest and most important funder of Albania's non-profit sector. Overall, Albanian social enterprises absorb fewer funds, than any other country in its region, due to a lack of information and staff capacities to chase funding opportunities. Most of the social enterprises consider tax treatment and the current legal framework as challenges, which are affecting negatively the development of the sector. The absence of fiscal incentives even for social enterprises employing marginalized groups, accompanied with the vagueness and the restrictions posed by the legal framework in place put a big question mark on the future growth of social enterprises in the country (Haska and Hoxha, 2020). Working to support these SEs through financial and non-

financial support, investment readiness, and capacity building is key to advancing the SE agenda towards its potential positive social, economic, and environmental impacts (Phillips, De Amicis, Lipparini, 2016). According to Williams., B (UN Resident Coordinator in Albania, 2019) it is necessary to underline the importance of social enterprises and emphasize the need to allocate public resources to support social enterprises, not only at the national level but also at the municipal level.

The Agency for Support of Civil Society (ASCS) is the only state-funded body that supports non profit organisations through grants that draw on the state budget (Partners Albania, 2018). Despite the legal forms, none of the social enterprises included in the study have diversified sources of income. None of them receives income from state subsidies or other investment schemes. Most of them primarily rely on grants from foreign donors, as any financial support from the Albanian business sector is sporadic and restricted. Partners Albania is a research-based non profit organisations aimed at developing social entrepreneurship by better understanding social enterprise features, models, and developmental challenges. It assists social enterprises with capacity building and financial support.

In general, most social enterprises are either in an early growth stage of their business lifecycle and do not have enough financial or human resources to apply for funding. Albania is amongst few countries without any crowdfunding platform, which is otherwise seen as a good potential opportunity for social enterprise fundraising (Borzaga et al, 2019). From the analysis of the study it is clearly shown that the most important environmental factors affecting social enterprise development are: i) Social-economic conditions; ii) Financial andnon-financial assistance; iii) Environment stability; iv) Workforce readiness (human resource capacities); v) Legal framework Overall, Albanian social enterprises are taking financial risks.

5. DISCUSSION

Regarding to the first question of research, *on the situation and the nature of social enterprises in Albania*, is argued that they are in the early stages of development. The majority of them are in the start-up and validation phase (Partner Albania, 2016). Some of the reasons highlighted by the observation of the analysis of the study and the most distinctive features are: i) partial institutional support; ii) incomplete legal framework; iii) lack of a proper understanding by key institutional stakeholders on what a social enterprise is; iv) low public funding; v) limited tax relief; vi) a lack of an agreed and properly defined plan to develop the social economy among the key stakeholders.

Entrepreneurial activity is low, and employment and social structure are often based on self-employment, family, and clan connections that may not represent the best solutions for the development of social entrepreneurship, which is rooted in high-level entrepreneurial spirit, civic culture, and solidarity beyond the family lines. In such a context, the existing policies on social entrepreneurship, create more confusion for the emerging social enterprise sector.

The finding showed that most social enterprises operate in the provision of services, which guarantee the inclusion of marginalized persons and produce a positive impact on their quality of life with a potential risk of social exclusion, but the nature of their action is short-sighted and closely linked to the economic resource, which in most cases is not created by the economic activity of the organization, but by donations or grants. The finding showed that the dependency on grants or donations raises issues about the financial sustainability of socialenterprises in the country, consequently many social enterprise suffer to transition from grant dependency to financially sustainable commercial activities, not being safe and stable. The findings of the study showed that long-term support to ensure their full sustainability would be needed, especially for enterprises that help marginalized groups.

Regarding to the second question research *on factors model of social enterprises*, it seemed that the form of organizing social enterprises could not be reduced to one model because some companies act in the form of social cooperatives, some as private companies. In contrast, others are organized in the form of non-governmental organizations (NGO, associations, volunteer organizations, charities, foundations). Therefore, the study showed that the environmental factors and the profile of the Albanian entrepreneur affect the development of social enterprises in Albania.

Albania lacks quantitative and qualitative data regarding its social enterprises, especially in terms of organization and employee numbers, contribution to GDP, the scope of their services, and impacts generated (Borzaga, 2019). In practice, the existing social enterprises do not receive public recognition, do not enjoy any benefits, and are struggling with the administrative burden and inconsistent implementation of the regulation. The existing law brings a few major concerns to the development of social entrepreneurship. Finding the right legal form is as important as the other stages in social development as it will directly affect the social value created. When choosing a legal form, must considered: the type of activity, social-economic conditions, and financial form and governance priorities.

Governments can work, for instance foster public-private community partnerships between civil society, government and financial institutions. The legal form of establishment

in Albania conditions the financing area of social enterprises. So, providing sustainable finance is a challenge to strengthen the social enterprises in Albania. This decision will influence on how they will record revenue: coming from regular or coming from other activities.

The development of appropriate legal, regulatory and fiscal frameworks must emerge from the national and local environments in which social enterprises operate. High-quality institutions are those that cause socially desirable behaviors of social and economic organizations. So it is necessary to build enabling legal, regulatory, and fiscal frameworks, based on the models which best fit to Albanian nature of society. Acording to UN (2020), social entrepreneurs need a favorable and enabling business ecosystem to thrive and to bring their impact to scale. These entrepreneurial ecosystems require the collaboration of different stakeholders as well as specific interventions and programmes supporting innovations to scale particularly in the rapidly growing area of social entrepreneurship.

Regarding to the third question research, *on the challenges and perspective of the development of social enterprises*, the findings showed social entrepreneurship is a relatively new form of economy, and the development of such a perspective model invokes the economic system of the state as a whole, and the factors of economic development change. Nevertheless, the social enterprise sector is still quite young, and the definitions are still relatively unspecified. The all stakeholders must undertake all necessary activities to achieve a partnership with such enterprises, better understand them, the more social value created.

Some more incentives to offer business development services and support structures are necessary to be taken. This step may increase the understanding of social enterprise within the traditional sector. Various initiatives exist to encourage the development of social enterprise through seed funding support for startups; exchanges and cooperation among organizations and entrepreneurs, investors and private sector at national and international level; facilitation of dialogue with state actors to encourage incentives for development of SEs; networking and promotion of best practices through media programs and articles, especially focused in education and public awareness, research, collaboration platforms to support them, but more networking in nacional and internacional level is needed, particularly focused on the long-term development of these efforts. It is required that the education system be more organized and involved in these issues, including social eterprises in their curricula and programs.

Development of social enterprise is not related only to legislation, but to the lack of knowledge of how they function, are realized and organized. Research on social entrepreneurship creating new jobs can be viewed from a social and scientific point of view.

The scientific theory, therefore, suggests that social entrepreneurs are and should be the agents of change. Social enterprises are nowadays largely diversified in terms of types of general interest services delivered and target groups served.

Some of the challenges comes out of the the stakeholder involved in the study for the development of social enterprise are as follow: i) lack of legal framework; ii) investment in capacity and consultancy; iii) lack of understanding of social values; iv) lack of training and capacity building; v) lack of funds to foster their development; vi) lack of knowledge of positive practices in the region and international level. Meanwhile, based on a recent study by Andjelic and Petricevic (2020), it was found that some of the key obstacles and limitations for youth starting a business include: i) The unstable political and economic situation in Albania; ii) Obstacles and limitations created by the Law on SE; iii) Complex administrative procedures; iv) Lack of education on entrepreneurship; v) Inadequate access to professional support and mentorship; vi) Lack of business contacts among youth; vii) Lack of start-up capital; viii) Lack of support in their immediate surroundings; ix) Inadequate access to professional support and mentorship; x) Limited duration of programs run by the governmental and non-governmental organizations; xi) Underdeveloped entrepreneurial culture and mindset, etc.

More quantitative and qualitative research is required to carry out in-depth studies suggesting a range of challenges for practice, policy, and research in this area in the context of Albania. The support of further research in the field of social entrepreneurship by public/private research institutes and governments may increase the role of social enterprise in society and putting it in focus. These contribute to the identifying of specific needs of both social enterprises and the communities in which they are based.

When we want to understand the impact of social enterprises, it is necessary to consider the development of them focused on the solution of social problems in their contexts, because it may condition the relevance that other factors have to the society. Analysis of framing social problems in social entrepreneurship reveals that social actors are concerned with creating an ecosystem to support social entrepreneurs. The scientific theory, therefore, suggests that social entrepreneurs are and should be the agents of change. Taking into account the importance of Social entrepreneurship, they impact not only in the economic but also in the social field as the challenges faced in their activity, interchange an approach to recognize and evaluate their development in our society.

The study results shown that social enterprises have not been understand much in society. However, to develop further, social entrepreneur's need support and funding, as well as

strengthening their expertise to increase the impact on society. In developing countries, such as Albania, entrepreneurs, as well as the community itself, think that solving environmental, health, educational, and social problems are the responsibility of the state. Thus, the exchange of experiences with other countries with more developed practices in this field will be a valuable contribution to the field of social enterprise: type enterprises, leading to a new stage of development of the type of social enterprises, such as an important element in responding to social issues. The study showed that the success of these policies could be due not only to their effectiveness, but also to the social enterprise nature also plays a fundamental role in the Albanian context. The most relevant findings of this paper show the need for more in-depth studies on develop of social enterprises in Albania society. These is a very important implication, especially for policymakers. This means that the design and implementation of policies to support social entrepreneurs must consider the effect depending on the development of social entrepreneurs focused on the solution of social problems in the country. Moreover, the study results are important for public decision-makers to design good quality solutions supporting the creation and development of social enterprises.

Finally, this study was subject to certain limitations. Based on this research, different recommendations for further analyses to gain a better understanding of the phenomenon can be indicated. Further studies in Albania and other countries with similar backgrounds need to be conducted to focus on the performance of social enterprises as on stability, sustainability, and social impact, in the context of different types of factors that characterize social entrepreneurs. As North and Douglas (2017) and some other institutional scholars (Helmke and Levitsky, 2004) argued an important direction of research on social entrepreneurship development might include coherence between formal (legal regulations) and informal institutions (social norms and values, mental models). In this regard, the use of a mix method to more quantities and qualitative data has many advantages and makes the study more comparable. An analysis of the quality of institutions that provide the conditions for the development of social activities may also be of interest. Also, further research may concern examining of the nature of social entrepreneurs (the values they adhere to) differentiates the results obtained by social enterprises.

As we pointed out in our paper, there is no consensus about what is understood by social entrepreneurship, so the impact in some countries may be different. Analyzing the importance of institutional factors provides new insights and knowledge about the studied phenomenon. It indicates the need to include in further research studies the institutional context.

6. CONCLUSION

The development of social enterprises nowadays is effective and innovative model to the challenges facing societies today (IDEA, 2019). Acting in the public interest, social enterprises create employment opportunities, provide innovative products and services, and promote social inclusion and economic development. Promoting positive attitudes towards social entrepreneurship can be a preliminary step towards social enterprise creation. This can be a key element in broader strategies for promoting social entrepreneurship amongst young people. Based on the findings of our research, we are presenting some of the following conclusions:

The review of literature research and reports showed that over the years the emphasis has been on issues of shape and size of social enterprises systems. Moreover, we notice significant differences in views and controversies about quantitative and structural developments. Social enterprises find the current legal definition of society extremely narrow and restrictive, thus limiting their creativity to use business to solve social problems and challenges. It seems that the development of social enterprises in the country does not come from below, as a need of society or the entrepreneurial spirit of the people but is driven by the existence of legislation, which creates some favorable spaces and financial incentives for these type of structures.

From an international prespective, the EU is developing specific policies, instruments, and programs for technical and financial support to develop social enterprises. European experience, and beyond, could be an incentive for the development of social enterprises. Social enterprises and their activities are very little known to government institutions, to other social actors, and the community in general. Consequently, there is a lack of the level of existing support services. According to European Commission, (2020) in Europe, social enterprises typically operate in the fields of: Work integration, such as: a)Training and integration of people with disabilities and unemployed people; personal social services; health, well-being and medical care, professional training, education, health services, childcare services, services for elderly people, or aid for disadvantaged people; b) Local development of disadvantaged areas; c) Remote rural areas, neighborhood development/rehabilitation schemes in urban areas, development aid and development cooperation with third countries; d) Other - including recycling, environmental protection, sports, arts, culture or historical preservation, science, research and innovation, consumer protection and amateur sports

From a national prespective, Albanian context is very little known by the central and local government institutions, other social actors, and the community in general. There is no standardized or widespread impact assessment for social enterprises conducted by local and

central goverment in the country. In some cases, impact assessment is completed individually, but they are similarly hindered by their own institutional resource constraints. Despite the fact that the Law foresees the register for SEs, such register is not functional yet. No data about the number of social enterprises and other relevant, measurable data exists. Thus, setting up a database for social entrepreneurship in the country is necessary, in order to develop more data on their progress, challenges, and trends. As a result, the concept of social enterprise today is still ambiguous, and debatable in Albania. Social initiatives are predominantly young, and are mainly represented in the pre-start-up or infancy stage of the entrepreneurial process. So, exchanges experiences of good practices on its implementation in practice.

From a comparative point of view, the main area in a socially implicating enterprise is well-being. In the local context an approach to public support is necessary to understand and develop it. Social enterprises in Albania during the last decades are required to address new social challenges, such as: managing waste, climate change, migration and those of social cohesion through cultures and arts.The research showed that at the national level most of the operating social enterprises are registered as NGOs, which develop social enterprise programs, but they are dependent on grants or donations for their income, consequently, they looks more like a charity then as social enterprise. Most the social enterprises act as non-profit organizations, and they get supported for programs and projects from foreign donors (Agolli, Haska and Hoxha, 2019). Among the main areas of social enterprise, activities are employment, education, economic development, childcare, and social care. Most of social enterprises serve the youth, disadvantaged girls, women, children, and persons with special needs. Development of social entrepreneurship directly influences the creation of jobs, the development of local self-government, strengthening and spreading awareness of environmental protection, social innovation, health care, education, and other segments that affect the quality of life. The development of social entrepreneurship has a directly impact on the society, as it aims to respond directly to social challenges. Social enterprises contribute to helping keep those people at risk of social exclusion. They address the social needs of groups that government agencies find hard to reach. So considering the impact on society social entrepreneurship must be considered as a vehicle and agent of change. So it requires to be supportive and understanding. Meanwhile, at the international level studies have shown that social enterprises do not usually focus on disadvantaged communities, or employ people from disadvantaged groups, although they may choose to do so.

When it comes to the *social point of view,* launching of social entrepreneurship directly influences the creation of jobs, the development of local self-government, the creation, strengthening, and spreading of awareness of environmental protection, social innovation, health care, education, and other segments that affect the quality of life. Social enterprises have been subjected to an extensive debate with stakeholders and interest groups. It has great importance because of the lack of agreement and confusion about the term itself, focus, and the activities of social enterprises in the country. It is necessary and very important that in this public debate, good practice has been known, to advance further in this direction, on various issues, including social enterprises. Social entrepreneurship is a relatively new form of business. Introduction of such a system invokes the economic system of the state, and the factors of economic development change. So, promoting social enterprise activity, and increasing knowledge of the public, in general, is very important to the role and social enterprise activity, in order to recognize them, increased confidence, and interact with them. Social entrepreneurship addresses the social needs of groups that government agencies find hard to reach. They play an important role in addressing social, economic, and environmental challenges while fostering inclusive growth, shared prosperity, and social inclusion. Moreover, social entrepreneurship contributes to job creation, especially at the local level, and to democratic participation and improved welfare delivery services.

The succession of entrepreneurs has to be evaluated by numerous factors, such as business growth, investment pattern, government policies, social-economic conditions, financial, and non-financial assistance, environmental stability and workforce readiness. To all of these, the major factor that determines the success of entrepreneurs is the policy framework, which plays a major role on Albania entrepreneur's success. Research on social entrepreneurship, creating new jobs, has to be viewed from a social and scientific point of view. Support further research in the field of social entrepreneurship increases more the ability of society to answer faster the social problems in society. These would help in the pursuit of a strong relationship between researchers, policymakers, and practitioners, which may have a very positive impact on social enterprise and its development.

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DOES BANK PROFITABILITY PROMOTE ECONOMIC GROWTH AND VICE VERSA? PANEL CAUSALITY EVIDENCE FROM THE SELECTED COUNTRIES

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Abstract

Banks, which have an important role in the country economies, increase the amount of savings and capital accumulation by bringing together those who supply and demand funds in the economy, and this increase contributes positively to economic growth and employment through the resource transfer function of banks. The ability of banks to function properly depends largely on their profitability levels, and banks with desired profitability levels are expected to have a positive effect on economic growth. Therefore, it is important to conduct more empirical studies in terms of determining the profitability of banks and the relationship between this profitability level and economic growth, which are of vital importance in national economies. At this point, the purpose of this study is to determine the causal relationship between bank profitability and economic growth across eight selected countries, including Argentina, Brazil, Chile, Croatia, India, Poland, Russia, and Turkey. Panel causality test is applied to examine the so-called causality relationship by considering the period of 2009-2018. The empirical findings have shown that bank profitability in the selected developing countries (Chile, Poland, Turkey and Russia) promotes the economic growth. To the best of our knowledge, this study provides an in-depth insight into by considering several countries and using panel causality test to study the relationship between bank profitability and economic growth.

Keywords: *Bank Profitability, Economic Growth, Panel Causality.*

1. INTRODUCTION

Commercial banks try to maximize their profits and expand their market shares. As such, commercial banks, like other businesses, have similar expectations regarding the health of the economy. When there is a consensus among businessmen that the future will be promising, businesses will expand their operations. Otherwise, entrepreneurs will follow a path that limits their investment expansion. While commercial banks expand their loans during the expansion period of the economy, they will contract in the recession periods of the economy. At this point, industrialists criticize banks for their low risk and want them to take risks at least as much as they do. During the recovery period of the economy, commercial banks contribute to the money stock and thus help to expand the demand for goods and services. When the economy reaches full employment, credit and deposit expansion no longer increases employment and real income, but increases the general level of prices. On the other hand, if banks cut their loans during periods when the economy starts to decline, there may be significant declines in total demand and production due to the decline in real prices. Therefore, the contribution of the commercial banking system to economic growth and stability depends largely on the resources and use of bank funds. In order to facilitate growth, banks' funding sources need to grow. In order to help maintain economic stability, bank transactions should not exacerbate economic fluctuations. However, when banks act with a profit motive, they may cause the destabilization of the economy. If banks fail to access expanding funding sources, their profits will remain low (Parasiz, 1997: 148-149).

The banking sector enables the collection of funds and savings needed for economic growth and thus the emergence of new initiatives in most sectors. These increased savings have a positive effect on capital accumulation, ensuring economic growth and job creation through the credit mechanism. But on the other hand, the relationship between the banking sector and economic growth is not always in the same direction. The recent financial crises have negatively affected this relationship, and the development of technology and global economic relations has increased the speed at which these crises spread. For example, as a result of the 2008 global financial crisis, almost all countries increased their control over the banking sector and took new measures to address this situation. Additionally, the relationship between the banking sector and growth is extremely important for all countries, and the direction or degree of this relationship may vary. In some cases, it is stated that the development of the banking sector causes growth; in others, the growth causes the development of the banking sector. In addition, it is possible to express that growth and the banking sector have mutual interaction, or that

economic growth and bank profitability do not affect each other, or even that the banking sector limits growth (Turgut and Ertay, 2016: 120). In order to determine which of these relationships exist, this study attempts to analyze the relationship between the economic growth and bank profitability, by using panel Granger Causality test.

The rest of this study is organized as follows: Section 2 overview the related literature. Section 3 and 4 presents the empirical model and data. The empirical findings and concluding remarks are reported in sections 5 and 6 respectively.

2. LITERATURE REVIEW

Much empirical literature shows that economic growth is the major factor that determines bank profitability in different ways. At this point, it is possible to say that the related literature divides whether economic growth affects bank profitability into two categories: in a positive or negative way:

Tan and Floros (2012) attempted to link bank profitability and economic growth from 2003 to 2009 by using a sample of 101 Chinese banks. The application of generalized method of moments provided evidence in support of the fact that there is a negative relationship between GDP growth and bank profitability, measured as ROA and NIM.

Obamuyi (2013) did a research on the factors affecting profitability of 20 Nigerian banks over the period of 2006-2012. Return on assets (ROA) was employed as the bank profitability. As for the independent variables; bank capital, bank size and expenses management were considered as bank-specific variables, while interest rate and real GDP growth were used as macroeconomic determinants. According to panel data analysis results; it was seen that both bank-specific variables and macroeconomic determinants had a positive effect on bank profitability.

Trujillo-Ponce (2013) sought to find out the determinants of bank profitability, measured as return on assets (ROA) and return on equity (ROE), for the period of 1999-2009. In the study several banks-specific variables as to the asset structure, financial structure, asset quality, capitalization, efficiency, size and revenue diversification as well as the industry and macroeconomic variables such as industry concentration, economic growth, inflation and interest rates were considered as the explanatory variables. Using generalized method of moments (GMM) estimator method, the study concluded that there was a positive relationship between economic growth and bank profitability.

Javid (2016) examined the internal (bank-specific) and external (macroeconomic) determinants of bank profitability over the period of 2006-2013. Using a sample of 34 commercial banks operating in Pakistan, ROA was used as the bank profitability indicator, while bank size, deposit, liquidity, non-interest income, annual inflation rate, GDP growth rate and real interest rate were considered as the independent variables. Panel data regression analysis results showed that bank size and non-interest income had a positive impact on bank profitability, while deposit had negative impact. Additionally, it was observed that macroeconomic indicators did not have any effect on bank profitability.

Ozturk's (2016) study also found that there was a positive relationship between GDP growth rate and bank return on assets (ROA) and return on capital (ROC) for the period of 1970-2014. Using a sample of Turkish depository banks, Prais-Winsten and Newey-West regression models were employed and the empirical findings also showed that inflation had no significant effect on ROA and ROC, while deposit interest rates and inflation positively affected net interest margin.

Alev (2018) also examined the long-term relationship between bank profitability and economic growth of Turkish banks by applying Classical Engle Granger Cointegration and Granger Causality test over the period of 1992-2017. In the study, growth rate in GDP was considered as the growth variable, while ROA and ROE were employed as the bank profitability indicators. The empirical results showed that bank profitability, both ROA and ROE positively affected economic growth.

Klein and Weill (2018) conducted a research entitled 'Bank Profitability and Economic Growth' and analyzed a total of 132 countries for the period of 1999-2013. ROA was measured as bank profitability indicator and the real GDP per capita growth was employed for economic growth. The empirical findings supported the fact that bank profitability had a positive impact on economic growth, but that the so-called impact was short-lived.

A study by *Isik and Kambay (2019)*, on the bank-specific and macro-economic determinants of bank profitability indicated that operating efficiency, exchange rate, bank size, assets management, inflation rate, and interest rate were the main determinants of bank profitability, measured as ROA and ROE.

The panel data analysis method was used by *Moussa and Hdidar (2019)* to examine the relationship between bank profitability and economic growth for the sample of 18 Tunisian banks from 2000 to 2017. ROA and ROE were considered as bank profitability indicators, while

several bank-specific variables, growth rate of GDP and inflation rate were used as the independent variables. As a result of the study, they concluded that there was a positive relationship between economic growth and bank profitability.

3. RESEARCH METHOD

In this study, economic growth and bank profitability were evaluated within the scope of panel causality analysis for the annual data of 8 selected countries (Argentina, Brazil, Chile, Croatia, India, Poland, Russia, and Turkey) for the period of 2009-2018. When the relevant literature is examined, it is seen that Gross Domestic Product (GDP) is included in the analysis in different ways such as the GDP growth rate, per capita GDP, the real GDP per capita growth, growth in real GDP and lnGDP (*Demirguc-Kunt and Huizinga, 1999; Tan and Floros, 2012; Obamuyi, 2013; Trujillo-Ponce, 2013; Javid, 2016; Ucler and Uysal, 2017; Alev, 2018; Klein and Weill, 2018; Moussa and Hdidar, 2019*). In this study, the GDP per capita is used as the economic growth variable and return on assets (ROA) is used as the bank profitability indicator. The variables used in the study have been obtained from the World Bank and Bloomberg data terminal. In addition, Gauss 10 and Stata 15 programs have been used to obtain the estimation results in the study.

Table 1: Summary Statistics

Country	Variable	Obs	Mean	Std. Dev.	Min	Max
Chile	GDP	10	1.898	2.468	-2.601	5.057
	ROA	10	1.446	0.16	1.16	1.718
Poland	GDP	10	3.536	1.349	1.453	5.349
	ROA	10	0.966	0.175	0.787	1.251
Turkey	GDP	10	3.657	4.221	-5.91	9.423
	ROA	10	2.192	0.577	1.476	3.272
Argentina	GDP	10	-.0.056	4.741	-6.854	9.3
	ROA	10	4.775	0.901	3.593	6.105
Brazil	GDP	10	0.385	3.215	-4.351	6.524
	ROA	10	1.52	0.231	1.119	1.917
Croatia	GDP	10	0.508	3.597	-7.262	4.384
	ROA	10	0.831	0.797	-1.159	1.589
India	GDP	10	5.759	1.153	3.893	7.082
	ROA	10	0.637	0.341	-0.011	1.003
Russia	GDP	10	0.726	3.742	-7.827	4.453
	ROA	10	1.422	0.743	0.227	2.469

Summary statistics of the countries covered in the study are included in Table 1. In the analysis, only the data available countries have been considered at the point of creating a

balanced panel data set. Table 1 shows that India (5.75), Turkey (3.65) and Poland (3.53) achieve the highest average growth figures respectively among the selected countries after the global financial crisis. Also it is seen that countries with the highest average for the ROA are Argentina, Turkey and Brazil, respectively. The summary statistics have also shown that the lowest average growth rate in the period under consideration is in Argentina. At this point, it is possible to say that debt crises in Argentina in this period may affect the economic performance. Also, it is seen that India is the country with the lowest average in terms of bank profitability. However, considering the economic growth level, it can be stated that the effect of bank profitability on economic growth is limited.

The econometric models estimated in this study are as follows:

$$ROA_{it} = \beta_0 + \beta_1 GDP_{it} + \mu_{it} \qquad (1)$$

Equation (1) shows the effect of economic growth on bank profitability. While β_0 expresses the constant term, β_1 indicates the slope coefficient of the GDP and μ is the error term for the model (1). Likewise, the effect of bank profitability on economic growth is modeled as follows:

$$GDP_{it} = \alpha_0 + \alpha_1 ROA_{it} + \varepsilon_{it} \qquad (2)$$

While α_0 in Model 2 refers to the constant term, α_1 refers to the slope coefficient of ROA. ε_{it} is the error term of model 2. In both models, i (i = 1, 2... N) represents the cross-sectional data size of the variables, and t (t = 1, 2,…, T) represents the time series dimension. Also, i = 1, 2… 8 and t = 2009, 2010… 2018

Two important problems should be considered when using panel data models. The first is the cross-sectional dependence among the countries, which is caused by economic and financial integration. Estimation results that do not take into account the cross-sectional dependence may be biased (Pesaran, 2004). Dependency among the so-called units also appears to be an important factor in determining which of the panel unit root and panel cointegration tests will be preferred in the estimation process. For this purpose, Breusch-Pagan (1980) and Pesaran (2004) tests were used to determine cross-sectional dependence among the analyzed countries. The second important problem is the slope homogeneity. Similarly, slope homogeneity or heterogeneity play an important role in the selection of the methods used in panel data analysis. At this point, the slope homogeneity was tested by the Delta test developed by Pesaran and Yamagata (2008).

In this study, Cross-sectional augmented Dickey Fuller (CADF) test, developed by Pesaran (2007), was used as the second generation panel unit root test due to the detection of cross-sectional dependence and heterogeneity. Firstly, CADF test statistics values are calculated for all countries and then, CIPS (Cross-Sectionally Augmented IPS) statistics for general panel data are obtained by taking the arithmetic mean of these values. In order to determine the consistency of the series and not to cause false unit root, Hadri-Kurozomi (2012) unit root test was used. These two unit root tests were preferred because they take into account the cross-sectional dependence and heterogeneity in the series. At the same time, these two unit root tests also give fit results in the macro panel (T>N).

Finally, the causal relationship between the two variables (ROA and GDP) was investigated. First of all, Dumitrescu-Hurlin (2012) causality test was applied, which developed the traditional Granger (1969) model used in time series and adopted it to panel data models. In order for this test to be applied, the series must be stationary at the same level. At the same time, in accordance with our study, this test can be used both in the presence of cross-sectional dependence and in the case of T> N and in small T and N sample properties according to Monte Carlo simulations. Similar to the Dumitrescu-Hurlin (2012) causality test, Emirmahmutoglu-Kose (2011) causality test, which takes into account the cross-sectional dependence and can be used in small sample properties. Unlike the Dumitrescu-Hurlin (2012) causality test, this test can be used without the need for pre-tests to determine the unit root and cointegration properties of the series. Considering the fractional unit root structure in the series, the results of both causality tests will be presented comparatively. At the same time, test results were obtained for both units and general panel data with these causality tests.

4. ANALYSIS

In this part of the study, firstly the results of cross sectional dependence and slope homogeneity are presented. As explained in section 3, Breusch-Pagan (1980) and Pesaran (2004) test results for cross-sectional dependence between units and Delta test results developed by Pesaran and Yamagata (2008) for slope homogeneity are presented in Table 2:

Table 2: Cross Section Dependence and Slope Homogeneity Tests

Variables	ROA	GDP
LM (Breusch-Pagan 1980)	51.79 (0.004)[***]	67.79 (0.000)[***]
CD_{LM} (Pesaran 2004)	3.180 (0.001)[***]	5.318 (0.000)[***]
CD (Pesaran 2004)	2.880 (0.004)[***]	4.550 (0.000)[***]

Slope Homogenity Tests		
Δ	2.147 (0.016)**	1.932 (0.027)**
Δadj	2.566 (0.005)***	2.309 (0.010)**

Notes: ***, ** and * denote 1%, 5% and 10% significance level, respectively. Numbers in parentheses are p-value.

Secondly, taking into account the results of the cross-sectional dependence and slope homogeneity test, it has been examined whether the variables used in the model are stationary or not. Considering the above findings, the second generation unit root tests taking into account both cross-sectional dependence and country specific heterogeneity in the data, CIPS (Cross-Sectionally Augmented IPS) test of Pesaran (2007) and Hadri-Kurozumi (2012) unit root tests have been applied for the panel data set. Test results are presented in Table 3:

Table 3: Panel CIPS and Hadri-Kurozumi Unit Root Tests

Variables		ROA	GDP
CIPS (2007) Unit Root Test*		-3.293	-3.744
Hadri-Kurozumi (2012) Unit Root Test	ZA ^{SPC}	-1.903 (0.971)	0.167 (0.433)
	ZA ^{LA}	0.531 (0.297)	-1.369 (0.914)

Notes: *1%, 5%, and 10% critical values for the whole panel are − -2.97, −2.52, −2.31, respectively.

Critical values were obtained from Pesaran (2007). Numbers in parentheses are p-value. All the variables were tested with intercept and trend. The optimum lag lengths for the variables were determined with the Schwarz information criterion.

Finally, the causal relationship among the variables determined in accordance with the data used in the study has been analyzed by Dumitrescu-Hurlin (2012) and Emirmahmutoglu and Kose (2011) panel causality tests. The results are shown at Table 4:

Table 4: Emirmahmutoglu-Kose (2011) and Dumitrescu-Hurlin (2012) Panel Granger Causality

Emirmahmutoglu and Kose (2011) Panel Causality Test		
	Wald Statistics	
Country	ROA → GDP	GDP→ ROA
Chile	4.077 (0.043)**	0.917 (0.338)
Poland	4.275 (0.039)**	0.004 (0.948)
Turkey	5.720 (0.017)**	1.568 (0.210)
Argentina	2.145 (0.143)	0.008 (0.927)
Brazil	1.184 (0.276)	0.005 (0.945)
Croatia	0.784 (0.376)	0.105 (0.746)
India	0.066 (0.798)	0.067 (0.795)
Russia	3.155 (0.076)*	0.422 (0.516)
Dumitrescu-Hurlin (2012) Panel Causality Test		

	Z-bar	
	ROA → GDP	GDP→ ROA
	2.629 (0.001)***	0.387 (0.220)

Notes: ***, ** and * denote 1%, 5% and 10% significance level, respectively. Numbers in parentheses are p-value.

5. DISCUSSION

In this study, it is aimed to analyze the effect of bank profit on economic growth or the effect of economic growth on bank profitability after the global crisis of eight countries whose data are available. For this purpose, firstly, whether there is a correlation between units and the slope homogeneity has been examined. Cross-sectional dependence and slope homogeneity in the panel data methods are important in determining the next stage analysis. Table 2 shows that the cross-sectional dependence null hypothesis is strongly rejected. Therefore, there is strong cross-sectional dependence among the analyzed countries. Similarly, according to the results of the Delta test, the null hypothesis slope homogeneity is rejected according to both equation 1 and equation 2. Delta test results also support the slope heterogeneity across the countries considered. These results show that although there are countries whose results are available and chosen randomly, as expected, a shock experienced in one country affects other countries, albeit to different degrees. Table 2 test results make it necessary to use second generation prediction techniques in the final stages of the study.

Table 3 shows the results of two different second generation panel unit root tests for the panel data. The calculated CIPS test statistics values are compared with the critical table values created by Pesaran (2007) with Monte Carlo simulations and the hypotheses are tested for the stationary of the series. As a result of the test, it is seen that the calculated CIPS test statistics values are greater than the absolute value of the critical table values, and so the null hypothesis (unit root in the series) is rejected. According to Hadri-Kurozumi (2012) panel unit root test; it is also seen that the null hypothesis (no unit root in the series) cannot be rejected with the test statistics assumed to have a normal distribution, and there is no unit root in the series. Therefore, variables used in the model for both test results are stationary in level states, i.e. I (0).

Finally, the causal relationship between the ROA and GDP has been analyzed on a country basis by using Emirmahmutoglu and Kose (2011) Panel Causality Test and Dumitrescu-Hurlin (2012) Panel Causality Test for the general panel. According to both test results, the GDP does not cause ROA null hypothesis is not rejected. However, ROA does not cause the GDP null hypothesis is rejected for all of the panel data. It has been determined that ROA is the cause of GDP in Chile, Poland, Turkey and Russia.

6. CONCLUSION

Our study aimed to assess the causal relationship between bank profitability and economic growth with a data set of 8 selected countries covering Argentina, Brazil, Chile, Croatia, India, Poland, Russia, and Turkey over the period of 2009-2018. To do so, we followed the second-generation panel estimation approach by conducting cross-sectional dependence and slope heterogeneity tests. Then, we performed the panel unit root tests. Finally, we estimated the causal relationship between two variables. By taking account several criticisms raised in the literature, this paper provides new insights on the bank profitability-economic growth nexus.

The panel causality test results validate that there is one-way causality running from bank profitability to economic growth. These empirical results support the argument that the current pattern of bank profitability in selected developing countries (Chile, Poland, Turkey and Russia) promotes the economic growth. These results are consisted with the findings from the related literature (Javid, 2016; Alev, 2018; Klein and Weill, 2018).

This paper brings forward an important direction for further studies. A possible future paper may delve into the impact of financial performance (bank loans, bank deposits, return on equity etc.) on economic growth by following a similar empirical method. In countries where bank profitability does not promote economic growth, there may be economic instabilities (Argentina) or other factors such as R&D (India) and investments that trigger economic growth. In addition, this study can be expanded in time and frequency dimensions by increasing the country diversity.

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EFFECTS OF COVID-19 PANDEMIC ON AIRLINE COMPANIES AND CREW RESOURCE PLANNING

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Abstract

The airline industry is constantly growing, highly competitive, and highly affected by the elements of both task and general environment. Before the COVID-19 Pandemic, airlines were making strategic plans for growth based on the number of destinations and flight frequency, taking into account the task and general environmental factors. With the COVID-19 pandemic, flight bans, restrictions, and quarantine practices have been introduced at national and international levels. This has directly negatively affected airline operations, as it has led to a decrease in the number of destinations, a significant proportion of scheduled/non-scheduled flights cannot be made, and low passenger/customer occupancy rates on the aircraft. These changes in the task and general environment due to the Covid-19 pandemic caused to suffer, shrink or even bankrupt for the airline businesses which already have low profit margins and high fixed costs. The COVID-19 pandemic has negatively impacted the airline operations and thus the activities of the Crew resource planning department. The department was effected by the Covid-19 pandemic about several issues. Such as the workforce at the publish of the crew's rosters, training issues, decrease of the crew resource due to quarantined crew, not being able to use the crew optimally due to prolonged cleaning times on the ground, and hotel and ticket reservations difficulties. With the normalization to be achieved by the elimination of the Covid-19 pandemic, airline companies and their crew resource planning departments can stabilize again. Otherwise, a significant portion of the airlines operating in the air transport sector will not be able to survive.

Keywords: *Airline, Crew Resource Planning, Pandemic.*

1. INTRODUCTION

Aviation is a sector which is ever-growing, competitive, and highly affected by the task and general environmental elements. Before the Covid-19 pandemic, airlines were making strategic plans for growth which is focused on the number of destinations and flight frequency by considering the task and general environment elements.

Aircrafts which are purchased or leased as a result of these growth strategies constitute a significant part of the very high fixed cost of the airline companies. Airline companies gain income from the passengers by making scheduled flights which are determined one year in advance or non-scheduled flights which are determined according to demand. In the aviation sector, which has a low-profit margin in comparison to the other sectors, the high passenger occupancy rate allows airlines to be profitable.

The covid-19 pandemic has caused significant changes, in the task environment elements which consist of customers, competitors/potential competitors, suppliers, and substitute products as well as the general environment elements which consist of the political, legal, socio-cultural, demographic, technological, and international environment.

2. LITERATURE REVIEW

2.1. Airlines and Crew Resource Planning Department

Air transport can be defined as the displacement of people, load (cargo), or mail by an aircraft from the air in a way that allows space and time benefits. In other words, displacement of people and/or load with an aircraft is only possible with the air transport service. Not only flights that profit-oriented, but also flights for personal purposes can be covered by this definition. Regardless of the purpose, relocation of people, load, or a mail by an aircraft is air transportation. (Gerede, 2002)

Crew resource planning department is the department that calculates the cabin/cockpit crews that airline companies will need in the short and long term, determines the working times of the crew in accordance with national and international rules, performs the planning process of the duties, plans flight training, makes the hotel and transfer organizations needed due to duty planning.

2.2. The effects of the Covid - 19 Pandemic to Task and General Elements and the Airlines

The covid-19 pandemic has negative effects on airlines due to the changes it leads, in the task environment elements which consist customers, competitors/potential competitors, suppliers and substitute products as well as the general environment elements which consist political, legal, socio-cultural, demographic, technological and international environment.

The elements of the task environment are;

- **Customers:** They are the potential buyers of goods and /or services that the business offers to the market. With the Covid-19 pandemic, there has been a significant decline in the sales of the seats which are supplied by the airlines.

- **Competitors:** Competitors are other businesses within the same sectoral environment that produce similar goods and/or services for the same customers. All the airlines in the sector have been affected negatively by the Covid-19 pandemic.

- **Suppliers:** Raw materials, semi-finished products, manpower (Labor), energy, etc. the person or organization that provides production inputs is called a supplier. The entire aviation business, including both airlines and suppliers, was negatively impacted by the Covid-19 pandemic, including aircraft manufacturers.

- **Substituted products:** substituted products are products and services that can replace the products of the enterprise. The use of substitute products has increased due to health concerns of people to their own private vehicles or renting business jets.

- **Possible competitors:** The attractiveness of the sectors encourages new entrances to the market. New entrances to the market can be by the newly established businesses or through acquisitions or merges of the businesses which are already existing in the sector. Due to the Covid-19 pandemic, there were no companies that entered the sector with the decrease in the number of passengers and the contraction in the market.

The elements of the general environment are;

- **Political:** It is the environment in which the business operates in the country where the central and local authorities and their affiliated organizations provide and use their political authority. Due to the Covid-19 pandemic, restrictions have increased with the decisions made by countries and people have not been able to travel.

- **Legal:** It is the environment consisting of various laws, statutes, and regulations issued by the state and covering all laws that the business must comply with. Lockdowns and similar restrictions introduced during the Covid-19 pandemic caused people to hesitate to travel.

- **Economic:** It is the environment that consists of factors that affect businesses directly or indirectly such as national income, inflation, monetary and fiscal policies. During the Covid-19 pandemic, with the decrease in the number of passengers, the revenues of the airline companies also decreased, many airlines went bankrupt or came to the point of bankruptcy.

- **Socio-cultural:** Human behavior and socio-cultural values are another important factor group affecting businesses. Factors such as education and culture, social beliefs, traditions, and value judgments constitute the social environment. As the decisions and restrictions made within the framework of the Covid-19 pandemic affected people's travel habits, the number of passengers decreased.

- **International:** It is the environment where many elements such as economic cooperation and wars outside the country of operation, which is the upper system of the enterprise, take place. As of the Covid-19 pandemic, there has been a decrease in passenger traffic between countries with international travel bans. This situation has seriously affected tourism.

- **Technological:** It is an environment where new information is created that will help the business to achieve its objectives and is applied in every environment and consists of activities that lead to an improvement in products and processes.

- **Demographic:** It is the environment that consists of factors related to the structure, characteristics, and trends of the population. The lockdown over the age of 65 and under 20 due to the Covid-19 pandemic negatively affected the market of airlines in this age range. (Yiğit and Yiğit, 2012)

3. RESEARCH METHOD

The retrospective method was used in the study. Data of airlines before and after the Covid-19 pandemic has been analyzed by comparing ICAO (International Civil Aviation Organization), IATA (International Air Transportation Association), and DHMI (State Airports Authority) data.

Similarly, differences and new problems in Crew Resource Planning practices before and after the Covid-19 pandemic in a private airline were analyzed.

4. ANALYSIS

With the Covid-19 pandemic, flight bans, restrictions, and quarantine practices have been introduced at national and international levels. This has directly affected airline Operations in a negative direction, as it has led to a decrease in the number of destinations, a significant proportion of scheduled/non-scheduled flights cannot be made, and low passenger/customer occupancy rates on the aircraft. According to estimations by ICAO (International Civil Aviation Organization), the total number of seats sold by airlines in 2020 will decrease by about 51 - 52% compared to expectations.

Table1. Number of passengers in 2019 and expectation for the number of passengers in 2020
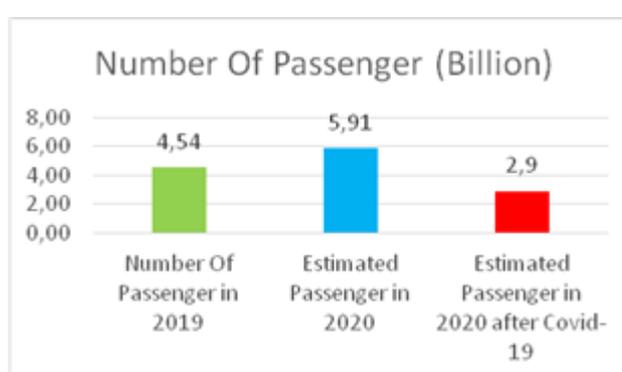
As can be seen in Table 1, 4.54 billion passengers traveled by air worldwide in 2019. The forecast for this number for 2020 was 5.91 billion, but due to the Covid -19 pandemic, this expectation dropped to 2.9 billion. There has been a 36% decrease in passenger number expectation.

Table 2. The number of passengers in Turkey in the for 10 months of 2019 and 2020

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
2019	14.125.9	12.806.5	14.607.7	15.834.0	17.093.9	20.462.6	22.551.2	23.306.8	20.869.6	19.340.9
2020	13.958.2	12.279.4	7.350.28	83.817	63.773	2.751.20	6.224.92	9.578.87	9.474.20	8.874.60
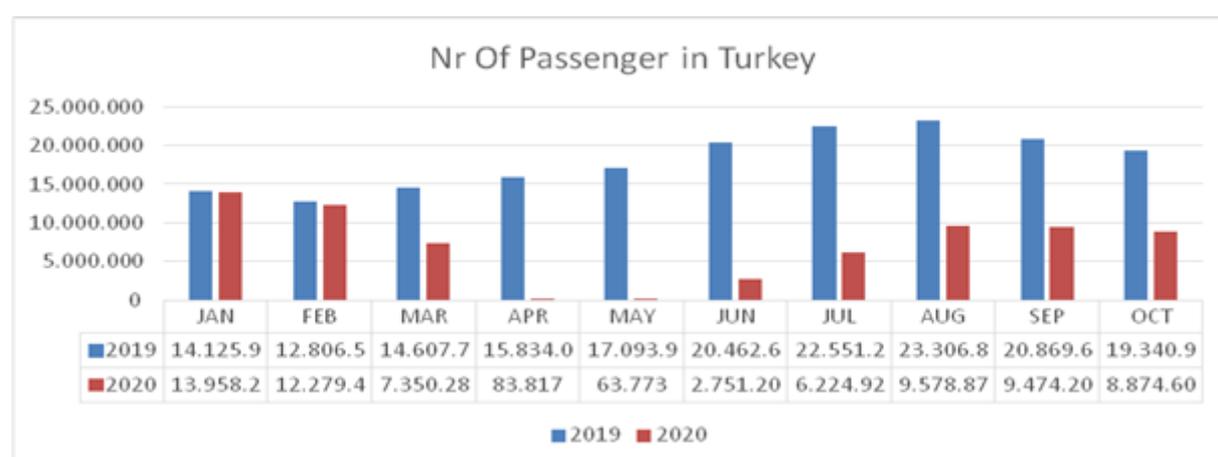
As seen in the Table 2, when the number of passengers travelling by airlines compared for the years of 2019-2020; in the first 10 months of 2019 nearly 181 million passenger has

been traveled by airlines however for the 2020 this number is nearly 70.6 million. There is a 61% reduction in the number of passengers.

Table 3. The number of commercial flights operated in the first 10 months of 2019 and 2020
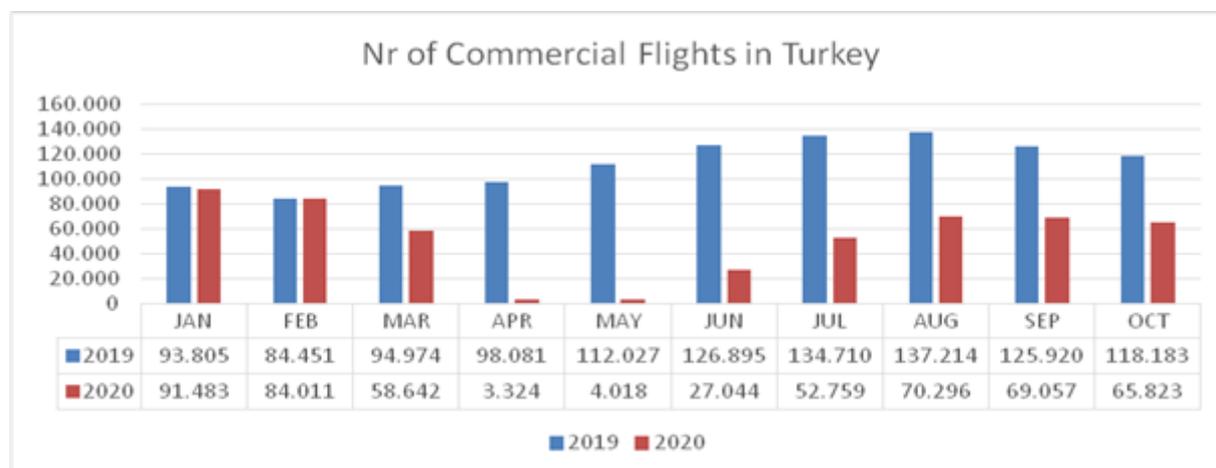
As it can be seen in Table 3; when the commercial flights which are done in the first 10 months of 2019-2020 are compared; there has been nearly 1.13 million flight that have been done in the first 10 months of 2019 whilst this number is nearly 526.5 thousand for the first 10 months of 2020.

As can be seen in Table 2, the decrease in the number of passengers means a decrease in the income of the airlines.

Table 4. Total revenue of airlines in 2019 and their expectations for 2020

According to the estimations of IATA (International Air Transport Association), the Covid-19 pandemic will cause a loss of approximately $ 252 billion in the total revenues of airlines in 2020. The comparison can be seen in Table 5. In 2019, the total revenue of airline companies worldwide was 838 billion dollars. The expectation for this number in 2020 was 872 billion dollars. Due to the Covid-19 pandemic, this expectation decreased by 50% to 419 billion dollars.

Table 5. Profit and loss margin expectations of the airline industry by years

Airline companies are companies with low-profit margins. Although their income seems high, the profit margin varies between 3% and 5%. In this sector where fixed expenses are high, the decrease in income and low-profit margin causes damage in the sector. As can be seen in Table 5, while the average profit rates in 2017, 2018, and 2019 are around 3% to 5%, the loss rate in 2020 is around 20%.

The Covid-19 pandemic has adversely affected the activities of the airline companies and therefore the crew resource planning department.

Table 6. Frequency of plan publishing of 2020

Increase In The Number Of Plan Made	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
2020	Monthly	Monthly	Monthly	Weekly	Weekly	Weekly and Daily	Weekly	Monthly	Monthly	Monthly

Before the Covid-19 pandemic, plans were published monthly. Due to the Covid-19 pandemic, flight cancellations, and uncertainties, plans were published weekly and sometimes daily. This means that the workforce spent by Crew Resource Planning employees for the plan has increased from once a month to 5 - 6 times.

Table 7. Providing of training requirements on a monthly basis in 2020

Training Requirements	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
2020	Provided	Provided	Provided	Couldn't Provided	Couldn't Provided	Couldn't Provided	Provided	Provided	Provided	Provided

With the Covid-19 pandemic, there were almost no flights especially in April and May of 2019 in Turkey. Since almost no flight is caused crews to fail to actualize the minimum number of flights required to fly in consecutive days. There were difficulties in the return of

the crews to the operation and there were problems in providing training. For example, a pilot must fly at least 3 flights in 90 days. In cases where he/she cannot achieve this, he/she should receive simulator training again. The intensity experienced in simulators due to the Covid - 19 pandemic and even stopping its activity caused the training processes to be prolonged.

Table 8. Quarantined crew status on a monthly basis in 2020

Increase in the number of quarantined crews	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
2020	There is no crew member in quarantine.	There is no crew member in quarantine.	There is no crew member in quarantine.	There is no crew member in quarantine.	There is no crew member in quarantine.	There is no crew member in quarantine.	There are crew members in quarantine.	There are crew members in quarantine.	There are crew members in quarantine.	There are crew members in quarantine.

The number of crews quarantined, both due to the number of infected crews and their contact, negatively affected the crew resource planning of the airlines. In order to prevent this, the same crew have been scheduled for flight duties with the same crew for several days.

Table 9. Disinfection times on a monthly basis in 2020

Differentiation of disinfection processes	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
2020	Standart	Standart	Standart	Longer Procedure	Longer Procedure	Longer Procedure	Longer Procedure	Longer Procedure	Longer Procedure	Longer Procedure

Before the Covid–19 pandemic, the cleaning times of the planes while waiting on the ground took around 8 - 10 minutes. With the Covid-19 pandemic, these times have been prolonged, so the waiting times of the aircraft on the ground have increased and the manufacturability of the aircraft has decreased. The time it can spend in the air has decreased even more. For example; while the total waiting time of an aircraft on the ground before the Covid-19 pandemic was around 45 minutes, this time increased to 90 minutes after the Covid-19 pandemic. This also affects the daily flight duty time limit of flight crews and prevents flight crews from making more flights.

Table 10. Problems in hotel and transfer issues on a monthly basis in 2020

Hotel Accomm	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT

				The probl em has occu rred	The probl em has occu rred	The probl em has occu rred				
odation and Positioni ng Problems										
2020	No Proble m	No Proble m	No Proble m	The probl em has occu rred	The probl em has occu rred	The probl em has occu rred	No Proble m	No Proble m	No Proble m	No Proble m

The Crew Resource Planning Department, make accommodation reservations for flight crews at the hotels with which the Purchasing Department has an agreement, if the operation requires. Many hotels with agreements were closed due to the Covid – 19 pandemic and there were problems in finding alternatives for possible hotel needs.

As stated in the definition of the Crew Resource Planning Department, it also organizes airline or road travel organizations for flight crews in line with operational needs. The shortage of flights and the occupancy of the flights have restricted the Crew Resource Planning Department. In addition, transfers from house to airport or vice versa of the crews were carried out with more vehicles due to the passenger restriction in the vehicle. This situation was reflected in the cost of airline companies.

5. DISCUSSION

The Covid-19 pandemic had a negative impact on airlines due to the changes in the task and general environmental elements. The Covid-19 pandemic caused a decrease in the number of passengers/customers, destinations, and flights of the airlines, as well as a significant decrease in their total revenues and increase losses. Reductions in the number of passengers/customers, destinations, and flights, and also the new applications introduced within the framework of the Covid-19 pandemic have also directly affected the airlines' Crew Resource Planning Department.

6. CONCLUSION

As a result, the Covid-19 pandemic caused adverse effects on airlines within the scope of the task and general environmental elements.

The Covid-19 pandemic has caused unforeseen changes in the task environment elements consisting of customers, competitors, potential competitors, suppliers and substitute products,

and general environmental elements consisting of political, legal, economic, socio-cultural, demographic, technological, and international.

The Covid-19 pandemic, which affected the whole world in a short time, caused radical changes in the task and general environmental elements, which had a very negative impact on airlines.

The Covid-19 pandemic, which adversely affected the air transport and tourism industry, caused serious economic losses in all airline businesses. So much so that the precautions taken by governments due to the pandemic and the avoidance of people from traveling due to health concerns caused many regional airlines to go bankrupt and many global airlines to shrink.

The new pandemic measures that can be taken by governments and companies at any time, the instant change of the number of crews, and the pandemic-based problems that may occur during the operation directly affected the number of publishing plans, the training requirements, the increase in the number of quarantined crew, the disinfection times, the hotel and transfer adjustment processes of the airlines' crew resource planning departments.

With the normalization to be achieved by the elimination of the Covid-19 pandemic, airline companies, and their crew resource planning departments can stabilize again. Otherwise, a significant portion of the airlines operating in the air transport sector will not be able to survive.

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EMPHASIS IN ENVIRONMENTAL, SOCIAL, AND CORPORATE GOVERNANCE [ESG] IN BUSINESS EXCELLENCE FRAMEWORKS

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Abstract

Business Excellence (BE) Frameworks such as the Baldrige Framework and the EFQM Model have led the drive to improve business performance in many countries over the past 30 years. Many BE Frameworks have since been established globally to promote business excellence in their local organizations. These frameworks have been used to guide both for-profit and not-for-profit organizations to systematically improve their internal operations and structure as well as management practices. The frameworks are also used as the basis for identifying excellent organizations to qualify as recipients of national Excellence Awards or Quality Awards in many countries. As BE Frameworks are adopted by many organizations globally, it would be of social and research interests to identify the extent of emphasis that environmental, social and corporate governance (ESG) requirements is represented in many of these frameworks. This paper attempts to review the extent of ESG requirements in some of the major frameworks. The methodology used literature review to identify major frameworks followed by an analytical and comparative study of the extent of ESG emphasis in the major frameworks. Findings from the comparative study provide a better understanding of how BE frameworks support ESG and also provide discussions and suggestions on improvements could be made to the BE Frameworks to reinforce ESG considerations as an important and integral attribute of business excellence in organizations. Findings and discussion from this paper will encourage BE frameworks to adopt progressive ESG practices in 21st corporations that will benefit society.

Keywords: *ESG, Business Excellence, Quality, Sustainability, Leadership, Management.*

1. INTRODUCTION

Business Excellence (BE) Frameworks such as the Baldrige Framework and the EFQM Model have led the drive to improve business performance in many countries over the past 30 years. Many BE Frameworks have since been established in many countries to promote business excellence in their domestic organizations. These national frameworks have been used to guide both the for-profit and the not-for-profit organizations in making improvements to their internal operations and structure as well as management practices. These national frameworks are also used as assessment frameworks for identifying excellent organizations to qualify as recipients of national Excellence Awards or Quality Awards in many of these countries.

Business excellence could be defined as an organization that is able to compete successfully in the marketplace and to achieve positive business and organizational performance results that are sustainable. There could be many ways for an organization to achieve business excellence and one do find many excellent organizations in this world who may not have started out by following a prescribed framework. However, many other organizations do require a BE framework to provide them with a structured roadmap for guidance on where and what to do make improvements towards excellence.

2. LITERATURE REVIEW

Business Excellence frameworks have its roots from Total Quality Management (TQM) concepts (Mann et. el, 2011). TQM evolves from the quality movement that started in the 1950s with the Deming Prize in Japan and the TQM concepts and its principles were widely accepted in the 1980s in the West through the work of prominent quality experts such as W. Edwards Deming, Philip B. Crosby and Joseph M. Juran. With many organizations applying TQM concepts in their workplace in the 1980s, national governments started to use formal programs to encourage more organizations to embrace TQM concepts in order to improve operational excellence and to provide quality products and services. Like the Deming Prize, formal frameworks were created to guide organizations as well as to assess their performance. The Canada Awards for Excellence (CAE) was introduced in 1984 (Excellence Canada, 2020), followed shortly by the Malcom Baldrige National Quality Award (MBNQA) in 1987. The European Foundation for Quality Management (EFQM) framework for excellence was created in 1992 (EFQM, 2020). From these awards and frameworks sprung many other countries' awards and today's national awards and frameworks probably exceeded 80 countries (Musli Mohammad, et. el. 2011).

The adverse impacts on environment and social consequences derived from business operations and business practices are numerous and often hard to gauge unless in cases where catastrophic failures happened and impacted the public. Thus, it is imperative that there is good governance in businesses to minimize and/or eliminate adverse impacts on environment and community caused by business operations. It is this critical relation that Environmental, Social and Corporate Governance (ESG) are put together as a terminology to describe one of business primary activities. The development of ESG has its roots from multiple sources including the Stakeholder Theory (Freeman, 1984), the need for sustainable development spelt out in the UN Brundtland Commission Report (Brundtland Commission, 1987), the advocation of environmental protection by organizations through certification such as the ISO14000 Standard on Environmental Management established in 1996 (ISO14000, 2020), and the advocation on social responsibility by organizations through guidance such as the ISO26000 Standard on Social Responsibility established in 2010 (ISO26000, 2020).

In the Stakeholder Theory, businesses were made aware that shareholders and employees are not their only stakeholders. The organization's stakeholders include all groups who are impacted by the actions and policies of the business, and thus may include the community within the vicinity of the business operations as well as the wider public. The UN Brundtland Commission Report subsequently culminated into the UN Sustainable Development Goals adopted by all members in 2015 (Sustainable Development Goals, 2015). The ISO14000 Standard on Environmental Management provided guidelines to organizations on how they can manage their operations to minimize adverse impacts on the environment. The ISO26000 Standard on Social Responsibility provides guidance to corporations on how to establish effective corporate social responsibility activities and systems.

The developments of Business Excellence Frameworks and ESG are relevant to businesses and these developments occurred within similar time spans, thus it is inevitable that both will cross paths. Over the years, the refinements of many BE Frameworks have put in increasing emphasis on ESG requirements. This paper presents analysis and findings on the state of emphasis in ESG in major BE Frameworks' requirements.

3. ANALYSIS AND FINDINGS

As most BE frameworks follow to a large extent on the MBNQA or the EFQM frameworks, the focus of this analysis will be on these two main frameworks. The Singapore

BE framework, which follows closely to the MBNQA framework, is also used in the analysis for comparison purpose.

There are commonalities found among these BE frameworks. The seven commonalities, which are practices to inculcate a set of excellence attributes into the operating environment of organizations include; effecting good organizational leadership, implementing effective strategy planning, emphasis on customer focus, focus on employee management and development, stressing on continuous innovations and improvement for operations, the need for productive utilization of information and knowledge, and lastly, maintaining sustainable organization results to drive business excellence.

Each BE Framework may have a slightly different set of excellence attributes. Table 1 below shows the sets of excellence attributes defined by the Singapore BE, MBNQA and the EFQM. The excellence attributes are arranged in a manner where similar attributes are placed across rows. Thus, one can see there are many similarities in excellence attributes that different BE frameworks wanted organizations to inculcate in its operational environments. This is not surprising given the fact that BE frameworks have its roots from TQM concepts and principles.

Table 1: Comparison of Excellence Attributes in Different BE Frameworks

Singapore BE Framework - Excellence Attributes	EFQM BE Framework - Excellence Attributes	MBNQA Framework - Excellence Attributes
Lead with Vision and Integrity	Leading with Vision, Inspiration & Integrity	Visionary Leadership
Create Value for Customers	Adding Value for Customers	Customer-Driven Excellence
Drive Innovation and Productivity	Harnessing Creativity & Innovation	Managing for Innovation
Develop Organisational Capability	Develop Organisational Capability	Organizational Learning & Agility
Value People and Partners	Succeeding through Talent of People	Valuing People
Manage with Agility	Manage with Agility	Agility
Adopt an Integrated Perspective		Systems Perspective
Anticipate the Future		Focus on Success
Sustain Outstanding Results	Sustain Outstanding Results	Delivering Value & Results
	Create a Sustainable Future	Societal Contributions
		Ethics and transparency

Since organizations use the BE framework as a roadmap to help themselves to institute good practices to achieve business excellence, the seven common practices mentioned above are where we could assess whether ESG emphasis has been embedded. From a more in-depth review of the requirements in each of these three BE Framework requirements, Table 2 shows the seven common practices where ESG emphasis has been embedded in its requirements and the extent of ESG requirement guidelines given in the frameworks.

Table 2: Extent of ESG Emphasis in BE Frameworks

	Singapore BE	MBNQA	EFQM	Current ESG Practices
Good Organizational leadership	🟡	🟡	🟡	★★★
Effective Strategy planning				☆☆☆
A Customer focus				☆☆☆
Importance of Employee management and development			◔	★☆☆
Continuous Innovations and improvement for operations	◔	◔	🟡	★★☆
Productive Utilization of Information and knowledge, and			◔	★☆☆
Sustainable organization results to drive business excellence	◔	🟡	🟡	★★★

Nomenclature:

🟡 ESG emphasis well embeded in requirements

◔ ESG emphasis partially embedded in requirements

★★★ Current requirement guide on ESG practices are well developed

★☆☆ Current requirement guide on ESG practices are few

☆☆☆ Current requirement guide on ESG practices are almost non-existent

To illustrate, let's take a look at how ESG is emphasized in the EFQM framework. ESG emphasis is found extensively in the requirements of the EFQM framework under the Leadership, Partnerships and Resources, and the Processes, Products and Services, as well as also the Society Results criteria. Some emphasis on ESG is found in the People criterion. Based on an analysis of these related requirements, it could be concluded that for the EFQM framework, emphasis on ESG is extensively emphasized in 3 of its seven common practices [*good organizational leadership, continuous innovations and improvements for operations, sustainable organizational results to drive business excellence*], while evidence of some emphasis is found in another 2 common practices [*importance of employee management and development, productive utilization of information and knowledge*].

4. DISCUSSION OF FINDINGS

The BE Frameworks provide a useful platform to encourage businesses and all organizations alike to implement ESG initiatives. Based on the comparison given in Table 2, it could be seen that currently, the EFQM framework provides the most extensive emphasis on ESG in relation to other major frameworks. However, it has to be noted that this is a relative comparison. More could be done to increase ESG emphasis in BE frameworks.

Currently, ESG emphasis is focused in areas of leadership, operations and results. This is not surprising as without leadership commitment, ESG will not be effective, while environmental as well as social responsibility activities are much easier to implement in

operations, and of course outcomes of these efforts could be seen in targeted performance results of the organization.

However, more could be done to reinforce ESG emphasis in other areas of the BE frameworks. The BE framework has seven commonalities and in each of this common area, there is no reason why ESG emphasis could not be innovatively embedded into its requirements. As illustrated in the last column of Table 2 above, ESG emphasis is particularly weak in areas such as strategy planning and customer focus, and not much ESG emphasis is found in employee management and development as well as in productive utilization of information and knowledge.

To strengthen ESG in organizations, areas such as customer focus and strategy planning should see more active consideration of ESG activities. Strategic planning drives short-term and long-term operations in the organization and key goals are usually established in these plans. Thus, it is imperative that ESG considerations are given emphasis in strategy planning. Likewise, customers are becoming more aware that businesses are a key source for protection of the environment and the maintenance of social justice and social equality. Thus, embedding ESG activities in customer focus and customer experience will allow the organization to build positive customer experience and goodwill.

Likewise, employees could be made more aware of ESG requirements and activities so as to allow them to build ES decision-making into their work and to develop innovative ES activities to support organization efforts in ESG. Information and data collection could also put more emphasis on ESG activities' outcomes to allow organization to have a better picture of its ESG efforts and to plan for future ESG initiatives.

5. CONCLUSION

This paper has presented an analysis of the emphasis on environmental, social responsibility, and corporate governance, in the major business excellence frameworks. It has shown that the major BE frameworks do embed ESG emphasis in its requirements for organizations to follow. However, as the world moves into the 21st century and faces many challenges related to the environment such as impending climate changes, and to social impacts such as equality and disparity in global human developments, businesses and organizations could do more to negate these challenges through ESG. The BE frameworks, as roadmaps and guidelines for organizations to achieve excellence, should be the platform where this emphasis could be reinforced.

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EVIDENCE OF THE REBOUND EFFECT ON CLASSIC AND SMART TOURISM

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Abstract

Tourism has become an important industry in recent decades, bringing considerable economic benefits. However, tourism also brings different types of negative impacts, manifested by increasing energy consumption and environmental negative impact. With the development of tourism, heavy tourist traffic, air pollution and waste of resources cause significant damage to the environment and natural resources. At the same time, energy consumption will in turn increase to meet the various needs of tourists and their experiences because the diversification of tourists' activities increases in equal measure with the development of technology. In many respects, smart tourism can be seen as a logical progression from traditional tourism and, more recently, e-tourism, as the foundations for innovation and technological orientation of industry and consumers have been established in advance with the widespread adoption of information technologies and communications in tourism. The paper aims to highlight the manifestation of the impact of tourism on energy consumption.

Keywords: *Rebound Effect, Smart Tourism, Energy Consumption.*

1. INTRODUCTION

This developing trajectory continued by adopting social networks on a large scale, while also understanding that plenty users are "mobile", smart tourism is, most definitely, still developing and still gaining new levels in tourism systems. The industry's structure in which new levels of intelligence are obtained, created, changed and consumed are fundamentally different.

Smart tourism consists of more components which are sustained by TIC (Figure 1). One way, it means smart destinations, which are special cases of smart cities: applying the principles of intelligent cities towards urban areas or rural areas and not only their residents, but also tourist, and their efforts to support mobility, resources' availability and life quality and sustainability.

DATE:
Collecting
Transformation
Procesing

Smart experience

Smart business ecosystem

Smart tourism destination
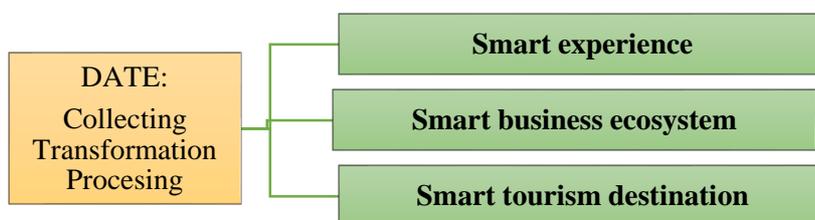
Figure 1. The components of smart tourism

Source: Gretzel. U., et al., 2015" Smart Tourism: foundations and developments"

Smart tourism destination is defined as an innovative tourism location, built on a new generation technology infrastructure which guarantees durable development of touristic locations, accessible for everyone, which facilitates both visitors interaction and life quality of its inhabitants (Lopez de Avila, A., 2015).

To better describe smart tourism, in is necessary to combine all parts interested through all technology platforms, including tourism destinations, which offer tourists an unique experience and which allow real time information exchange. Tourists are an essential part of smart tourism, but tourist destinations need to actively take part to this change and put more effort into creating and efficient and creative experience.

The main component of smart experience is based on the tourism experience mediated by technology and on improving it through personalizing it, acknowledging its context and monitoring it in real time. In 2015, Neuhofer identified real time info syncronising as

determining factors towards intelligent tourism. Intelligent tourism experience is significantly rich. Tourists are active participants towards its creation. They not only consume it, but also create it or improve the overall experience through, posting pictures on instagram with different hashtags, adding value to their experience.

The third component, an smart business ecosystem. It refers to the complex business ecosystem which creates and supports the tourism resources exchange and creation of tourism experience. The main component of intelligent tourism has been described as dynamically interconnected parts, digitalization and organizational agility. An unique component is the fact that it includes the collaboration between public and private, which results in the fact that governments become more open and technology became the main focus on larger scale. Intelligent tourism also recognizes that consumers can both create and offer value, while also assuming governing roles. Intelligent tourism has three levels, an intelligent level which collects data, and intelligent level which focuses on interconnectivity and and intelligent level which analyses, visualize and integrates data (Buhalis D., Amaranggana, A., 2014).

Based on all these, intelligent tourism is defined as tourism sustained by integrated efforts towards a collected and aggregated destination of derived data through physical infrastructure, social connection, government sources and human mind, combined with advanced technology utilization for transforming these data in experiences and valuable business proposals with an emphasis on efficiency, durability and a great experience.

2. THE IMPACT OF TOURISM ACTIVITY TOWARDS ENERGY CONSUMPTION

Energy is a main component of actual society, while its current energetic neccesities are strongly correlated with its problem such as growing population, economic growth and technological progress. (Matias, 2018).

Despite recent technological progress, there has been a growing energy demand in the past years, which might compromise some assumed arrangements to reduce gas emissions in atmosphere, because electric energy production is still very dependant on utilising IPCC fossils (2015). Therefore, and according to IEA (2017), reducing energy consume is a priority towards sutainability, buildings representing 30-45% of energy consumed in the majority of countries (Gul, 2015).

In these past decades, toursim has become an important industry and brought huge economical benefits to tourism destiantions. On the other had, tourism also has its negative impact, especially through CO_2 (Tang and Abosedra, 2014). While tourism highly developed,

intense traffic, air pollution and natural resource waste cause serious injury to the environment and natural resources (Katircioglu, 2014; Zhang and Gao, 2016). Long distance travels in between destinations cause signifiant damage to the environment (Dubois and Ceron, 2006; Liu, 2011). Also, while activity diversification grows within tourits, also energy consumption grows, which causes massive energy consumption and environmental damage.

Becoming more preocupied with persevering the environment and climatic change, researchers said tourism and environment should be managed in an integrated and interdiscplinary way (Janusz and Bajdor, 2013). Managing and tourism development necessitates efficient policies of managing both energy and the environment. Measuring consumption is useful to understand tourism and the environment in a quantitavie and objective way (Becken andSimmons, 2002). If tourism energy consumption can be measured, the negative impact on the environment can be easily controlled, so tourism destinations can be developed in a durable way (Gössling, 2005). Therefore, an investigation in between tourism energy consumption, durable tourism and destination development will be of interest not only of the whole tourism industry, but also for all decision parties.

Tourism is a dinamic and complex process which includes destination mobility, which includes multiple interested parts and managing destinations (Mill and Morrison, 2002; Bornhorst, 2010). Therefore, energy consumption must be analysed from different angles. Energy consumption studies have been reaslies through a less systematic way, which deems for future investigation.

The conceptual framework of this study is built on the framework of tourism (Leiper, N., 1979) and stakeholder theory (Saito and Ruhanen, 2017) (Figure 2).
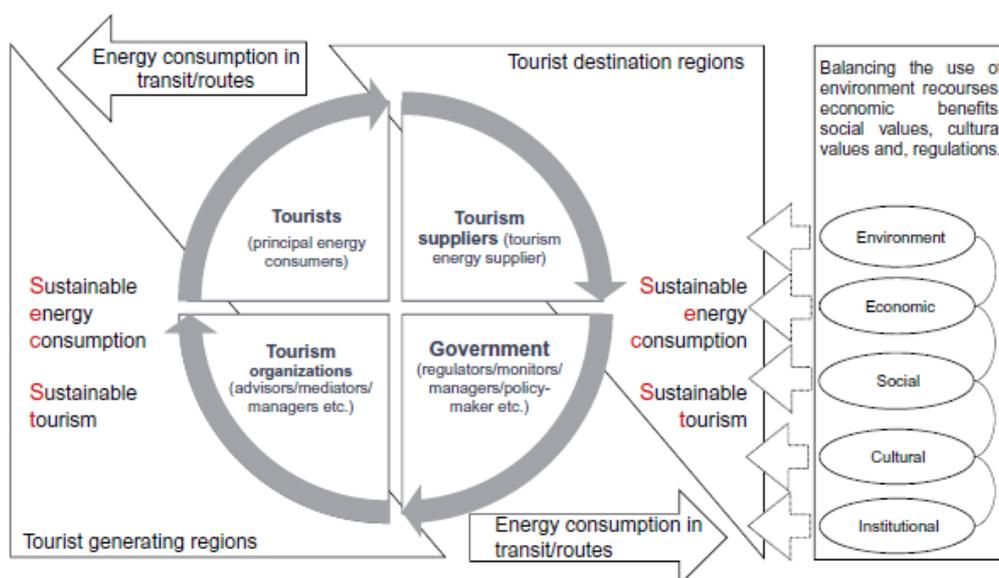
Figure 2. The conceptual framework of energy consumption

Source: Leiper, N., (1979)" The framework of tourism: towards a definition of tourism, tourist, and the tourist industry."

3. CONCLUSIONS

First of all, the tourism industry can be seen as a process which spreads across transit routes and regions (Leiper, 1979). Transport is one of its most important sectors, which enables going from one place to another (Palhares, 2003; Van Truong and Shimizu, 2017). A great energy percentage is spent on touristic routes, and choosing the best route is directly relating to energy spending.

Secondly, some energy consumption is not necessarily due to tourists. More from different other sources (Becken and Simmons, 2002). Different parts play different roles, and are not directly responsible to durable tourism.

Conceptually, there are four main parts to tourism: tourits, tourism providers, organisations and governments. Tourists are the main consumers of transit routes and tourist destinations. They take part in different activities and look for activities and experiences which determine energy consumption, not only within the destination, but all the way towards their trip.

The third characteristic refers to trying to explain energy consumption based on building a sustainable tourism(Høyer, 2000). Sustainability has already been recognized as an essential factor towards defining a successful tourism (Hunter, 1997; Cernat and Gourdon, 2012). Planning touristic transport and utilizing energy should match sustainable tourism development

which balance environmental resources, economic benefits, social values, cultural values and regulations (Janusz and Bajdor, 2013). We can never talk about energyconsumption without taking in consideration a sustainable tourism.

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GREEN SUKUK: INDONESIAN YOUTH INVESTMENT PROSPECTS FOR ENVIRONMENTAL SUSTAINABILITY

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Abstract

GreenSukuk is an environmentally investment instrument launched in November 2019. Many people do not know about the existence of GreenSukuk, because investors are rarely interested in it. This study aims to investigate the prospects for GreenSukuk Investment in Indonesia for the Young Generation. The hope is that young people care more about environmental welfare through investing. The role of youth is very important to create a better Indonesia in the future. One of them is by investing through GreenSukuk. Because with this investment, the opportunity to participate in environmentally sound development will open up. Investment activities through green sukuk are not only for profit, but also to help conserve nature. This research used a qualitative descriptive approach, where the researchers used explanatory method to capture the way green sukuk promote sustainable development, and how the Indonesian Youth investment prospects for environmental sustainability. Data collection techniques was carried out through secondary data collection at the Directorate General of Financing and Risk Management, Ministry of Finance, the United Nations Development Program and Central Statistic Agency. The results of this study provide recommendations that the role of Green Sukuk is very important in realizing Indonesian youth who care about the environment.

Keywords: *Green Sukuk, Investment, Environmental Sustainability.*

1. INTRODUCTION

Sukuk according to Arabic is defined as Sakk which means bond or certificate. In everyday life, sukuk are known as sharia bonds which are related to investment (Lestari, 2020). According to Ronstein-Rodan, investment needs to be made on a large scale in order to boost the country's economy. Recently, an investment instrument has become a hot topic that is always being discussed. The investment instrument is a green sukuk. Green Sukuk is an investment instrument that was first issued by Indonesia with the theme of the environment. This environment is a place for everything that is around humans, both living and dead. The environment becomes a series of places for interaction that will have an impact on each other (Lestari, 2020).

Green Sukuk is a form of effort to fix climate change and environmental sustainability in Indonesia. The presence of green sukuk has the potential to be implemented in Indonesia, because Indonesia is a country that is vulnerable to climate change (Anggraini, 2018). Actually, the issuance of green sukuk is almost the same as other instruments, what distinguishes it is that green sukuk is more focused on environmental sustainability while others are not. Green sukuk has the potential to be utilized in environmental improvement which refers to sustainable development so that it can increase non-fossil energy (Hariyanto, 2017). Green sukuk is one of Indonesia's goals to achieve sustainable development goals (SDGs).

Sustainable development (SDGs) is carried out to help preserve the environment in order to protect the wealth of natural resources that exist in Indonesia. Therefore, when the government wants to realize its commitment to sustainable development (SDGs), the government always makes innovations. One of the innovations made by the government is in the form of green sukuk. Where the existence of this green sukuk will be a good signal to expand the green sukuk market both nationally and internationally (Anggreini, 2018). Green sukuk needs to be studied continuously because it has enormous potential for the country. This potential is interesting to study in depth considering that the existence of green sukuk is still relatively new (Suherman, 2019). The study of green sukuk has an important role to continue to be developed because the presence of green sukuk is able to realize Indonesia's ideals of realizing sustainable development goals (SDGs).

What is important about the presence of green sukuk is the prospect of young people to participate in environmental sustainability through green sukuk investments. Data from the Ministry of Finance, 44.51% of investors are aged 20-40 years. This shows that millennials contribute the most to this green sukuk investment (Ministry of Finance of the Republic of

Indonesia, 2020). Millennials who become the pillars of the country in the future who are more familiar with technology have their own strength in building environmental insight. It is young people who have more potential to support environmentally sound development. Therefore, through this study the author seeks to investigate the "Prospects of Green Sukuk for Indonesian Youth in Preserving the Environment". The results of this study are expected to help provide insight and show opportunities for youth to participate in sustainable development by participating in green sukuk.

2. RESEARCH METHOD

This research uses explanatory method to capture the way green sukuk promote sustainable development, and how the Indonesian Youth investment prospects for environmental sustainability. Data collection techniques are carried out through secondary data collection at the Directorate General of Financing and Risk Management, Ministry of Finance, the United Nations Development Program and Central Statistic Agency.

3. RESULT AND DISCUSSION

3.1. Green Sukuk in Indonesia

Sustainable development has been a central issue for a long time in development in Indonesia. Indonesia is serious about realizing sustainable and environmentally sound development. This seriousness in sustainable and environmentally sound economic development is manifested in the development program "Green Growth Program" initiated by the Ministry of National Development Planning (BAPPENAS), The Organization for Economic Co-operation and Development (OECD), and the Ministry of Environment and Forestry (KLHK).). (Ministry of Finance of the Republic of Indonesia, 2019; Global Green Growth Institute, n.d, 2015 .; Makmun, 2016; Zaini & Darmawanto, 2015, Yusuf, 2019).

The spirit of sustainable development was further expressed by the Minister of Finance of the Republic of Indonesia Sri Mulyani that Indonesia has involvement in sustainable development, where Indonesia has prepared various targets to realize sustainable development, one of which is by realizing the sustainability of Indonesia's environment (Ministry of Finance of the Republic of Indonesia, 2018) This form of sustainability is implemented through the presence of Green Sukuk. Green sukuk is an instrument issued by the government to finance various projects related to the Eligible sector (Suherman, 2019).

The government always has the initiative in empowering the community to participate in sustainable development. There are new innovations so that people like to invest (Ministry of

Finance of the Republic of Indonesia, 2020). Green Sukuk was launched by the government to support green environmental development in Indonesia. This is proven by the data used for green projects in 5 renewable energy sectors, namely climate defense for vulnerable areas, renewable energy, disaster risk reduction, sustainable transportation and agriculture as well as waste-to-energy management (Suherman, et al. 2019).

There are several terms of 'green' which are used for environmental investment in Indonesia (Kemenkeu RI, 2020), namely: 1) Dark Green: dark green color, used to realize projects on renewable energy and climate change resilience in disaster-prone areas / sectors; 2) Medium to Dark Green: Medium green, used to realize sustainable transportation, waste management / management; 3) Waste, and environmentally friendly tourism; 4) Light to Medium Green: medium light green, used to realize energy efficiency projects and sustainable natural resources; 5) Light green: bright green, used to realize environmentally friendly building projects

The above categories are allocations of the green sukuk investment return. The investment returns are used to realize projects as mentioned in points 1-5. The investment yield obtained this year has increased because the number of investors has also increased, so it is very helpful to realize green projects. As mentioned by the Indonesian Ministry of Finance (2020), the opening of green sukuk this year has increased more than the previous year. The participation of domestic and international investors should be appreciated. This appreciation can be realized by re-issuing green sukuk the following year to increase the participation of green sukuk investors and to become incentives for reissuing in the following years. Indonesia has received several awards as the first country to issue green sukuk, this green sukuk issuance provides a good opportunity for investors. This good opportunity should not be missed by all elements of society. Indonesia is the first country to issue investment instruments with a "green" theme. Investments on green themes make money more useful to invest in participating in sustainable development. Sustainable development, of course, always follows the times that are increasingly sophisticated and this increasingly sophisticated era has created convenience for life. This ease is shown by the presence of Green sukuk which provides an opportunity to participate in sustainable development (SDGs).

3.2. The Role of Youth in Greensukuk Investing

Indonesia is one of the developing countries which is slowly starting to move towards a developed country. One of the efforts to achieve this is by continuing to improve the management of state finances, in order to contribute to increasing economic growth. from a saving society to an investing society, as applied in developed countries. Investment has become a target and is a topic of discussion that never ends up being discussed by all Indonesian people in general and the younger generation in particular. This investment topic has attracted young people to invest. Interest is a person's tendency or interest to follow, so that there is an urge to learn in order to achieve his desires (Tumewu, 2019). This desire can fulfill the learning needs of the younger generation to prepare themselves as contributors to the nation's future.

The role of the community is needed to balance the government's efforts to achieve a green environment in Indonesia. In society, youth are the biggest force elements to create a sustainable environment. The contribution of the youth generation is decisive in the progress of a country. The millennial generation has advantages that the previous generation did not have in the form of technology and information responsiveness (Wilya, 2019). This advantage is very useful to be included in environmentally sound investment through Green Sukuk. Investors in Green sukuk are indeed general in nature, but have more opportunities for millennials so that they can be part of sustainable development. The presence of this Green Sukuk has opened up insights and taught the younger generation to like to invest and still care about the environment.

According to the National Development Planning Agency / Bappenas (2019), young people are a reflection of Indonesia's future, the presence of youth who are often touted as the millennial generation is a challenge for Indonesia in the future. However, the millennial generation also provides many opportunities to achieve Indonesia's golden 2045 target in order to achieve a stable economy. The millennial generation is also called the golden generation because they are the only candidates for the nation's successor who have various advantages, are highly intellectual, critical, creative, and innovative so that they are able to compete domestically and internationally. The quality of the millennial generation will be better when young people are given serious attention because of their very influential role in sustainable development (Wibowo, 2019).

In fact, investing in youth makes youth more able to manage the money they have, as long as they have good knowledge to invest. The investment interest of the younger generation will continue to emerge among the youth, increasingly, investment is one of the ways to earn income with good money management (Onasie, & Widoatmodjo, 2020). Recently, there have

been many investment instruments with their own characteristics. Like the green sukuk ST007 which was a continuation of ST006 in 2019. This investment instrument is a recommendation for young people to participate in sustainable development because this type of investment is realized for the environment. It is an obligation for the nation's future to care about the environment.

This concern certainly opens everyone's horizons to plan for a good future. Through youth, it certainly opens opportunities for Indonesia to be more advanced and provide opportunities for posterity to preserve nature. From the data from the Indonesian Ministry of Finance, investors based on age are generation Z (<20 years) 0.34%, Millennial Generation (20-40 years) 44.51%, Generation X (41-55 Years) 29.40%, Boomers Generation (55 -75 years) 23.21%, Traditionalist Generation (74-91 years) 2.19%. The largest number is shown by the millennial generation, meaning that the millennial generation has high prospects for investment in Indonesia. If these prospects are used for green sukuk, of course there will be a very good chance of achieving sustainable development (SDGs). Young people are the right target to invest in green sukuk because youth are the millennial generation, the golden generation, and the nation's future generation with all their potential. The following graph illustrates the percentage of sales of savings sukuk to millennials.
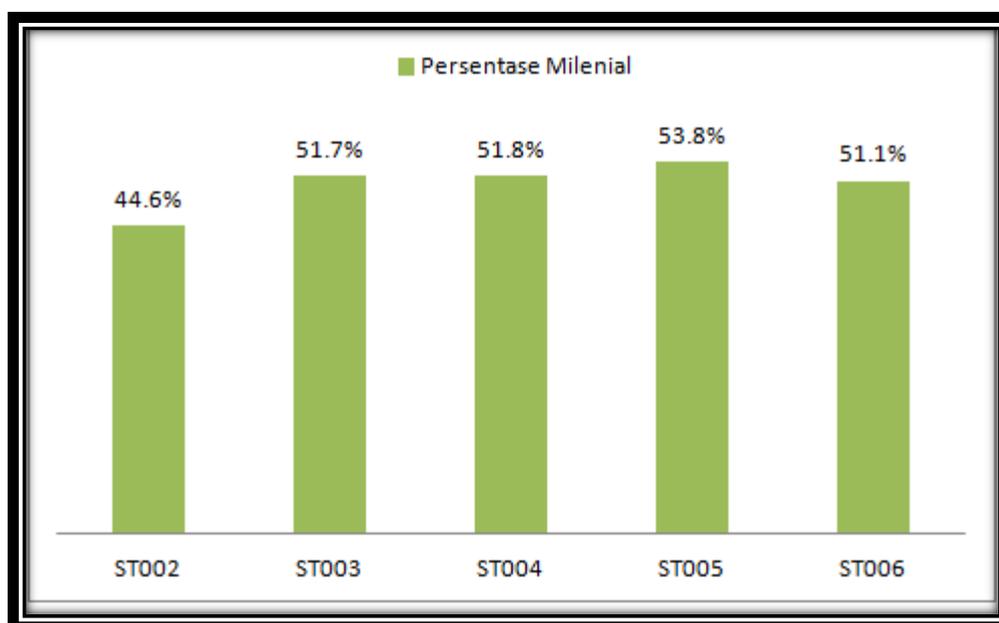
Source: Directorate General of Financing and Risk Management (DJPPR)

4. CONCLUSION

Green Sukuk is a good reference in investing for all ages. Especially for productive age like millennial generation who have the prospect of being able to make Indonesia a developed

country. Everyone can contribute to sustainable development by investing in green sukuk. Investments in green sukuk will be more meaningful because they are not only profitable but can participate in reducing emissions and fixing climate change and improving facilities related to the environment.

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IMPACT OF BRAND-RELATED USER-GENERATED CONTENT ON BRAND POSITIONING: A STUDY ON PRIVATE HIGHER EDUCATION INSTITUTES IN VIETNAM

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Abstract

With the advent of social media, Vietnam has changed the way customers perceive the information about the brand. In the context of higher education, the adoption of social media has received attention with the increasing rate of social media usage among undergraduates. Brand-related user-generated content (UGC) on social media emphasizes the social ties between users and users' participation, which promotes the communication to build and maintain the relationship with the brands. Although brand positioning offers a significant competitive advantage, the association with brand-related user-generated content in social media with brand positioning in the context of higher education is still an under-researched area. Accordingly, using social identity theory and social exchange theory, this research aims to deepen our understanding of the influence of brand-related user-generated content on brand positioning and purchase intention. Employing a quantitative survey design,384 Vietnamese undergraduates were selected based on purposive sampling. The findings suggest that brand-related user-generated content influence brand positioning and brand choice intention. However, there is a significant mediating effect of the reliability and understandability of the content.

Keywords: Brand Positioning, Brand-Related User-Generated Content, Emerging Countries, Higher Education.

1. INTRODUCTION

We live in an era of unprecedented and rapid globalization that presents unique opportunities and threats to marketing and brand managers (Samiee, 2019). Similarly, Rapid changes in information and communications technology (particularly in social media) have brought customers together, creating potential global customer segments (Bolton et al., 2018). Social media is using as a promotional tool which offers a reward for the customers to engage in a certain behavior (Jang and Moutinho, 2019). However, customers' active engagement with brands in a lean-forward way, facilitates the customer to simply being exposed to passive advertising messages (Dolan et al., 2019). Finding new ways of engaging consumers have increasingly become a major goal of brand marketing and promoting the creation of brand-related user-generated content (UGC) (Kitirattarkarn et al., 2019), which refers to the creation of content relevant to a brand by consumers (Roma and Aloini, 2019). Indeed, the increasing prevalence of UGC as a marketing prompt is often taken as one of the major changes taking place in branding (Koivisto and Mattila, 2018). Although marketers worry about losing control of their brand with UGC and even having consumers create negative UGC, most have embraced it as a potentially powerful new tool (i Agustí, 2018).

The rapid diffusion of social media has significantly changed the higher education communication landscape (Al-Rahmi et al., 2018). The spectacular growth of social media and user-generated content (UGC) provides a huge quantity of information that allows for the firsthand ascertaining of the experiences, opinions, and feelings of the social media users relating to higher education institutes (HEIs) (Chugh and Ruhi, 2018). In an increasingly competitive higher education sector, HEIs are facing significant challenging in attracting and recruiting new students (Peruta and Shields, 2017). HEIs offer many of the same degree programs for similar fees by diminishing the potential to be the differentiator in attracting students in a cluster market place (Lax, 2017). Similar to customer confusion on the cluster marketplace, prospective students may find the decision-making process of selecting HEI confusion (Mahfoodh, 2017; Postareff et al., 2017). Furthermore, HEIs have begun to realize that the relatively simple promotional tools of the past no longer work (Almasri et al., 2018). This has driven the need for HEIs to focus on developing their brand with the help of social media (Eldegwy et al., 2018; Foroudi et al., 2019). Because, the emergence of social media, the student's interaction with social media gain higher attention. The social media brand communities have facilitated students to meet and share their experience and enthusiasm

regarding their preferred HEIs (Manca and Ranieri, 2016; Islam and Rahman, 2017) which influence the perception of the prospective students.

In this context, Twitchell (2004) argues that HEIs should manage their brands and create a unique position more proactively. HEIs need to cultivate an effective relationship with the students in creating unique positioning in the minds of the prospective students (Foroudi et al., 2017). How HEIs manage the relationships with the students and how students perceive HEI brands can impact the students' perception with the HEI's brand positioning (Nguyen et al., 2016) and in turn on students' intentions to select the institute in the future (Casidy and Wymer, 2018; Eldegwy et al., 2018; Panda et al., 2019). But, the notion of brand positioning has barely made its mark on higher education literature. The dearth of research on brand positioning in the higher education sector may be because HEIs are high credence quality products with complex and due to numerous factors, such as internal structures (Pinheiro and Stensaker, 2014; Izagirre-Olaizola et al., 2015), sub-branding by schools/majors/facilities (Williams Jr and Omar, 2014), institutional resistance to change (Kim et al., 2017), information gap between choice factors identified by students (Briggs and Wilson, 2007; Phau et al., 2010), diverse stakeholders (Miller et al., 2016; Cho, 2017) and formal communication mechanisms (Tyner and Costa, 2018).

Further, this study is focusing on the higher education sector of Vietnam, and emerging country, in relating to social media adoption, and branding. Since the previous researchers have mainly focused on emerged countries in studying on social media which is claimed as bias and lack of generalizable implications in emerging countries.

What is unknown is whether such engagement with brand-related UGC is effective for higher education. Research is needed to demonstrate whether engaging in creating brand-related UGC affects the HEI's brand positioning and subsequent brand choice behavior in the context of higher education.

The exact relationship between brand-related UGC in social media and brand positioning has remained unclear. Since brand-related UGC has widely embraced by the students assuming it is transmitted by a trustworthy information source, this study tries to enrich the existing knowledge related brand-related UGC and brand positioning in the social media sphere. Therefore, this study reviews the existing literature on brand-related UGC while incorporating studies on branding to provide a comprehensive understanding of these constructs.

Since, UGC provides the promise of personalized information, challenges to the reliability, and understandability has been acknowledged by some scholars. Some challenges

stem from the complexity and volume of information, which are due to the dynamic nature of the UGC. Thus far, the literature has yet to reveal a consistent pattern of relationships between perceived information reliability and understandability of user-generated HEIs' information. The mediating effect of reliability and understandability of content among brand-related UGC and brand positioning has not fully investigated. Therefore, this study investigated the influence of brand-related UGC on students' perception of HEI's positioning.

Based on social identity theory and social exchange theory, this study attempts to explore whether and how consumers' motivations to engage in brand-related UGC and its influence on brand positioning and brand choice intention among the undergraduates in social media sites.

Specifically, this study aimed to examine the relationship between brand-related UGC in social media, brand positioning, and brand choice intention. Reliability and understandability of content were incorporated as mediating variables in developing the relationship among brand-related UGC and brand positioning.

Based on the identified research aims, the following research question has developed.

(i)What is the extent to which brand-related UGC is related to brand positioning, and brand choice intention as perceived by undergraduates?

There are two key objectives, which were formulated to address the research question.

(i) To evaluate the relationship among brand-related UGC, brand positioning and brand choice intention among undergraduates

(ii) To identify the mediating effect of reliability, and understandability of content among brand-related UGC and brand positioning.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Brand-related UGC

Social media empowers the interaction, collaboration and the sharing of the content among the online users (Carr and Hayes, 2015). It facilitates to share user's views and exert their individual and collective influence on the customers as well as on brands (Dessart et al., 2015; Kumar et al., 2017). This influence accelerated the accessibility of brand content by the customers (Ashley and Tuten, 2015). One of the ways of consumers' interaction with social media happens through user-generated content (UGC) (Koivisto and Mattila, 2018). UGC refers to "media content created by members of the general public and includes any form of

online content created, initiated, circulated, and consumed by users" (Kim and Johnson, 2016, p.98).

UGC is published content created by users outside of professional routines and practices (Goh et al., 2013) It is a published content that has been created by the general public without involving paid professionals which allow users to connect through "many-to-many" rather than traditional "one-to-many" (Sadek et al., 2018). The present study is focusing on UGC which its related brands. The consumers are generating content relating to brands on the different social media platforms (Godey et al., 2016). The members of the social media platforms access the contents and use it for their purposes (Muntinga et al., 2011). Brand-related UGC represents a new way of behaviour that is reshaping online consumer communication, collaboration, and distribution of brand information (Vernuccio and Ceccotti, 2015).

Influential brand-related UGC could affect the consumer's brand preference and select a certain brand over the competitors (Godey et al., 2016). Developing a distinctive image in the consumers' minds is the most vital task for marketing professionals (Manhas et al., 2016). With the emergence of social media, UGC has already seen as a popular way of influencing the consumers' decisions (Cantallops and Salvi, 2014). In such a way, brand-related UGC could be able to affect the positioning of the brand in the minds of the consumers. Influenced consumers with brand-related UGC will be motivated to purchase a certain brand over other competitive brands.

2.2. Reliability and Understandability of the Content

The evaluation of UGC reliability is largely depending on the users' perception of content and source credibility (Jin et al., 2015). The evaluation of reliability often depends on the users' experiences and personal preference (Correa et al., 2010). The users must believe that the experienced shared by other users are reliable; otherwise, they will not continue reading the UGC and will not act on its advice (Ma and Atkin, 2017). When consumers are searching for information on social media to purchase a brand, UGC is much important as it shares users' true experiences (Cantallops and Salvi, 2014). If readers have perceived that brand-related UGC as true, accurate and believable; they may agree with it and will pay more attention to it (Ma and Atkin, 2017; Lin et al., 2017). This increases the possibility to create a distinctive brand image and perception in the consumers' minds (Romaniuk and Sharp, 2000). So, the brand positioning process could be able to continue with the reliable brand-related UGC shared in social media.

A brand can be easily positioned in the consumers' minds if brand-related UGC is understandable (Tjia and Honantha, 2013). Difficult-to-understand information often leads to uncertainty and ambiguity for the consumers (Hillen et al., 2017). Hence, the lack of understandability in brand-related UGC may cause consumers to reject the users' opinions, and perhaps reject the entire brand page (Ma and Atkin, 2017). The more understandable brand-related UGC is more likely to allocate a space in the consumers' mind about a brand (Schamari and Schaefers, 2015).

This study examines to what extent consumers perceive the reliability of brand-related UGC and whether brand-related UGC can be used for the process of positioning the brands in the minds of the customers. Furthermore, this study examines whether the level of understandability of the content generated by users could influence the brand positioning.

Hence, the following hypotheses are offered.

H1: Brand-related UGC positively influence (a) reliability of content, and (b) understandability of content

H2: Reliability and understandability of the content mediates the relationship between brand-related UGC and brand positioning

2.3. Brand Positioning

Positioning is the way for companies to motivate consumers to perceive, think and feel about their brand versus competitive entries (Fuchs and Diamantopoulos, 2012). Positioning is a process of emphasizing the brand's distinctive and motivating attributes in the light of competition (Gwin and Gwin, 2003). Keynes (2017) emphasizes that arriving at the proper position requires establishing the correct point of difference (unique to the brand) and point of parity association (connected with the category, not necessarily unique to the brand). According to such a perspective brand positioning is of a high level of subjectivity since it refers to the consumer's perceptions (Klein et al., 2019).

Positioning creates a distinctive image or identity for the brand, product, service or organization in the minds of the consumers (Urde and Koch, 2014). Brand positioning is a process to create, change, or foster a specific image of a brand in the mind of the consumers. (Pike et al., 2018). It is a fundamental basis for marketing activities and product strategies (Talay et al., 2015). Brand positioning is regarded as a key tool for brand implementation in competitive markets (Aaker, 1996; Hooley et al., 1998). This is mainly the process which a brand aims to be perceived as distinct and offering superior value concerning competitors

(Krawczyk and Xiang, 2016). As stressed by Keller et al. (2011) brand positioning studies play a fundamental role in the formulation of an optimal marketing strategy by clarifying the brand's essence in the minds of consumers, what goals it helps consumers achieve and how it does so in a unique manner relative to its competitors. Successful brand positioning creates brand preference that influences a decision to choose the specific brand over competitive brands (Brexendorf et al., 2015).

Brand positioning is the company's attempt to design the brand's offers an image so that it occupies a distinct and valued place in the target consumer's mind" (Pike et al., 2018). It is mainly the process through which a brand aims to be perceived as distinct and offering superior value concerning competitors (Payne and Frow, 2014). Successfully managing consumer perceptions is thus essential for effective brand positioning (Halkias et al., 2016). In this process, a brand becomes significant for the consumer, through the creation of a strong, favourable and unique brand positioning (Alden and Nariswari, 2017). A successful brand positioning means that the target market understands the company's brand values, purchase the company's product or service due to the brand values attached to it and is loyal to the company's brand/product (Napoli et al., 2016).

With the advent of social media, brand-related UGC facilitates communication with consumers to share information about the brands (Estrella-Ramón and Ellis-Chadwick, 2017). By series of communication with brand-related UGC could effectively create a position in the consumers' minds (Micu et al., 2017). The content shared by the users would much helpful for the consumers to identify the brands over competitors and create a strongly favourable brand image in their minds (Kim and Johnson, 2016). Consumers' favourable brand positioning in their mind could ultimately lead them to purchase a certain brand and not the others (Mohd Suki, 2016).

Effective brand-related UGC can generate a favourable attitude towards the brands and greater intention to comply with recommendations and reviews made in the UGC (Parveen et al., 2015). In this sense, this paper intends to contribute to the literature by shedding new light on consumers' intention to involve with brand-related UGC in social media and its impact on brand positioning and brand choice intention.

In principle, companies can position their brands on an almost infinite number of associations (e.g. a mobile phone can be positioned upon its size, shape, handiness, user-friendliness, stylishness, etc.) (Jun and Park, 2017). Several authors have classified these associations into distinct groupings based upon alternative bases of positioning (Williams and

Williams, 2017; Rutter et al., 2017). The positioning bases underlie the positioning strategy of a brand.

Despite the importance of brand positioning, however, limited empirical attention has been paid to the question whether the use of certain positioning strategies (e.g. social media marketing strategies) results in more superiorly positioned brands than the application of other strategies (e.g. user-based positioning) (Keller and Lehmann, 2006; Pham and Muthukrishnan, 2002). The purpose of the current study is to close this gap and compare the effectiveness of brand-related UGC on positioning strategies of real brands from a consumer perspective and thus provide brand managers and advertising professionals with empirically-based insights for making sound positioning decisions.

2.4. Brand Choice Intention

The brand choice intention has been receiving increased attention in the extant literature (Phung et al., 2019). The brand choice intention is considered a measure of customer behaviour as it incorporates a ranking of different brands among competing brands (Davvetas and Diamantopoulos, 2017). It enables information processing (Ebrahim et al., 2016) and gathers experience as the main source for the brand choice (Lemmetti and Tuominen, 2017).

The brand choice intention is the tendency that customers will select the brands and deliver their user experiences to friends and relatives (Mohseni et al., 2018; Ojiaku and Osarenkhoe, 2018). Brand choice intention represents the possibility that customers will plan or be willing to purchase a certain brand in the future (Baker et al., 2016; Román and Sánchez-Siles, 2018). It is the process of an individual's intention to select a brand before purchase (Vanwesenbeeck et al., 2017; Davtyan and Cunningham, 2017). The brand choice intention is measured by focusing on utilitarian belief as to the main driver of customer evaluation response and emotional response which contributes to preference development. An increase in brand choice intention means an increase in the possibility of purchase (Quintal et al., 2016). When customers have a positive brand choice intention (Bhargave et al., 2016), this forms a positive brand commitment which propels customers to take an actual purchase action (Mundel et al., 2018).

Hence, the following hypotheses are offered.

H3: (a) Reliability of content and (b) understandability of content positively influence brand positioning

H4: Brand positioning positively influence brand choice intention
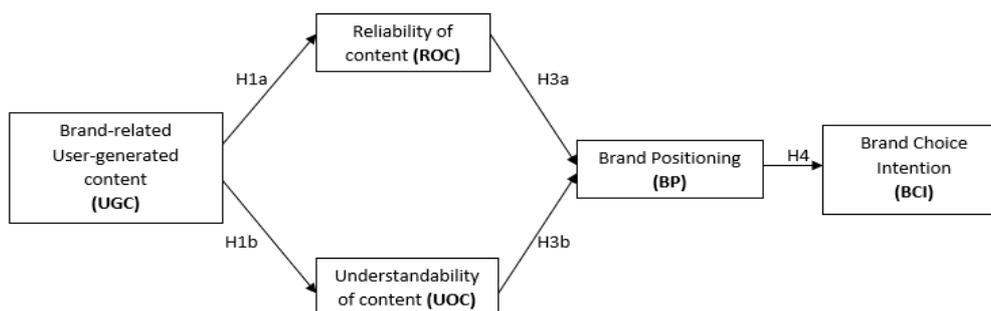
Figure 1: Conceptual Framework

3. METHODOLOGY

In this study, only the quantitative approaches will be adopted and conform to the deductive approach. The present study is descriptive research which is used to describe the topic of interest and finally, the causal relationship of the variables can be examined through a hypothesis. The research paradigm is based on positivism with the adoption of realist ontology that perceives reality to be objective and logical by observing causes or mechanisms driving effects in human behaviour (Neuman, 2014). Besides, the positivist perspective focus on the social pressures and situations operating on people to shape their attitude and behaviour that reflects in this empirical study.

The data collection instrument was a structured, self-administered questionnaire. The questionnaire comprised five sections which relate to brand-related UGC, brand positioning, brand choice intention, reliability of the content and understandability of content. Each section rated using 5 points Likert scale, where 1= strongly disagree, 2= disagree, 3= neutral, 4 = agree and 5=strongly agree. Data was collected from the sample of 384 undergraduates who are currently pursuing their higher education in Vietnamese' HEIs.

Before applying statistical tools, first, reliability and validity tests were undertaken. Data were analyzed using SPSS (version 25) to perform several appropriate statistical techniques depending on the research question. Correlation and regression tests were used to identify how strongly selected variables were related to each other or the degree of association between the two variables (Kothari, 2004) and to predict the value of the dependent based on the known value of the independent variable, assuming that average mathematical relationship between two or more variables (Kothari, 2004). Confirmatory factor analyses were undertaken to reduce the bulk items into the manageable number and to obtain the best fit. Therefore, the present study mainly adopted SEM to obtain the best fit/confirmatory factor analysis using AMOS25.

4. FINDINGS

To assess the adequacy of the measures, the authors estimated the convergent validity through: item reliability, construct reliability, and average variance extract (AVE) (see Table 1). Firstly, item reliability was evaluated based on the factor loadings of the items (i.e., observed variables) on their respective constructs. As all the factor loadings were higher than the threshold value of 0.5, convergent validity was supported (Hair Jr and Lukas, 2014). Secondly, construct reliability was assessed through both composite reliability (CR) values and Cronbach alpha coefficients. As all the CR values and Cronbach alpha coefficients were higher than the threshold value of 0.7, construct reliability was supported (Hair Jr and Lukas, 2014). Thirdly, the AVE was assessed because it is the summary indicator of convergence. As all the AVE values were higher than the threshold value of 0.5, convergent validity was supported (Hair Jr and Lukas, 2014).

Table 1: Reliability and Validity measurements

Constructs	Cronbach's alpha	CR	AVE
Brand-related UGC	0.875	0.877	0.644
Reliability	0.925	0.928	0.763
Understandability	0.866	0.875	0.640
Brand Positioning	0.846	0.851	0.658
Brand Choice Intention	0.763	0.818	0.540

Further, discriminate validity was estimated to ensure the adequacy of the measures. Discriminant validity was evaluated by comparing the square root of the AVE of each construct with the bivariate correlations among constructs (Table 2). A measurement model is considered to have acceptable discriminant validity if the square root of the AVE of each construct is higher than any of the bivariate correlations among the constructs (Iglesias et al., 2019). As all the square roots of AVE were higher than the bivariate correlations among the constructs, discriminant validity was supported (Iglesias et al., 2019).

Table 2: Discriminate Validity

	ROC	BP	BCI	UOC	UGC
ROC	0.874[a]				
BP	0.356[b]	0.811[a]			
BCI	0.483	0.505	0.735[a]		
UOC	-0.039	0.093	0.140	0.800[a]	
UGC	-0.248	-0.078	-0.177	-0.186	0.802[a]

The square root of AVE in the diagonal
b Pearson correlations among constructs

To assess model fit, the comparative fit index with the overall model chi-square measure ($\chi 2$), the comparative fit index (CFI), the goodness of fit index (GFI), the root mean square error of approximation (RMSEA), and Associated PCLOSE were used (Byrne, 2010). For the current model, $\chi 2$ /df is 1.052 ($\chi 2 = 88.336$; df = 84), CFI is .995, GFI is .906, AGFI is .866, RMSEA is .022, and Associated PCLOSE is 0. 867.An adequate model fit was, therefore, indicated.

Having successfully validated the structural model's goodness-of-fit to the data, the next step was to examine the research hypotheses using path measurement coefficients (regression weight estimates and critical ratios) from the SEM analysis performed with AMOS 25. Table 3 on the summaries these results, from which it is seen that hypothesized causal paths in the structural model were significant at the 0.05 level.

Table 3: Path Coefficient Weights for the Structural Model

Hypotheses		Estimates	CR	p-value	Comment
Code	Path				
H1a	UGC-> ROC	0.339	2.432	0.015	Supported
H1b	UGC->UOC	0.177	2.543	0.001	Supported
H3a	ROC->BP	0.395	3.564	***	Supported
H3b	UOC->BP	0.136	4.125	***	Supported
H4	BP->BCI	0.285	3.209	0.001	Supported

At a significance level of 0.05, the estimated values empirically support all the direct effects that are part of the hypothesized model. Table 3 presents the standardized path estimates and t-values for each of the hypothesized model relationships for each construct. Concerning the structural relationships proposed in the conceptual model brand-related UGC, reliability of content, and understandability of content, had a significant relationship with brand positioning

toward the higher education sector supporting H1(a), H1(b), H3(a), and H3(b). Based on the standardized estimates between paths, association with brand positioning had a significant influence on brand choice intention supporting to the hypotheses H4.

Further, the correlation between the UGC-BP, UGC-BCI, BP-BCI variables was 0.541, 0.671, 0.628 respectively, indicating a moderate positive relationship among them. The R-Square among UGC and brand positioning were 0.42. 42% of the variance in the brand-related UGC was explained by brand positioning. Furthermore, the R-Square among brand-related UGC and brand choice intention was 0.36. 36 % of the variance in the brand-related UGC was explained by purchase intention. The R-Square among brand positioning and the brand choice intention was 0.47. 47 % of the variance in brand positioning was explained by brand choice intention.

When the new predictor, the reliability of content, was included, the Adjusted R-square value changed 0.591 .59.1 % of the variance in the brand-related UGC was explained by brand positioning and brand choice intention. The Beta value (standardized) of the new predictor (reliability of content) has increased to 0.64 and it was significant (sig-value=0.000).

Similarly, understandability of content was included, the Adjusted R-square value changed 0.574 .57.4 % of the variance in the brand-related UGC was explained by brand positioning and brand choice intention. The Beta value (standardized) of the new predictor (understandability of content) has increased to 0.72 and it was significant (sig-value=0.000).

In addition to this, the mediating effect of reliability, and understandability of content between brand-related UGC and brand positioning had analysed (Table 4).

Table 4: Mediating effect of brand trust, and brand co-creation

Path	Direct Effect	Indirect Effect	Mediation
UGC->ROC->BP	0.0032(0.9803)	0.3816***	Full Mediation
UGC->UOC->BP	-0.5664(0.5723)	0.1145***	Full Mediation

In the present study, the 95% confidence interval of the indirect effects was obtained with 5000 bootstraps resamples (Preacher & Hayes, 2008). Results showed that the direct effect between UGC and BP was B= 0.0032 (p=0.9803) which is not significant. Besides, results indicated that the indirect effect became significant after including ROC as the mediating variable (B=0.3816, p=0.000), which indicates a Full mediating effect of Supporting H2a. Similarly, the direct effect between UGC and BP was B= -0.5664 (p=0.5723) which is not significant. Besides, results indicated that the indirect effect became significant after including

UOC as the mediating variable (B=0.1145, p=0.000), which indicates a Full mediating effect of Supporting H2b.

5. DISCUSSION AND CONCLUSION

The primary purpose of this study was to test the relationship between brand-related UGC, brand positioning and brand choice intention perceived by undergraduates related to the higher education sector. In this process, the researcher has mainly focused on developing a conceptual framework including mediating variables which are the reliability of content and understandability of content among brand-related UGC and brand positioning. The conceptual model was developed based on the critical review of previous literature and in consideration of the main research question and research objectives. Furthermore, five hypotheses were developed to demonstrate the relationship between the main constructs of the research model.

Through the examination of the role of brand-related UGC in positioning a brand using social identity theory and social exchange theory, this study contributes to a deeper understanding of the undergraduates about the brand-related UGC in social media in Vietnam and its impact on the formation of brand positioning and brand choice intention.

The theoretical model and corresponding hypotheses were addressed the research objectives posed in this study. The outcome of the data analysis indicated that a relationship between brand-related UGC, reliability of content, understandability of content, brand positioning, and brand choice intention exists at a significant level. Furthermore, the variance among brand-related UGC and brand positioning was able to explain with a higher percentage including the reliability of content and understandability of content as mediating variables. Moreover, introducing modifications, the theoretical model was developed with overall goodness-of-fit to an acceptable level.

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INNOVATIVE PREDICTION OF COMMUNICATION AGENCIES

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Abstract

Even marketing agencies could not escape the worldwide trend of acceleration of processes. New procedures for market penetration of businesses have been created upon the arrival of startups and new forms of businesses. The Lean concept is regarded as one of the most feasible approaches to be used across the analysis of business environment, management of company activities and communication marketing. Many smaller or larger agencies will have to face a global competitive struggle and any hypercompetition arising therefrom. Maintaining these businesses will be in the hands of lower management that needs to adopt forward thinking. Marketing agencies will have to find new methods of cooperation and product development. In the meantime, lots of new theoretical procedures and processes for company establishment and operation have been defined. The main goal of the paper is to highlight possible changes in processes of marketing agencies and based upon these findings to form a new model of establishing creative outputs. Studying modern approaches of the fastest-growing companies and summarising the research will result in the consistent theoretical model of functioning of marketing agencies. This model meets globalisation requirements and respects three fundamental attributes of the modern business world - speed, a flexible response to changes and cost cutting. A great deal of interaction among businesses needs to be taken into account as well. The main contribution of this study is to clarify how marketing agencies should get adapted to possible changes that might occur in near future. Only a fast response based upon knowledge will guarantee the future of businesses in this segment.

Keywords: *Communication Agencies, Innovative Opportunities of Communication Agencies, Future of Marketing Agencies.*

1. INTRODUCTION

Nowadays, communication agencies are implementing various processes. They vary from country to country. The history showed that these processes had been modified and transferred from communication agencies mainly by their employees. The processes may be included into specific models. The models were being changed within a certain process to be complemented or modified by experts due to an error or through successful experimenting. However, the above mentioned model has not been modified for a long time. As described in the paper, it is rather lengthy and complex. Managers and employees are led linearly on a long path being accompanied by various changes. Until the communication agency reaches the final destination, it has to cross a very long path, especially when it comes to a complex communication campaign. These days, startups seem to be leaders in these processes, as shown in market research and other available sources. When assessing literary sources, we must admit this is all due to model complexity and pace they offer. On the other hand, there are also models for solving creative processes, for instance design thinking. It offers the compact philosophical non-linear model for direct and fast solution of creative tasks. Agencies should be forward-thinking and pay attention to their internal processes because only the company following the trends and moving ahead can succeed.

2. LITERATURE REVIEW

The following chapter is dedicated to summarising theoretical background for creative processes in communication agencies as well as their complete communication strategy. Many researchers have already tried to apply a startup business model to various segments of creation. The above mentioned model is very flexible in its use. As stated by Leatherbee and Katila, this model belongs amongst the most successful models to be used in current conditions of environmental insecurity (Leatherbee & Katila, 2020). The same may be applied to the university environment when the given model ideally complements the practice (Ávalos et al., 2019). In addition, Mansoori, Karlsson and Lundqvist emphasise the relationship between a coach and the Lean methodics (Mansoori et al., 2019). Certain experiments led to partial theoretical modification as defined by Felin, Gambardella and Zenger (Felin et al., 2019). Another milestone was presented by Eucher who managed to define possibilities of use of the lean model in large corporations (Euchner, 2019). The latest findings confirm centrism focused on a user (Zorzetti et al., 2020). Melegeti et al., proves the model functionality across various segments, especially in engineering (Melegati et al., 2019). Within the given subject matter, we should focus on communication in connection with the startup model. González-Cruz with its

colleagues have clarified this connection with the internal communication (González-Cruz et al., 2020). The same applies to the communication model, mainly the agency one, which refers to a user's process and user's experience. Its significance was demonstrated in the research carried out by Aarlien and Colomo-Palacios (Aarlien & Colomo-Palacios, 2020). It may be linked to the work by Ghezii and Cavallo who discuss the interconnection of digital possibilities with the startup model (Ghezii & Cavallo, 2020). In this respect, we should also mention design thinking used for problem solving. As described by Sokół and Słupińska, this process can be implemented into a number of business cases (Sokół & Słupińska, 2019). These methods can be used in any business practice. Chou dealt with aligning design thinking to corporate social responsibility (Chou, 2018). Liedtka introduced new innovative practices of using this model across the whole social spectrum (Liedtka, 2014). Belyaeva et al. states that the given method is suitable to creation of any innovative solutions (Belyaeva et al., 2021).

2.1. Modern Processes of Communication Agencies

The modern process occurring within communication agencies can be clarified by means of documents and files issued herewith. Therefore, we have decided to focus on these resources while excerpting and observing data in order to study relevance of practical sources. Finally, we will be able to see that these models are fully functioning and can be applied into practice.

Picture 1 – Agency Process
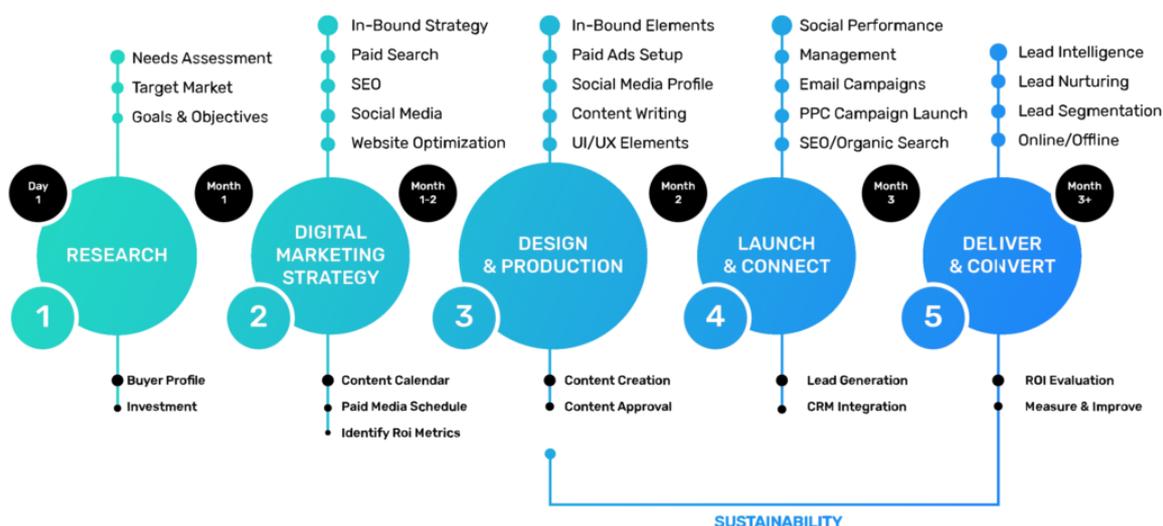
Source: <https://social.industries/2019/09/20/which-sources-augment-data-driven-marketing-and-advertising/>

According to the authors from Social Industries, the process of creating of a digital campaign is as follows: at first, the research is conducted consisting of market research, goal

determination and creation of a person. All with a month-long duration. Follows defining the strategy when the proper mix of digital communication platforms is created. This part also defines the content calendar and measurement metrics. Afterwards, the design campaign and specific formats are launched. As for timing, we reach two-month duration. Finally, the campaign is launched and connected to systems that process data such as CRM. Launching is scheduled for a three-month period. The last part of the process is often referred to as submission and conversion. Within this processes, information is handed in, campaign success is evaluated on the basis of its measurement and so is the number and leads quality. This process is scheduled for a three-month period. This process is limited by its complexity and lengthiness and it has to be started all over again should a material change occur. The time horizon depends on the extent of the campaign and any corresponding duties.

Picture 2 – Traditional Agency Process

Source: <https://uxdesign.cc/how-design-thinking-creates-emotionally-intelligent-brands-and-better-work-77f4da249509>

Musich presents another model which states that the traditional agency model consists of the assignment when a client comes up with a problem that needs to be solved. This is followed by a review when a client discusses the assignment. Then the research is done to define the facts and their compliance with the assignment. This is followed by creative assignment which is derived from previous business outcomes. This step is mostly accomplished by a company strategist. Only after that follows the creative part of the process or brainstorming with other members of the creative team. They draw up a concept and present it to a client. This process is rather lengthy when we realise that the creative component is being formed only in the fifth grade. Some drawbacks may also appear in testing of a conceptual outcome with the results

going directly to a client. Anyway, the same obstacles occur when testing a conceptual outcome with its results notified directly to a client who gives feedback and later on, the whole cycle is either repeated or submitted to one more format creation.

2.2. Modern Processes in Creative Activities of Communication Agencies

This subchapter deals with a creative process of communication agencies. This model usually entails similar outcomes from various sources in the form of a three-element model. It often consists of the research of the target group and the brand positioning. Various methods can be used to come to a conclusion. We have stated the most frequent ones, such as an interview or a group discussion or even a focus group. We now know that this passage is a driving force even though we are now trying to emphasise empathy, i.e. to observe whether this is appropriate for a campaign. A person is often referred to as a black box or a centric personality in case of emphasising. The next step is to define a complex strategy towards an interviewee. Another part, defined as a creative element, represents a complete concept of creation on the basis of brainstorming or basic data.

Picture 3 – Creative in communication agency

Source: <http://purplefilm.com.au/adelaide-video-production-company/brand-management-adelaide/>

There are many drawbacks within this model, lying mainly in its broad and general context which divides results into three main categories. The goals are easily accomplished when moving from the first category to the second or the last one. However, extensive campaigns see this transfer as too lengthily and clumsy. The lean method is another method that is worth noting.

2.3. Lean Method

Picture 4 – Lean Startup Model
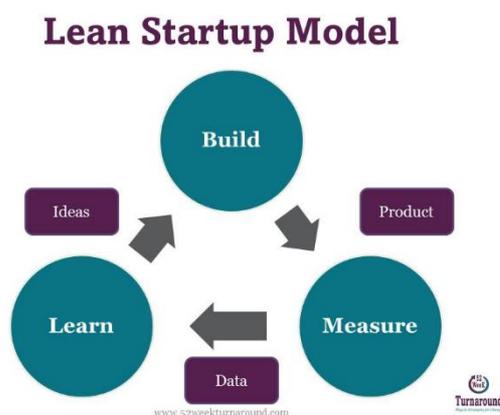
Source: <https://52weekturnaround.com/lean-startups-brussels-2014/>

The lean method was first defined by Steven Bank and later modified by Eric Ries ("The History of Lean Startup by Steve Blank", 2012). The Lean model contains the central element or so-called MVP - Minimum Viable Product. It is a version of a simpler product which is qualified to meet customers' needs. The feedback is received through MVP to be adjusted to its final version. This all helps cut the costs ("Why We Love the Lean Startup (And You Should, Too!)", 2015). Periera speaks about the model functionality designed as Build-Measure-Learn focusing on the team's or company's speed in video creation. The cycle generates innovations because fast interaction enables MVP creation (Pereira, 2020). As assumed by Rogers, the first element is Build and it includes the final product creation, followed by Measure when it is calculated whether a product has a potential or needs to be changed. As a result, data are created and the other phase called Lean is launched. Follows the creation of videos and Build is renewed (Rogers, 2019). The cycle is repetitive because MVP can be continuously updated.

2.4. Design Thinking

Picture 5 – Design Thinking
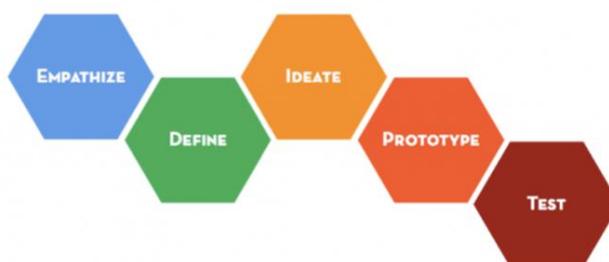
Source: <https://designthinkingainovace.wordpress.com/tag/design-thinking-proces-2/>

Combining the lean method and design thinking is likely to create a perfect tool according to Roberts because design thinking ideally complements the needs of the target group (Roberts, 2018). The model of design thinking consists of five stages, i.e. empathising, defining, ideating, prototyping and testing ("Design thinking", 2019). The above procedure is non-linear, which means we can move and return freely to a random element according to our needs (Dam & Siang, 2020). A creator is gradually directed from empathising with the target group to defining a problem that needs to be solved within these processes. Afterwards comes ideating by means of creative techniques such as brainstorming. The prototype is then created and later tested and implemented ("Build-Measure-Learn", 2019).

3. RESEARCH METHOD

The observation consisted of primary and secondary sources. Secondary sources are mainly defined in the introduction or summary of literary sources and temporary research. The sources originate from scientific studies, expert articles and texts. The authors were systematically selected according to their relevance, year of publishing and key words. These were mainly theoreticians and practicians who deal with the given subject matter. The theoretical part is enriched by relevant findings upgrading the level of the study and exposing its significance. The methods used in this part come from the scientific spectrum and are reasonably selected. The occurrence is assessed through analysis, comparison, education and induction. The whole article induces scientific completeness and sources equality. The available sources helped us extract specific options for models operating with three basic requirements, such as speed, cost minimising and simplicity. The above theoretical background enabled us to define a new model for the analysis arising out of the studied processes within communication agencies and linked to new practical models.

4. ANALYSIS

The analysis of knowledge we acquired brought new findings when it comes to limiting current processes within communication agencies. In particular, we focused on the complex process from the assignment to a final communication package. A creative process is another model that is directly linked to communication agencies. This one plays a key role in setting the complex campaign which is usually enhanced by the final model.

Picture 6 – Predictive model - Communication Agency
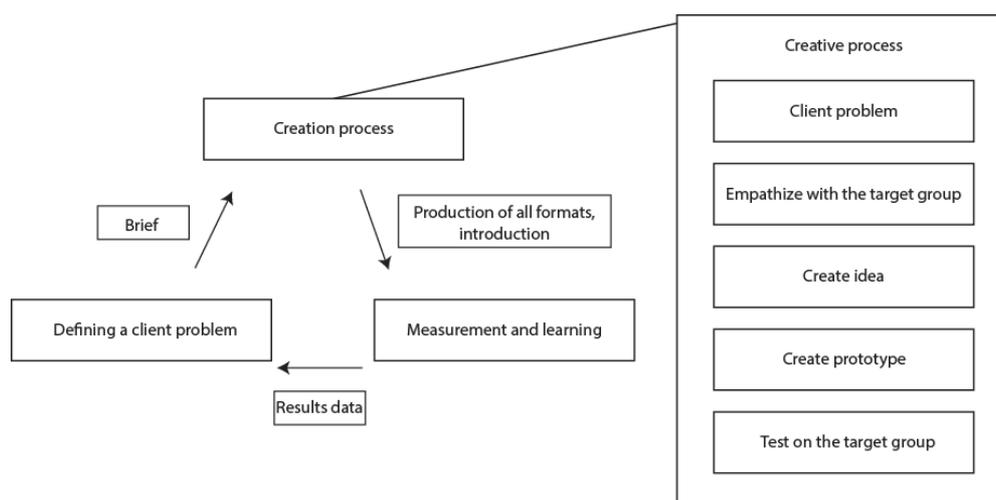
Source: own research

A new model arising out of the analysis is defined by the startup lean process. This model consists of three main parts and these are Build, Measure and Learn. One more part - a product - is placed between Build and Measure. Measure and Lean contain the part of data and Learn and Build include Ideas. This model is easy to operate. The given model emphasises education or learning, i.e. previous experience or data. This is followed by detailed work with the target group which is often rare as shown by the analysis. Innovative prediction connects two parts of the model with the process of client's problem solving as shown in the left side of the picture. The model represents the connection of elements within an agency, i.e. a lengthy and demanding process of campaign creation and the lean model, on the other hand, as the symbol of speed and expertness. It defines a problem a client needs to sort out. Consequently, the assignment transforms a specific creation into a creative process. Afterwards, all required formats are produced in compliance with the previous process. All these formats are eventually transposed into the reality. All this is followed by measurement and learning. Within this stage, we are trying to assess fulfilment of client's requirements according to the assignment and the learning process is based on the given results. Final outputs are provided to a client and the whole process is repeated. The right side shows the model of the creative part consisting of various elements, such as exact limitation of a problem or empathising with the target group. The final part involves insights and specific outlooks of the target group. Ideally these are one or two representatives of an authorised person. An idea and the prototype MVP are created from the outcomes. The prototype does not need to be ideal but needs to meet testing requirements. If successful, other formats are completed and the final version is created. This

process does not dictate any special steps to take. It is just a random procedure. The key goal is to form the centric bond with the target group which enables us to define a strong basis for creating an idea.

5. DISCUSSION

The current state communication agencies are in is worth discussing as well. We should rethink whether the current model, lasting too long, is an effective way for the future. All the processes are high-paced. Businesses are trying to cut costs and render the human resources much more effective. All businesses including communication agencies should think ahead and move ahead. There is also a question whether home office and outsourcing are real future for agencies in contrast to the back office philosophy that took up a few years ago. However, teleworking is a new trend. Therefore, the innovation lies in connecting experts without a communication agency and promote freelance work. New room has been created for communication experts and temporary outsourcing. The submitted paper can help us reach this objective. The model contains all constructs helping startup businesses to succeed. What is more, creative management can also provide us with brand new opportunities how to progress.

6. CONCLUSION

We have managed to reach the project goals and define possible innovative solutions within the whole process as well as the creative process of communication agencies. Secondary sources were used in the theoretical study. These mainly included expert articles from leading magazines written by acclaimed authors. We also used expert articles from the practice. The submitted study may be limited by the availability of resources such as literature research and excerption of specific parts. The model consists of two parts, i.e. from the complete model of the creative campaign to its implementation on the one hand and the creative process from creating an idea to testing on the other one. The given model meets criteria such as speed, expertness, cost minimising and boosting effectivity. The acquired knowledge served for creating a model which needs to be properly tested. The first impetus was successful, yet it is important to retest the model in simulated conditions through an experiment before real conditions are applied. Afterwards, the model may be modified.

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IS A POSITIVE DIVERSITY CLIMATE AN ANTECEDENT OF ORGANIZATIONAL REPUTATION? AN EMPLOYEE PERSPECTIVE

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Abstract

The purpose of this paper is to fill the gap in the reputation literature on employee views of organizational reputation by taking employees' perceptions of workplace diversity climate as the antecedents of perceived organizational reputation, thereby making a perceived organizational reputation profile extraction. 403 respondents participated in the empirical research assessing employees' perceptions of organizational discrimination, workplace diversity and organizational reputation. To reveal the hidden relationships among the three scales, obtained data was analyzed utilizing cluster analysis. Focusing on assessing the reputation of an organization from employees' perspective, this study is the first attempt to investigate the effect of employees' perceptions of workplace diversity climate on their perceptions of organizational reputation. As well as enhancing the theoretical framework to assess the employee views of organizational reputation, this study aims at modelling employee perceptions multi-dimensionally through data mining techniques. It was observed that a positive diversity climate that is directly experienced in the workplace has a pronounced effect on employee's organizational reputation perceptions.

Keywords: Organizational Reputation, Workplace Diversity, Organizational Discrimination, Cluster Analysis, Data Mining.

1. INTRODUCTION

Organizational reputation is a perceptual representation of a company's past actions and prospects that describe the firm's overall appeal to all its key constituents when compared to other leading rivals' (Fombrun, 1996). It is a multi-dimensional construct and its related terms and concepts are steadily growing in interest among management researchers (Money, 2017). Flourishing along multiple dimensions, organizational reputation literature has made remarkable progress, and the level of analysis of the antecedents of reputation has also expanded (Newburry, 2017). Despite certain categorial challenges, this multi-faceted construct has been subject to divergent measurement tools and systems. This implies that reputation from being a potentially holistic and multidisciplinary construct is turned into a sophisticated methodology for measuring stakeholder perceptions (Schultz, 2017). Since it is very often acknowledged to be socially constructed (Rindova and Martins 2012), the basis of such stakeholder perceptions including employees' perceptions is fundamentally formed by social evaluations which organizations are also subject to (George et al., 2016). Depending on the evaluator, reputation can mean different things and an organization may have distinct reputations stemming from the perceptions of a particular stakeholder group (Gardberg and Fombrun, 2002). In this context, the role of employee perceptions on organizational reputation is very often referred to in reputation literature (i.e. Wartick, 2002, Whetten and Mackey, 2002, Chun, 2005, Walker, 2010, Cian and Cervai, 2014).

With increasing diversity in the workforce, diversity in the workplace and managing a diverse workforce have been the subject of a remarkable amount of recent research, particularly within the last 10 years. These studies typically explored the effect of diversity on organizational survival and organizational performance (i.e. Harrison et al., 2002, Filatotchev and Toms, 2003, Randel and Jaussi, 2003). However, the existence of the heterogeneity of employee characteristics in terms of sex, race, ethnicity, disability, belief or religion, age, sexual orientation, and gender identity throughout the world (Aydın and Özeren, 2018) has opened an inviting door for both reputation and diversity researchers. Researchers have started to examine the relationship between organizational reputation and diversity perceptions. In this regard, the relationship between corporate reputation and female presence at board level (Brammer et al, 2009), mediating role of reputation on the relationship between board racial diversity and firm performance (Miller and María, 2009), the impact of board diversity and gender composition on firm reputation (Bear et al, 2010, Larkin et al, 2012) have been investigated. As is seen, however, these preliminary studies categorically centered upon the role of board members.

Thus, within this research, we aim to contributes to the literature by examining the relationship between corporate reputation and diversity perceptions of employees by utilizing a cluster analysis.

Cluster analysis has so far been used in a broad array of contexts in social sciences. Particularly, it has been utilized in specific researches like market segmentation (Dolnicar, 2002; Punj & Stewart, 1983), supply chain integration (Kannan & Tan, 2010), hotel performance comparison (Sainaghi et al, 2018) to the determination of people's eating habits (Newby & Tucker, 2004), and the classification of products (Pappas et al, 2008). However, many studies have also been conducted from the management paradigm (Brusco et al., 2017; Wallace et al., 2004; Ketchen & Shook, 1996). In this study, by clustering employee's attitudes and behaviors, we aim to extract different employee profiles based on the relationship between employees' diversity expectations and corporate reputation perceptions. Traditionally, association rule mining is used for extracting profiles while decision trees for mapping relationships and various methods for estimating groups. However, clustering analysis can give detailed results regarding the calculation of the weights of the groups and the resulting cluster differentiation. This allows inferences to be made in terms of determining the threshold values of the extracted profiles.

2. METHOD

This study aims to create different employee profiles by analyzing the relationship between the diversity employees feels in their organizations. Participants that constitute the research sample were randomly selected from retail employees who were requested to participate in an online survey started in 2019. A 7-point interval scale was used, with 1 as 'strongly disagree' and 7 as 'strongly agree', and the survey was applied online. 403 respondents' took part in the empirical research. Diversity perceptions of the employees were measured through the 16-item diversity perception scale developed by Barak, Cherin, and Berkman (1998). Along with organizational and personal dimensions, the scale has four factors: organizational fairness, organizational inclusion, personal diversity value factor, and personal comfort factor. Reputation perceptions of the employees were measured through the 23-item reputation scale developed by Fombrun, Ponzi, and Newburry (2015). The scale is composed of 7 dimensions: Products, innovation, workplace, governance, citizenship, leadership, performance. The seven-dimension structure of the corporate reputation scale allows employees to evaluate the reputation of their workplaces on multiple criteria.

2.1. Cluster Analysis

Cluster analysis, in general terms, is the determination of data sets that are compatible within the same group and separated from other groups (Tan et al., 2013). In summary, it is a method that clusters close data and enables them to move away from each other in different clusters. From store-customer grouping (Punj & Stewart, 1983) to obtaining web-document categories (Abualigah et al., 2018), clustering methods have a wide range of applications (Kishor & Venkateswarlu, 2016). In this study, the clusters investigated in line with the perceptions and expectations of individuals also determine the employee profiles formed within the sample. However, there is no preliminary information on how many clusters the observations will be divided into, as there is no previous profiling study in terms of reputation and diversity. For this reason, instead of the k-Means (Pelleg & Moore, 2000; Bishop, 1995) algorithm, which is very popular in the literature, the x-Means algorithm is used, in which the number of clusters is not predetermined. The x-Means algorithm is one of the most widely used cluster algorithms, which is based on expectation-maximization and produces very good results despite its high processing density (Kishor & Venkateswarlu, 2016).

3. RESULTS

The data in the study were obtained through a questionnaire form. The 39-item form consists of 4 factors (OF, OIF, PD, PC) the diversity scale and 7 factors of (WP, G, LS, C, PS, P, IN) the Reputation scale. Since the 4 items in the diversity scale were designed as a reverse coded, the data were arranged and the summary of the scale data obtained from 403 people participating in the study is given in table 1.

Table 1. Summary of Data

Scale	Factors	Five Number Summary					Statistics			
		min	Q_1	Q_2	Q_3	max	sd	mean	skewness	kurtosis
Diversity	OF	1,00	3,333	4,167	5,500	7,00	1,669	4,189	-0,014	-0,853
	OIF	1,00	3,250	4,000	6,000	7,00	1,684	4,201	-0,057	-0,931
	PD	1,00	2,333	4,000	5,667	7,00	1,717	4,142	-0,092	-1,407
	PC	1,00	2,333	4,000	5,667	7,00	1,771	4,141	-0,106	-1,378
Reputation	WP	1,00	3,000	4,000	6,000	7,00	1,811	4,148	-0,101	-1,106
	G	1,00	2,667	4,000	6,000	7,00	1,830	4,055	-0,009	-1,106
	LS	1,00	3,000	4,000	6,000	7,00	1,804	4,088	-0,032	-1,106
	C	1,00	3,000	4,000	6,000	7,00	1,798	4,091	-0,037	-1,092

PS	1,00	3,250	4,000	5,250	7,00	1,704	4,099	-0,060	-0,873
P	1,00	3,000	4,000	4,667	7,00	1,646	3,921	-0,004	-0,757
IN	1,00	3,000	4,000	5,333	7,00	1,728	4,070	0,040	-0,947

In order to determine the relationship between the factors, the Pearson correlation coefficient was calculated and the results are given in Table 2. It has been determined that PS, P and IN factors in the corporate reputation scale are incompatible with other factors and there is no relationship between them. Thus, these factors were not used in the cluster analysis applied in the continuation of the study.

Table 2. Correlation Coefficient of Factors

	OF	OIF	PD	PC	WP	G	LS	C	PS	P	IN
OF	1,000										
OIF	0,813**	1,000									
PD	0,682**	0,681**	1,000								
PC	0,708**	0,681**	0,797**	1,000							
WP	0,853**	0,824**	0,685**	0,725**	1,000						
G	0,855**	0,835**	0,700**	0,725**	0,844**	1,000					
LS	0,861**	0,837**	0,694**	0,723**	0,850**	0,872**	1,000				
C	0,851**	0,841**	0,694**	0,723**	0,846**	0,853**	0,857**	1,000			
PS	0,045	0,069	0,027	0,043	0,030	0,040	0,027	0,043	1,000		
P	-0,035	-0,013	-0,067	-0,042	-0,004	-0,061	-0,025	-0,026	-0,050	1,000	
IN	0,042	0,027	-0,012	-0,008	0,043	0,024	0,047	0,024	-0,013	-0,029	1,000

It is seen that OF and OIF factors in the diversity scale have a high positive relationship with the WP, G, LS and C factors in the corporate reputation scale. Similarly, PD and PC factors representing the expectations of employees in the diversity scale also have a positive relationship with the WP, G, LS and C factors. Thus, it is observed that the diversity approach experienced by employees in the workplace is more effective on their perceived reputation. The Expectation Maximization (EM) algorithm running on the related data created 7 different cluster centers and these values are given in Table 3.

Table 3. Initial Clustering Result with Expectation Maximization Algorithm (EM)

		CLUSTERS						
		C1.1	C1.2	C1.3	C1.4	C1.5	C1.6	C1.7
OF	mean	4,012	4,058	6,548	1,895	4,008	3,862	4,024
	s.d.	0,371	0,681	0,197	0,847	0,350	0,905	0,284
OIF	mean	4,079	3,767	6,495	2,022	4,010	4,293	3,961
	s.d.	0,317	1,118	0,249	0,996	0,334	0,947	0,380
PD	mean	2,098	3,384	5,976	2,107	6,031	5,528	4,002
	s.d.	0,555	0,772	0,470	0,480	0,445	0,515	0,025
PC	mean	2,077	4,419	6,069	1,910	6,079	4,095	3,989
	s.d.	0,457	1,000	0,511	0,445	0,350	1,280	0,070
WP	mean	4,107	4,086	6,522	1,514	4,006	4,121	4,009
	s.d.	0,481	1,100	0,262	0,310	0,456	1,337	0,546
G	mean	4,036	3,644	6,522	1,461	3,994	4,043	4,125
	s.d.	0,428	1,042	0,279	0,280	0,479	1,352	0,510
LS	mean	3,936	3,979	6,516	1,485	3,997	3,923	4,078
	s.d.	0,406	1,113	0,246	0,253	0,444	1,221	0,368
C	mean	4,049	3,921	6,505	1,490	3,932	4,058	4,003
	s.d.	0,581	1,045	0,280	0,278	0,464	1,135	0,607

The distribution of the clusters formed by including the observations closest to the cluster centers obtained is given in Table 4.

Table 4. Initial Distribution of Clusters

	C1.1	C1.2	C1.3	C1.4	C1.5	C1.6	C1.7
n	40	72	97	81	33	44	36
%	9,93%	17,87%	24,07%	20,10%	8,19%	10,92%	8,93%

The distances between the calculated cluster centers were calculated with the Euclidean metric (Eq. 1) and how far the clusters moved from each other was determined.

$$d(x,y) = \sqrt{\sum_{i=1}^{n}(x_i - y_i)^2} \tag{1}$$

Calculated Euclidean distances -*dissimilarity values between clusters*- are given in Table 5.

Table 5. Initial Distances Between Formed New Clusters (Dissimilarity Matrix)

	C1.1	C1.2	C1.3	C1.4	C1.5	C1.6	C1.7
C1.1	0						
C1.2	2,722	0					
C1.3	8,243	7,100	0				
C1.4	5,887	6,258	13,232	0			
C1.5	5,614	3,155	6,190	8,130	0		
C1.6	3,988	2,280	6,386	7,177	2,080	0	
C1.7	2,708	0,927	6,729	6,524	2,918	1,588	0

The very low dissimilarity between some profiles (such as C2-C7) indicates that these profiles are very close to each other. In such cases, it is difficult to decompose the observations, this difficulty is seen in Figure 1, which shows the scatter plot of the data.
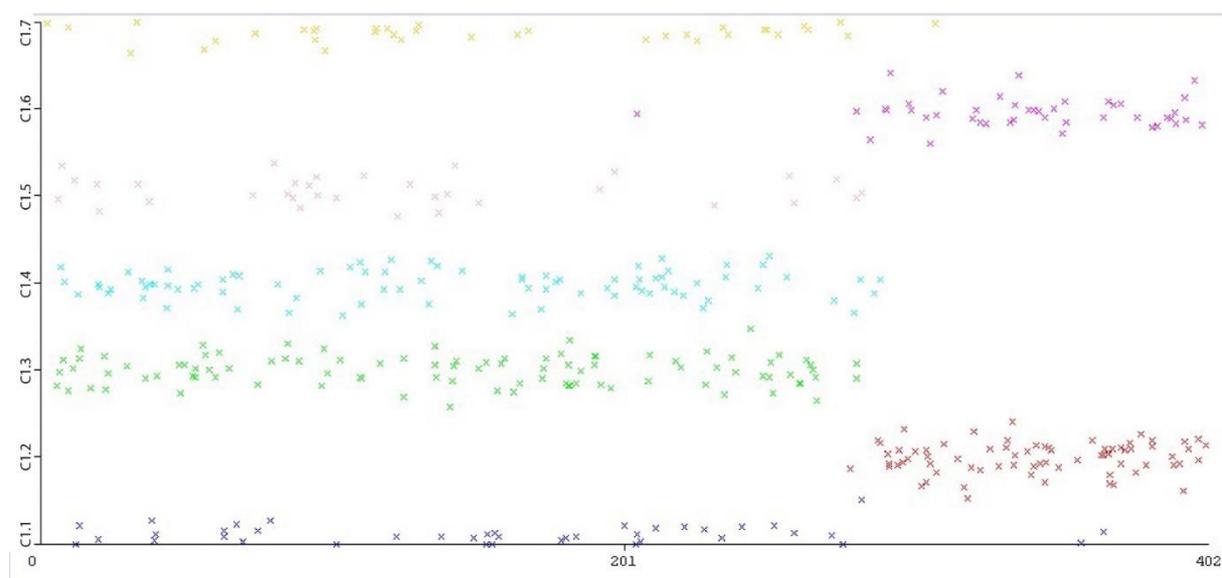
Graph 1. - Initial Distribution of Clusters

Since each cluster obtained here represents an employee profile, the number of clusters is reduced by determining a threshold value based on the values in the dissimilarity matrix to clarify the distinction between profiles. The new clusters and cluster centers obtained are given in Table 6.

Table 6. Final Clustering Result with Expectation Maximization Algorithm (EM)

		CLUSTERS		
		C2.1	C2.2	C2.3
OF	mean	4,0202	6,4445	1,8951

	s.d.	0,5609	0,7487	0,8472
OIF	mean	3,9776	6,4874	2,0216
	s.d.	0,7938	0,2522	0,9955
PD	mean	4,0658	5,9798	2,107
	s.d.	1,4585	0,4662	0,4796
PC	mean	4,0957	6,0674	1,9095
	s.d.	1,4163	0,5146	0,4445
WP	mean	4,0523	6,5185	1,5144
	s.d.	0,9082	0,2606	0,3102
G	mean	3,8998	6,5253	1,4609
	s.d.	0,892	0,2768	0,2801
LS	mean	3,9563	6,5152	1,4846
	s.d.	0,8497	0,2431	0,2526
C	mean	3,9671	6,4983	1,4897
	s.d.	0,8488	0,2819	0,2777

The 3 new clusters and the distribution of these clusters are given in Table 7.

Table 7. Final Distribution of Clusters

	C2.1	C2.2	C2.3
n	223	99	81
%	55,33%	24,57%	20,10%

Due to the reduction in the number of clusters, the clusters became more pronounced and the dissimilarity values between them were calculated over 6,449. The dissimilarity values obtained for all clusters are given in Table 8.

Table 8. Final Distances Between Formed New Clusters (Dissimilarity Matrix)

	C2.1	C2.2	C2.3
C1	0		
C2	6,757	0	
C3	6,449	13,191	0

As a result of combining some profiles due to the similarity between them, 3 clusters that clearly differ from each other are obtained and shown in Figure 2.
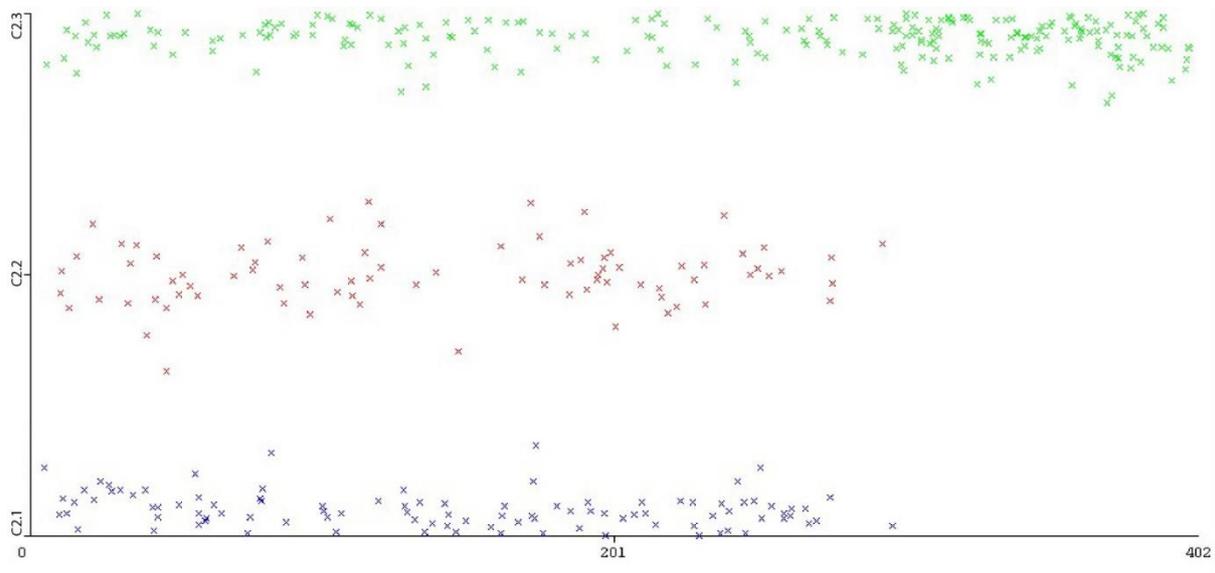
Graph 2. Final Distribution of Clusters

When the algorithm is run with raw data and the number of clusters is not specified, it is observed that employees create k = 7 different profiles (C1.7,…, C1.1). When the similarities of the obtained profiles are measured with Euclid distance, it is revealed that the clusters formed do not decompose well enough. For this reason, the algorithm was rerun with different cluster numbers (k = 6, 5, 4, 3), and it was found that the clusters formed completely differ from each other. Thus, 3 completely independent profiles were obtained. However, in order to follow the formation of groups that can be seen as minorities in the process of extracting information from the collected data, the transition process from 7 to 3 groups was remodeled and is given in Figure 1.
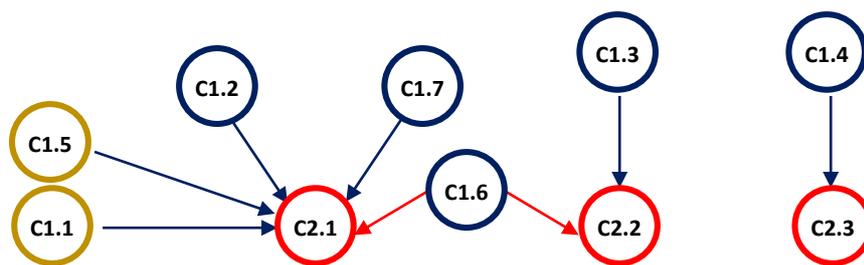
Figure 1. Initial Distribution of Clusters

Figure 1 is a summary of the transition from 7 profiles to 3 profiles obtained from the data. Here, it is clearly seen that the profile with low scores on C1.4 Diversity scale and Reputation scale has been transferred to the C2.3 profile in the last case. Similarly, high scores

were given to both the diversity scale and the reputation scale in the C1.3 profile, and this profile was transferred to the C2.2 profile completely. As the scores of only 2 observations (0.5%) from the C1.6 profile, which is a part of the indecisive group, were relatively higher, they were transferred to the C2.2 profile in the last case. All other participants in the undecided group came together in the C2.1 profile. There was no statistical loss in the process of reducing the 7 profiles formed in the first case to 3 profiles. Particularly, although the C1.1 and C1.5 profiles obtained in the first grouping were included in the indecisive group, the Diversity scale formed two sub-profiles in which there were differentiations in the items belonging to personal dimensions.

Employees who gave high scores to the diversity scale questions also gave high scores to the questions of the reputation scale, and vice versa. Therefore, the strong positive correlation observed here was effective in the formation of the profiles. The indecisive profile is of great importance in this process. This is because these indecisive employees are those who are expected to be most affected by the improvements to be made. Thus, the positive perception of diversity by the employee will positively affect the reputation of the organization.

4. CONCLUSION

The relationship between employees' expectations the effects of manager attitudes on these expectations is very often revisited in organizational behavior and human resource management literature. However, there is a gap in the literature regarding the relationship between employees' organizational reputation perceptions and the diversity observations and practices they experience in the workplace. Through a data mining method, this study suggests a profile extraction that models the attitudes of employees using cluster analysis which is a very convenient method to make such inferences. Thus, with the EM algorithm applied, the hidden patterns were revealed and the employees were modeled through a data mining method. Accordingly, while the dimensions of the discrimination experienced within the organization were investigated in the first two of the factors (OF, OIF) in the diversity scale, the other two factors (PD, PC) question the employee's diversity expectation in the workplace. When the three different employee profile values obtained in the study are examined, however, it is observed that the participants gave more precise answers in the first two factors. Thus, it is concluded that compared to employees' expectations of diversity, a positive diversity climate that is directly experienced in the workplace has a more pronounced effect on employee's reputation perceptions. Furthermore, the responses of the participants are observed to be a little more ambiguous in the other two factors (PD, PC) where employees' own views, rather than

actual experiences, on diversity are measured. It is also important to note that the number of participants who are almost undecided about the management's practices to diversity constitutes 55% of all participants. Consequently, this study contributes to the reputation literature by expanding on our understanding of the link between reputation and diversity climate. It was observed that an organization's approach and positive diversity climate is found to have a high effects on employees' perceptions. The positive diversity experiences of the employees within the organization also strongly and positively affects the corporate reputation perception of the employees. This supports prior research emphasizing the beneficial effects of prodiversity climates (Holmes, 2020) and offers a novel framework to strengthen the suggestions that employees respond positively when diversity is promoted in the organization (McKay et al., 2007). Another interesting information gain that can be deduced from the average values of the three different profiles reached is that if the organization's practices of diversity are adopted positively by an employee, the employee tends to evaluate such practices above his/her own expectations. In a parallel fashion, if the organizational practices of diversity are adopted negatively by an employee, the employees tend to see their personal diversity values above what the organization feels in the workplace.

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IS EMBEDDEDNESS A KEY FEATURE OF BUSINESS ECOSYSTEMS? THE CASE OF CRAFT BREWERIES IN ITALY

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Abstract

The aim of this study is to analyze how a local economic system can grow without a pre-existing sector-related tradition. The case analyzed is that of craft beer production in Italian region where the production of beer is not part of the local culture. A multiple case study analysis has been conducted in order to identify the development conditions and the competitive features of a local system in the Italian region Marche. The perspective adopted was that of business ecosystems, deepening how the lack of embeddedness in the local production fabric could still allow the development of relationships characterized by mutual trust between firms, common language and uncodified systems of rules, similarly to traditional local systems. The study was conducted by analyzing six cases, which made it possible to identify the characteristics of the relationships between companies and the role of the local social, economic and cultural context. Results highlight that in the sector analyzed the lack of a sector-related common culture hinders the development of cooperative relationships, thus eliminating that character of interdependence between the companies, which identifies both traditional industrial districts and business ecosystems.

Keywords: *Business Ecosystems, Craft Beer Industry, Embeddedness.*

1. INTRODUCTION

The local/regional specialization of production activities and the resulting geographic concentration of firms within the same industry, with similar or complementary skills and expertise, has been widely recognized and analyzed in literature (Scott and Storper, 2003). Several concepts have been proposed in order to interpret the dynamics within local economic systems, such as: clusters (Porter, 1998; Maskell, 2001; Andersson et al., 2004; Humphrey and Schmitz, 2002; Tallman et. al., 2004), industrial districts (Becattini, 1990; Markusen, 1996; Boix e Trullen, 2010; Belussi and Seida, 2012), innovative milieu (Camagni, 1991), local systems (Asheim and Coenen, 2005; Crouch et al., 2001), and local networks (Grandori and Soda, 1995).

More recently, the concept of business ecosystem (Iansiti and Levien, 2004; Pierce, 2009; Daidj, 2011; Peltoniemi, 2006; Peltoniemi and Vuori, 2004; Koenig, 2012; Adner, 2006; Gueguen and Torres, 2004; Caraganciu et al., 2016; 2018) has been introduced, which better highlights the adaptive and evolutionary nature of local systems facing the changes in the external environment and markets. According to this perspective, the dynamic character of the local system whose components interact, adapt and evolve has been highlighted (Eisenhardt and Galunic, 2000; van der Borgh et. al., 2012; Moore, 2006; Pierce, 2009).

One of the features of local systems and business ecosystems that have been identified by the literature is embeddedness (Boschma et. al. 2002) by which "economic and social cohesion are intertwined so that economic and social actions and structures blend together" (Zucchella, 2006, p. 22). Embeddedness determines the creation of a system of ties, where exchanges are based on a long-term experience. It entails commitment among firms, mutual trust and knowledge sharing (Zucchella, 2006). Geographical embeddedness favors innovation and competitive advantage (Belussi and Sedita, 2012), social embeddedness produces cumulative advantages coming from social cohesion, friendship, and conformity. Trust based-relationships regulate their functioning and favor innovation. Therefore, the cohesion effects are fundamental components in allowing the consolidation of existing ties (Giuliani, 2013).

Traditionally, embeddedness characterizes those local systems whose development was based on manufacturing or agricultural traditions, which gave rise over the years to industrial districts or even, in the agri-food sector, to localized agri-food systems. However, in this sector the development of local systems in the absence of a previous tradition and free from the agricultural production of the territory, has not so far been explored.

This study aims to verify the conditions of development of local systems in the agri-food sector without a previous production culture. This is the case of the production of craft beer that has been developed in Italy, a country where beer production does not fall within the national agri-food traditions, and where even one of the main components, hop, is not grown, except in a very small part (Musso and Francioni, 2015).

The perspective adopted is that of business ecosystems. The aim is to understand if the lack of embeddedness in the local production fabric affects the development of relationships characterized by mutual trust between firms, common language and uncodified systems of rules, similarly to traditional local systems Esposti et al., 2017).

The study was conducted by analyzing 6 case studies, which made it possible to identify the characteristics of the relationships between companies and with the local social, economic and cultural context.

The remainder of this paper is organized as follows. The second section proposes a review of the literature on local systems. The third section briefly introduces the craft beer industry in Italy and in Marche region, the fourth section present the conceptual model and the methodology adopted for the study. The fifth section analyzes the six case, followed by the discussion in the sixth section. Finally, the main contributions, limitation and directions for future research are presented.

2. LITERATURE REVIEW

2.1. Local Systems as Local Concentration of Companies within the Same Industry

Since the 1990s, an increased interest of economic geographers, economists, sociologists, and policy makers has been focused on local production systems (Rocha, 2004). Among the main reasons for this interest is the impact of local systems on firms' performance, regional economic development, and country competitiveness.

Local production systems are complex entities within which social, economic, institutional and geographical factors are closely entwined (Lombardi, 2003).

The concept of specialization and geographic concentration of companies within a single industry has been analyzed by several theories as regards its determinants. Among them, the unbalanced distribution of resources at the geographical level has been highlighted (Fujita et al., 1999). Porter (1998) focused his attention on the growth paths of individual industries, which tend to be characterized by a disposition to clustering in a few places as opposed to be

scattered in many places. The ability to introduce new products and services can be enhanced by a close interaction with other firms in the same geographical area (Becattini, 1990).

Specialization is based on, and is fostered by, the producers' ability of manufacturing products with distinctive or unique characteristics. Such characteristics refer to: i) the possession of goods or materials that are not obtainable elsewhere; ii) innovation; iii) the ability to create products with distinctive features, on the basis of experience and know-how, and; iv) an unique image linked to a given geographical area (e.g. in the case of tourism or agri-food products) or a registered brand.

In the following sections, the main concepts and theoretical models related to local/regional specialization will be investigated.

2.2. Custers, Industrial Districts, Local Networks and the Role of Embeddedness

Porter (1998) introduced the concept of cluster for defining local economic systems, and described them in terms of i) geographic concentration, ii) interconnection of firms and institutions, iii) presence of both competition and cooperation, and iv) specialization. Specialization in the value chains brings to interdependence among firms.

The relational dynamics within clusters have been considered in terms of inter-firm relationships and relationships with the local context, with focus on economic factors, among which are those which influence internal (to the local system) relationships and external ones, with supplying and selling markets (Brown et al., 2007).

Based on the type of relationships, Porter (1990) described two types of clusters: vertical and horizontal clusters. Vertical cluster are mainly characterized by buyer-seller relationships. Horizontal clusters include companies which have in common the same market (and channels) or same technology or labor force skills.

Another relevant concept that has been adopted for interpreting local systems is that of industrial districts. Unlike clusters, for which geographical concentration and specialization of firms coupled with productive complementarities appear as the more characterizing elements, in case of industrial districts two more elements are highlighted: a homogeneous system of values and a strong influence of the social dimension (Zucchella, 2006). Long-term and trust-based business relationships supported by personal ties and deep interpersonal knowledge create a strongly embedded local system. Within an industrial district, shared values and vision characterize the relationships and members: firms, individuals, local banks, and public institutions (Becattini, 1990; Sforzi, 1990). Cognitive distance among local members is small,

which encourages collective exploitation of local resources and knowledge bases (Nooteboom, 2004).

Industrial district have a network shape, rather than a hierarchical one, making the system more flexible. Inside the network each firm has it specific task. To provide an output that fits to the customer's requirements a coordinator role is played by a firm that acts as interface between the market and the internal (to the industrial district) supply chain (Musso, 2013).

A key concept related to industrial districts is that of embeddedness (Boschma et. al. 2002; Uzzi, 1997) by which "economic and social cohesion are intertwined so that economic and social actions and structures blend together" (Zucchella, 2006: 22). Moreover, "embeddedness is a logic of exchange that promotes economies of time, integrative agreements, Pareto improvements in allocative efficiency, and complex adaptation" (Uzzi, 1997).

2.3. Localized Agri-Food Systems

The local concentrations based on territorial anchorage emphasize the focus on sectors like agri-food, cultural heritage, and tourism. With reference to agri-food, in many regions, farms, agri-food firms and institutions, form geographic concentrations of interconnected activities. The term Localized Agri-Food Systems emerged in the 1990s in order to better investigate the organizational and social structure of locally linked firms and institutions, and to explore their potential. Localized agri-food systems were then defined as ''a concrete set of farms, agri-food enterprises, business or services organizations, restaurants and institutions linked to a specific geographic area'' (Muchnik and de Sainte Marie, 2010, p. 1465).

Within the substantial body of literature that has emerged on localized agri-food systems, researchers have focused on three main questions (Fournier and Muchnik, 2012): i) the factors that contribute to competitive and innovative agri-food systems, with a particular focus on the role of local knowledge (Requier-Desjardin et al., 2003); ii) the specificities that make the field of agriculture, broadly conceived, distinct from other types of industries, in particular the ways in which farms and agri-food firms could be grounded in unique territories (Muchnik and de Sainte Marie, 2010); and iii) the development of the local system approach aimed at facilitating local communities to valorize their resources in order to produce territorially linked food.

Studies of localized agri-food systems have been influenced by previous work on industrial districts, clusters, and local productive systems, and they seek to understand whether similar (spatially delimited) specificities exist in the agricultural sphere (Requier-Desjardin et al., 2003). From the previous works on agricultural districts (Lopez and Muchnik,1997) to the

most recent studies revealing the specificities of localized agri-food systems (Muchnik and de Sainte Marie, 2010; Fournier and Muchnik, 2012), scholars have suggested that networks between entrepreneurs are a key to understanding the dynamism of these local systems.

Many studies have explored how localized agri-food systems are different from other productive systems by their specific ''territorial anchorage,'' (Thompson and Scoones, 2009), that is, the ways in which farms and agri-food firms are necessarily grounded in delimited and organizationally unique territories (Pecqueur and Zimmermann, 2004). The links between the localized agri-food systems and the territories are multi-dimensional (i.e., ecological, economic, institutional, cultural, and relational), combining different processes of collective action (Muchnik and de Sainte Marie, 2010). Moreover, scholars have suggested that territorial anchorage has a relational dimension rooted in the ties between farms and firms managers and their local communities (Chiffoleau et al., 2007).

2.4. The Business Ecosystem Perspective

The concept of Business Ecosystem emerged in the 1990s as an extension of works based on ecological systems, being defined as "systems of interactions between people of different species in the same site, and between people and the physical environment" (Hannan and Freeman, 1989). On the economic domain, the concept stems from the organizational ecology literature, which analyzes the financial condition of firms' agglomerations, which collectively form ecosystems (Carroll and Hannan, 2000). Doing so, the ecological metaphor has been transposed to the relations between firms. Moore (2006) and Hannan & Freeman (1989) applied this concept to the business environment and corporate behavior.

A business ecosystem can be defined as a system of complex interactions enabling co-evolution through reciprocal cycles of cooperation and competition to support the creation of capabilities for innovation (Moore, 2006).

Some main features of business ecosystems have been identified. The first is interconnectedness involving a large number of loosely interconnected participants who depend on each other. Interconnectedness provides protection, given the opportunity to form alliances and thrive in a network. A second essential character is competition and cooperation (Moore, 2006), which has already been analyzed by the literature on both clusters and industrial districts. In addition, business ecosystems have a dynamic and adaptive structure that develops and evolves over time as its internal and external environment changes (Peltoniemi, 2006). Indeed, the concept of business ecosystem is the one that better highlights the adaptive and evolutionary

nature of local systems to the changing external environment. The dynamic perspective has been emphasized in terms of co-evolution of business ecosystems. Merry (1999) defines co-evolution as a change in the fitness of one system that determines changes in the fitness of another system, and vice versa. This interdependency is what can be considered as co-evolution.

The business ecosystem perspective, with its focus on common platforms and relationships among actors (members or stakeholders), is a good setting in which to examine the dynamic adaptation process of a local system to the external environment.

3. THE CRAFT BEER INDUSTRY IN ITALY AND MARCHE REGION

In Italy, the craft beer sector has a young tradition, being emerged in the nineties with the birth of an increasing number of small craft producers who entered the market. The period of fastest growth started from 2010. More recently, the growth rate in the number of breweries has slowed (Figure 1). Currently, the sector is still growing thanks to the increased production capacity of the existing breweries, which improved their marketing strategies end extended the geographical coverage of their market. At the same time, most of them shortened their distribution channels, by opening brewpubs, opening taprooms and own-brand pubs, and cooperating with other breweries (Francioni and Viganò, 2020).

In 2018 the Italian craft beer sector produced 483,000 hL of beer, reaching 3.2% of the total national beer production (source: www.assobirra.it). In 2018, 1,371 craft breweries were active. At the regional, level, most of the breweries are located in the north and center of Italy, such as Lombardy (19.8%), Veneto (10.2%), Piedmont (10%), Tuscany (8.8%), Emilia Romagna (8.7%), and Lazio (8.1%). In Marche region 72 microbreweries (5.3% of the national total), producing more than 320 different beers (Francioni and Viganò, 2020).

Source: www.microbirrifici.org.
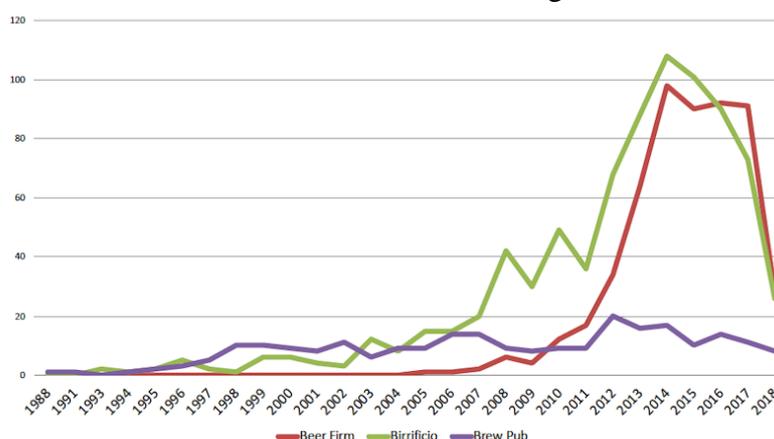
Figure 1. Opening of new microbreweries in Italy (1998-2018).

4. RESEARCH METHOD

4.1. Analysis Framework

In the light of the literature review, some major issues have been identified, and they have been considered with reference to the main factors which can influence local systems, according to the business ecosystem perspective (Figure 2). As a consequence, some key relationships have been highlighted. These relationships provide a first hypothesis, in the light of which other possible relationships and factors can be added. Therefore, they have not yet considered research hypotheses.

The first issue refers to innovation (Issue a in Figure 2), which can be hypothesized to be influenced by the degree of firms' specialization (Factor 1), the level of flexibility of firms (Factor 3), the embeddedness in the local system (5), the level of trust (6) and the development of ICTs (7).

The second issue (Issue b) is the transmission of knowledge, which in local systems often occurs as uncodified knowledge. This transmission is hypothesized to be influenced by the interdependence between local firms (2), the geographical proximity (4), which facilitates face-to-face interaction, embeddedness and common culture (5), the level of trust (6), and ICTs, which in turn represent a driver for the formalization of knowledge exchange.

The third issue (c) highlights the difference between informal relationships, mainly based on trust, which are more easily deployed in local systems, and formal relationships, based on distrust, thus requiring formalization at each stage of a relationship. The development of informal relationships is favored by mutual interdependence (Factor 2), flexibility of firms to rapidly adapt to customer requests (3), geographical proximity, which promotes social control (4), embeddedness and common system of values (5), and by the degree of trust (6). The development of ICTs, on the other hand, pushes for the increasingly formalization of relationships.

The coevolution with the environment (d), which is a typical feature of business ecosystems, is a key issue. The Italian case provides indications on the ability of industrial districts to react to changes and critical conditions. Coevolution seems to depend primarily on interdependence (2), flexibility (3), and embeddedness (5).

The reproducibility of the model (e) is based on the features of business ecosystems, namely business specialization (1), geographical proximity (4), embeddedness, common culture, traditions and value system (5) and the development of ICTs (7), which can compensate

for the lack of trust within a local system with weaker historical roots. The relationship between trust and formal/informal relations among firms should be defined, given that formal relationships are to some extent related to distrust, and, on the opposite, informal relationships are trust based. Similarly, the role of embeddedness and the influence of the local culture, traditions and local value systems on local systems need to be examined, with the aim of understanding if and how their reproducibility is possible.
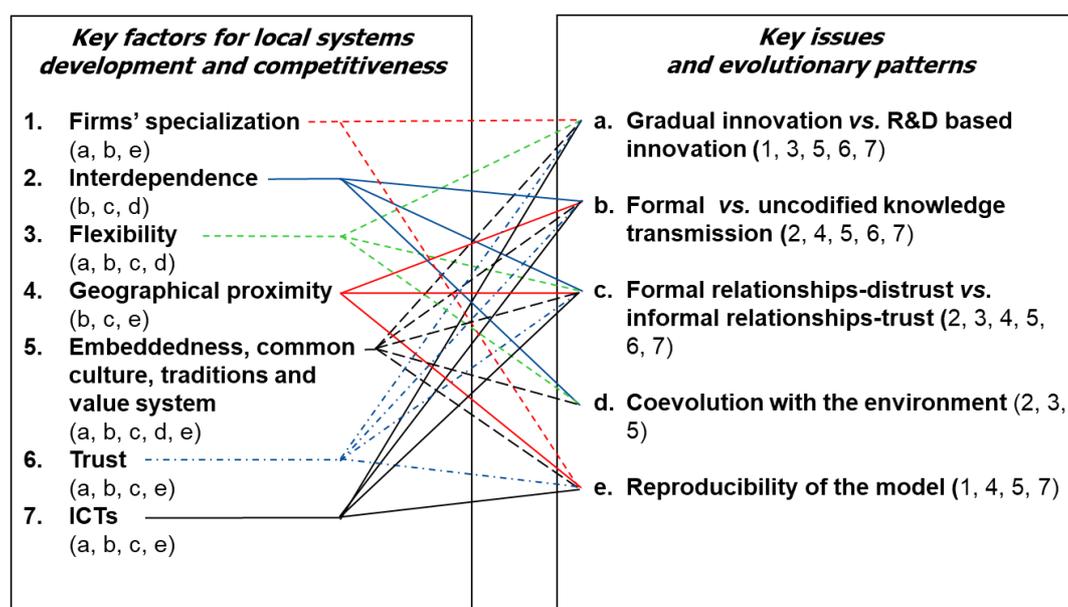
Figure 2. Key factors and issues for local systems according to the business ecosystem perspective

4.2. Case Study Methodology

For this research, a methodology based on case studies was adopted. This method is suitable for the development of theoretical / practical hypotheses based on empirical evidence (Eisenhardt, 1989; Miles and Huberman, 1994), allowing to compare results with those emerged from previous studies (Yin, 1994), and identify new theoretical developments and advances on a given topic (Chetty and Blankenburg Holm, 2000). Six cases have been analysed. According to the literature, although it is not possible to define an ideal number of cases to be considered, the optimal number is between four and ten cases (Eisenhardt, 1989). With less than four cases it is difficult to extract theoretical elements that can be generalized, and more than ten cases would provide a volume of information difficult to manage.

The selected firms belonged to different owners and they all had headquarters in Marche region, Italy. In-depth interviews lasing 1-2 hours have been conducted with owners from May to September 2019, with short follow-up telephone interviews in November 2019. For permitting the interviewees to give genuine answers, questions were as non-leading (Yin, 1994)

as possible. The interviews have been conducted in Italian and digitally recorded. The collected data have been compared with other sources: firms' annual reports, websites and other documents.

5. ANALYSIS

Case 1. The company was established in 2000, when the owner, inspired by his father who created a distillery located in a small town in the Apennines Mountains, decided to start a beer production. Thanks to the experience in the distillation processes and following the advice of a brew consultant from northern Italy, it was possible to start a small craft production, which in 2002 began to produce a well balanced and highly appealing beer. The remarkable organoleptic qualities of the beer are the result of the producer's geographical location. The limestone water of the surrounding mountains resulted particularly suitable for creating beer, and this proved to be a very important value. The barley is purchased from the surrounding farmers and after being treated at the regional malt factory, it returns to the company in the form of malt for the preparation of beer. The production is sold locally through restaurants and independent retailers, especially wine shops. The firm does not supply large retailers.

There full-time employees are working in the company. The business organization is managed by the owner, who has never conducted planned actions for market development. Marketing policies for the local market have been always autonomously conducted and no agreements or other alliances with other producers have been adopted to market their beers together.

Direct sales have a share of 60% on total sales. No exports are made, although numerous sales come from foreign tourists visiting the company. The percentage of sales to tourists is about 30%, half of which are foreign.

According to the owner, the ability to stay in this market depends primarily on the quality of products. Recent developments resulting from sales to tourists were favored by the attraction that the territory exerts, but no systematic actions have yet been taken to enhance these aspects. Neither public entities nor trade associations have so far promoted incisive actions to facilitate the development of market relationships.

Among the influencing factors related to the local business ecosystem, the one in which the owner recognizes a key role is the common culture, despite the lack of traditions on the beer industry. Of other factors, medium relevance is attributed to flexibility, while all other factors are considered not relevant.

Case2. Case 2 was founded in 1997 when a manager of the beverage industry decided to start a business by his own. Currently, the company has 10 full-time employees. Since the start of the business, beer sales have been mainly developed by the firm's shop, which is currently managed to attract tourists through the organization of visits, dinners and local products tastings. Tourists are also attracted with advertising signs along roads and the website. In addition to beer, other products from local farmers and manufacturers are sold, such as honey, jams, pasta, olive oil. Sales are mainly addressed at the domestic market (85% of the total), made directly from the farm shop (35% of the total) and the remaining quota to grocery stores and small supermarket chains in the regions of central and northern Italy through a network of 5 sales agents.

Social networking is also starting to affect the word-of-mouth. Some attempts have also been made with e-commerce, selling products through a marketplace owned by a general manager's relative, specialized in food and gourmet products. However, in this case results were poor. In the future, most of the efforts will be addressed to strengthen the participation to local events, in order to maintain and expand the presence in the local market.

According to the founder, the main factors linked to the local ecosystem that enhance the competitiveness of the firm are, above all, on flexibility and adaptation capabilities.

Case 3. The company was founded in 2004 by the owner and his wife, starting as a pub, with the production of beer started in 2010. 12 full-time employees are currently working in the company. Close to the factory, there is a shop where in addition to beer a selection of local spirits (grappa) is sold. The choice of organizing a shop with a range of spirits in addition to beer dates back to 2015, when the entrepreneur started organizing guided tours and tastings events in the factory. The owner also runs a guesthouse with a fully equipped kitchen for guests.

Direct sales account for 40% of total sales. The reference market is both national and international. In Italy, sales come from an exclusive sales agent selling to restaurants, bars and pubs, especially in central Italy. Given the high quality of products, the firm never looked for relationships with large retailers. International sales started in 2014, through a contact in Russia provided by an Italian manufacturing company of soft drinks. Later on, other contacts came from Canada (2016) and United States (2018). Currently, international markets account for 8% of sales.

Marketing actions have been always carried out autonomously. However, it is the entrepreneur's intention to create partnerships with other producers of typical local products such as meat and cheese to conduct joint initiatives for the development of foreign markets.

The local system seems to have little contributed to boosting the development of the firm. Anyhow, the collaboration that the firm intends to exploit in the future is with partners that can provide services to develop foreign markets and with producers of complementary products. On the other hand, the idea of collaborating with other beer producers has never being taken into account.

Among the local system-related factors of competitiveness, the only elements that the entrepreneur pointed out to be relevant are those linked to the common value system, which allow to co-operate with complementary producers, and also with local supply chain partners.

Case 4. Case 4 is an agricultural brewery, born in 1998 in a mountain town, following the conversion of a textile factory owned by the founder's family. In 2004 the founder entered into partnership with a friend who howned a farm, and they decided to add an agritourism company to the brewery.

Being an agricultural brewery, the barley used in the production of beer is grown internally on 40 hectares of land and subsequently malted at a consortium in the region. The entire production cycle is concentrated in a laboratory obtained from a restructured old farmhouse, which combines tradition with innovative architectural elements.

The company currently employs 7 persons in the brewery and 14 in the farmhouse.

Tastings are organized to promote the product, both at the farm and with the help of other local restaurants. Moreover the brewery participates in numerous festivals and fairs. Tourists, both Italian and from northern European countries, are attracted with roads signs, the website and social networks.

The internationalization process began in 2012, with the entry into European countries such as England and France. In England the product is also present in a shop specializing in the sale of Italian gastronomic products.

This case is characterized by a substantial individualism, since the entrepreneur does not believe in the collaboration between local producers, even though this could enhance the attractiveness to tourists. Greater willingness for collaboration emerged with the tourism operators in the area (hotels and incoming travel agencies), with which effective partnerships

have been developed. No opportunities of collaboration, however, has been sought with local administrators or the Chamber of Commerce.

Case 5. The owner of case 5 founded a farm in 2002, and in 2010 the brewery was established and the agricultural craft brewery was opened, located in the rolling hills if the inland, surrounded by green fields of barley. The word "agricultural" is important for the owner, as it emphasizes the very short production chain of the barley used.

The owner clearly underlined that "the word agricultural has a lot of importance, because today there is a great demand for artisan products, therefore also in the beer sector, but what fascinated me and I wanted to undertake is the fact of creating a production chain that is totally local; Obviously this is about malt, because hops are bought abroad ". Currently, 7 full time employees are working in the brewery. Sales come from direct customers (20% of total sales), most of which are local consumers, but also tourists. The remaining share of sales come from local restaurants, bars and pubs, especially in the coast area, which are served by the owner. Increasing sales are coming also from some venues in Rome and Milan thanks to indirect contacts and word of mouth.

Among the factors of competitiveness resulting from belonging to the local system, the owner indicated a strong potential in the combination of tourism attraction and product specialization, but not yet properly exploited. A collaboration between producers, local tour operators and local public bodies could bring to greater value. According to him, the local value system and traditions are the starting point for strengthening greater collaboration, based on trust and informal relationships, rather than on advanced technologies.

Case 6. The company was founded in 2010 by three partners from different industries with the aim of investing in the beer sector, taking advantage of its promising growth rates. After the purchase of machinery and renting a building, beer production began and a shop was opened in 2012. Beer production grew rapidly, bringing to employ 5 full time people.

The reference market is based on of customers who buy directly from the point of sale (70% of total turnover), about half of which are tourists coming to the region for summer vacations. 30% of turnover comes from sales to restaurants in the region, which are managed by one of the three partners, who visit them regularly. To attract customers at the shop, the company does not organize events or beer tasting, focusing its initiatives on the company website and social media campaigns.

Despite the small size, this company appears to be very flexible in responding to market changes, in line with the main trends that have characterized the sector. Therefore, while being young compared to most of the other firms in the area, the company has been able to enter the market quickly, but was not capable to take advantage of the opportunities of collaboration within the local context.

6. DISCUSSION

The above-discussed cases are summarized in Table 1. What emerge is a wide variety of situations: although very similar operating conditions of firms results, management models vary considerably, from family-run firms (Cases 1 and 6), to small entrepreneurial organizations (cases 2, 3 and 4). The size of the firms is small, with a total number of full time employees that only in one case (case 4) is over 20. This is undoubtedly a limit for market development, both at the national and international level.

Table 1. The cases analyzed

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Year of foundation	2000	1997	2004	1998	2002	2010
N. of employees	3 full-time	10 full-time	12 full-time	21 full-time	7 full time	5 full time
Other products in addition to beer	No	No	Spirits	No	No	No
Point of sale/shop within the firm	No	Yes, selling also honey, jams, pasta, olive oil	Yes, selling also spirits	Yes, selling also olive oil, grappa and grape juice	No	Yes
Initiatives for attracting visitors and tourists	Website and social networks	Visits, dinners and wine tastings; roads signs; website and social networks	Visits and beer tastings are regularly organized, guesthouse	Visits and beer tastings, roads signs; website and social networks	No	Website and social networks
Direct sales (% of turnover); to local	60%	35%	40%	15%	20%	70%

consumers and tourists					
Sales organization for the internal market	Entrepreneur	5 non-exclusive sales agents	1 exclusive sales agent	Entrepreneur	Entrepreneur	Sales organization for the internal market
Co-operation with other local actors	Poor	Local tourism agencies	Hotels in the seaside, local tourist agencies	Hotels and incoming travel agencies	Poor, to be developed	No
Local context-related factors for competitiveness	Flexibility	Flexibility and adaptation to changes	Common value system with local supply chain partners	Belonging to an attractive area	Flexibility	No

All firms have weak dependence on the local system for their core activity, if compared to those of other sectors. For beer production, the division of labor is non-existing and production processes are usually completed within the same single firm. Some level of interdependence can be observed with local operators involved in complementary sectors, such as producers of preserved food, oil, pasta and spirits. Similarly, cooperation with travel agencies and hotels is increasing, with the objective of enhancing the attractiveness of the area.

The initiatives adopted, and the growing commitment of breweries to strengthen their business, indicates the ability to adapt, as pointed out by the business ecosystem literature in terms of co-evolution (Merry, 1999). Indeed, this is the case of the beer industry and the tourism industry in the area analyzed. The dynamics of the tourism sector influenced the business model of beer producers, and at the same time, the presence of specialized beer production allowed to modify the local tourist offer, according to a mutualistic coevolution scheme (Peltoniemi, 2006).

Over the years, some beer producers have launched various initiatives for attracting tourists; in some cases, by cooperating with local travel agencies (especially Cases 2, 3, and 4),

in other cases by purchasing products from local producers to increase the attractiveness of the internal store (2, 3 and 4). In one case (3), a guesthouse has been opened to organize the tourist hospitality, offering accommodation and a range of food based on products of the local tradition.

Internationalization emerged as a strategy. However, the decision to start exporting was mainly unplanned, and this confirms what Duarte Alonso et al. (2014) reported about the occasionality of contacts that can bring to business relationships. Most of the sales to foreign markets have been developed as a result of personal contacts or connections provided by tourists, as already emerged from previous studies (Vissak et al., 2015; 2017).

The number of countries with which exports have been developed confirms the prevailing passive approach, with promotional actions limited to participation in fairs and tasting events, without a precise strategy and without identifying priority countries where addressing marketing efforts.

The channels used are always restaurants, bars, pubs or single shops, and in no case, firms showed the ability to develop relationships with large retail chains.

Embeddedness, associated with common culture and common value system, did not allow companies to interact effectively, addressing the external market with a common image. Indeed, the cases observed did not demonstrate the ability to form alliances within the local system to promote products outside.

Finally, trust, which has an impact on relationships within local systems, affecting knowledge transfer and innovation processes, does not appear to be a key factor for the cases analyzed.

In essence, due to the characterization of the sector considered, that is basically traditional, the elements of the local system that most exert influence on firms' competitiveness derive from the mutual contamination between the tourism sector and the agri-food productions, on the basis of a common culture and value system. These values are themselves elements of attraction of the territory, along with the natural, historical attractiveness.

7. CONCLUSION

The study had the purpose of verifying whether the absence of rootedness in the productive tradition of a local economic system could limit the development possibilities of the

system itself, according to the characteristics of local economic systems, in particular with reference to the business ecosystem perspective.

The relationship with the local economic system was weak for the firms analyzed, and forms of collaboration were detected only for the relationship with producers of complementary products, barley producers and collaborations with local hospitality operators. What is missing, is the division of labor and interdependence, which characterize both traditional industrial districts and business ecosystems (Zucchella, 2006; Caraganciu et al., 2017).

Marketing initiatives are adopted individually, but in relation to market relations, a strong ability to adapt has emerged. In fact, the entrepreneurs shown to be able to rapidly modify their business model in response to changes in the final demand, opening up to the tourist target and integrating own production with direct sales activities. Therefore, results highlight that in the case of the sector analyzed the lack of a sector-related common culture hinders the development of cooperative relationships. The only factors linked to the local system that influence competitiveness, that emerged from the study, are specialization and flexibility.

Given the recent history of the local system analyzed, it remains to be understood how existing social and cultural links can exert an influence on the development of a new product specialization, and how adaptation and co-evolution mechanisms can be affected.

This study has some limitations. First, the need for more focalized indicators for embeddedness emerged, since the ones adopted did not fit completely to the cases analyzed. Second, the analysis of the case companies did not deepen market relationships, especially as regards channel relationships and the way in which these relationshiops have been developed/conducted.

Future research should allow verifying if and how existing social and cultural ties have influence on the development of a new product specialization, expanding the analysis to other industries and region/countries. A further topic to be better analyzed is that of adaptation and co-evolution, trying to understand if they can be activated with policy tools.

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JOB SATISFACTION AND CREATIVITY – THE CASE OF A TRANSITION COUNTRY

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Abstract

The introduction of democracy in post-socialist countries is still accompanied by their struggling to reach political consolidation and economic development. This has come due to the delayed and poor attempts of the transformation of individuals at every institutional and organizational level. The purpose of this paper is to study how can this be reached through a new work ethic and by giving people the opportunity to demonstrate responsibility and the ability to deal with information, power and freedom by showing creativity at work. The primary data were collected by the means of a structured questionnaire, which was distributed to a sample of people residing in the Republic of Albania, mostly at Master level of education, employed in different private and state institutions, representing the creative class of the society. A regression analysis was used, and different tests were undertaken which showed that job satisfaction is very much affected by many of the variables related to the dimensions of creativity. The findings will contribute to a better understanding of the impact of entrepreneurs on employee's creativity, and how can it influence people's mentality, as the missing puzzle of getting out of the prolonged political and economic transition of a Western Balkan country like Albania. As there is a lack of scientific papers in Albania regarding creativity, and the country lays behind in the Creativity Index compared to other countries in the region, this research gains an increased importance for the Albanian academic milieu as well.

Keywords: *Creativity, Job Satisfaction, Mentality.*

1. INTRODUCTION

The scope of this paper is to investigate the role of creativity at work on the satisfaction of employees in albanian entrepreneurial businesses. The objectives are to describe the different dimensions of creativity first, than the various ways an entrepreneur and employees themselves can increase their creative potential in order to reach a greater job satisfaction, as an important tool of the economic development of a transition country. Entrepreneurs need in the first place to be creative themselves before they help create such a working environment, or at least contribute with their actions to a creativity friendly working environment. There do exist many researches about entrepreneurship in general and about the importance of entrepreneur's creativity, but not as many as expected on the relationship between entrepreneurs' decisions and job satisfaction as well as creativity of employees. The latter is of importance to study because entrepreneurial leadership contribute to workplace creativity in terms of creative self-efficacy and team creative efficacy (Cai et al., 2018). On the long run, this creative efficacy will be translated into better work performance and job satisfaction which will account for a better firm performance and more indirect income for the state. Therefore, this study seeks to establish the role of creativity as a mediator on the relationship between different factors that influence creativity and job satisfaction.

In order to better understand this relationship is crucial to define creativity. While many connect it generally with beautiful arts, it is nowadays widely accepted that creativity represents the ability to generate, develop, interpret and manifest new ideas (Martin, Wilson, 2018). This innovative potential of humans evolved even before the appearance of Homo Sapiens themselves 200,000 years ago (Elias, 2012). Nowadays it can be said, that creativity is connected to every field which bears the potential for further development. Creativity can be shown in STEM fields, but also banking, stock market, education, or the group of Creative Workers such as all kind of business services and in community, social and personal services (Florida, 2002). It can be measured on aggregate level by the level of technology, cultural production, per capita production of newspapers, books, music, level of education, leisure possibilities etc., as well as on individual level by personality traits such as autonomy, flexibility, preference for complexity, sensitivity, playfulness, intrinsic motivation, self-efficacy, curiosity etc. (Conference Proceedings"Can creativity be measured?", 2009). The focus of this study will lay on the individual level, different aspects of the organization and the relationship between employees and their superiors as well as regarding aspects of the type of work, all of which can have an influence on employee creativity and as a result also on job

satisfaction. According to Florida (2002) the key features of creativity which characterize daily problem-solving activities, are inter alia using one's own ideas in work, the ability to choose or change the working methods and order of tasks. The variable chosen to assess autonomy as aspect of measuring creativity was freedom in the decision-making process and the level of decentralization in the organization (Darvishmotevali, 2019). Other ways of increasing creativity are listen to music/ drawing sketches while working (Martin L, Wilson N. 2018), the adjustment of working environment (Kristensen, 2004), taking the time for muse before generating new ideas (Martin L, Wilson N. 2018), regular meditation, engage in physical activity (Baumann, C. E.&Boutellier R., 1997), appreciation by superiors. Another part indicator for creativity is excessive workload on the one hand and the level of formalization of teams on the other (Hirst, Knippenberg, Chen, Sacramento, 2011). In less formalized teams where fewer guidelines do exist according to trait activation theory, there is more discretion and possibility for expression of individual differences.

It will also be discussed the relationship between creativity at work and job satisfaction and how the creative climate affects the feeling of wellbeing at work and the overall working performance (Biswas, 2011). According to Ekvall (1996), the dimensions in a creative climate are i.e. challenge/ involvement, conflict, playfulness/ humor, idea support, freedom, dynamism/ liveliness, trust/openness, idea time, debates, and risk taking. Based on the literature review below, these can be translated into more autonomy and freedom in decision making, more appreciation and support by superiors and a more liberal and decentralized organizational structure which fosters debate, dynamism, trust and risk taking, as well as less administrative work which fosters creativity by fostering liveliness. Further on it can be translated into more creativity as a result of regular meditation and muse time (idea time), listen to music/draw sketches etc. (playfulness/humor), adjustment of the working environment and engagement of physical activity. Each of these factors serve as variables to study the relationship about creativity and job satisfaction, which is known to contribute to working performance (Yee, Pink, Sern, 2014). Accordingly, the research questions are:

1. Do initiative and freedom in decision making increase job satisfaction?

2. Does decentralization increase job satisfaction?

3. Does listening to music or drawing sketches and similar increase job satisfaction?

4. Is the adjustment of the working physical environment important for the job satisfaction?

5. Does regular meditating and taking time for muse before any decision making at work increase job satisfaction?

6. Does regular physical activity increase learning efficiency and creativity?

7. Does administrative work decrease job satisfaction?

8. Does recognition in the form of appreciation by superiors increase job satisfaction?

Of importance to mention is, that the scenery of the studyhas been chosen to be the Albanian context and business environment. During the last three decades Albania faced a drastic political and economic change. The transition from socialism to democracy carried in itself the responsibility of the society to transform people's mentality first, their way of dealing with freedom of expression of their own and new ideas and therefore change the man first, then the system (Chen, 1969). This was seen in the negative effects it still shows in terms of many facts and figures regarding the Albanian economy. At some important fields for the economy which are for e.g. corruption, we rank at the 106th place, or ease of doing business at the 82nd place, protection of minority investors at 111th place, enforcing contracts at 120th, which are all indicators of the Global Competitiveness Index, that from the other side influences the Global Creativity Index (Florida, R., Mellander, Ch.&King, K.2015). Other indicators which contributed to a low rank in the Global Creativity Index of 2015 (116 th place) are technology where we rank at the 83rd place, regarding talent we are the 90th, regarding tolerance of migrants, minorities etc. we rank even lower, 118th.

Below the study will go on presenting the conceptual framework of the research, followed by a literature review which will first handle the role of entrepreneurs on creating a creativity inducive environment, and than go on describing the dimensions of creativity, the business fields with more creative potential, how entrepreneurs can create a creativity inducive environment, and the way this increased possibility for creative thinking can increase the job satisfaction of employees. The latter will be described in the research method and analysis parts, followed by discussions and conclusions on the importance of this study for the Albanian context and how the situation reagarding the relevant indicators contributing to creativity, job satisfaction and a resulting economic development can be improved.

2. THE CONCEPTUAL FRAMEWORK

The evidences of the influence that the above mentioned factors, which are decisive for creativity, such as initiative and freedom in decision making, decentralization, listening to music or drawing sketthes during work time (leisure time activities during working time)

adjustment of the working physical environment, regular meditation and taking time for muse before decision making, regular physical activity, administrative work, as well as appreciation by superiors have on job satisfaction, led to the following conceptual framework:

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┌──────────────────────────┐
│   Initiative and freedom │
└──────────────────────────┘
┌──────────────────────────┐
│     Decentralization     │
└──────────────────────────┘
┌──────────────────────────┐
│ Leisure time during work │
└──────────────────────────┘
┌──────────────────────────┐                    ┌──────────────────────────┐
│  Adjustment of the working│                    │      Job satisfaction    │
│      environment         │                    └──────────────────────────┘
└──────────────────────────┘
┌──────────────────────────┐
│  Meditation and muse time│
└──────────────────────────┘
┌──────────────────────────┐
│ Regular physical activity│
└──────────────────────────┘
┌──────────────────────────┐
│    Administrative work   │
└──────────────────────────┘
┌──────────────────────────┐
│  Appreciation by superiors│
└──────────────────────────┘
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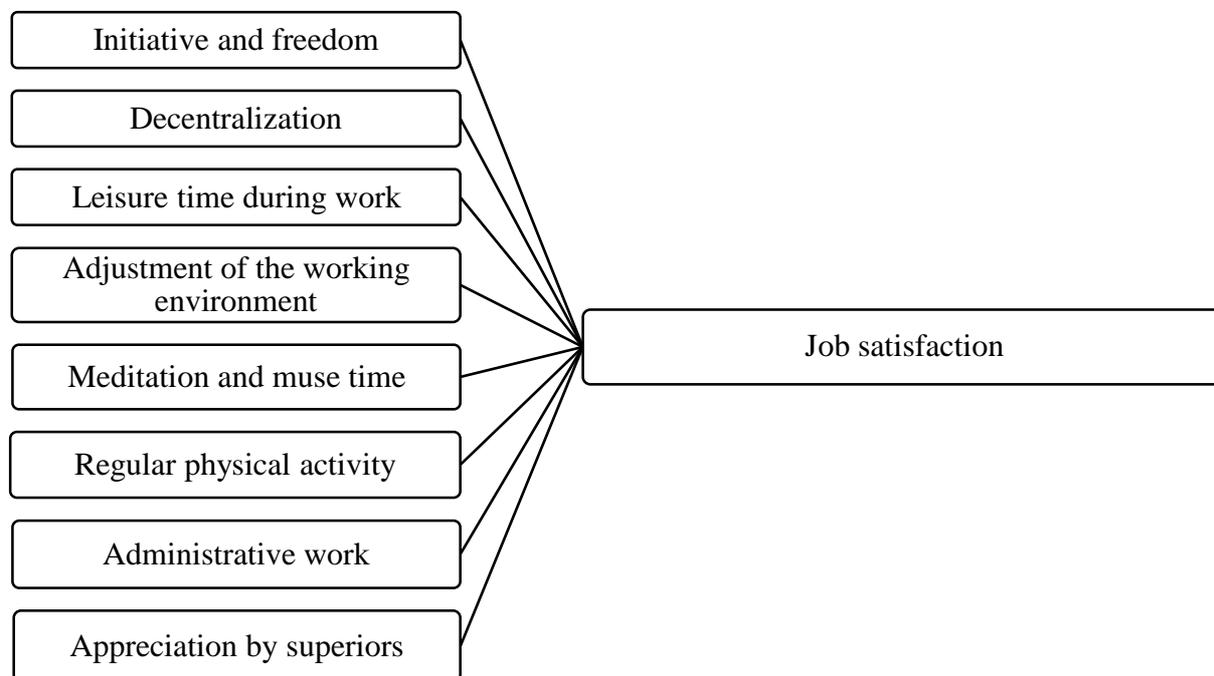
Figure 1: Conceptual Framework

3. LITERATURE REVIEW

There have been many attempts by researchers and institutions worldwide to conduct researches and explain creativity from different perspectives. First of all, it is important to define creativity at work and to distinguish it from many other forms of manifestations of creativity. Nowadays it is widely accepted that creativity is the highest form of intelligence, which represents the ability to generate, develop, interpret and manifest new ideas. Therefore, creativity is not only a privilege of creative industries such as fine arts, media, design, architecture, production of music instruments and other neighboring fields (Wiesand, Söndermann, 2005), but also of every field, which bears the potential for further development. **It is** the duty of creative minds to foster these **potentials** and of governments and the society, especially entrepreneurs, to create an environment conducive to further creativity.

As seen above, indicators linked to creativity, such as the perception of corruption, the ease of opening and running a business, competitiveness, innovation capacity, IP legislation etc., can have an enormous effect on the economy as a whole. A way to measure creativity is by distinguishing between aggregate level and individual (Conference Proceedings "Can creativity

be measured?", 2009). Seen from the point of view of this study, which emphasis the role of the change in people's mentality, the focus will lay on the individual level of creativity aspects of personality, for examplesuch as autonomy, flexibility, openness to experience, sensitivity, playfulness, tolerance for ambiguity, as well as intrinsic motivation, self-efficacy, wide interest or curiosity etc.(Conference Proceedings "Can creativity be measured?", 2009).

First of all, there should be defined a connection between creativity and job satisfaction. There are not many studies related to this relationship. Nevertheless, the impact of creativity on every day working activities, decisions and related work performance is with no doubt very present and relevant in all fields with creative potential. The creative climate influences the psychological processes, which increases not only innovation but also the feeling of well-being among employees and the effects of which then become evident on not only innovation but also on the well-being of employees, job satisfaction and work performance (Biswas, 2011).

There do exist many papers related to the dimensions of creativity at the other hand. They all use different parameters to measure creativity. One approach is to find the common core of creative potential across fields (Martin&Wilson, 2018). For this purpose there are researches focusing on every day or local creativity of the sort that a large percentage of the working population engage in the course of their daily problem-solving activities to which Florida (2002) refers to when he identifies underlying associations related to key features of creativity such as inter alia using one's own ideas in work, able to choose or change one's work methods and order of one's task etc. Further on, the factors influencing creativity will be analyzed and their connection to job satisfaction will be found out.

These factors range from appreciation by superiors (Akafo&Boateng, 2015), to freedom of initiative, having things in common with colleagues, meritocracy, size of organization, variety in daily work etc.

H1: Initiative and freedom have a positive impact on job satisfaction.

Initiative and freedom in the decision-making process in the organization is used to assess the use of own ideas and autonomy as important aspects of creativity(Darvishmotevali, 2019).Also according to Jensen, Liu & Schott (2017) inter alia, autonomy produces a psychological state that promotes job satisfaction. It exists therefore evidence of an impact of initiative and freedom in decision making process, as antecendents of creativity, on job satisfaction of employees.

H2: Decentralization has a positive impact on job satisfaction

Other factors of importance for job satisfaction are related to the organization structure and the level of bureaucratic practices underlying the daily working activities. Centralization is related to the manner power is distributed in an organizational hierarchy and how much are employees involved in the decision-making process. Therefore, it decreases freedom in decision making and therefore also the creative thinking among employees (Hirst et al., 2011). This supports the hypothesis that decentralization increases creativity and job satisfaction.

H3: Listening to music or drawing sketches and similar do increase job satisfaction.

Performing undemanding tasks during a pause at work could allow new ideas entering the brain (Devaux, 2017). It could be seen as a motivator which increases job satisfaction according to Herzberg's two factors theory.

H4: The adjustment of the working physical environment is important for the job satisfaction

Some studies focus only on the adjustment of working environment as decisive to creative thinking and job satisfaction. Akafo &Boateng (2015) describe as conducive to satisfaction among other factors also supportive working conditions. According to Kristensen (2004) physical space affects inter alia the well – being, the channels of information and tools for knowledge, which are fundamental for creative work.

H5: Regular meditating and taking time for muse before any decision making at work increases job satisfaction

Another method which could enhance creativity at work, is practicing mindfulness training, as a distinctive intrapsychic path to an increased creativity at the working place (Kudesia, 2015). Taking time for muse in general is sometimes helpful in our creative thinking process(Martin, Wilson, 2018). This has also been proved in a study among health care professionals which showed that arts included in their working environment and methods, influenced positively their well-being and job satisfaction.

H6: Regular physical activity increases learning efficiency and creativity.

Among other factors that foster creativity and indirectly increase job satisfaction are engagement in physical activity and the adjustment of the physical working environment. Physical activity influences creativity in the physiological aspect, by increasing the blood flow to the brain where the increased synthesis of neurotransmitters effects positively the memory. It influences creativity also in the social aspect through the expansion of knowledge due to

increased encounters to others and in the psychological aspect by an improvement of mood and mental equilibrium due to the increased synthesis of neurotransmitters (Baumann, Boutellier, no year). It has been also tested that physical exercise can slightly enhance creative thinking, even though independently of mood changes (Steinberg et al., 1997).

H7: Administrative work decreases job satisfaction

The other factor has to do with the formalization which implies clear and specified rules of working procedures (ibid.) It limits the choice of behavior and decision making. Robbins (2001) cited in Akafo&Boateng (2015) describes as conducive to satisfaction among other factors also mentally challenging works. Mentally challenging works imply works where creative thinking is needed and where the administrative tasks take less part in the working routine. This supports the hypothesis that administrative work decreases creativity and as a result also job satisfaction.

H8: Recognition in the form of appreciation by superiors increase job satisfaction

Also rewards and recognition may serve as incentives for employees to increase their productivity. Encouraging the talent and creativity of all employees, not just one individual innovator can be benefitting for the firm. This would increase the collective capacity to create and innovate on the part of the team, the firm, or the organization (Akehurst, Comeche&Galindo, 2008). Robbins (2001) cited in Akafo, Boateng (2015) describes as conducive to satisfaction inter alia equitable rewards and supportive colleagues. Also other studies do recognize the fact that appreciating the job of employees, makes them feel treasured and more positive about themselves and their capacity to contribute, which improves their productivity and increases their satisfaction (Mussie et al, 2013, cited in Abdullah, Shonubi, Hashim&Hamid, 2016). Based on these aspects is build the hypotheses that appreciation and support by superiors increases job satisfaction of employees.

4. RESEARCH METHOD

In the methodology part of a research paper is included the way of collecting and reviewing data (Perry, 1998). Regarding the approach of the methodology, in this study were chosen qualitative data. This approach in general gives the possibility to talk face to face with the respondents, but in this case was chosen to use an online questionnaire using Google Forms, spread to the potential respondents through social medias and WhatsApp, where they could respond anonymously and at any time from their pc or cellphone by submitting it independently. This way, minimizes the contact between the researcher and the respondents.

The questionnaire was spread to 130 individuals (with 65 responses), located in Tirana, approximately at the same education level (MSc.), aged around 25 – 55 years, therefore it could be said, that data was obtained from homogeneous samples, representing a smaller group of the population, with similar characteristics (Sandelowski, 1995). To better identify the sample, Florida's (2002) hierarchical cluster analyses of the three kind of workers was used. The first group of Creative workers characterized by high levels of problems solving, learning and task complexity, using their own ideas and exercising considerable autonomy in carrying out their jobs. The second group of routine problem-solvers with little use of own ideas and levels of autonomy or discretion in work. The third group of tailored workers is composed of persons doing deskilled work. Depending on industrial sector creative learners are over-represented in business services and in community, social and personal services, and under-represented in manufacturing, construction, retail and other services. For the purpose of obtaining relevant data, the questionnaire was distributed to people working precisely in the industrial sectors with high task complexity and autonomy, where creativity is a significant and determinant characteristic, such as to economists and managers or marketing experts in different companies in construction, hotel, restaurant business ect., but also to academics, and experts working in the banking sector, IT, international organizations, accounting and law studio, etc.

For this study have also been used secondary data from articles regarding entrepreneurship, creativity and job satisfaction, as it can be seen by the literature review.

5. ANALYSIS

From the linear regression analysis of the data undertaken using STATA, the following information as in the Table 1 below resulted:

Table 1. Linear Regression Analysis

Variables	Coefficient	P > t
V1	.3176561	0.011
V2	.0248658	0.831
V3	-.1096203	0.116
V4	.0289414	0.773
V5	-.072169	0.450
V6	.1279621	0.260
V7	-.10157	0.355
V8	.4189995	0.001
_cons	1.490869	0.009

R-squared = 0.4446

Adj R-squared = 0.3653

The independent variables are listed in the order of the corresponding hypothesis as described above. The adjusted Coef. of determinability takes values from 0 to 1, maybe in some cases even negative values. The coefficient of value 1 shows high explanability of independent variables versus the dependent variable and in case the coefficient is 0 there is no explanation of the independent versus the dependent variable.

Regarding the p value, only two of the variables are under the value of 0.05 (5%), which means, that only they are statistically important, namely initiative and freedom in decision making and appreciation by superiors.

From the data in the table above it results that statistically significant are the variables V1 and V8 with a security level of 95%.

The linear regression equation is V9 = 1.49 + 0.317V1 + 0.418V8.

As noted, V8 is more likely to affect the dependent variable by almost 41% as a weight versus V1 variable which affects by almost 31% versus the dependent variable. The coefficient of determinability and adjusted coefficient of determinability are 0.44 and 0.36, respectively, which means that from this data 36% of the independent variables explain the dependent variable.

In order to better understand the waste significance in this analyses, there were undertaken several test as follows:

The first test performed was Breusch-Pagane in order to investigate the homoskedasticity of the waste, the constant variance of the waste. From this test it results that the selected model does have homoskedasticity. The basic hypothesis stands.

Then it was undertaken the Breusch-Pagan / Cook-Weisberg test for heteroskedasticity:

Ho: Constant variance

Variables: V1 V2 V3 V4 V5 V6 V7 V8

$chi^2(8)$ = 6.74

$Prob > chi^2$ = 0.5654

The third test was Ramsey RESET Test, which serves to investigate the linearity of variables. In our model it turns out that we have linear connections of variables and their explanation, the functional form is linear. The basic hypothesis stands.

Ho: model has no omitted variables

F(24, 32) =   1.56

Prob > F =   0.1193

The forth test was The Akaik criterion of the AIC information, which is one of the most important criteria used for model selection. This criterion was published by Hirotsugu Akaike (1974) and provides a relative measurement of lost information of a model attempting to describe reality. The best model is the one with the smallest AIC. AIC simply lists the models and shows which one is better than the others.

Akaike's information criterion and Bayesian information criterion:

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	65	-91.49189	-72.37719	9	162.7544	182.3239

Both AIC and BIC are lower than 200, which indicates that the model stands and there is no need of modifying the data.

From the tests performed, it results that our model adheres to the classic principles of waste assessment according to the method of smaller squares, which are closely related to homoskedasticity and linearity of the model. From this we conclude that the variables V1 and V8 are important in explaining the dependent variable V9.

6. DISCUSSION

From the analyses above it derives, that the main factors influencing the most albanian employees of our chosen sample regarding job satisfaction, are initiative and freedom in decision making at work, and appreciation and support by their superiors. As antecendents of creativity, they are deciseve for inducing a creativity supportiveworking environment and should be of particular interest for all the levels of the organizational structure.

These are some important results to be taken in consideration from Albanian entrepreneurs, in order to implement such organizational policies which would allow employees a decent level of autonomy and would make them feel appreciated enough to be more creative and more productive as a result of an increased job satisfaction.

The study leaves a gate open for further research on this regard in the Albanian reality in specific fields of interest and with potential of growth using creativity, such as agriculture, agroturism, and technology. Not without purpose, these areas are treated fiscally in a more favourable way, for example according to the Law on "Income Tax" No. 8438, data 1998, legal

entities which perform activities in the field of agroturism, production and development of softwares and agricultural cooperatives are subject to a reduced income tax at a rate of 5 %, compared to the normal tax rate of 15 %, after all the other requirements are met. But these governmental attempts to sustain the economy are not enough in terms of change in human's mentality, as we argued above in the introduction section.

There should be offered and promoted from the governement but also from businesses programmes in the field of human development, such as training programmes for employees in the field of leadership and self development. But these innovative attempts must beginn from school children with the Schools Tax Education Programme etc. (OECD, 2015), as innovative techniques such asuse of technology and and entertaining programms on tax related topics help introducing a new fiscal policy (Lamce, 2019). This is only one aspect of the the society which can profit from creativity and innovation, and this study will help in giving incentives to the Albanian businesspeople and professionists working for the state to drive their attention more to creativity and the related job satisfaction.

7. CONCLUSION

The findings of this study would help employees through the difficult way of mentality transformation and the Albanian society as a whole in its way to the political and economic stabilization. As seen above, Albania lays down in very important ratings regarding creativity and innovation, which is considered as one of the drivers of the economy nowadays, furthermore to the knowledge economy (Skippington, 2016).In order to change people`s mentality towards more creativity, its antecendents must be fulfilled first. From the study the most important aspects of creativity, which are of relevance at this stage of development of our economy, are initiative and freedom in decision making and appreciation by superiors.

Maybe, if in the future the mentality of entrepreneurs themselves will also change, in order for them to create a creativity inducive environment, and if the study will by conducted again after this change, other results may emerge.

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LEAN-TEAMS CHARACTERIZATION

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Abstract

Currently, most organizations recognise the importance of teamwork as an organizational mechanism that improves the work environment, favouring the internal communication, the integration of new members, the motivation of workers and the transmission of the organizational culture and value. In Lean management, the design of work is characterized by cooperation and the resolution of problems in group. Effective teamwork is essential for successful Lean organizations because work teams are effective in improving processes and solving problems. The objective of this work is to identify the characteristics that work teams have within Lean organizations and those factors that are key to their success, intending to have references for management in this type of production system. Different types of work teams coexist in Lean with a series of specific objectives and characteristics. This qualitative study allows identifying the characteristics of Lean-teams and is the basis for confirming the effectiveness factors of the teams in the Lean environment.

Keywords: *Teams, Lean system, Effectiveness.*

1. INTRODUCTION

Teamwork is considered one of the most effective tools for the achievement of objectives when the task to be performed is complex in any area, sector or activity. It requires knowledge, skills, creativity and commitment of the whole team to achieve the objective (Jaca et al., 2012).

We find teams work not only in production systems but also in the development of new products and/or processes, in quality committees, quality control circles, continuous improvement and also adhoc teams to develop specific projects. Teamwork organization is used in all type of companies from industrial to service types.

In the context of dynamic and competitive environments, an efficiency-oriented management model is born, known as Lean Management (LM), which aims to address the "waste" that occurs within the value chain of companies, generating long-term benefits and improved profitability and sustainability. Lean is a term used to describe a system that achieves more with fewer resources, through the continuous and uninterrupted elimination of activities that do not add value to the service or product and teamwork plays a very important role in this effort (Shah and Ward, 2007).

Lean management is based on a series of principles, which require technical and human resources, which requires the involvement of work teams to carry out different tasks.

The objective of this work is to identify the characteristics that work teams have within considered in previous literature in Lean organization and those factors that are key to their success. Its relevance is based on intending to have references for managing this type of production system.

2. LEAN SYSTEMS

Lean Management is a sociotechnical management system that aims to eliminate any source of waste by simultaneous reduction or minimisation for internal and external variability generated in transactions with customers and suppliers (Shah & Ward, 2007). Lean extends beyond in-house production including other functional areas such as marketing, finance and accounting, covering relationships with customers and suppliers (Womack and Jones, 1996). It has even been extended to the field of the services sector (Emiliani, 2006; Swank, 2003).

Lean principles were codified by Womack and Jones (1996) around five ideas that include concepts aimed at delivering value to customers. Those principles are, firstly, specify precisely what is it about a product that creates value from the customer's perspective; secondly, identify,

study and improve the current value of the process for each product; thirdly, ensure the flow of a process simple, uniform and free of errors, thereby avoiding **waste;** fourthly, produce only what the required client; and finally, strive for perfection, which implies a continuous improvement of all the processes.

Lean management establishes eight different types of waste. Seven occur both in the manufacture of the product and in the phases of design and development of new products, order management and the rest of the stages of the value chain. These seven types of waste are overproduction, defective products, unnecessary inventory, excessive transport, unnecessary movements, inappropriate processing, waiting and queuing, designing products and services that do not respond to the needs of customers. One more type of waste completes the list, the eighth, that reinforces the previous ones (Womack and Jones, 1996).

Two types of resources are characteristics of Lean management: firstly, the resources related to the tools and practices that constitute the technical resources, the hard part, and secondly, the human resources which form the soft part, that have to put into practice lean principles and try to avoid the different waste types.

Relate to the human resources, there are a series of **elements** that will facilitate a successful result in Lean such as team working, staff training, remuneration and reward systems in Lean, rewards programme, multifunctionality and flexibility, and continuous improvement by teamworking (Uhrin et al., 2017). About the soft **resources** in Lean management, the design of work is characterized by cooperation and the resolution of problems in group. Small teams of people are used to solve problems and the opinions and ideas of team members are encouraged to solve even their internal team problems.

3. WORKING TEAMS IN LEAN MANAGEMENT

There are many definitions for the concept of work team. In this study, and based on the common aspects of the definitions reviewed in the literature, we will consider the work team as a set of interdependent people who, during a limited period, interact with each other in a coordinated way, sharing a social identity, with a common purpose or objective

The teamwork is recognised in both manufacturing and services industries (Delarue et al, 2008; Fernández et al, 2006) as a means of increasing the competitiveness of the organization and as an organisational system that improves work environment favouring the internal communication, the integration of new members, the motivation of the workers and the

transmission of the culture and values of the organization. Also, the work teams are effective in improving processes and solving problems (Forza, 1996).

The most prominent feature of the organization of work in lean production is the extensive use of multifunctional teams where employees can perform different tasks (Karlsson & Ahlström, 1996). The percentage of employees working in multifunctional teams is much higher than in traditional work organizations. Consequently, effective teamwork is essential for successful Lean organizations.

Effective teamwork is essential for successful Lean organizations (Powell, 2011). The most common frameworks used to study team performance have their origins in the IPO model (input-process-output). The original Input-Process-Output (IPO) model was developed by McGrath (1964). This model identifies the composition, structure and processes of the team as the key background of the effectiveness of the equipment. The team is described in terms of a system that transforms the inputs into measurable results. Lately, some other effectiveness models have been proposed, like Cohen and Bailey (1997) where the effectiveness of the team is based on three main dimensions: performance, attitudes and behaviour of the team.

The most contemporary framework to study the effectiveness of the team is known as the input-mediator-output-input (IMOI) model of Ilgen (2006) adapted by Mathieu et al. (2008) (Figure 1). Kozlowski and Ilgen's (2006) model considers teams as multilevel systems, including individual, team and organizational level. Teams are oriented to the task through cyclical and feedback processes. This model recognizes that several factors influence the results and it also highlights that team performance is developed over time and in a cyclical way, where the results become entries influencing future episodes.
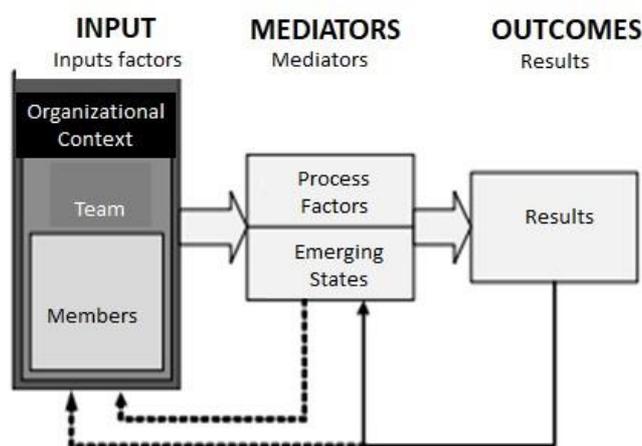
Figure 1.- IMOI model for the effectiveness of teamwork
(Ilgen, 2006; Mathieu et al, 2008)

This model recognizes that several factors mediate the influence on the results and also highlights that the team's performance develops over time and is cyclical, where the results of some returns become inputs that will influence future episodes. The work of the production teams can be seen as a series of related IPO cycles or also called "episodes" composed of phases of action and transition that accumulate performance by receiving feedback and interpersonal relationships.

The IMOI model represents the cyclical character of the processes carried out by the teams through feedback loops. The solid lines in figure 1 suggest that the results have a major influence on the processes and emerging states. The dotted lines indicate that the influence on the Inputs is smaller, as it is more difficult to change the structure and team composition as well as the organisational context. In this model, Ilgen (2006) with this model considers teams oriented to the relevant processes for the task that evolve, so that both processes such as team effectiveness constitute emergent phenomena like patterns resulting from regular and repeated interaction between members.

4. RESEARCH METHODOLOGY

Following Tranfield et. al (2003) this study conducted a systematic literature review through three phases. In the first research phase, we considered the bibliographic databases available. Scopus and Emerald data are the ones we used most, defining the topic in short sentences and identifying keywords. "Lean" and "Team" were the main phrases used in the literature search. In the second phase, organization and classification phase, we ordered and classified the material collected in a unique document using a summary form: year, authors, keywords, abstract, objective, hypothesis, methodology, conclusions, limitations and future lines. In the third phase, reading and writing, we synthesized ideas and joined the contributions from different authors.

Keywords and combinations used for searches included different terms. Table 1 shows the diverse systematic searches selected with different combinations of the keywords related to the topic of interest, selecting the area of Business, Management and Accounting. The table includes the number of published articles found in this search from 2010 to 2019. Some references linked with other references that although they were older are very important to consider in this study. As mentioned, these references have been classified in a summary document. Based on the articles in this literature review, the content of the theoretical and conceptual framework of the study has been completed, as well as the specific factors of the work team have been extracted.

Table 1.- Number of articles related to the keywords

Business, Management and Accounting subject area	From 2010 to 2019
"Lean" + "Team"	236
"Lean"+"Team"+ "success factors"	20
"Lean" + "Team" + "critical success factors"	19
"Lean"+ "Team"+"Kaizen"	25
"Lean"+"Team"+"continuous improvement"	41
"Lean" + "Team" + "Effectivement"	23
"Lean" + "Team" + "Efectiveness model"	1
"Lean" + "Teamwork"	39
"Lean" + "Team work"	19
"Lean-Team"	8
"Lean"+ "Work team"	10
"Lean"+"Teamworking"	4

5. RESULTS

5.1. Typology of Teams in Lean Management

Different work teams are identified in Lean systems with objectives and characteristics specifics. On the one hand, frontline operators in Lean systems tend to be structured as small teams of three to six people and a team leader (Liker, 2004). The team is in charge of a work cell, or more generally, of a value stream "cycle", i.e., a set of tightly integrated activities whose work is extracted from the downstream and which in turn extracts components and raw materials from the upstream suppliers or processes. Measures of the effectiveness of such equipment are increasingly focused on speed, efficiency and cost/waste reduction.

Powell (2011) argues that teams play a critical role in lean manufacturing because it is based on cellulars. *Cellular manufacturing* is a form of team based on technology in which different machines, equipment or processes are placed together to produce similar products (families of parts) in similar processes using small, multifunctional and interdependent teams. In other words, a customised *'work cell'* is a logically and strategically located unit of work used for the manufacture of a particular product or a range of similar products

One of the factors affecting the implementation of cell manufacturing is the involvement of the employee in the cell design process (Powell, 2011). In addition to contributing to the

activities of managing, operating and maintaining the cell, significant collaboration is required in design and development activities. Whether the employee can work on a cell voluntarily or chosen by management may have a different impact on the success of the cell, although there is not enough research to support this hypothesis.

Teams members are multifunctional and interdependent. Cellular manufacturing requires human resources with a high level of technical skills and flexibility (multifunctionality) and also the ability to work effectively and interdependently in teams (interdependence) to achieve high levels of efficiency. It is now widely accepted that the successful implementation and maintenance of team-based cell manufacturing depends on both technical and social aspects (Powell, 2011).

On the other hand, in Lean systems, there are also teams called *"quality circles"* (Shingo and Dillon, 1989) and "*Kaizen groups*", which include people who work separately. In quality circles, members may be from different teams or areas. Interpersonal skills are critical to the success of these teams. Bidanda et al. (2005) found that the ability to co-communicate is the most valued of human issues. These teams are assigned functions such as quality control, maintenance, and to a lesser extent, work planning. "*Kaizen groups*" are improvement teams that are properly formed and temporarily dedicated to analyzing a particular problem (Malloch, 1997). This ad hoc group of participants is also known as "*kaizen workshops*" (Liker, 2004). In this sense, the work teams play a fundamental role in designing and maintaining the results in the improvement of the processes.

Schuring (1996) also distinguishes a workgroup design with standard operating procedures such as those found in lean production cells and other decentralized workgroup designs that are oriented towards problem-solving. These empowered teams are operationally autonomous and function without external intervention.

In the context of quality circles and kaizen groups, the concept of multiskilling implies flexibility, adaptability and provides team members with an overview of the work to be done that facilitates learning and continuous improvement. Training is necessary for new areas, although it requires a lot of time (Olivella, 2008).

Improvement teams (kaizen) are understood as interdepartmental and multi-level working teams that meet to define process improvement initiatives. The term improvement teams (kaizen) is used within the framework of Continuous Improvement to designate teams whose objective is the improvement of processes or the resolution of specific problems, which can

work directly on the improvement of productive processes, or of any area of the organization. In these improvement teams, participation requires few levels of management, functions are delegated to them whenever possible, and both teams and workers must be trained (Ahlstrom and Karlsson, 2000).

The combination of teamwork and continuous improvement within Lean systems requires prior education, preparation and training in teamwork competence (Robertson et al, 2015)

According to Delbridge (2000), the definition of a "*Lean team*" is based on the presence of a formally recognized, hierarchically distinct team leader who is part of the team and whose functions include some element of direct work that controls a maximum of 20 workers. Authors such as Benders and van Hootegem (1999) and Biazzo and Panizzolo (2000) consider that in Lean systems, work is done in teams involved to solve problems in groups with standardization and a high level of discipline.

Following Cuatrecasas and Olivella (2008), the expression *"Lean team"* or "*Lean-Team"* is used referring to or to denote teams with characteristics such as task rotation, autonomous quality control and standardization of rhythms and methods although it is used in many different contexts. They encourage participatory work and standardization but can discourage workers from scrupulously following work guidelines under strict control (Olivella, 2008).

Gilson et al (2005) found that standardization and creativity can be complementary. In Lean teams, leadership is participatory, but autonomy is limited. Management assigns members to each team and teams are assigned strictly defined tasks (Dankbaar, 1997; van Amelsvoort and Benders, 1996).

It can be seen that teams undoubtedly play an important role within lean systems and appear simultaneously in their different forms: structured work cells associated with product or process lines, quality circles to address specific quality problems given the close relationship between lean systems and quality management, and cross-functional kaizen improvement teams.

Finally, it is verified that recently in the revised literature more concrete of Lean appears the concept *Team-Lean* as terminology that includes and summarizes the different groups of teamwork that are given within this environment.

5.2. IMOI Effectiveness Model in Lean-Teams

Few studies have analysed the application of the IMOI Effectiveness Model in real organizations (Mathieu et al, 2008). Similarly, there is research on the effectiveness of the work team in general but additional research is required to explore the factors of teamwork within the specific Lean production environment and in different business contexts. The model considers three types of factors, inputs, mediators and outcomes, classified in three levels, organizational context, teams level and individual members level. Figure 2 shows the IMOI model adapted to Lean context where the characteristics of teamwork in Lean that influence its effectiveness are studied.
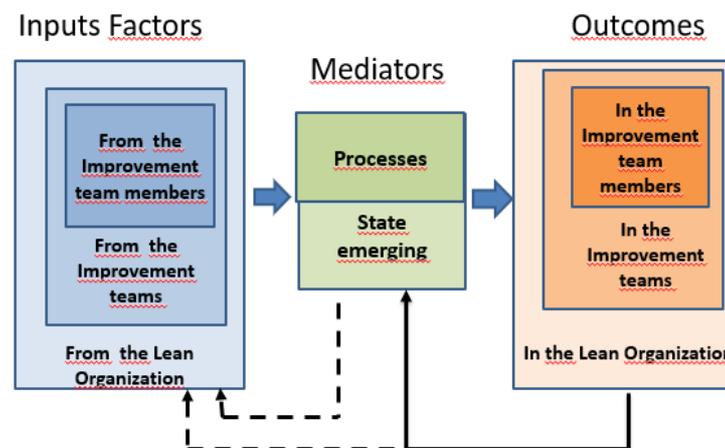
Figure 2. - Mathieu et al. (2008) model adapted to Lean Systems

Based on the literature reviewed, we consider as inputs factors in the context of the Lean organization, the support and managerial, training systems, compensation and rewards, executive leadership, communication and active listening. In the same way, from the Lean Teams autonomy, polyvalence, experience, heterogeneity, leadership, commitment, size, training, norms and roles are considered. In relation to teams' members, the time they know each other knowledge, skills and abilities are very important. The mediating factors participate through two types factors, Lean processes (participation, decision making and communication) and State emerging (team learning, empowerment, autonomy and leadership). Finally, Outcomes in Lean Systems (satisfaction), results in Lean teams (learning performance, continuous improvement) and outputs in Lean organization (achievement of objectives) (Figure 3).
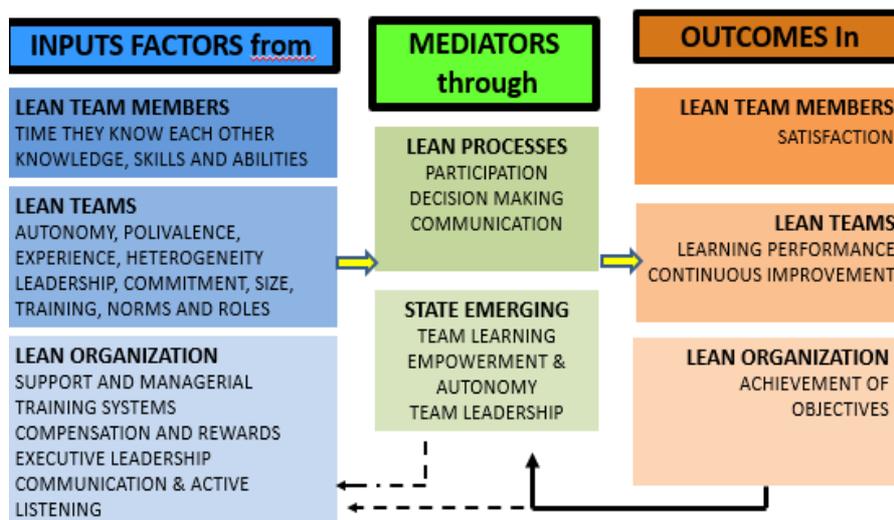
Figure 3.- Success factors effectiveness in Lean

6. CONTRIBUTION AND FUTURE RESEARCH

The contribution of this study is analysing the characteristics that work teams have within Lean organizations and the factors that have been considered as a key factor influencing their success. This qualitative study allows identifying the characteristics of Lean-teams and it is be the basis for confirming the effectiveness factors of the teams in the Lean environment.

Future research should study the influence of the factors identified on lean team effectiveness that have not been previously considered. The research design could be based on a multiple case study initially. Information about their lean teams could be gathered through members interviews, focus groups, and observation of the production plant. This qualitative study would allow to identify Lean teams' characteristics and will be the base to confirm the teams' effectiveness factors in a Lean environment in a quantitative study with a larger sample of firms.

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MEASURING EFFICIENCY OF WORKING CAPITAL MANAGEMENT: INDEX METHOD

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Abstract

Effective working capital management is of great importance for the firms in order to carry out their daily operations flawlessly, to ensure adequate profit, to avoid the difficulty in paying debts and to have a high competitive power against competitors in the sector. When analyzed on sectoral basis, it is seen that the retail sector needs a large amount of working capital to perform its daily operations. Additionally, it is a must for effective working capital management, especially in the retail sector, to determine the amount of current assets and current debt in an optimum level and to make the right decisions about the proportion of the total assets to be composed of current and fixed assets. At this point, the main purpose of this study is to determine the working capital management efficiency levels of the firms listed on Borsa Istanbul (BIST) Retail Trade sector. In order to achieve this purpose, 8 listed firms are analyzed for the period from 2010 to 2019 by using Index method developed by Bhattacharya (1997). In this method; firstly performance index, utilization index and efficiency index values are calculated as the basic components of this method, and then the working capital management efficiency levels of the analyzed firms are determined. The obtained findings show whether firms are performing an effective working capital management. According to these findings; some suggestions are made regarding the current assets, liabilities and sales levels of the firms. This study gives a different perspective by using the Index method instead of considering cash conversion cycle (traditional working capital management efficiency index) in the measurement of the working capital management efficiency across the Turkish retail industry.

Keywords: *Working Capital Management, Efficiency, Index Method.*

1. INTRODUCTION

Working capital constitutes a certain part of the overall capital needed by firms to finance their short-term needs or current assets such as cash, securities, trade receivables and stocks. Funds invested in current assets move in a certain cycle, these funds are continuously converted into cash and this cash obtained afterwards is converted back into other current asset items. At this point, it is possible to state that working capital management plays an important role in the financial management decisions of the firms as well as capital budgeting and capital structuring decisions. While capital budgeting and capital structuring decisions mainly refer to the decisions taken at the point of managing long-term investments and returns of the firms, working capital management mostly focuses on the decisions of the firms' short-term fund needs and short-term investments. Considering the sectoral importance level of working capital management, it is seen that these decisions directly affect the profitability and liquidity level especially in manufacturing, trade and distribution firms and are vital for the success of these sectors. The reason for the direct impact in question is that the total amount of assets returned by these firms' accounts for more than half of their total assets. Therefore, even if the profitability of a firm is constantly positive, an ineffective working capital management can lead firms to bankruptcy (Garg, 2015: 4).

Effective working capital management also includes the planning and control process for current assets and current liabilities in order to eliminate the risk of failing to pay short-term debts and to prevent excessive investment in current assets (Eljelly, 2004: 48). The components of efficient working capital management are the management of accounts receivables, accounts payables, business inventories and business cash. Receivables management basically refers to credit policies that include appropriate credit terms, standards and collection standards at the point of providing cash flow to the business. The payables management involves establishing favorable credit terms between the business and creditors and suppliers. In inventories management, it is aimed to determine the optimal stock amount depending on the stock turnover at the point of minimizing the amount of cash allocated to stocks. And finally, cash management covers the optimal cash level needed to perform daily operations without ignoring the holding costs. Cash management also aims to maximize the amount of cash not invested in fixed assets and stocks to avoid insolvency (Kipronoh and Mweta, 2018: 84-85).

The amount of working capital required by each sector appears depending on the operating cycle in that sector. Here, what is meant by the concept of operating cycle; it is the number of days between the period of investment made in stocks and the period when income

is obtained from those stocks. In the retail sector, this operating cycle is often longer, as large amounts of stocks must be invested over a period of time long before sales take place. This is especially true for businesses operating from a particular workplace (building or shop), as they need large stocks to open a particular store. At this point, retail firms should have the amount of working capital to cover their short-term expenses, as they cannot immediately sell the stocks they have, and should not rely on the sales income that will be obtained later to cover these expenses (Gupta and Gupta, 2019).

The rest of this paper is as follows: The second section, overviews the related literature on the working capital management. The third section includes the research method, data set and empirical findings. Finally, discussion is made and conclusions are reported in the last section.

2. LITERATURE REVIEW

Many studies have been found in the literature to determine the effectiveness of working capital management. The working capital management efficiency index method, which is the subject of studies conducted in various countries such as Pakistan, Iran, Malaysia and Turkey, as well as mostly in India, has been used to calculate the working capital management efficiency levels of firms operating in many sectors such as cement, pharmaceutical, chemical, non-metal minerals and base metal, capital goods, fast moving consumer goods sector. Some of the studies in question are listed below:

Afza and Nazir (2011) measured the efficiency levels of working capital management of 22 cement firms in Pakistan by using Index method developed by Bhattacharya (1997) for the period of 1988-2009. According to the results, it was seen that the analyzed firms performed well during the 20 years considered. Additionally, the analysis results showed that the efficiency index average was greater than 1 in 18 years.

Valipour and Jamshidi (2012) investigated whether there was a relationship between the efficiency indexes of working capital management and efficiency of the assets by considering 72 listed firms operating in pharmaceutical, chemical, non-metal minerals and base metal industries. Performance index of working capital management, utilization index of working capital management, efficiency index of working capital management and cash conversion cycle were considered as independent variables. Profit before interest and taxes to total assets was measured as dependent variable and capital structure, sales growth, company size, and the ratio of financial assets to all assets were adopted as control variables. Regression analysis

results showed that each working capital management efficiency index had a significant and positive effect on the efficiency of the assets in the discussed firms, while no significant impact of cash conversion cycle.

Kaur and Singh (2013) also examined the working capital management efficiency by adopting Index method for the period of 2000-2010. Using a sample of 14 firms operating in capital goods sector in India, the findings revealed that the firms under discussion managed their working capital efficiently and utilized from their current assets in generating sales. A study by Kavitha and Shanmugam (2015), the working capital efficiency levels of 21 large and 17 small Indian pharmaceutical firms were measured by using Index method over the period of 2002-2012. The study concluded that small firms managed their current assets and working capital more efficiently than the large firms during the period under consideration.

Kasiran et al. (2016) analyzed the efficiency of working capital management of 24 small and medium sized firms (SMEs) listed in SME Corporation of Malaysia for the period of 2010-2013. By using Index method, total efficiency index of the working capital management was measured and the findings showed that SMEs were less efficient in managing their working capital. In the same vein, Marie and Azhagaiah (2016) aimed to measure the efficiency levels of working capital management of 15 listed firms operating in Indian fast moving consumer goods sector in their study. They adopted Index method in determining the efficiency levels of working capital management over the period of 2003-2015. The empirical results showed that the working capital management of the so-called firms was quite good and that average sector efficiency index was bigger than 1 for 9 years out of 12.

Using a sample of 15 firms operating in pharmaceutical sector, Prasad and Lakshmi (2018) evaluated the efficiency of working capital management by adopting Index method over the period of 2006-2016. According to Index method; they concluded that 10 firms performed well in managing their working capital and 5 firms had to improve their ability to manage working capital. Kandil Goker (2019) aimed to reveal the change in working capital management efficiency for the sample of 19 firms listed on Borsa Istanbul Sustainability Index continuously since 2015, before and after being included in the sustainability index, and to determine whether the resulting mathematical difference was statistically significant. As a result of the efficiency determinations made using the Index method, it was observed that the working capital efficiency of the companies decreased after entering the sustainability index. Similarly, Guler and Konuk (2019) determined the working capital efficiency levels of 21 firms listed on Borsa Istanbul over the period of 2009-2016. For this purpose, Index method was used

and the performances of the firms were determined in terms of effectively managing the total current assets and each sub-account group separately.

3. RESEARCH METHOD

In this study, Bhattacharya's efficiency method has been used to monitor and measure the effectiveness of working capital management. Bhattacharya (1997) developed a composed index showing the total efficiency level including performance index and utilization index in order to determine the efficiency of working capital management. The total efficiency index is calculated by multiplying the performance index and the utility index (Bhattacharya, 2007: 218-220):

$$PI = \frac{I_s \sum_{i=1}^{n} \frac{W_{i(t-1)}}{W_i}}{N} \ (Performance \ index \ of \ working \ capital \ management)$$

$$UI = \frac{A_{t-1}}{A_t} \ (Utilization \ index \ of \ working \ capital \ management)$$

$$EI = PI * UI \ (Efficiency \ index \ of \ working \ capital \ management)$$

Where:

- A: $Current \ assets/Total \ assets$
- I_s: S_t/S_{t-1}
- W_i: $Each \ current \ assets \ item$
- N: $Number \ of \ current \ assets \ items$
- i: $1,2,3,\ldots..N$

Working capital management utilization index value shows the degree to which a firm benefits from its current assets. An increase in current assets due to an increase in sales means that current assets are used effectively. The index in question shows the level at which a firm evaluates its current assets as a whole at the point of achieving its sales goals. If total current assets show a higher increase compared to the increase in sales, the degree of utilization of current assets will be increased compared to sales. Thus, it will be possible to shorten the operating cycle of firms by increasing the degree of utilization. This index is desired to be greater than 1 or 1, and if this is the case, it seems that the firm may effectively perform its functions indicates that the firm may perform its functions effectively. Within the scope of this study, cash and securities, trade receivables, stocks and other current assets have been taken into account in the calculation of the utilization index. Working capital management

performance index value refers to the relationship between sales and current assets items. If this value is greater than 1, the proportional increase in the sales of the firm is higher than the average of the proportional increase in each working capital item, so it may be concluded that the working capital management is effective. Working capital management efficiency index value is obtained by multiplying performance and utilization index values and shows the working capital management operations of firms as a whole. As with other index values, the fact that the efficiency index value is higher than 1 means that the firm manages its working capital effectively.

4. ANALYSIS

In this study, 8 firms listed on BIST Retail Trade sector constitute the sample of the study over the period of 2010-2019. Although the number of firms operating in the so-called sector was 12, 2 of these firms' data could not be achieved before 2015, and 2 of these firms' net sales amounts were 0 in some years. Therefore, these 4 firms were excluded from the analysis. Table 1 shows the working capital utilization index, performance index and the efficiency index values of the analyzed firms:

Table 1- Working Capital Management Index Values of the Analyzed Firms

Firm	Utilization Index Values												
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	Mean	Min	Max
1	0,25	0,86	1,04	0,99	0,97	0,82	0,86	1,01	0,71	0,90	0,84	0,25	1,04
2	0,98	0,97	0,91	0,94	1,01	1,06	1,00	0,98	0,94	0,93	0,97	0,91	1,06
3	1,05	1,03	0,86	1,15	0,93	0,96	0,87	0,88	1,30	0,88	0,99	0,86	1,30
4	1,07	1,18	0,84	1,08	0,78	0,94	0,88	1,19	1,17	1,15	**1,03**	0,78	1,19
5	1,11	1,76	2,51	0,67	0,81	0,86	1,10	1,13	0,70	1,35	**1,20**	0,67	2,51
6	1,05	1,03	0,91	0,95	1,00	1,30	1,06	1,06	1,09	1,00	**1,05**	0,91	1,30
7	0,71	0,96	1,14	1,43	0,95	1,20	1,25	0,79	0,76	0,97	**1,02**	0,71	1,43
8	1,25	0,99	0,91	0,94	1,20	1,06	0,86	1,08	0,92	1,15	**1,04**	0,86	1,25
Firm	Performance Index Values												
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	Mean	Min	Max
1	0,81	1,77	1,37	1,27	1,45	1,36	1,17	1,24	1,07	1,26	**1,28**	0,81	1,77
2	1,21	1,46	1,20	1,20	1,28	1,35	1,24	1,14	1,21	1,23	**1,25**	1,14	1,46
3	1,33	1,55	1,47	1,33	1,47	1,23	1,08	1,37	1,58	1,13	**1,35**	1,08	1,58
4	1,35	1,67	1,08	1,25	0,99	1,42	1,18	3,55	1,37	1,35	**1,52**	0,99	3,55
5	1,39	2,67	2,31	1,88	1,83	1,05	1,45	1,30	0,93	1,50	**1,63**	0,93	2,67
6	1,45	1,17	1,15	1,23	1,29	1,52	1,35	1,43	1,37	1,11	**1,31**	1,11	1,52
7	1,00	1,64	1,86	1,60	1,01	1,75	1,63	1,34	1,13	1,11	**1,41**	1,00	1,86
8	1,92	1,40	1,25	1,17	1,62	1,36	1,08	1,24	1,28	1,56	**1,39**	1,08	1,92
Firm	Efficiency Index Values												
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	Mean	Min	Max
1	0,20	1,52	1,42	1,25	1,41	1,11	1,01	1,25	0,76	1,13	**1,11**	0,20	1,52

2	1,19	1,42	1,09	1,13	1,30	1,43	1,24	1,12	1,14	1,14	**1,22**	1,09	1,43
3	1,40	1,58	1,28	1,53	1,36	1,18	0,94	1,21	2,05	0,99	**1,35**	0,94	2,05
4	1,44	1,97	0,91	1,34	0,77	1,32	1,04	4,24	1,60	1,55	**1,62**	0,77	4,24
5	1,54	4,69	5,80	1,27	1,49	0,90	1,60	1,46	0,65	2,02	**2,14**	0,65	5,80
6	1,52	1,20	1,04	1,16	1,29	1,99	1,43	1,51	1,49	1,12	**1,38**	1,04	1,99
7	0,71	1,58	2,12	2,29	0,96	2,10	2,03	1,05	0,86	1,08	**1,48**	0,71	2,29
8	2,40	1,38	1,14	1,10	1,95	1,44	0,94	1,33	1,18	1,79	**1,46**	0,94	2,40

5. DISCUSSION

By considering the utilization index values on a firm basis, it is observed that firm no.1 has an index value above 1 only 2 years, firm no.2 has an index value above 1 for only 3 years, firm no. 3 and 7 have an index value above 1 for 4 years, firm no.4 and 5 have an index value above 1 for 6 years, firm no.6 has an index value above1 for 8 years, and firm no. 8 has an index value above 1 for 5 years. When the index values are analyzed on a yearly basis; it is observed that the numbers of firms are 5 in 2019 and 2012; 4 in 2018, 2014 and 2013 and 3 in 2017, 2016, 2015 and 2011 with the utilization index above 1. So it may be concluded that 2012 and 2019 are the most thriving years because the highest number of firms with a utilization index value of more than 1 belongs to these years. Looking at the yearly average values, it is seen that all firms except for firm no. 1, 2 and 3 have a utilization index value above 1 and these values vary from 0.84 to 1.20. The lowest average value belongs to the firm no.1 and the highest average value belongs to the firm no.5. At this point, it is possible to say that firm no.1 cannot make use of current assets effectively enough to make sales.

As can be seen from Table 1; during the 10-year review period, the working capital performance index values of the firms numbered 2, 3,6,7,8 are above 1. Although firm no. 1 has a performance index value below 1 in 2019, firm no.4 in 2015, and firm no. 5 in 2011, these values are very close to 1. In addition, it is seen that the average values of all firms in the period 2010-2019 are above 1, firm no.1 has the minimum value of 0.81, whereas firm no.4 has the maximum value of 3.55. Therefore, based on the average performance values of the firms included in the analysis, it is possible to understand that the firms under discussion perform their sales above the amount of working capital and manage each current asset item effectively.

Finally, when the working capital efficiency index of the firms (overall efficiency index value) is examined, the number of firms with working capital efficiency index below 1 is 2 in 2019, 2015 and 2013, 1 in 2017, 2014 and 2010, and 3 in 2011. In the remaining years, it is seen that the efficiency index values of all firms are above 1. Therefore, 2011 is determined as the year in which at least (5) firms effectively manage their working capital, while 2018, 2016

and 2012 are considered as the years when all companies effectively manage their working capital. When the efficiency index values are considered on a firm basis, it is seen that firm no. 2 and 6 have a value above 1 continuously by the 8-year period. Looking at the average values among the firms; it is understood that firm no. 5 has the highest value with 2.14, and firm no. 1 has the lowest value with 1.11. Additionally, it is possible to state that the reason for the high difference between the annual average minimum and maximum values of firm no. 4 is the 2-fold increase in stocks and trade receivables from 2012 to 2013. A similar situation is also valid for the firm no. 5; the underlying reason of this situation is the 4-fold decrease in the other current assets item from 2016 to 2017. Considering the results of the study as a whole, it is concluded that the analyzed firms have an effective working capital management over the 8-year period and that certain stability is achieved at this point.

6. CONCLUSION

Fluctuations in the global markets have a significant impact on the supply chains of the firms, and liquidity is the most important tool for them to survive in times of adverse economic conditions. At this point, an effective working capital management prevents the loss of business assets by creating added value for the firm. It creates a positive effect on profitability by enabling the owned assets to be used in other investments. In this way, the cash flow cycle becomes systematic; creating a downward effect on the cost of capital, and this increases the firm value. Current assets have an important place in maintaining the operations of the firms in each sector. Especially in retail and wholesale sector, this level of importance rises to very high levels, and in these sectors, firms allocate more funds for current assets. The level of importance of working capital management in financial management is extremely high due to the long time to be devoted to the management of current assets items, the share of working capital investments in total investments and the close relationship between working capital and business volume or firm profitability. Because of this significant impact of working capital management in the retail sector, this study has examined the levels of working capital management effectiveness of retail firms whose shares are traded on the stock exchange. For this purpose, the working capital management efficiency levels of the firms operating in BIST Retail Trade sector are measured over the period of 2010-2019. For the analysis, the working capital efficiency index method, which shows both the performance and the level of utilization of working capital elements, has been used, and the working capital management activities of the analyzed firms have been evaluated. The results of the study showed that the average values of the firms considered have of 1 or more than 1 at both year and firm level in terms of all three

indexes. Therefore, it is possible to state that the analyzed 8 firms have an effective working capital management in the period under consideration and they can make sufficient use of the current assets owned in the generation of sales. Future studies may consider larger sample size and longer time period for analyzing thoroughly.

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NEW TECHNOLOGIES AND NEW SERVICE MODELS IN THE ITALIAN DIGITAL HEALTH SECTOR

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Abstract

In Italy, the increase in life expectancy of the population is leading to the increase of chronic diseases and motor disabilities of the elderly, with negative consequences on the sustainability of the public health system (Brugiavini et al., 2010; Longo and Ricci, 2017). The Italian national health service has to be supported by additional actors (e.g. public health and social structures, the patient's family) who take care of sick people (Atella et al., 2017). Considering the high interactivity required in the relationship between these actors and hospitals, digital health technologies can represent a solution for creating a supply chain for taking care of the patient and fostering resource integration between actors involved in such supply chain. To provide a picture of the Italian digital health sector, this paper aims to investigate the fields of digital health in which Italian newcomers are investing. The research methodology involves a review of Italian SMEs, Start-ups and Spin-offs. The work highlights the promising developments of technology in response to the growing needs of patients and families, and provide an overview of Italian newcomers in the digital healthcare sector.

Keywords: Digital Health, Digital Transformation, Life Expectancy, Chronic Care Model, Italian Digital Health Sector.

1. INTRODUCTION

Life expectancy, globally, has increased by over ten years in the last fifty years. According to Eurostat forecasts, the figure, concerning the EU, will increase in the coming decades (The World Bank Group, 2019; UN-Department of Economic and Social Affairs, 2019; Atella, et al., 2017). The bad news is that, if the statistics are struggling to disclose Lifespan optimistic, they cannot fail to notify the progressive decrease of the Healthspan.

Longevity is an achievement for humanity, but it involves a considerable expansion in the demand for health care, connected to the high incidence of chronic diseases in old age (Brugiavini et al., 2010). It is a wide range of diseases (including heart disease, stroke, cancer, diabetes, respiratory, neurological, neurodegenerative diseases, musculoskeletal and gastrointestinal disorders, vision and hearing defects and some genetic diseases - OMAR, 2020), for which the therapies have a purely ameliorative utility. The long course and persistent symptoms over time are elements that characterize chronic diseases. Also, the increase in demand for healthcare is borne by the National Health System (NHS). The Italian NHS boasts multiple strengths, from the low cost of performance to remarkable quality and outcome indicators that tend to be above the average of OECD countries. The main critical issues are related to the defining, which hit the sector in the aftermath of the economic crisis. Also, the Italian NHS shares, with most of the health systems of industrialized countries, the inadequacy of a response strategy to emerging care needs, with reference to the need to ensure adequate support for chronic patients. A country's health policies also depend on the demographic and socio-economic peculiarities of the populations to which they address, therefore, they must adapt to the evolution of these variables (Spandonaro et al., 2019).

In Italy, according to Istat data, we are witnessing an aging process of the population, due to the simultaneous reduction in births and mortality, in all regions, which do not correspond to an adequate response from the NHS. The pressure exerted on the primary care sector by the increase in chronic diseases has ignited an alarming light on the traditional approach to the health system (Mori, 2018). To this end, we believe that digital technologies have clear potential

Despite the undisputed potential of digital technologies applied to the healthcare sector and the birth of entrepreneurial realities inherent in the digital health sector, there does not seem to be any research in the literature to investigate the fields of activity in which newcomers in the eHealth sector are investing. In this regard, the objective of this work is to investigate the fields of eHealth activity towards which new entrepreneurs in the sector are pushing. Starting from this objective, we want to answer the following research question:

RQ. What are the fields of activity in which newcomers in the eHealth sector in Italy are investing?

2. THEORETICAL BACKGROUND

2.1. Towards the Healthcare Initiative: The Chronic Care Model

The circumstances described presently the forced choice of rethinking the health system. It is necessary to make a transition from traditional models towards new paradigms that elude the concept of "sick role" coined by Parsons (1951).

Today there is a tendency towards organizational approaches based on prevention, capable of supporting the patient. Organizational models are sought that can manage chronic diseases but at the same time capable of effectively addressing the onset of acute diseases.

In rethinking the structure of the healthcare system, it is migrating from the more traditional "waiting healthcare". In the latter, the citizen turns to the hospital, towards the "Healthcare initiative", where it is the NHS that reaches the citizen, guaranteeing the patient adequate and differentiated interventions about the level of risk and focusing on prevention and training (ARS-Toscana, 2020) (Regional Health Plan, 2008).

The Chronic Care Model (CCM) developed by Professor Wagner and his colleagues at the NcColl Institute for Healthcare Innovation, California, appears to be the most effective form of initiative healthcare and, therefore, the most coherent response to emerging care needs (Coleman, Austin, Brach, & Wagner, 2009)

The model focuses on the strengthening of six fundamental elements of the health system and their interconnectedness: community resources, health organizations, self-care support, team organization, decision support, and information systems. Healthcare organizations to respond to the health needs of chronic patients must be supported by community resources, i.e. voluntary groups, self-help groups, self-managed senior centers, and the like. The management of chronic diseases should be taken as a priority by health organizations to fuel innovations in care processes and the recognition of the quality of care. In chronic diseases, the patient lives with the disease for long periods, so it is right, from the point of view of the model, that he is an active protagonist of the care processes, learning to manage the disease itself. Self-care support indicates a set of activities aimed at helping patients and their families in acquiring competence and safety in managing the disease, equipping them with the necessary tools, and monitoring outcomes and problems. The adoption of the CCM implies a necessary rethinking of the organization of the care team. According to the logic of division of labor, doctors are

responsible for the assistance of acute patients and intervention in difficult and complex chronic cases; they also have the crucial task of training the team's staff. Non-medical staff will therefore be trained to support patient self-care and perform some specific functions including observation, control, and monitoring of patients. The adoption of clear and shared guidelines is essential to allow all team members to have well-defined standards based on which to provide adequate assistance. The adoption of computerized information systems is strategic, which support primary care teams in aligning with guidelines; provide feedback to physicians about their performance levels against chronic disease indicators and allow for the preparation of disease registers. The latter represent key points of the CCM and correspond to lists that group all patients affected by a specific chronic condition in the care of a primary care team. They are aimed at planning the specific care of each patient and managing "population-based" assistance (Maciocco, 2011).

Wagner's model pursues the aim of optimizing the use of existing resources and creating new ones, as well as encouraging a policy of interaction, based on a proactive approach, between healthcare personnel, patients, and caregivers of the latter (Coleman, Austin, Brach, & Wagner, 2009). The CCM aims to define non-generic acts of care, therefore aimed at the specific care needs of the individual. The Chronic Care Model imagines health services as a complex network system in which quality, safety, timeliness, efficiency, patient focus, and equity become the emblem of effectiveness. Continuity takes on particular importance in the model, specifically, the objective is to ensure continuity of information (informational continuity), relational continuity (relational continuity), and finally, organizational continuity (Taplin, et al., 2012).

The CCM weaves a network that complies with "management continuity" from the perspective of the "patient experience". In extreme synthesis, the model guarantees that the patient perceives the sensation of being "accompanied" by professionals in the network, avoiding the feelings of abandonment and loss.

In this context, IT systems, allowing the identification of individuals with specific risk factors or with certain pathologies, represent a precious ally for early primary and secondary[3] prevention interventions, in a perspective of "community-oriented primary care"[4].

The CCM accepted by the World Health Organization (WHO), has been adopted by numerous countries including the United Kingdom, Canada, Brazil, the Netherlands, and Germany, while in Italy, Tuscany was the first region to have integrated the model into its system. Regional Healthcare. Each of these countries has developed the Chronic Care Model in a way that is functional to its health system, which has led to interesting reinterpretations. However, the different interpretations of the model do not change its peculiar characteristic of combining the empowerment of the patient, obtained through the community approach, accessibility to care, information, proactivity, and self-care, to the needs of the whole community (Mori, 2018). The search for innovative care models dictated by the changing epidemiological needs, in conjunction with the relentless spread of eHealth, opens broad horizons for development.

The intersection between Healthcare and Digital is now a concrete reality with a high-resolution potential. Information and communication technologies (ICT) at the service of the health system are demonstrating an ability to fill gaps and inefficiencies in the health sector. The hope is that with ICT, the growing welfare needs can be effective accommodated, guaranteeing the dignity of each citizen and preserving their right to health (Article 32 of the Constitution).

2.2. Digital Health: New Digital Technologies to Support Healthcare

The digital health sector in recent years has been showing a continuous path of growth and development. Healthcare digitalization is driven by rapid advances in technology, the drive to provide ever more personalized health care (patient-centered), the demand for real-time access to information, and the massive increase in socio-health data (big data). The development of the Digital Health sector is also evidenced by the growth of this sector in the world health market (Global Market Insight, 2019; Varnai et al., 2018). The increase in the use

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[3] Primary prevention includes a set of activities and actions that aim at the full physical, mental, and social well-being of the individual and the community. They aim to avoid the onset of morbid conditions, therefore they are aimed at healthy subjects. Secondary prevention, on the other hand, acts on subjects already affected by the disease, but at an early stage. The goal, in this case, is to make an immediate therapeutic intervention aimed at slowing down or interrupting the course of the disease (CNMR, 2014).

[4] Community Oriented Primary Care is the most evolved form of basic health care where primary care is integrated by a Public Health approach managed by the District and based on a systematic assessment of community needs, implementation of systematic interventions aimed at target groups of the population, monitoring the impact of these interventions to assess their usefulness for the needs of the population "(WHO - Regional Office for Europe, 2004).

of smartphones, tablets, and other mobile platforms, a rapid improvement of IT infrastructures, and government initiatives in favor of the use of digital technologies in the healthcare sector are contributing significantly to the growth of the digital health market at a global level (Gartner, 2016).

Digitization should not only mean technological development but a real cultural change that is revolutionizing both the internal organization of hospitals and the approach and expectation of patients towards the world of healthcare[5,6]. Healthcare digitalization, as reported by the Digital Innovation in Health Observatory of the Politecnico di Milano[7], is playing a fundamental role in the management of territorial networks (hospital-territory integration), thanks to the introduction of solutions for the management of prevention paths, for computerized treatment (Diagnostic Therapeutic Assistance Paths) of patients and the exchange of data and documents on patients (Patient Workflow Management and Patient Relationship Management).

This path will also be favored and accelerated by the evolution of the citizen. The latter, increasingly connected to the network, which is changing the degree of involvement of the same, concerning the treatment path and in the relationship with the doctor. We are witnessing a constant growth in the demand from citizens for online services, including access and consultation of clinical documents, communication, and consultation with general practitioners and specialists. Monitoring one's lifestyle (heart rate, sleep quality, daily steps, etc.) is increasingly relevant to citizens' needs, in line with greater attention to prevention. Citizens' approach is increasingly oriented towards sharing data relating to their lifestyle with the doctor, generating a mutual benefit for both citizens and doctors (Botti and Monda 2020).

In this scenario, new digital technologies are favoring the collection and processing of large amounts of data from health information systems, medical devices, patients/families, and external applications (internet of things, social platforms, telemedicine)[8]. Furthermore, they support the collaboration between the different actors of the socio-health network and the real-time visualization of the data and information collected. These technologies can provide valuable information for monitoring patients' health and quality of life and have the potential to revolutionize the ability to predict and prevent "harmful" changes in the course of

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[5] Ministry of Health: Guidelines 2019: http://www.salute.gov.it/imgs/C_17_pubblicazioni_2784_alnex.pdf
[6] European commission: Tools and methodologies to assess the efficiency of health care services in Europe (2019)
[7] https://www.osservatori.net/it_it/osservatori/innovazione-digitale-in-sanita
[8] EU Digital Single Market (2018). Transformation of Health and Care in the Digital Single Market. (https://ec.europa.eu/health/sites/health/files/ehealth/docs/2018_ehealth_infographic_en.pdf)

therapy/pathology, identify behavioral and physiological changes early in the patient, which can culminate in relapse or episodes of relapse (promptly reporting them to patients, caregivers, and service providers). Another aspect, not to be overlooked, is the possibility of acquiring data in a real context, with repercussions, in terms of efficacy and efficiency, on pharmacological therapies[9] [10].

According to a study conducted by McKinsey[11], at present, a patient, in most cases, enters the health system only when he is diagnosed with a disease. The treatment path is not optimized between the different nodes of a health network, it does not consider the patient's experience, any similarities, and/or potential risk classes. Doctors perform standard procedures for all patients with the same pathology ("one size fits all approach") and do not have much data available on the patient's history, personal characteristics, and behavioral factors, nor are they able to interact and communicate easily with the general practitioner and other network specialists. Patients, in turn, have poor access to clinical information, not always aware of the risk factors, and not particularly active and participating in their care path.

In this context, the application of Artificial Intelligence approaches will allow for better management, faster performance, and a higher level of accuracy[12]. The main advantage of AI is the ability to design digital health tools to assess potential risks of the evolution of certain pathologies, analyze the possible effects of therapeutic and/or pharmacological treatments on individual patients, integrate different sources, and correlate data. All this, thanks to the ability to acquire, store, and process large amounts of data and information on patients, medical devices, and information systems[13].

As reported by the 1st White Paper "Artificial Intelligence at the service of the citizen" published by the Agency for Digital Italy[14], these technologies can guarantee an improvement in the quality of life. The advantages are "greater accessibility to public services, favoring a reduction in their costs, with advantages in terms of reducing social spending, which can be reallocated. It will be possible to enhance many procedures with adequate automatisms, offering citizens the opportunity to interact in a more agile, effective, and personalized way.

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[9] Ministry of Health: Pact for digital health https://www.camera.it/temiap/2016/09/29/OCD177-2387.pdf (2016)

[10] http://www.salute.gov.it/portale/lea/dettaglioContenutiLea.jsp?lingua=italiano&id=1300&area=Lea&menu=leaEssn

[11] Mckinsey Global Institute (2016). The Age Of Analytics: Competing In A Data-Driven World, December.

[12] EIT Health & McKinsey: Transforming healthcare with AI - The impact on the workforce and organizations (March 2020)

[13] Politecnico di Milano: Artificial Intelligence Observatory (2019/2020)

[14] Agency for Digital Italy (2018) https://libro-bianco-ia.readthedocs.io/it/latest/

We will all benefit from this, including the elderly, the disabled, and citizens belonging to disadvantaged categories.

The advanced levels of analytical computing capacity, according to Computational Intelligence paradigms (artificial neural networks, fuzzy systems, evolutionary processing techniques, intelligent agents, and so on), introduce an added value in terms of forecasts, real-time alerts, and automation of decisions, i.e. Predictive Analysis, Prescriptive Analysis, and Cognitive Analysis[15][16]. Predictive Analysis analyzes historical data to predict future events, Prescriptive Analysis integrates the results obtained from the predictive analysis with a series of recommendations and actions to solve/mitigate potential risks, Cognitive Analysis automates decisions, behaving in a similar to the human mind. These approaches will impact the development of digital applications for the diagnosis, treatment, and monitoring of the patient's health status, through measurements of biomedical parameters to be transmitted to the doctor, support for diagnosis, personalized management of care plans, logistical organization of the activities of health facilities.

The tools, based on these technologies, will support the doctor in "decision making", without however replacing the person himself, accompanying decisions in a more accurate and personalized way, and offering the possibility of dedicating oneself to value-added activities, such as [17][18]:

• Management of prevention, diagnosis, and treatment "personalized" on the real needs of the patient (active and aware), improving the "early" management and the clinical management of the diagnostic-therapeutic path between the different and fragmented nodes of a territorial network (reducing improper access, readmissions, hospitalizations, waste, ineffective treatments, etc.);

• Intelligent segmentation of patients, profiling specific risk classes and similarities, among those potentially subject to the development of certain conditions, so that they can be promptly directed to the best treatment and monitoring path, anticipating any complications.

• Real-time monitoring between specific biomarkers for the evaluation of clinical compliance with respect to standards of care (from biological, genetic, and other patient behavioral data), reducing errors (inadequate diagnoses, useless prescriptions, incorrect pharmacological dosages).

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[15] Hindawi Publishing Corporation (2015): Review Article Big Data Analytics in Healthcare.
[16] Mckinsey Global Istitute (2016). The Age Of Analytics: Competing In A Data-Driven World, December
[17] Politecnico di Milano (2019). Digital Innovation Observatory in Healthcare.
[18] US Food & Drugs Administration (2017). Clinical and Patient Decision Support Software.

• Activation of alarms and personalized services, monitoring patients remotely, foreseeing early detection events, and proposing, in an intelligent way, activities, and services, based on the patient's behaviors and preferences, calibrated in the environmental context in which he lives daily.

The goal, as also emerged from the surveys conducted by the Observatory of Digital Innovation in Healthcare, is the need to make the collected data effectively useful, introduce tools that can analyze them, and above all make them easily accessible and viewable for doctors and health professionals.

2.3. The Obstacles to the Adoption of Digital Health Technologies

The level of use of Digital Health technologies is still limited, being in the early stages of introduction and dissemination on the market[19].

The main obstacle to the adoption of these technologies is the area of use. This is characterized by a complex multi-stakeholder environment, with a fragmented decision-making process, with different needs and requirements to be met, for different segments and classes of users, such as[20][21]:

• The government and regulatory authorities, who approve and decide on the use of these solutions.

• The operators of health organizations, who must select the solution and purchase it.

• Doctors and health personnel, who evaluate and choose the solution.

• Patients, caregivers, and community associations, who influence and determine the success or otherwise of using these solutions.

• The technology providers and medical device vendors, who market and distribute the solution.

Another key aspect is, on the one hand, the rapid evolution of digital information technologies applied to the health domain, and on the other hand the reduced computerization/digitization of health information systems. Other obstacles concern:

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[19] Deloitte (2019). Perspectives, potentials, impacts and models of Artificial Intelligence in the health sector.
[20] CONFERENCE "Artificial Intelligence and Chronic disease management" Artificial Intelligence in medicine: limits and obstacles (2018)
[21] https://www.philips.it/a-w/about/news/archive/standard/news/press/2019/20191107-future-health-index-2019.html

• Regulatory aspects, both in terms of compliance with the standards of interoperability of these technologies with other hospital health systems/solutions (eg. HL7)[22] and certifications to be met for placing and marketing on the market as a "medical device"[23];

• Data quality, in terms of security and privacy[24]. Digital solutions are based on data, often coming from databases created for other purposes and not for scientific research and care. This approach generates criticalities in terms of 1) guarantee of the data source: the administrative databases provide data collected for non-clinical purposes and the data in the electronic records are not always structured for adequate collection for scientific research and are sometimes not collected with completeness; 2) correct "representation" of an entire population and not of a subpopulation, such for example the subjects followed by a particular organization, in which, moreover, the collection of data may not be homogeneous in the various care centers; 3) quality of the algorithms; 4) validity and correct use of data: the input data, such as medical information, are not unique and precise and this affects the results produced. Digital Health technologies introduce problems for the respect of privacy in the sharing and transmission of patient data. Individuals live their lives freely on the assumption that some personal information is not known by those who are not authorized. The growing availability and exchange of health information supports advances in the individual care and public health, but also facilitates invasive marketing practices and discrimination outside the law.

• Ethical aspects[25], especially for solutions that use technologies based on artificial intelligence. Consider, for example, the risk: 1) coming from algorithms that could reflect the same human prejudices in decision-making choices. For example, an algorithm predicting a risk on a genetic basis can lead to errors if applied to populations in which there are no genetic studies; 2) to address solutions that satisfy administrative objectives but not the real quality of care, create decision support systems that favor the consumption of drugs or medical devices, without clinical users perceiving it; 3) to rely excessively on the answers suggested by technologies with the risk of going beyond the role of a support tool, guided by the universal principles of respect and benefit for the patient; 4) of data confidentiality: the use of data to build algorithms implies that no data can be omitted, under penalty of loss of validity. This problem has significant implications for the relationship of trust between doctor and patient.

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[22] https://www.hl7.org/

[23] European Commission: guidelines on the qualification and classification of standalone software used in healthcare within the regulatory framework of medical devices (2016)

[24] https://eur-lex.europa.eu/legal-content/IT/TXT/?uri=celex%3A32016R0679

[25] EUROPEAN GROUP ON ETHICS IN SCIENCE AND NEW TECHNOLOGIES Opinion on the ethical implications of new health technologies and citizen participation

2.4. Health Policies on Digital Health

In terms of digital health, national health policies are preparing guidelines to support new models of health services, based on continuity of care, care management, de-hospitalization, etc.[26] An example is the Pact[27] for Digital Health which constitutes the unitary and shared strategic plan for achieving the objectives of efficiency, transparency, and sustainability of the National Health Service, through the systematic use of digital innovation in healthcare.

The digital health initiatives that the ministry, in collaboration with the Regions, is conducting include the Electronic Health Record[28]; solutions and services for hospital-territory continuity of care (PDTAs); telehealth, teleconsultation, tele-reporting, tele diagnosis, telemonitoring, telerehabilitation, telemedicine[29]. The development of tools for disseminating information assets and enhancing public databases (according to Open Data approaches) is part of the technological innovation initiatives that are underway.

In particular, in the management of chronicity[30] and hospital-territory management (integrated clinical networks, such as stroke, oncology, cardiology, etc.), according to diagnostic-therapeutic protocols (PDTA)[31], digital health initiatives and solutions will find wide application to enhance and strengthen the current model, which shows a series of criticalities and weaknesses.

Finally, we mention the initiatives of EU and national legislation to introduce new procedures for the purchase of Digital health solutions by the Public Administration (PA), that is pre-commercial contracts and public procurement of innovative solutions[32].

3. METHODOLOGY

The research methodology for analyzing the role of new digital technologies in the evolution of the health system provided for a review of SMEs, startups, and Spin-offs belonging to the Italian context.

Starting from the analysis of the existing literature on new organizational models in healthcare, the research has emphasized the study of technologies currently used in healthcare, to highlight the functions they assume, the advantages they offer, and the resistance to adoption,

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[26] Ministry of Health: Guidelines (2019) http://www.salute.gov.it/imgs/C_17_pubblicazioni_2784_alnex.pdf
[27] Ministry of Health: Pact for digital health (2016) https://www.camera.it/temiap/2016/09/29/OCD177-2387.pdf
[28] https://www.fascicolosanitario.gov.it/
[29] http://www.salute.gov.it/imgs/C_17_pubblicazioni_2129_alnex.pdf
[30] Ministry of Health: National Chronicity Plan http://www.salute.gov.it/imgs/C_17_pubblicazioni_2584_allegato.pdf (2016)
[31] http://www.salute.gov.it/portale/temi/p2_6.jsp?lingua=italiano&id=4893&area=demenze&menu=vuoto
[32] https://www.agid.gov.it/it/agenzia/appalti-innovativi

which often emerge. Subsequently, a review was conducted, aimed at developing a "snapshot" of the digital health sector in Italy, considering data relating to SMEs, start-ups, and spin-offs. The research, carried out in March 2020, provided for the data collection through two official portals: Business Register (http://startup.registroimprese.it/), which reports the official data of the Chamber of Commerce, and Knowledgeshare (https: / /www.knowledge-share.eu/about/), on which information is available relating to patents and technologies that represent the excellence of the scientific know-how of Italian universities and research centers. In particular, for SMEs and start-ups, the data were found from the Startup and innovative SMEs section of the Business Register portal, on which an advanced search was carried out, using two ateco codes (6201; 86) and seven keywords ("ServiziSanitari", "DigitalHealthcare", "sanitadigitale", "digitalhealth", "DigitalHealth", "ehealth", "eHealth"); while the data relating to the spin-offs were obtained from Knowledgeshare.

4. RESULTS

The results of the review of SMEs, startups, and Spin-offs in the eHealth field have made it possible to trace the characteristics of the digital health sector in Italy. In the Country, there are about three SMEs and twenty-one start-ups, whose business is linked to the production of software and devices for health care. Of these organizations, the three SMEs are all located in Lombardy, in the north of the country. On the other hand, the distribution of start-ups is more equitable: 48% of these are in the North, with the primacy of Lombardy; 33% in the Center and 19% in the South, between Campania and Abruzzo. Italy also boasts a widespread network of spin-offs operating in the biomedical sector. There are approximately 134 of which 75% in Northern Italy, with a prevalent concentration in Piedmont, Emilia-Romagna, and Lombardy; 31% in Central Italy, with a marked concentration in Tuscany; finally, only 13% of the spin-offs considered are based in the south of the country. The snapshot of the sector highlights mostly very small businesses with some employees, on average between two and ten and a capital that, only in a few cases, exceeds 50,000 euros. Many fields of activity converge in the digital health sector. Therefore, from the analysis of the data available on SMEs, start-ups, and spin-offs in the sector, it emerges that 16% of these organizations link their core business to the development of software and diagnostic support devices, to the interpretation of results. and decision making in the clinical field. 15% are involved in the implementation of platforms and devices for monitoring the patient's health status, which allows the detection of primary or relevant biometric parameters for specific pathologies (neoplasms, heart, respiratory, sleep disorders, etc.). A further 13% is dedicated to the implementation of solutions with an impact

on the strategic, organizational, and management areas of the Health System. In the area of telemedicine and the related design of software and apps for mobile devices, however, 11% of the organizations considered work. Finally, the remaining 45% is active in the field of the production of cutting-edge electro-medical equipment (11%); the implementation of innovative physiotherapy and rehabilitation techniques and systems (9%)[33]; R&D of new drugs, molecules, and biomaterials (9%); the development of wearable devices (8%) and finally the development of tools and devices to support surgery (8%). In Figure 1, the fields of activity of the eHealth sector.
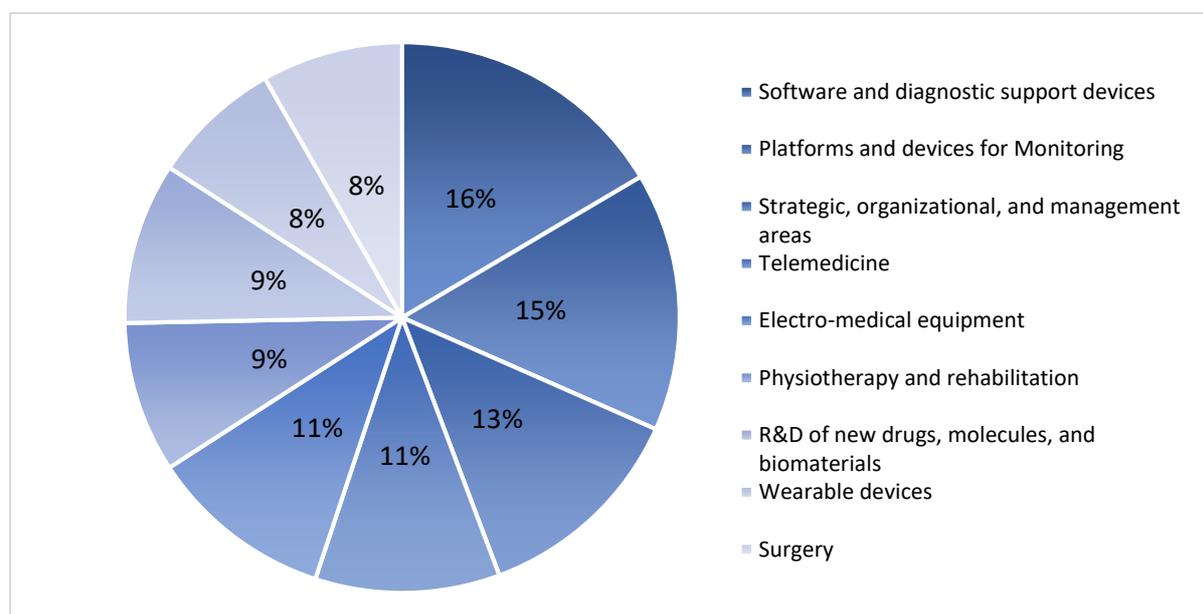
Figure. 1 - Fields of activity in the eHealth sector in Italy

Source: our processing of data from the Business Register and Knowledgeshare

5. CONCLUSIONS

The increase in the life expectancy of the population is linked to the increase in the incidence of chronic diseases and motor disabilities of the elderly (Brugiavini et al. 2010). This phenomenon has serious consequences for the sustainability of the public health system, due to the inadequacy or total absence of a strategy aimed at providing a valid response to emerging healthcare needs, with particular reference to the need to ensure adequate support for chronic patients.

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[33] In this field the use of home automation and robotic applications is frequent, aimed at improving the quality of life of the disabled patient and/or patient involved in complex post-traumatic rehabilitation paths

Over the years, the NHS has been forced to increasingly resort to the support of many additional subjects, such as the patient's residential, semi-residential, socio-sanitary, social structures, and family of origin (Atella, et al. 2017). The presence of a real supply chain for taking care of patients suffering from chronic diseases poses a problem of integration between the different subjects, which can, in part, be solved by the advent of new digital technologies applied to the fields of health (digital health).

The transformation of new technologies on the health system is becoming increasingly concrete in recent decades. The healthcare system model towards which it is inclined is based on "connected care" paths that presuppose the idea of a "connected" healthcare ecosystem and governed by the principle of the centrality of the person (Farmaindustria, 2019). In this system, the technological devices act as the glue between the patient and health workers (specialist doctor, general practitioner, rehabilitation therapists, nurses, other health personnel, pharmacist, caregiver, researcher). Institutional web platforms, wearable devices, apps for monitoring and telemedicine constitute a single solid link, capable of enabling the empowerment, both of patients under treatment and of healthy people, towards health systems. Therefore, an unprecedented concept of "taking care" emerges, in which new technologies play a strategic role. They allow the implementation of a connected community through the implementation of innovative facilities, dictated by the need to focus on the patient with his specific needs.

From the epidemiological picture outlined in section 2.1, with particular reference to the aging of the population and the spread of chronic diseases, ambitious challenges emerge for health systems, related to the need to ensure monitoring and home care of patients suffering from chronic diseases and beyond.

In Italy, the entrepreneurial realities that deal with the production of software and devices for health care are still few. These are in most cases of spin-offs, concentrated in the northern part of the peninsula, and of start-ups equally distributed throughout the country. whose advancement of information systems allows the development of intelligent solutions for a double purpose: 1) the improvement of the management of diseases of chronic patients; 2) the improvement of the management of the strategic-organizational areas of the Health System.

To date, Italy includes mostly very small businesses in the sector, however, developed nations such as the United States, Germany, and Japan represent mature markets in the digital health sector, which bode well for rapid growth too. of the Italian market. Established health infrastructures and high adoption of medical apps among patients and doctors to improve

collaboration and monitor health are on the rise, allowing the growth of the digital health industry in developed countries.

The intersection of the different scenarios outlined therefore traces favorable prospects for the digital health market for which, by 2026, a 28.5% CAGR growth is estimated compared to 2019 (Global Market Insights, 2019). These data are certainly reassuring as, in addition to outlining progressively innovative future scenarios, they allow to prevent the collapse of the NHS thanks to the adoption of digital health solutions. Digitalization in the health sector, together with government initiatives to support the improvement of health infrastructures, lead to hopes for the growth of the digital health sector which would improve access to health care, affordability, quality, and safety of healthcare. sector itself.

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PUBLIC POLICIES FOR INTERNATIONALIZATION: A STUDY FOR PORTUGUESE FIRMS

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Abstract

Internationalization can be considered as a gradual and evolutionary process in which firms progressively increase their involvement in international business. Most small and medium-sized enterprises (SMEs) that internationalize face a variety of constraints in terms of resources and skills, information, financial capital, the experience of their managers, as well as the constraints inherent to the vulnerability of the external environment. Many firms that could succeed in international markets may not have the resources to make the investment. It is also widely acknowledged that the external institutional environment in which firms are embedded may shape firms' strategic responses. Internationalization is a beneficial process for the firm and for the national and local economy and can generate economies of scale in local firms and promote the transfer of technology and managerial knowledge, generating growth and employment. These benefits explain the implementation of export promotion activities and publicly funded programs, as the benefits justify the costs associated with this government expenditure. In light with such facts, governmental assistance may be able to promote the internationalization process of firms. In the international business literature, researchers have examined how home and host market institutions affect the internationalization strategy of

multinational enterprises (MNEs), but our focus is to understand how the home institutional environment, and more specifically the public policies act or not as an enhancing factor for internationalization. This paper tackles this question by using a novel survey dataset of 320 Portuguese firms and a quantitative approach based on a regression analysis. We aim at identifying which firm and managerial characteristics are related with a more proficient use of public support for internationalization. The originality of this research lies in the fact that it seeks to ascertain the importance of public policies to support internationalization, in the entrepreneur's perspective.

Keywords: *Internationalization, Public Policies, Entrepreneurship.*

1. INTRODUCTION

Public policy is recognized as a key instrument that governments use to stimulate the entrepreneurial spirit and economic prosperity of nations. The success of state capitalism in emerging economies have also legitimized the institutional support that can appear in various public policies promoting cross-border economic activities. To stimulate and accelerate export growth, a variety of incentives in the form of economic and governmental policies are offered to exporters. Evidence suggests that over the recent decades, governments have increased the share of export expenditures through the provision of export incentives in national budgets. This highlights the need for research focusing on the effectiveness of such investment for firms. Therefore, it is important to understand how this mechanisms and government incentives might impact internationalization. The international entry process involves risk and uncertainty, and many firms that could succeed in international markets may not have the resources (including financial, skills, human capital or organizational) to make the investment. It is also broadly recognized that the external institutional environment in which firms operate shifts their strategic responses.

In light with such facts, governmental assistance may be able to promote the internationalization process of such firms, and therefore, the relationship between government intervention and international entry must be grasped. Policies to stimulate entrepreneurship are a field still under development, given their complexity and mixed character. In the last years, many governments have paid increasing attention to entrepreneurship with special focus on international entrepreneurship and have implemented policies aimed at promoting it in their countries. Internationalization can generate economies of scale in local firms and promote the transfer of technology and managerial knowledge, generating growth and employment (Austrade, 2002). These benefits explain the implementation of export promotion activities and publicly funded programs, as the benefits justify the costs associated with this government

expenditure (Cansino et al., 2013). Thus, this paper seeks to bring some clarity to these contending visions and to understand whether and how the home institutional environment, and more specifically the public policies, act or not as an enhancing factor for internationalisation.

2. LITERATURE REVIEW

Policy towards internationalization needs to appreciate firm heterogeneity. The spectrum of firms can range from those that do not and cannot internationalize to those that internationalize from their inception. Policy may need to be differentiated according to the circumstances and contexts of firms along this spectrum. Sarfati (2013) considered that public policies to stimulate entrepreneurship (with special emphasis on SMEs) should be based and grounded by the constraints of the entrepreneurial activity, through regulatory policies and stimulus policies. We will direct our attention to stimulus policies, and they are related to actions that directly promote the entrepreneurial activity (Barboza et al., 2017). However, the results of such policies have been mixed and, with some exceptions, researchers have been unable to address this issue satisfactorily. In fact, a broad search of the literature reveals that the fundamental and general question of how, and if, governments are able to influence positively international entrepreneurial activity is far from being resolved (Capelleras, Kevin, Greene, & Storey, 2008). For example, Export Promotion Policies (EPPs) were found to have positive effect on promoting new exporters in Brazil (e.g. Cruz, 2014). Francis and Collins-Dodd (2004) showed that the use of national EPPs contributes to the achievement of Canadians firms, particularly SMEs' export objectives and export expansion strategies. Martincus and Carballo (2010), in the context of Uruguay, found that trade promotions programs contribute to firms' internationalization process. However, a non-significant association between the usage of EPPs and different indicators of export performance is also documented in the literature. For example, the global diversity of early-stage high-tech firms was found not to be influenced by government assistance programs (e.g. Preece et al., 1998). Bernard and Jensen (2004) concluded that state or federal EPPs do not exert any significant influence over the export inclination of US firms. Similarly, Görg et al. (2008) found that export promotion grants do not encourage exporting. Also, literature in general, recognises the existence of an impact of public institutional support towards national firms' internationalization. Coudounaris (2018) concluded that the access to a foreign market is frequently driven by institutional intervention by national entities. Public incentives are important to help firms deal with several liabilities the process of internationalisation implies, such as newness and size (Mudambi and Zahra, 2007). "A positive effect of those policies focusing on market development, guarantee-related

and technical support schemes (…) are found to be instrumental in driving firms' early internationalization" (Ahmed & Brennan, 2019: 937). Export promotion agencies have a strong impact on exports as they help overcome the costs and risks of trade in distant, not so familiar markets (Calabrese and Manello, 2018). According to Calabrese and Manello (2018) large grants are necessary for already internationalised firms to compete; but they are not enough for firms to start the process of internationalisation. Etemad (2020) recognise the critical importance of information for internationalisation. Therefore, public policies need to address the construction of information data structures that avoid SME's contact with inadequate and insecure information. Furthermore, there is "a critical need for mentorship and on-site and in-time training to upgrade SME's competencies". In Latin America, a State-centred approach compared study revealed that public policies have impact on the "sectorial diversification, pace and number of large internationalized firms" (Finchelstein, 2017). Kalinic and Clegg (2017) recognise that public policies design should include the participation of the internationalisation stakeholders – both policy makers, practitioners and academics – in order to achieve their optimisation. The 4 main actions that need to be tackled in this domain: i) reinforcement of private/public sectors; ii) training programs for SMEs; iii) more loans and loan guarantees; iv) better intelligence support (Kalinic and Clegg, 2017). Nuruzzaman, Singh and Gaur (2019): institutions impact on the firm's decision regardless of a supportive or hazardous institutional context. In the first case, by creating the necessary conditions to promote the firms' competitiveness; in the second, as a threatening environment that triggers the firms' willingness to internationalise for the opposite reason. However, it should be noted that many of these studies used the aggregated levels of analysis, where export incentives were combined to form a single indicator. In contrast, our study assesses the differential effects of three categories of dependent variables: generic importance of incentive systems for internationalization, entities that helped in the process and the importance of government and the role of government networks.

3. METHODOLOGY

All the data collected from the 238 valid responses (Portuguese international firms) were treated by IBM SPSS Statistics 26.0 software. We used Ordinary Least Squares (OLS) for every regression, even though every dependent variable is ordinal scale. In theory, a multinomial logit would be the most appropriate. The interpretation of the coefficients, however, becomes more indirect. Therefore, we assume, for OLS to be feasible, that the distance between every unit of

the Likert scale we have used in the questionnaire is similar, therefore allowing for the interpretation of the coefficient using OLS.

3.1. Variables

- Dependent Variables

As we are exploring the dataset, we used as dependent variables those that are mostly related with the involvement of the government and other governmental entities in the internationalization effort of the firms. Rather than attempting to create an index or aggregating variables using, for instance, a Principal-Component Analysis, we did a number of linear regressions using these as dependent variables in order to identify the most significant and frequent explanatory variables explaining this phenomenon. Table 1 presents a list of the dependent variables that were used in the linear regressions. We organize them into three groups: The generic importance of incentive systems for internationalization, expressed in the first two variables; The actual entities that might have helped in the process and the importance of government as a funding source; and a third group with the role of government network, expressed in the last four variables.

Table 1. – Dependent Variables

Variable Name	Type of Variable	Type of Variable
	Importance of incentive systems for internationalization.	Ordinal Scale (1-5)
	Support or incentives for internationalization were insufficient	Ordinal Scale (1-5)
	Importance of support or incentives for internationalization: AICEP	Ordinal Scale (1-5)
	Importance of support or incentives for internationalization: IAPMEI	Ordinal Scale (1-5)
	Importance of support or incentives for internationalization: AEP	Ordinal Scale (1-5)
	Importance of support or incentives for internationalization: Regional or Local Business Associations	Ordinal Scale (1-5)
	Importance of support or incentives for internationalization: Specific Sectorial Entities	Ordinal Scale (1-5)
	Importance of support or incentives for internationalization: Chamber of Commerce	Ordinal Scale (1-5)

Importance of support or incentives for internationalization: Portuguese Embassies	Ordinal Scale (1-5)
Importance of funding sources: Government	Ordinal Scale (1-5)
Relevance of networks and partnerships: National Business Associations	Ordinal Scale (1-5)
Relevance of networks and partnerships: Destination country business associations	Ordinal Scale (1-5)
Relevance of networks and partnerships: National Governmental agencies	Ordinal Scale (1-5)
Relevance of networks and partnerships: Destination country governmental agencies	Ordinal Scale (1-5)

- Explanatory Variables

The explanatory variables we used are presented in table 2. We used every explanatory variable in the OLS regression for every dependent variable, as our primary goal is to assess whether for these different aspects and measures for government involvement in internationalization, there are any factors that appear to be more relevant. We used four main groups of explanatory variables: One, related with firm characteristics; Another, related with respondent characteristics – since the questionnaires were sent towards managers of these firms; Another, on the type of internationalization that the firms preferred; and the destination markets of these firms. These theoretical relationships were presented in the literature review.

Table 2. – Explanatory Variables

Variable Name	Type of Variable	Type of Variable
Number of years since internationalization started	Continuous	
Dimension of the firm (number of workers)	Built on classes from 1 – "less than 9 workers" to 6 – "Over 1000 workers"	
% of firm owned by foreign capital	Continuous	
Form of Internationalization: "Spot"Exports	Binary	
Form of Internationalization: Medium-Long term Exports	Binary	
Form of Internationalization: Exporting through agents or distributors	Binary	

Form of Internationalization: Technology or brand licensing	Binary
Form of Internationalization: Franchising	Binary
Form of Internationalization: Joint-venture	Binary
Form of Internationalization: Subsidiary Firm	Binary
Form of Internationalization: Project	Binary
Form of Internationalization: Foreign Direct Investment	Binary
% of firm owned by the family	Continuous
% of sales through internationalization, in 2018	Built on classes from 1 – "less than 10%" to 5 – "75% or More"
Internationalization results (in terms of revenues) according to what was expected, in 2018.	Ordinal Scale from 1-5
Relevance of destination: Spain	Ordinal Scale from 1-5
Relevance of destination: Eurozone without Spain	Ordinal Scale from 1-5
Relevance of destination: Europe without Eurozone	Ordinal Scale from 1-5
Relevance of destination: Africa	Ordinal Scale from 1-5
Relevance of destination: America	Ordinal Scale from 1-5
Relevance of destination: Asia	Ordinal Scale from 1-5
Relevance of destination: Oceania	Ordinal Scale from 1-5
Age of Respondent	Continuous
Qualifications of Respondent	Built on classes from 1 – "3rd Cycle of education" to 5 – "PhD"

3.2. Results - Linear Regression

We conduct a linear regression for every dependent variable, using all explanatory variables in every model. This implies we have fourteen linear regressions, with twenty-four explanatory variables each. We conduct these regressions and rather than focusing on the value of the coefficient and on analyzing each of these models, we assess what is the effect (positive,

negative or insignificant) of the explanatory variable, and relate those results with what we theorized earlier.

Table 3. - The generic importance of incentive systems for internationalization

	Importance of incentive systems for internationalization.	Support or incentives for internationalization were insufficient
Number of years of internationalization	N.S	N.S
Dimension of the firm	- -	-
% of foreign capital	N.S	-
Spot Export	N.S	-
Medium/Long-Term Exports	N.S	N.S
Agencing	N.S	N.S
Licensing	N.S	N.S
Franchising	N.S	N.S
Joint-venture	N.S	+
Subsidiary Firm	N.S	N.S
Project	+ + +	N.S
FDI	N.S	+ +
% of family capital	N.S	N.S
% of international	- -	N.S
Expectation on internationalization	N.S	- - -
Spain	N.S	N.S
Eurozone without Spain	+ +	+ +
Europe without Eurozone	N.S	N.S
Africa	N.S	N.S
America	N.S	N.S
Asia	+ +	N.S
Oceania	N.S	N.S
Age	- - -	N.S
Qualifications	-	- -

+, ++, +++ identify a positive significant relationship at 10%, 5% and 1% significance level, respectively. The same goes for -, - - and - - - for a negative significant relationship. N.S – Non Significant.

Regarding the importance of incentive systems on internationalization, smaller firms identified them as important, while signaling at the same time that these were insufficient. Firms that based their internationalization on projects identified the existence of such incentives as very important. On the other hand, firms with a higher proportion of capital owned outside in Portugal downplayed the importance of these incentives. Regarding destination countries, those investing in Asia and Europe other than Eurozone identified these incentives as important, while the latter suggested that these incentives were insufficient. Regarding managers' characteristics, the lower the age and the lower the qualifications, the higher is the importance of incentives. Respondents that had a year in terms of internationalization worse than expected tend to blame the incentives for internationalization as insufficient.

Table 4. - Entities that support internalization processes

	AICEP	IAPMEI	AEP	Local Buss. Ass.
Number of years of internationalization	N.S	N.S	N.S	N.S
Dimension of the firm	N.S	N.S	N.S	N.S
% of foreign capital	N.S	N.S	N.S	N.S
Spot Export	N.S	N.S	N.S	N.S
Medium-Long Term Exports	N.S	N.S	N.S	N.S
Agencing	N.S	N.S	N.S	N.S
Licensing	N.S	N.S	N.S	N.S
Franchising	+ + +	+	+	N.S
Joint-venture	+ +	+ + +	N.S	N.S
Subsidiary Firm	N.S	N.S	N.S	N.S
Project	N.S	- -	N.S	N.S
FDI	N.S	N.S	N.S	N.S
% of family capital	+ + +	+ + +	+ +	N.S
% of international	N.S	N.S	N.S	N.S
Expectation on internationalization	N.S	N.S	N.S	N.S
Spain	N.S	N.S	N.S	N.S

Eurozone without Spain	+ +	+ + +	+ +	N.S
Europe without Eurozone	+	+ +	N.S	N.S
Africa	N.S	N.S	N.S	N.S
America	- -	- - -	- - -	- - -
Asia	N.S	-	-	- - -
Oceania	N.S	N.S	N.S	N.S
Age	N.S	N.S	N.S	N.S
Qualifications	N.S	N.S	N.S	N.S

+, ++, +++ identify a positive significant relationship at 10%, 5% and 1% significance level, respectively. The same goes for -, - - and - - - for a negative significant relationship. N.S – Non Significant.

Regarding the participation of entities that support internationalization, and on firm characteristics, firms that have a larger share of family capital acknowledge the support of AICEP, IAPMEI and AEP. Firms that have followed Franchising and Joint-Venture strategies also acknowledge this role, but all other firm and export characteristics yield non-significant results. Regarding markets, these entities appear to be more important when firms choose to export for Europe (without Spain). Firms exporting to America favor less the role of these entities on their internationalization process, with a similar (but less significant) feeling on firms exporting to Asia. Manager's age or qualification do not seem to impact on these variables.

Table 5. - Entities that support internalization processes (part 2)

	Specific Sectorial Entities	Chamber of Commerce	Portuguese Embassies	Government as a funding source
Number of years of internationalization	N.S	N.S	N.S	N.S
Dimension of the firm	N.S	N.S	+ +	N.S
% of foreign capital	N.S	N.S	+ +	+
Spot Export	N.S	N.S	N.S	N.S
Medium-Long Term Exports	N.S	N.S	N.S	N.S
Agencing	N.S	N.S	-	N.S
Licensing	N.S	N.S	N.S	- -

Franchising	N.S	N.S	+	+ + +
Joint-venture	N.S	N.S	N.S	+ +
Subsidiary Firm	N.S	N.S	N.S	N.S
Project	-	N.S	-	N.S
FDI	N.S	N.S	-	N.S
% of family capital	N.S	+	+ +	N.S
% of international	N.S	N.S	-	N.S
Expectation on internationalization	N.S	N.S	N.S	N.S
Spain	N.S	N.S	N.S	N.S
Eurozone without Spain	N.S	N.S	+	N.S
Europe without Eurozone	N.S	N.S	N.S	+ + +
Africa	N.S	N.S	N.S	N.S
America	-	N.S	- -	- -
Asia	N.S	N.S	N.S	- -
Oceania	N.S	N.S	N.S	N.S
Age	N.S	N.S	+ +	N.S
Qualifications	N.S	N.S	+ +	+

+, ++, +++ identify a positive significant relationship at 10%, 5% and 1% significance level, respectively. The same goes for -, - - and - - - for a negative significant relationship. N.S – Non Significant.

Regarding "Specific Sectorial Entities" or "Chamber of Commerce", these regressions are globally non-significant, and therefore no firm or manager characteristics have significance in explaining the behavior towards these entities. For the role on Portuguese Embassies, larger firms and firms having a higher percentage of foreign and family capital attribute a more important role of these entities towards their internationalization effort. Exporters to America attribute a lower role to embassies, while older and more qualified managers value more such role.

On the importance of government and a funding source, firms that focus their exports on franchising and joint-ventures feel the government is an important funding source for their firm, contrary to those firms employing a Licensing strategy. Firms that export to Europe (non-

Eurozone) give more importance to the government as a funding source, contrary to firms that export to America and Asia.

Table 6. – Role of government networks.

	National Business Associations	Destiny Business Associations	National Governmental Agencies	Destiny Governmental Agencies
Number of years of internationalization	N.S	N.S	N.S	N.S
Dimension of the firm	+	+ +	+ +	+ +
% of foreign capital	N.S	N.S	N.S	N.S
Spot Export	N.S	N.S	N.S	N.S
Medium-Long Term Exports	N.S	N.S	N.S	N.S
Agencing	N.S	N.S	N.S	N.S
Licensing	N.S	N.S	N.S	- - -
Franchising	N.S	+ +	+ + +	+ + +
Joint-venture	N.S	N.S	+ + +	N.S
Subsidiary Firm	N.S	+	N.S	N.S
Project	- -	N	N	N.S
FDI	N.S	N.S	N.S	N.S
% of family capital	+	+ + +	+ + +	+ +
% of international	N.S	N.S	N.S	N.S
Expectation on internationalization	N.S	N.S	N.S	+
Spain	N.S	N.S	N.S	N.S
Eurozone without Spain	+ + +	+ + +	+ + +	N.S
Europe without Eurozone	+	N.S	+ + +	N.S
Africa	N.S	N.S	N.S	N.S
America	- -	- -	N	N.S
Asia	N.S	N.S	N.S	N.S

Oceania	N.S	N.S	N.S	N.S
Age	+	+ +	+ +	+ +
Qualifications	N.S	N.S	N.S	N.S

+, ++, +++ identify a positive significant relationship at 10%, 5% and 1% significance level, respectively. The same goes for -, - - and - - - for a negative significant relationship. N.S – Non Significant.

Regarding the regressions of government networks, the dimension of the firm seems an important characteristic, as larger firms tend to value more their networks than smaller firms. Firms that opt for a franchising way of export value their networks immensely, as probably building a franchising network requires a greater deal of contacts than other forms of internationalization. Joint-Ventures seem also to appreciate their networks with national governmental agencies. When the firm is owned by family members, networks seem to have an increase importance. Regarding the destination markets, apparently, network support is appreciated more when the firm exports to the Eurozone (without Spain) and to the rest of Europe, and negatively when it comes to exporting to the American continent. Older managers value more their network of contacts, while qualifications are not significant towards this goal. Overall, National networks seem to be more appreciated by managers than destination countries' networks.

5. CONCLUSIONS

We were able to conclude that smaller companies attach more importance to government incentive systems, but larger companies assign more relevance to interaction with internationalization support entities (AICEP, IAPMEI, AEP). Also, the companies that opt for internationalization models with less commitment and shared responsibilities (Franchising, Projects, Joint-ventures) are those that attach more value to the whole set of variables related to the Support to Internationalization.

It is also very curious to conclude that the companies that choose Spain as their preferred export market show some indifference to the importance of government entities and networks to support internationalization due, certainly, to geographical and psychological proximity.

Another very interesting result allow us to conclude that the age of the manager has a positive effect when considering the importance of the interaction with internationalization support entities, but a negative effect on the importance of the existence of incentives for internationalization.

5. FUTURE WORK

We intend to further investigate this issue, asking entrepreneurs if their opinion is different or not, according to the public support measures during the Pandemic crises of COVID-19.

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RETARGETED ADVERTISING AND FEAR OF MISSING OUT IN YOUNG PEOPLE: TOWARDS THE DEVELOPMENT OF A SCALE

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Abstract

We report the first part of a two-phase study designed to develop and validate a scale to measure the fear of missing out (FoMO) in the context of retargeted advertisements among young people. We commenced this study after conducting two systematic literature reviews (SLRs), one focusing on the factors that affect the attitude of young people towards retargeted advertisements and the other concentrating on FoMO and young people. It was revealed that FoMO is an area that is poorly understood in the advertising context, evident from a general lack of studies. More importantly, it was determined in the FoMO-related SLR that studies on the link between FoMO and retargeted advertisements are inexistent. Specifically, we look at the fear that others might encounter when coming across repeated online advertisements displaying products that are associated with scarcity or urgency. These advertisements appear on users' screens after they show interest in a product by, for example, previously visiting a product website. The themes derived from both SLRs relate to fear and lost opportunities, retargeted advertisements, scarcity, and urgency. The SLRs also identified that few studies focus on early and middle adolescence. We then further analysed the derived themes among young people aged between 13 and 21 through focus groups discussions. The findings fielded out a battery of items that emerged from the themes observed in the focus groups discussions. During the second phase, this battery will be deployed in two surveys with different samples. All data will be subjected to diverse factor analysis and tests to construct a robust instrument.

Keywords: *Scale Development, Retargeted Advertising, Fear of Missing Out.*

1. INTRODUCTION

Artificial Intelligence (AI) driven retargeting techniques can facilitate aggressive repeated exposure of advertisements to consumers. The personalisation factor may further increase the efficacy of AI optimised advertisement targeting. But can repeated exposure to highly personalised advertisements increase social anxiety by amplifying FoMO? Given that young people are the largest segment accessing the Internet and the most susceptible, this study investigates the relationship between retargeting advertisements and FoMO among young people. The culmination of the study is the development and creation of a FoMO scale in a retargeted advertisement context, spread on two phases. This study was based on two SLRs, followed by focus group discussions. The first SLR focused on the factors that affect the attitude of young people towards retargeting, and the other had its lens on FoMO and young people.

Using repeated online display advertising or 'retargeting' techniques, marketers can aggressively target audiences who have shown interest in their products by visiting a specific page or searching for keywords related to the product (Lambrecht and Tucker, 2013). According to Goldfarb (2013), retargeting is the exposure of an advertisement to an online user which contains the content of something that was searched by the user online or seen on a formerly visited website. Retargeting advertisements is a cookie-based technology that allows marketers to invest most of their budgets on individuals that have the highest probability of converting into purchasing the product. This would be easy for marketers as individuals would have already visited the website, but left without purchasing (Lambrecht and Tucker, 2013). According to Cramer-Flood (2020), digital advertising spending will grow by 2.4 per cent in 2020; although registering an increase, it is still the lowest in the last decade, due to the COVID-19 pandemic. Online advertising spend is expected to be almost $333 billion in 2020 and increasing by 17 per cent in 2021 (Cramer-Flood, 2020).

FoMO has been widely studied in the online social networking context. Przybylski *et al.* (2013) defined FoMO as "a pervasive apprehension that others might be having rewarding experiences from which one is absent" (p. 1841). Many studies have linked FoMO with smartphone dependency (e.g. Upreti and Musalay, 2018), social anxiety (e.g. Wang *et al.*, 2018), and lack of sleeping (e.g. Gezgin, 2018), among others. Academic studies resonated the negative attributes that FoMO can have on individuals. However, while the emerging marketing use of FoMO in advertisements and messages is steadily increasing, where companies are applying FoMO messages to expand their sales, relatively few studies have explored this concept (e.g. Hodkinson, 2019).

In this light, investigating FoMO effects of retargeted advertisements on young people is essential because according to the UN's ITU Agency (2017), they are the leading Internet users around the world. In September 2020, more than 4.9 billion individuals accessed the Internet worldwide, with 63.2 per cent penetration rate (Internet World Stats, 2020). Males are leading the Internet usage by 17 per cent, with 47 per cent of females surfing the Internet globally (ITU Agency, 2019). Today, young people aggregate to more than 1.8 billion or 23 per cent of the world's population. Almost 94 per cent of young people in Europe access Internet daily (Eurostat, 2020). In the US alone, 90 per cent of young people are reported to go online daily using YouTube, and an approximate 75 per cent access Facebook and Instagram (Perrin and Anderson, 2019). Hence, as Bitner and Albinsson (2016) state, young people are becoming a significant segment for marketers to creatively and coherently produce and position online advertisements. Nonetheless, young people are more vulnerable in a social networking environment when compared to adults (Aral and Walker, 2012). These authors suggest that there is also a divergence between males and females influence.

In the remaining sections of this paper, we review the five themes extrapolated from the SLRs. Following this, we present the research method used in the first phase of the study and establish the initial battery of 30 items generated from the SLR findings, while highlighting the main methods that will be employed during the second research phase to reach the full development of this scale. We then analyse and discuss the focus groups' findings. Finally, we conclude by including implications, limitations, possible future research, and conclusive arguments.

2. LITERATURE REVIEW

2.1. Fear and Lost Opportunities

In the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (APA, 2013), fear is defined as "the emotional response to real or perceived imminent threat". In contrast, anxiety is the "anticipation of future threat" (p. 189). The emotion of anxiety is related to tension, troubled feelings, and can also influence the physiological component of an individual. Therefore, under a disorder, the anxiety and fear that are intrinsically together can result in comorbidity, overlap, or otherwise vary (APA, 2013).

In another section of their study, Przybylski *et al.* (2013) described FoMO as "the fears, worries, and anxieties people may have in relation to being out of touch with the events, experiences, and conversations happening across their extended social circles" (p. 1842). These

researchers and many others that followed focused on the social networking sites aspect. They analysed the concept of fear in a social environment. Studies concentrated mostly on individuals that they feel like they need to remain in the loop and involved, afraid of missing out something from the going-on and not to distance themselves from what others are doing and from what it is keeping them merry. According to Hodkinson (2019), this occurrence is defined as "self-initiated" (p. 65). It transpires when individuals initiate an action by themselves, as, the constant check of messages or other information on a smartphone, or the continued access to social networking sites. Przybylski *et al*. (2013) refer to the self-determination theory in this context, as it helps to understand why individuals adjust and modify their behaviours based on fear and anxiety. This theory explains the vital influence of the exogenous factors – the cultural and social factors - on individuals, by either enabling or hindering their psychological needs, self-control, and well-being (Legault, 2017). Nonetheless, this is only one facet of FoMO.

A recent study by Zhang, Jiménez and Cicala (2020) focused on the self-concept perspective of users, and based upon Przybylski *et al.* (2013) scale, formulated a FoMO instrument to help marketers to assess how FoMO consumers sense a particular brand. Hence, this study tapped on another facet of FoMO, which is much less studied. Hodkinson (2019) describe this facet as "externally initiated" (p. 67). In this facet, FoMO is triggered externally, in the case of this study, by advertisers. The externally initiated FoMO may therefore be created by the messages carried by advertisements and the persuasion factor sought by marketers. Hodkinson (2019) defines the externally initiated occurrence as a FoMO initiated by marketing messages, in the form of an appeal, which implicitly or explicitly suggest that individuals who do not obtain the advertised product or service, would be 'missing out'. In this instance, fear is not the one instilled by the appeal of the message itself, as discussed by Jovanović, Vlastelica and Cicvarić Kostić (2016), but by informing the individual that there are few items left in stock or else, the offer would be expiring soon. Not acquiring the product or service will result in a lost opportunity that a marketer would be offering today and not necessarily extending it after a stipulated date. It may become unavailable or out-of-stock. The inaction inertia can reverberate and influence future purchases by casting an adverse shadow that affects individuals and inhibits them from considering another product (Ford *et al.*, 2019). Kover (1995) argues that emotions are a significant piece of this process, as the efficacy of advertising messages can affect the individual's perception and thoughts. Beike, Markman and Karadogan (2009) posit that perceptions of lost opportunities may initiate "feelings of regret" (p. 385); individuals that regret outcomes which could have been different, if a decision was taken promptly in the past,

and can no longer be modified. Advertisements can allow this feeling to foster in individuals, particularly when repetition is involved, and when inaction prevails.

2.2. Retargeted Advertisements

In recent years, the advertising model has changed from a stochastic online presence to a more nuanced personalised advertisement that 'follows' the actions of individuals, based on their past interaction with the advertiser's website (Stříteský *et al.*, 2016). This repeated exposure to online advertising, or retargeting, is revolutionising online advertising (Lambrecht and Tucker, 2013). When an individual exhibits interest by visiting a website and leaves it without purchasing or not revisiting, a monitoring cookie is embedded in the browser of the computer being used, where it monitors the individual's actions, and the pages visited afterwards (Lambrecht and Tucker, 2013). Generic and dynamic retargeting occurs when the individual previously visited the organisation's website, and display advertising start appearing on other websites. A generic or static retargeted advertising approach consists of multiple impressions of the same advertisement that appears on screen. Dynamic retargeting comprises of exclusive and customised advertisements aimed for individuals. A powerful online advertising tool is display advertising, which is employed in retargeting. Using text, logos, photographs, music, graphics, photography and other visuals, this form of advertisement conveys a promotional message (Booth and Koberg, 2012).

However, while advertisers personalise advertising by utilising the retargeting model and guide it to the relevant individuals that are more likely to convert, some can find this irritable or invasive (Bleier and Eisenbeiss, 2015). Retargeting is still developing in unchartered territories.

Cho and Cheon (2004) claim that when an individual is exposed to repeated advertising, advertisers can transmit the correct message to the right individual at the right time. They believe that individuals perceive it as more essential and compatible with their objectives and desires. Retargeted advertisement can provide information and suggest personalised products timely, rendering the method of searching for information more effective while enhancing buying intentions (van Doorn and Hoekstra, 2013). Adversely, the exposure to repeated 'mobile' advertisements, for example, can negatively affect the consumer's attitude towards advertising (Han *et al.*, 2014). Over-repetition of advertisements can initiate fatigue as the individuals searching for a product or service would be inundated with repeated generic advertisements. After ten exposures to an advertisement, the optimum individual's attitude would be attained (Schmidt and Eisend, 2015). Excessive repetition may be more harmful than

useful. Nevertheless, messages carried by retargeted advertisements can be more effective as they can initiate scarcity and urgency among individuals to purchase a product or acquire a service.

2.3. Scarcity and Urgency

Internet advertisements and the information that they carry could be focused on the premise that the goods and services being advertised are rare and less available. When the availability of a product or time-limit offers are included in an advertisement, it may give rise to the expectation that the offer may be expired prematurely or products would become unavailable or out-of-stock, leading to the customer missing the chance to own it. Brock (1968) focused on this concept in his research on commodity theory, where scarcity is characterised as lack of goods or bound by limited time to acquire. Worchel, Lee and Adewole (1975) used Brock's study as a platform and performed experiments to explain how the scarcity of goods could influence the individual's perception of products. They noticed that there are products that individuals will appreciate more when they think they are scarce. This notion has been defined as the Scarcity Principle. Scarcity is one of the six pillars of control that Cialdini (1984) identified in his thesis. He believed that scarcity produces a sense of beauty in items with minimal supply. Lynn (1991) stated that scarcity heightens the attractiveness and value of products and services and links this concept with marketing. He argues that marketers can enhance the perceived value and attractiveness of products by exploiting their perceived scarcity.

Messages in advertisements can create the idea of scarcity; products may be due to finish up or have a limited edition (Gierl and Huettl, 2010) or a sense of urgency; products tied to a special offer that would expire in a limited bracket. Cremer (2018) states that the scarcity of commodities has long been accepted as a central driver of markets, price-battles, and revenues. Hodkinson (2019) refers to scarcity as the "insufficiency or a shortness of supply" (p. 77). He argues that "perceived scarcity is more common than genuine scarcity" (p. 77).

Based on Cialdini's (1984) study, Jang *et al.* (2015) focus their study on scarcity messages in marketing and how these effects consumer behaviour. They concluded that there are two types of scarcity messages; limited-time scarcity and limited-quantity scarcity.

The limited-time scarcity arises as advertisers encourage individuals to purchase and tie them to a time-limited offer (Jang *et al.*, 2015). This time-based approach creates an immediate desire to buy, and it conveys a message of urgency among individuals to act immediately, or

else, will lose the opportunity to grab an offer. Hodkinson (2019) states that this apprehension stimulates individuals to click on an advertisement and initiate sales.

Limited-quantity scarcity occurs when advertisers use internet advertisements to convey a warning that few products of a given commodity exist (Jang *et al.*, 2015). This generates a sense of urgency to purchase, like what occurs with a limited-time scarcity advertisement. It may trigger the want to purchase, which contributes to the fear of losing an opportunity when another individual can snatch the product before. This technique allows an individual to shift from a wish-to-have to call-to-action (Hodkinson, 2019). However, this method may initiate anger in an individual due to the perceived idea that an object is not available to fulfil a need (Kristofferson *et al.*, 2016)

Compulsive buying and FoMO have a significant relationship between them (Aydın *et al.*, 2019). Advertisements that are intended to send impulsive messages are created to trigger FoMO among individuals and essential in generating compulsive buying behaviour. Online advertisements can inspire individuals and shift them from mere prospects to buyers. Besides, individuals who are unaware of the availability of products and services can depend on other people's actions to act (Castro, Morales and Nowlis, 2013). Hence, they feel that they are missing out on products that others have an advantage on them, due to the awareness of their availability.
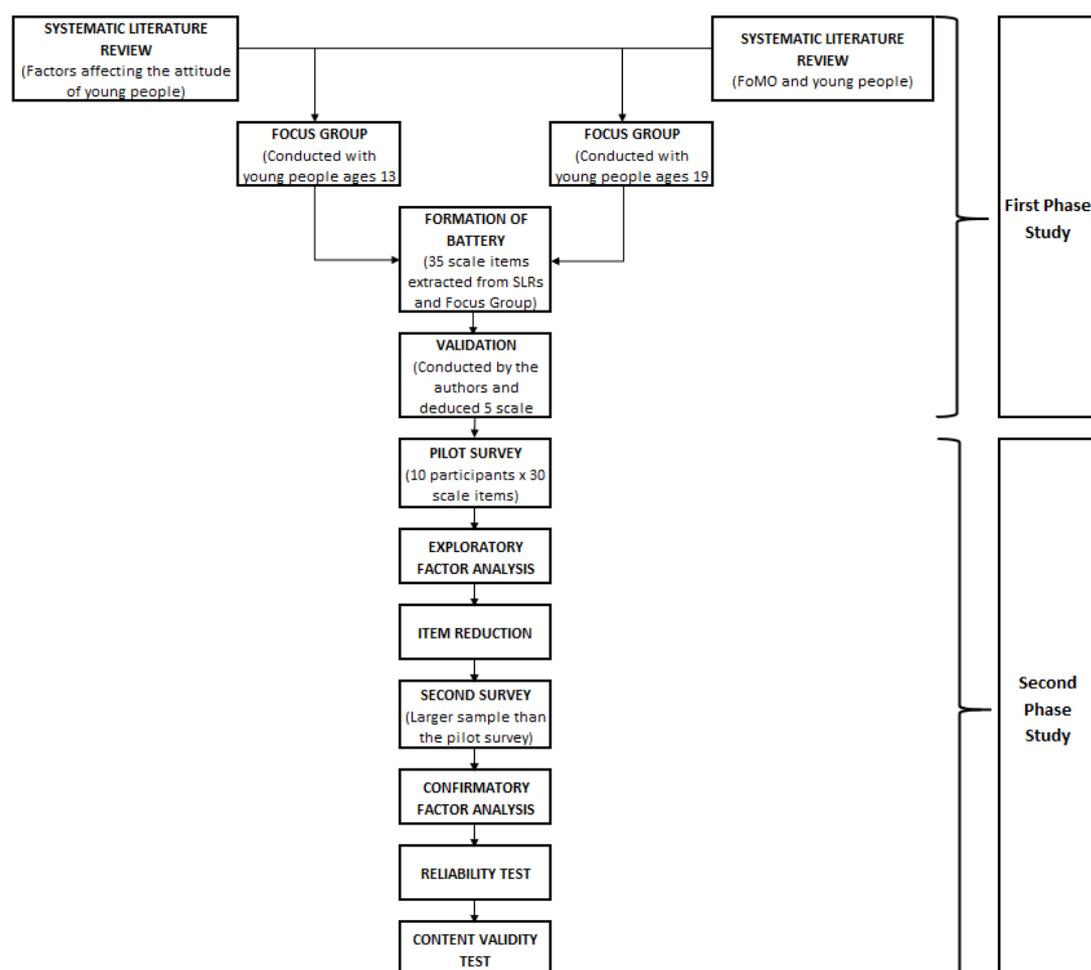
Figure 2: The two-phase study for the scale development

3. RESEARCH METHOD

In their study, Aydın *et al.* (2019) implore for further studies on advertising, FoMO and the connection these have with consumer behaviour. In our study, two-phases were proposed with different stages per phase to develop and create a rigorous scale, with the item development conducted during the first phase. During the second phase, a pilot survey, where exploratory factor analysis and item reduction will be performed. Then, a second extensive sampled survey will be conducted, and the extrapolated data is tested for dimensionality, reliability, and validity (Fig. 1). Boateng *et al.* (2018) split the item development stage into two parts: (1) the prior identification of all the domains that will be proposed for study; and (2) the initial content validation. In this first phase, the domains were defined, and their dimensions were specified by conducting two SLRs. Then, to generate a relevant battery of questions that suits the defined domains, two formal focus groups were held.

A focus group is a crucial research tool that is often utilised for item generation in a scale development study (Nassar-McMillan *et al.,* 2010). This qualitative instrument was employed

in preparation for subsequent larger quantitative samples that are envisaged to be collected during the second phase of this study. The focus groups were held in Malta during the end of October using Microsoft Teams with two groups. An online approach was adopted due to the COVID-19 situation and the restrictions that are imposed on group sessions. The first group of six students, ages 13 to 15 years were chosen impartially by the head of an independent secondary school, where five participants were Maltese, and one was a foreigner. Gender was equally split. The second focus group was held with another group of six students, comprised of three Maltese participants and three foreigners. These students are all currently undergoing a degree course, with ages ranging from 19 to 21 years. Four of the participants were female. The focus group sessions were recorded with all the necessary GDPR requirements in place, for transcription purposes. In this study, the groups are referred to as the young and older group. The multi-cultural and gender mix was an essential aspect for the study to acquire a more holistic view of the attitudes and feelings of young people. Five guiding questions, along with introductory and concluding questions were pre-set for the focus groups, and the same set of questions were used with both groups. Probing was exercised in the sessions to acquire more information from the participants, particularly on feelings and emotional approaches. The duration of the focus group sessions was 90 minutes each.

After transcribing the recorded focus group sessions, the discussions were assessed and analysed rigorously using NVivo 12, resulting in compiling a list of 35 statements. These statements were reviewed based upon their representativeness and accuracy by the authors. Five items were excluded from the list as they were repetitive and out of scope, leaving an initial battery of 30 items, as shown in Table 1.

Table 1. - The initial battery of items

1)	I feel sad when I miss an opportunity
2)	I feel sad when my friends buy a product in which there are no products left
3)	I feel encouraged to click on a retargeted advertisement when it shows that others are buying
4)	I feel anxious when I do not experience the opportunity of buying a product
5)	I feel encouraged to click on a retargeted advertisement that is shown repeatedly on the internet
6)	I would not feel part of the trend if I do not buy the products that are advertised on retargeted advertising
7)	It annoys me if I miss out on the hype that goes around me
8)	I worry when I come across a retargeted advertisement stating that few products that interest me are left
9)	I worry when I come across a retargeted advertisement stating that a special offer will last in a few hours
10)	I feel disappointed when I miss out on a special offer and find that the price has increased
11)	I feel disappointed when I miss out on a product and find out that it is not available anymore
12)	I feel anxious when a retargeted advertisement create a sense of urgency
13)	I feel anxious when a retargeted advertisement shows that a product is scarce
14)	I feel anxious when a retargeted advertisement shows that many people are buying
15)	It bothers me when I read in the reviews of a retargeted advertisement that my friends bought and I lost the opportunity to buy
16)	I fear others will buy the product advertised in the retargeted advertisement before me
17)	I fear others will gain from a special offer advertised on a retargeted advertisement before me
18)	I feel myself falling behind when others buy a product advertised on a retargeted advertisement, and there are no products left
19)	It bothers me when I miss an opportunity to buy a product advertised on a retargeted advertisement
20)	It annoys me when I receive retargeted advertisements that pressure me to buy instantly
21)	I act immediately when I come across a special offer shown on a retargeted advertisement
22)	I act immediately when I come across a retargeted advertisement stating that few products are available
23)	I feel stressed when I miss on a product that is advertised in a retargeted advertisement
24)	I keep thinking when I miss an opportunity offered in a retargeted advertisement
25)	I fear others will enjoy themselves in my loss of an opportunity
26)	I fear left out of a group if I do not buy the products bought by my friend/s
27)	I try to hide the fact that I lost an opportunity from others
28)	I feel jealous of my friends who bought a product for which the offer has expired and then show off with it
29)	I feel jealous of my friends who bought a product which is not available anymore and then show off with it
30)	I feel motivated to make sure not to lose an opportunity next time

5. RESULTS AND DISCUSSION

The scope of this study is to establish a battery of items in preparation for a second phase of the study where we develop and validate a scale to measure the fear of missing out (FoMO) employed in retargeted advertisements intended predominantly to young people. The starting point was the use of Przybylski *et al*. (2013) ten-item scale. Nevertheless, like Zhang, Jiménez and Cicala (2020) 26-item scale, where they reconstructed an entire new list of scale items, we embarked on the same concept of using the backbone of both these scales but constructing different items from scratch as this is the only known study that is investigating the influence of FoMO in a retargeted advertisement context, and the influence that exerts on young people. From the original list of 30 items extracted from the collected data, five items were adopted from the initial scale of items produced by Zhang, Jiménez and Cicala (2020) list. These researchers evolved their preliminary items, and part of the final battery of items was grouped under the "consumer susceptibility to interpersonal influence" section (Zhang, Jiménez and Cicala, 2020, p. 10). This section was the most relevant for our study, although it only highlighted the feelings of individuals based on the peer's social acceptance and perceptions. Their study was predominantly based on social networking sites and the COVID-19 tangent.

In our study, the focus is the feeling of fear among individuals when they miss out on opportunities presented to them by retargeted advertisements. These opportunities can be posed in two different forms; either presented as a limited offer or as a last-item available. The guiding questions used in these focus groups focused on: (1) the personalisation of advertisements; (2) if young people are encouraged to click on repeated personalised advertisements; (3) their feelings towards scarcity and urgency messages in advertisements; and (4) their reactions when products are purchased by their friends before they do, and when their friends boast about the purchase. During the focus groups, participants reported that the feeling of losing opportunities centralised on the idea of receiving personalised advertisements which they felt were mostly related to them. It occurs because they were either longing to purchase the product beforehand, but for different reasons, it did not materialise, or they waited for the price of an item to be further reduced. In both cases, the majority expressed that although the feeling of missing out would have been initially felt if they lose an opportunity, it was not as intended by the advertisement. Participants were aware that some of these advertisements are not always true in what they state, and although it may seem like a lost opportunity, they would still find the product somewhere else. In the case of the younger group of participants, the idea of FoMO appears to be more enticed with. Both genders admitted that they feel anxious when they miss an opportunity of acquiring products which are personalised and according to their likings. Males were more into sports and gaming related products, while females were more into fashion, clothing, and beauty products. Upon missing an opportunity, a female participant admitted that she would feel 'not part of the trend and left out of her group'. Other participants agreed, with a male participant adding that with retargeted advertisements, 'he would keep on track of what is new'. The younger group declared the FoMO on the hype that goes around them, and this may be triggered by advertisements that pop up on their screens while focusing on something else. Almost all the older participants admitted that sometimes the special offer and last item availability annoy them to the point that they would ignore them. It only depends on the product being marketed and how much personal and in need is at that time. The younger group were more lenient. A male participant stated that he 'would click if the advertisement is repeated and annoys me'.

All participants beknow the idea of deceit and click-bait notion in advertisements. Three participants from the older group argued about the irritant and sometimes invasive approach that is employed by advertisers to promote their products. Two participants from the different groups mentioned the 'creepy factor' that these advertisements sometimes create. Nonetheless,

the 'personalisation' element of retargeted advertisements helps to connect with young people and makes it easier for them to click to seek more information. Both scarcity and urgency methods work mostly on the younger group; only when it is appealing or highly needed. Nonetheless, the technique of using retargeted advertisements to attract customers to purchase when they can find the product somewhere else would render this marketing tool futile. Other substitute products might present similar prices or offers which individuals would opt for without falling for a retargeted advertisement. FoMO depends highly on the needs, going trends and hype, and keeping on track with what others are doing. This was accentuated by both groups, with the younger group highlighting it more. Not being part of a trend affects mostly the younger group. Three participants from this group admitted that they would opt for the limited offers or new product offers to be the first to get hold of these products, with one female participant declaring that she would 'show off with friends'. Moreover, both groups agreed that retargeted advertisements marketing preferred personalised products would encourage them to click to acquire more information about the product, but not necessarily to purchase. Hence, to contain the disappointment of missing out on a special offer or missing out on a last-in-stock product, participants stated that they would click and act immediately. Else, all participants declared that they would feel disappointed and upset momentarily, but then it would pass swiftly. The younger participants will feel more dismayed if they miss an opportunity, and even more when their friends show off with their product.

Although not within the main scope of this study, a critical element that rose during the sessions backed our study. The younger group unanimously agreed that they might be influenced by reviews that other customers write about a product or an offer. They argued that they would make an informed decision about the last item available or a limited time offer based upon other peoples' assessments. A young female participant admitted that she encountered FoMO, 'whenever coming across different and interesting reviews'. Another interesting element worth mentioning was the various factors that make up a retargeted advertisement. Participants from both focus groups mentioned credibility as being a significant factor that makes retargeted advertising useful and appealing. Others highlighted the message and information that the advertisement disseminate as the main attribute that attracts them to click to know more. Participants also mentioned personalisation, with a young male participant mentioning interactivity as being contributory to make a retargeted advertising even more approachable.

The findings provide a steady background for acquiring a healthy instrument that would eventually help us to determine the effects of retargeted advertisements on young people and how these advertisements can be improved to be more effective and cost worthy.

5. CONCLUSION

Although the use of FoMO in marketing campaigns is being frequently used, the study of its impact on young people and its effects is still scarce. Hence, the main scope of this study was to commence a full process to establish a scale to understand the impact of the FoMO factor on young people when this is employed in retargeted advertisements. It is envisaged that this instrument would be a contribution to methodology, as to our knowledge, to date, no scale exists in this area of study. The creation of this scale is not only relevant to the academic field but also for managerial and marketing decisions. This scale is intended for marketers to analyse their target market - young people and to understand the influence that FoMO in retargeted advertisements might exert. Hence, it will help them to use scarcity and urgency messages effectively and coherently. Moreover, it will provide them with an accurate picture of what are the attitudes of young people towards retargeted advertisements in a cultural and social dimension. Eventually, this study will offer a significant advance to the current literature and the integration of the usage of FoMO in a marketing context and the influence it exposes on young people.

Another significant opportunity for the development of this scale is to measure and examine if there is any difference that exists between genders' perspectives and the two different segments of young people: the younger and older groups. The final battery of items is intended to identify any major disparity when it comes to fear and anxiety in a marketing context. Moreover, this scale will put to the test the study that Aral and Walker (2012) conducted on the susceptibility and influence of young people when surfing social networking sites. It will also help us to understand the challenges and constraints that these retargeted advertisements are employing in the online domain on genders and different age brackets.

No study is accomplished without its limitations. First, apart from acquiring insight from different literature, the development of the scale was based on mixed data obtained from studies that included older ages, i.e. young adults. The mitigation to limit this factor was the focus groups that we have conducted. Future research could consist of the adults' segment once again, by employing and adapting this scale and use it as a foundation, to explore if there are any significant changes tied with age. Second, two focus groups of six participants each were held. Nonetheless, this was a follow-up of two strong SLRs and in preparation for a larger sample,

scale study. Finally, the scale development is explicitly focused on retargeted advertisements. This was the initial scope of the study. Future research could broaden the study to understand if other types of advertisements amplify FoMO in the audience and to what extent.

The second phase of this study will involve a quantitative pilot survey where we intend to collect more 10 responses for each scale item generated. The collected data will be exposed to different tests, including exploratory factor analysis and item reduction, where the items resulting from these tests will be used in another survey with a larger sample, for dimensionality, reliability and validity testing which are all expected to drive towards the development of a robust instrument.

In conclusion, the findings of the first phase of the study presented four important factors which are: (1) FoMO is more sensed by the younger group than the older group; (2) scarcity and urgency work on the younger group, when the advertisement is appealing or product highly needed; (3) retargeted advertisements would encourage them to click to acquire more information about the product, but not necessarily to purchase; and (4) FoMO can be triggered in young participants by other people's reviews. Hence, we posit that this scale will help us to evaluate all these factors and drive us to assess FoMO in the context of retargeted advertisements among young people.

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STABILIZING STEPS THE SECURITY OF HUMAN AND SOCIETY IN THE COVID-19 PANDEMIC

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Abstract

The research goal is to develop models for stabilizing human security during global pandemics. In order to develop effective measures to minimize the impact of the COVID-19 pandemic on the safety of Ukrainian citizens, it is necessary to conduct an in-depth analysis and modeling of the impact of quarantine measures. The research focuses on human security, digital inequality, employment issues, psychotherapeutic problems, and their impact on protection of the population. Cybersecurity tools are being developed to combat information manipulation and illegal e-commerce, and to protect patients' personal data. The COVID-19 pandemic creates an environment for the cybercrime development. Decreased vigilance among the population, anxiety disorders, work from home, and excessive load on the Internet lead to an increase in the flow of cybercrime. Companies that are engaged in the management of day-to-day operations in times of crisis do not pay due attention to the increased threats to information security that arise as a result of these exceptional circumstances. The research will use theoretical-analytical and practical models, method of analysis of hierarchies, computational method of economic research and development of methods for calculating human safety indicators, system oriented, inductive and deductive approaches to the interpretation of research results. To ensure stability in the state during a pandemic, it is necessary to take into account security of all segments of the population, transformation of the medical crisis into economic and digital ones. The research highlight is that to ensure economic stability and stabilization, return the system of all government chains to stable operation, it is necessary to take into account the security of all segments of the population. The research presented will be mathematical models and comprehensive recommendations proposed to help countries overcome the global crisis outcome.

Keywords: *Pandemic, Cybersecurity, Theoretical-Analytical and Practical Models, Social Security, Economic Stability.*

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1. INTRODUCTION

In just a few months, the coronavirus pandemic has blown up and played havoc on all spheres of human activity and on states in general, especially in the socio-economic domain. The coronavirus pandemic has led to unprecedented problems in the global economy, the effects of which governments of all nations, businesses of all levels from international corporations to private entrepreneurs, every single person around the world would experience over the next few years. And these consequences could be unpredictable as the pandemic continues. The impact of the COVID-19 pandemic on global processes is enormous and complex, and it is constantly increasing. From major disruptions to the global economy and to the breakdown of personal relationships; no country, business, community, a family or an individual has escaped its consequences. In addition to the direct impact of the virus on human health and safety, economic, social, demographic, environmental, behavioral, political and institutional responses to the pandemic have been and continue to be profound. Economics, alone or in conjunction with other disciplines, including systems analysis, has a key role to play in understanding, addressing, and mitigating the complex effects of the pandemic on human and societal security.

There is no doubt that the COVID-19 pandemic is a challenge to the European unity and another crash test for the European Union, Ukraine is associated which. Europe has been, and is likely to remain, one of the most COVID-19-infected regions in the world, and strong responses by national governments to the pandemic, through various strategies combining social distancing, quarantine and self-isolation, have led to an economic crisis at least twice as strong as crisis of 2009. In addition, economic recovery is likely to be slow due to depressed consumption and investment, and this will require a rapid redistribution of resources in both the labor and capital markets.

During the quarantine period, only grocery stores, pharmacies, gas stations and banks operated in Ukraine until the stages of its mitigation. In general, according to information released by the State Treasury Service of Ukraine, the budget received about 62.5% of the planned revenues. According to UN estimates, due to the economic crisis, more than 6 million Ukrainians may be below the poverty line. At the same time, families with small children and children who have only one parent are most affected. One of the few measures to overcome this crisis is to involve researchers in research papers to analyze trends and develop measures to overcome the economic downturn and ensure the health security of the most vulnerable groups suffering the pandemic and the subsequent economic crisis. For example, the US space agency

NASA has announced that it would fund four major research papers that will study the impact of the COVID-19 pandemic on society, from the economy to the problems of air pollution. Papers should shed light on the changes caused by the temporary absence of typical human activities. The Oxford University Center for Entrepreneurship has announced four papers to study the COVID-19 pandemic to be funded.

This is a paper to develop a non-invasive saliva test for COVID-19, which will improve testing capabilities and their effectiveness; development of a software application to support parents of babies; ObliviousAI research team paper to develop software for contact tracking and data protection; and the Crowdless paper, which analyzes the load of supermarkets and shops to help people avoid crowds and queues. The COVID-19 pandemic is making the whole world to think about human security, how to face the global challenges of real life in a new way, as quickly and effectively as possible. The use of factual data on the pandemic consequences by the state leadership, the study of support for response to the pandemic COVID-19 will contribute to adoption of scientifically sound decisions in the fields of economics, health, and information security. This, in turn, will ensure a more humane and equitable policy for all and will minimize the destructive impact of the pandemics on lowincome, vulnerable, disadvantaged groups. To stimulate the state's economy, the government proposed a program to save the economy only in two and a half months after the quarantine was introduced.

More than 90 developers took part in preparation of the program, including think tanks, business associations and individual companies. The program takes into account initiatives in the following areas: access to finance, access to markets, deregulation, modernization and development, and access to infrastructure.

In order to develop effective measures that would minimize the negative impact of coronavirus on the economy of Ukraine, it is necessary to conduct a thorough analysis of the socio- economic and security spheres in the context of quarantine and at various stages of its gradual mitigation.

2. LITERATURE REVIEW

In the research famous scientist Ravi P. Agarwal [1] firstly studies an SIR (susceptible-infectious-recovered) epidemic model without demography and with no disease mortality under both total and under partial quarantine of the susceptible subpopulation or of both the susceptible and the infectious ones in order to satisfy the hospital availability requirements on

bed disposal and other necessary treatment means for the seriously infectious subpopulations. Simulated numerical examples are also discussed related to model parameterizations of usefulness related to the current COVID-19 pandemic outbreaks. A true-mass action epidemic model with a typical bilinear incidence of the form is described in [2].

In scientific work [3] Edwin G. Tse and Dana M. Klug collates the key open science resources and initiatives currently available for COVID-19 research. The resources and initiatives highlighted in this article demonstrate the benefits of open science approaches and its potential to accelerate research timelines.

In scientific work [4] was created a simulation model to understand the effect of the starting day of community containment on the final outcome. This simulation shows that the early implementation of social distancing and reducing the number of contacts per day reduces the number of hospitalized cases, deaths and number of infected people. Furthermore, early relaxation of social distancing is associated with rebound increase in the number of active cases in the community.

The study [5] focuses on the modelling and the forecasting of COVID-19 spread in the most affected African continent, namely: Morocco, Algeria, Tunisia, Egypt and South Africa and for the sake of comparison two of the most affected European country are also considered, namely: France and Italy. To this end, an epidemiological SEIQRDP model is presented, which is an adaptation of the classic SIR model widely used in mathematical epidemiology.

Despite limitations, this report [6] provides a framework for tailoring communication messages that are empathetic, that amplify personal responsibility and responsibility to protect others, and that focus on perceived pressure to not wear a mask, all of which might persuade young adults to adhere to public health guidelines (e.g., wearing masks) that prevent the spread of COVID-19. Masks are an effective tool to prevent the spread of COVID-19, and current CDC guidance recommends universal masking to prevent SARS-CoV-2 transmission.

The paper [7] investigates the issues of the socio-economic impact of the pandemic.Social distancing, self-isolation and travel restrictions have lead to a reduced workforce across all economic sectors and caused many jobs to be lost. Schools have closed down, and the need for commodities and manufactured products has decreased. In contrast, the need for medical supplies has significantly increased. The food sector is also facing increased demand due to panic-buying and stockpiling of food products. In response to this global outbreak, we

summarise the socio-economic effects of COVID-19 on individual aspects of the world economy.

In paper [8], we consider how to address the devastation brought on the Canadian Economy from the covi19 pandemic. We conclude 9.5 million jobs could be created in a way that maximized the impact of government spending. Figure, well know from Astrotheology Math, are used to ensure the highest levels of job creation for the investment of $340 B CDN.

The main goal of the study is to provide sound recommendations for government management in the direction of social security. The article will focus on food security, digital inequality, employment, psychotherapeutic problems in the context of quarantine measures and their impact on public protection and education problems. In particular, a set of measures will be proposed to optimize supply chains and ensure human food security during a pandemic, to ensure a minimum income for the disadvantaged segments, including those who need support to use digital systems, to combat methods of information manipulation.

3. RESEARCH METHOD

It is planned to use both general scientific and special methods to solve the paper tasks. In particular, it is a systematic approach to analyze the structural transformation of the economy under the influence of the pandemic, as well as to analyze the international experience of institutionalization of the fight against the pandemic.

The paper will use theoretical-analytical and practical models, methods of mathematical statistics (in particular, cluster analysis, frequency analysis, index theory, trend analysis), methods of mathematical economics and econometrics (supply and demand analysis, regional and spatial analysis, global modeling, time series analysis), methods of economic cybernetics (system-oriented analysis of economics, theory of economic information, theory of control systems, simulation), network and program-target methods of planning and control, method of analysis of hierarchies, methods of systems analysis, method of computer mathematics. It is planned to use the research-papers of domestic and foreign scientists in the field of security, epidemiological control, and economy as the information base of the paper. The information and factual basis will be based on legislative and regulatory acts on human security, data from the State Statistics Service, official information of international organizations, as well as statistics of the World Health Organization (WHO).

In our article, we will build on real-world observations in assessing security quarantine measures, government financial and fiscal decisions, and health system performance during the

pandemic. We will also empirically study the impact of social exclusion and strict quarantine policies on economic performance, learning performance, media performance and human food security. As part of the article, we will specifically monitor vulnerable groups, such as low-income households who had financial difficulties in the past. Social surveys of schoolchildren, students and teachers will be conducted; the results will help us to determine the methods of protecting schoolchildren and students from deteriorating mental health during the quarantine, policies to support them and the impact of social isolation on the professional competencies of university graduates.

Model problem about the number of actively ill:

$$y´ = (k_1 - k_2 - k_3)x$$

$$y = e^{(k_1 - k_2 - k_3)x}$$

Where k_1 is the rate of case, k_2 - coefficient of recovered, k_3 - coefficient of death.

If $k_1 \gg k_2$ - there will be a sharp increase, if $k_1 \ll k_2$ - there will be a decline.
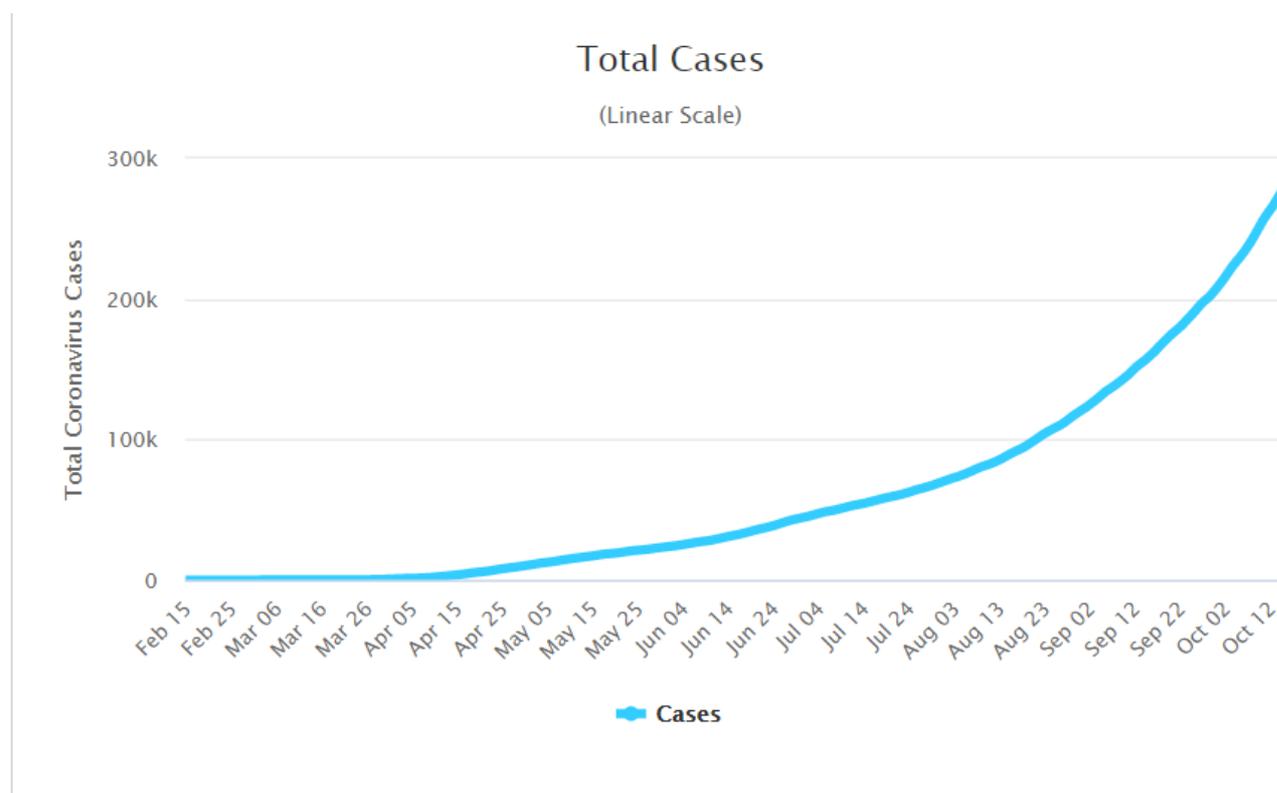
Figure 1. Total Coronavirus Cases in Ukraine

(developed by the authors)

The graph shows an exponential increase in the number of actively ill patients. As noted above, the purpose of our study was to study the effect of an increase in morbidity on the state of the economy and social security of a person (Figure 1).

We will also conduct in-depth interviews with university teachers and students. Thus, this article will provide a comprehensive analysis of how well public institutions are prepared for the pandemic challenges, and will help policymakers and practitioners to develop rapid solutions to overcome the crisis.

4. ANALYSIS

In order to develop effective measures to minimize the negative impact of coronavirus on the economy of Ukraine, it is necessary to conduct a thorough analysis of the socio-economic and security spheres during quarantine restrictions and various stages of their gradual mitigation. The paper highlight is that to ensure economic stability and stabilization, return the system of all government chains to stable operation, it is necessary to take into account the security of all segments of the population, because citizens pay 34% GDP in taxes and economic stability depends on their solvency.

Today, many citizens have been forced to terminate their employment or their wages have dropped significantly because employers have no income. Our paper defines the problem and suggests the way to overcome it. To reduce the spread of COVID-19 and stop the epidemic, global, national and local authorities need timely and up-to-date data and model forecasts to inform about prevention, control and distancing measures. Policymakers will also need data on behavioral and biomedical interventions during and after a pandemic to reduce the devastating effects, especially on the most disadvantaged segments.

Coronavirus is continuing its spread across the world, with more than 55,6 million confirmed cases in 189 countries and more than 1,3 million deaths (Figure 2).
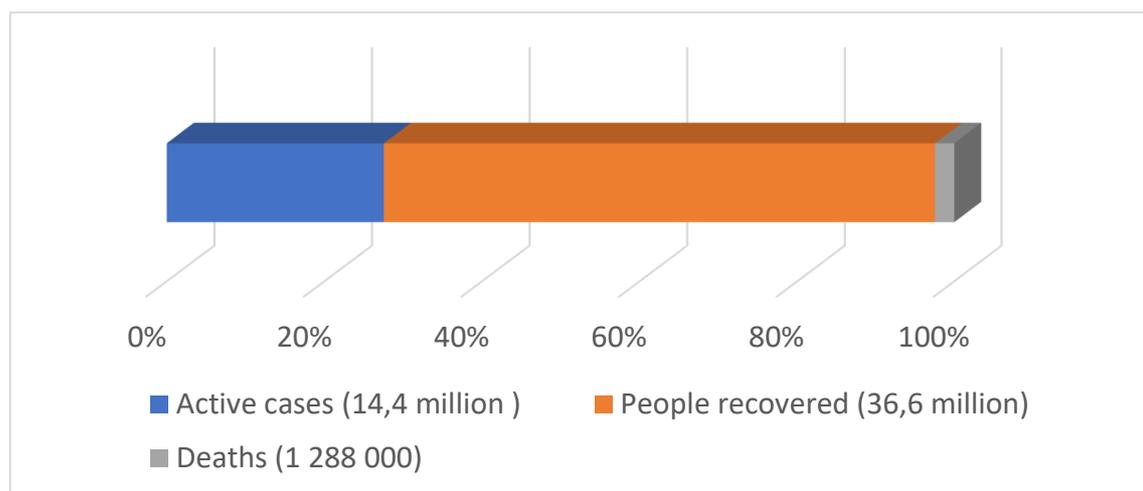
Figure 2. - Data on the spread of coronavirus around the world

(*developed by the authors*)

The virus is surging in many regions and some countries that had apparent success in suppressing initial outbreaks are also seeing infections rise again.

The composition and development of policy mixes throughout the different stages of the crisis as well as their effects on businesses and industries is another area that deserves attention. How developing countries tailor these measures today will affect their prospects for building resilient, inclusive and sustainable post-crisis industrialization in the future.

The COVID-19 pandemic creates an environment for the cybercrime development. Decreased vigilance among the population, anxiety disorders, work from home, and excessive load on the Internet lead to an increase in the flow of cybercrime. Companies that are engaged in the management of day-to-day operations in times of crisis do not pay due attention to the increased threats to information security that arise as a result of these exceptional circumstances [11, 12]. In particular, criminals may use health-related information about COVID-19. The deep concern of the population about these issues and the surrounding anxiety inevitably implies a decrease in the general vigilance of Internet users.

One of the paper tasks is to make proposals and even life hacks to prevent cheaters. Transformation of the medical crisis into an economic one, and its impact on the global economy requires a comprehensive analysis. The COVID-19 pandemic not only contributed to the growth of social isolation, but also to the closure of financial markets, corporate offices and cultural institutions. The rapid spread of COVID-19, and the difficult medical situation, has led to a decrease in the level of investment protection and dissatisfaction of investors and international trading partners. For companies, remote work is a risk factor to consider. The risk of attacks on information systems, as well as on the network, which are in great demand for

remote work, is significant. Access to confidential and financial information, document fraud scams, supply chain adjustments, including food supplies, increased network requirements caused by quarantine measures are all potentially serious consequences for the security system. In this context, competent authorities also need practical guidance on limiting cybersecurity risks to a man and society as a whole. Chattering is a big problem.

The paper also details and suggests ways to solve the following problems: -analysis of the continuity of supply chains for dairy products, meat, fresh fruits and vegetables to ensure food security. Study of the experience of primary food producers in adapting to quarantine measures and changing supply chains. Development of measures to optimize supply chains and ensure human food security during pandemics; - developing measures to ensure a minimum income for the disadvantaged population, including those who need support to use digital systems. Development of measures to assist employees in their return to work when quarantine measures are terminated. Research of digital tools and analytical tools based on artificial intelligence (AI) to improve epidemiological surveillance in Ukraine.

Analysis of the pandemic impact on the status of Ukrainian and foreign secondary and higher education: access to quality education, possible reform of school education with the transition to a mixed regime [13], etc.; -study of processes, ways of formation of (false) information about the COVID-19 pandemic and it flows through media platforms. Analysis of the impact of digital content to improve public health and limit the spread of the COVID-19 pandemic. Develop cybersecurity measures to combat methods of manipulating information and provide citizens with the means to verify the facts; - computer modeling of physiological factors that may be affected by quarantine (sleep patterns, social interaction, activities / physical exercises) and their impact on professional competencies and physical safety. Analysis of people's access to resources for distance learning, work and social interaction during quarantine activities.

We use recent data derived from UNIDO's Index of Industrial Production (IIP) for our analysis of 49 countries representing around 87 per cent of world manufacturing value added (MVA). A comparison of IIP data (adjusted to take seasonal effects into account) for March 2020 vs December 2019 shows that approximately 81 per cent of countries have experienced a decrease in industrial production of 6 per cent on average. A comparison of data for April 2020 vs December 2019 reveals that industrial production fell by 20 per cent on average in 93 per cent of countries.

Firms in the textile, apparel and leather industries tend to anticipate the largest plunge in profits and jobs, while firms in the chemical, plastic and rubber industries expect below average decreases (Figure 3).
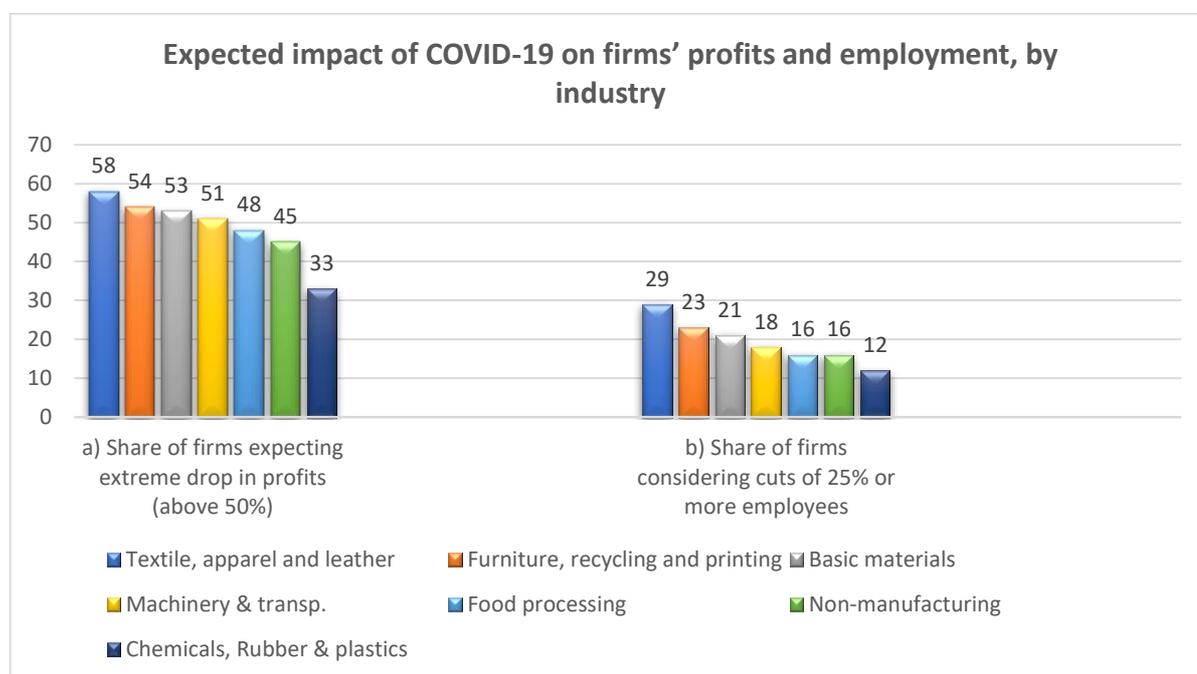
Figure 3. - Expected impact of COVID-19 on firms' profits and employment, by industry

(***developed by the authors***)

The basic materials industries also expect their profits and employment to be hit hard. In the furniture, recycling and printing industries, a large share of firms is anticipating a serious decline in profits (54 per cent), but only 16 per cent expect that they will be forced to announce drastic job cuts, which lies below the average share of firms included in the survey. Similar trends are observed in the machinery and transport equipment industries.The different expectations across firms arise from the very challenges they face. Two major challenges widely reported by firms are 1) the contraction in demand, and 2) the payment of wages. The most pressing problem in labour-intensive industries (such as textile and apparel) seems to be the payment of wages. The plunge in demand is a widespread concern among other industries. Firms in the textile and apparel industry are also particularly concerned about logistics problems, while upstream and downstream chain disruptions are deemed a more serious problem for firms in the chemical, rubber and plastic industries than for other industries.

A general conclusion that can be drawn from these results is that not all firms are affected by COVID-19 the same way. Differences are observed across countries, industries and firm size. The type of problems industries and firms face also differ across different firm types. It

follows that the policy responses implemented by governments to support firms in their recovery efforts should be tailored to account for these differences.

Dangerous actions in the context of the coronavirus pandemic are shown in Figure 4.
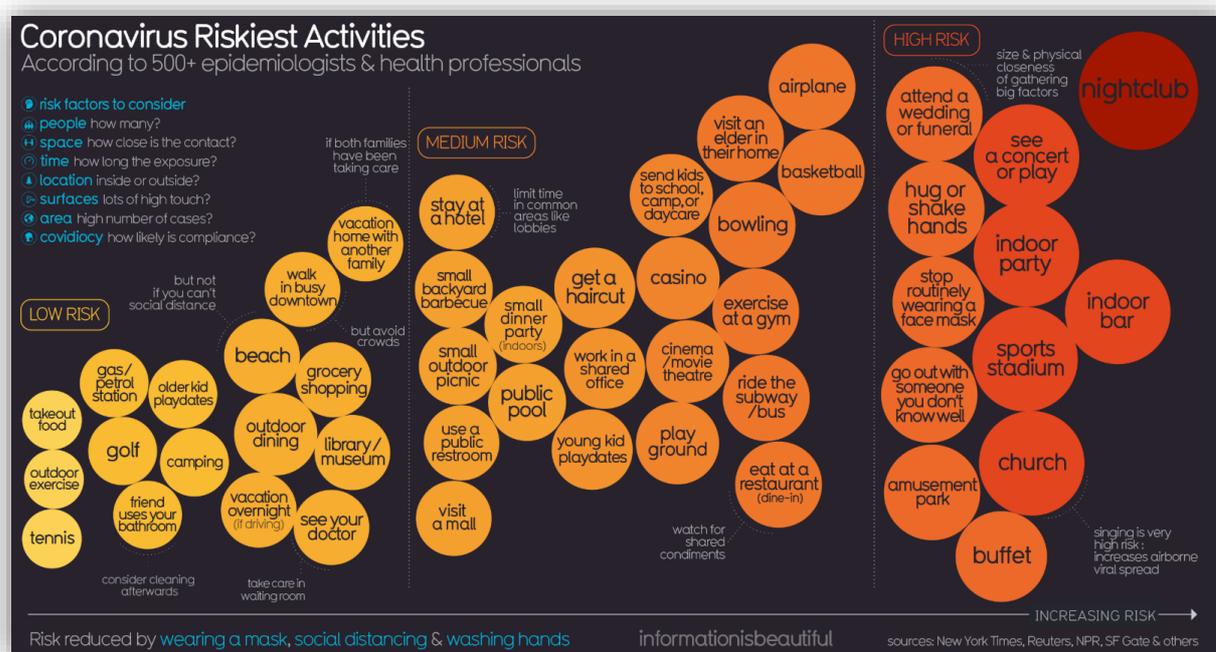
Figure 4. - Coronavirus Riskiest Activites [10]

5. MAIN RESULT OF RESEARCH

Recommendations to ministries and agencies on digital tools for epidemiological surveillance)**:**

Step 1. To develop metrics for assessing food security during a pandemic using the method of hierarchy analysis;

Step 2. To develop a theoretical and analytical model of supply chains for dairy products, meat, fresh fruits and vegetables to ensure food security and action planning for food security in the event of a pandemic;

Step 3. To develop the paper website. Development of online questionnaires and conduction of social surveys and in-depth interviews with primary food producers;

Step 4. To analyze the functioning of markets and food delivery services and to develop a mechanism for providing children with micronutrient supplements for consumption at home under parental supervision during the quarantine;

Step 5. To develop a practical model of guaranteeing a minimum income for the disadvantaged population as required for the use of digital systems;

Step 6. To simulate priorities of employment of the population in the context of a pandemic on the basis of the constructed oriented graph of communications;

Step 7. To develop metrics for assessing the impact of the pandemic on the status of Ukrainian and foreign secondary and higher education using the method of hierarchy analysis;

Step 8. To analyze digital tools and analytics software based on artificial intelligence (AI) to improve the system of epidemiological surveillance in Ukraine.

Indicators: A practical model of guaranteeing a minimum income for the disadvantaged population as required for the use of digital systems, a model of a hierarchy of priorities for employment, recommendations to ministries and agencies on digital tools for epidemiological surveillance, a set of metrics for assessing the impact of the pandemic on the status of Ukrainian and foreign secondary and higher education.

Our research using a questionnaire survey of students showed concern about problem of distance learning coming to the fore.

6. DISCUSSION

The COVID-19 pandemic has demonstrated the vulnerabilities of the world's security and health systems, and the unequal opportunities that exist in our society. Although its profound impact on health practices, the economy and society as a whole has not yet been studied, this pandemic is not discriminatory and will affect everyone around the world in one way or another. However, past human security emergencies have shown that those most vulnerable and burdened by the pandemic are people living in poverty and crowded urban areas, especially pensioners, refugees, people with disabilities and disadvantaged people, as well as gender minorities.

7. CONCLUSION

A vaccine for Covid-19 isn't around the corner. Bringing vaccines to the market is a notoriously slow process and any potential vaccine will have to pass multiple stages of testing for safety and effectiveness. And once we know a vaccine is safe, we will also need to manufacture it at a scale high enough to use across the world. It's likely that any vaccine is around 18 months away.

Fearing a new recession and financial collapse, the government and society as a whole now require strong and smart leadership in health, business and information. Immediate measures should be taken to provide economic assistance and access to online resources for the disadvantaged population. A comprehensive plan for development of human food and information security, including sector plans and an ecosystem that stimulates digital resources, is also needed to overcome the effects of pandemics

Model assessment COVID-19 pandemic of its impact on human security and the economy can be useful for national and international institutions for planning quarantine measures, organizing public health services, and developing anti-crisis economic programs.

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SUSTAINABILITY, DIGITAL TECHNOLOGIES AND FIRM'S PERFORMANCE: AN EMPIRICAL ANALYSIS

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Abstract

The progressive spread of technological innovation has led to a radical transformation of corporate business models. The phenomenon known as the fourth industrial revolution through the application of digital innovations to processes, products and resources has improved the efficiency of business processes. Among the advantages related to the adoption of new technologies there is also the improvement of corporate sustainability, ensuring savings in time, costs and reduction of errors. The digitalization of processes therefore represents the tool through which to ensure not only the improvement of economic, financial and equity performance, but also of corporate sustainability. This paper intends to investigate the relationship between sustainability, technological innovation and firm's performance, trying to understand if companies more oriented towards sustainability are also the most innovative and the best performing. To test the relationship, we intend to estimate a regression model for the panel data considering a time horizon of 5 years with reference to a sample of listed companies operating in the public services sector in Europe and the United States. Since digitalization favors the cost-effectiveness and sustainability of corporate performance, we believe that the most innovative companies are those that have the best results in terms of profitability and sustainability. Since sustainability can be fostered by a higher level of digitization, it also favors the improvement of company performance, we expect that the most sustainable companies are also the most digitized and best performing.

Keywords: Processes Digitalization, Digital Technologies, Sustainability, Firm's Performance.

1. INTRODUCTION

The fourth industrial revolution brought about profound changes in the way of doing business (Jovanović et al., 2018). The continuous evolution and growing competitiveness of the markets has made the use of new digital technologies increasingly indispensable, exploiting the development of a valid competitive advantage (Pappas et al., 2018). Blockchain, Big Data, the Internet of Things, artificial intelligence are the tools available to companies to improve not only economic, but also social and environmental performance. Improving corporate performance is one of the main objectives of companies and, in this process, technology plays a crucial role, influencing the performance of economic, financial and equity performances (Dehning & Richardson, 2002; Mahmood & Mann, 2000; Wade & Hulland, 2004). In this regard, several studies have highlighted a positive relationship between thimble technologies and economic performance (Bughin et al., 2017; Croitoru, 2012), showing that greater innovation corresponds to higher corporate profitability (Geroski et al., 1993). In fact, the application of technological innovations to company processes allows obtaining advantages in terms of improving productivity, reducing product time-to-market as well as increasing process flexibility (BarNir et al., 2003). The latter aspect is particularly important, guaranteeing the company the ability to constantly adapt to changes in the context in which it operates (P. Keen & Williams, 2013). Furthermore, the instrumentality of digitization for the development of sustainable business models is recognized in the literature (Maffei et al., 2019; van der Velden, 2018). The digital transformation, in fact, favours the use of renewable energies, the saving of times, costs and the constant monitoring of energy consumption (Demartini et al., 2019). However, in order to take advantage of all the advantages associated with digitization, the company's ability to implement a real restructuring of business processes is fundamental (Abrell et al., 2016), transforming the existing business model with a more digital model (Henfridsson et al., 2014; Nylén & Holmström, 2015). The prevailing literature therefore states that technological innovation and the digitalization of processes favor the pursuit of sustainability objectives and increase corporate value through improved performance. This work aims to deepen the relationship between sustainability, technological innovation and business performance, trying to understand if companies more oriented towards sustainability are also the most innovative and the best performing. To test this relationship, we considered a sample of companies listed in the utilities sector in Europe and the United States, stimulating a regression model for the panel data considering a 5-year time horizon. Since sustainability can be fostered by a higher level of digitization, it also favours the improvement of company

performance, we expect that the most sustainable companies are also the most digitized and best performing. This study contributes to existing literature by improving the understanding of the variables that influence corporate sustainability, providing empirical evidence of how new digital technologies affect corporate sustainability performance.

The paper is structured as follows: section 2 presents the literature review; section 3 describes the research methodology; section 4 presents the results; section 5 discusses the results and finally section 6 presents the conclusions, the implications and the future research lines.

2. LITERATURE REVIEW: SUSTAINABILITY, DIGITAL TECHNOLOGIES AND FIRM'S PERFORMANCE

The phenomenon of the fourth industrial revolution, also known as Industry 4.0, is based on a concept of corporate strategy based on the application of digital technologies (Mosconi, 2015). This event has transformed every aspect of corporate life (Jovanović et al., 2018), making the adoption of technological innovation essential to continue competing in a competitive and constantly evolving market (Pappas et al., 2018).

In fact, technology allows companies to differentiate themselves from their competitors, differentiating their offer through the development of a solid competitive advantage (Tan & Teo, 2000). In order to benefit from the advantages inherent in new technologies, the transformation of the company business model (Abrell et al., 2016) from a non-digital one to a more digitized one (Henfridsson et al., 2014; Nylén & Holmström, 2015; Parida et al., 2019). The digital transformation currently underway requires a digitalization of the production system, greater automation of the processes and a link between the production sites that allows the automatic exchange of data and information (Almada-Lobo, 2016; Schlechtendahl et al., 2015). Therefore new technologies also influence business models with reference to communication along supply chains (Glova et al., 2014).

The investment in innovation allows companies to obtain an improvement in business processes thanks to the use of advanced digital devices that allow real-time control of all stages of production (Zammuto et al., 2007).

In this way, technology can increase corporate profitability (Kerin et al., 1992; Lieberman & Montgomery, 1988). Making economic, financial and property performance more efficient is one of the prerogatives of all corporate organizations and in achieving this goal new digital technologies are fundamental (Dehning & Richardson, 2002; Mahmood & Mann, 2000; Wade

& Hulland, 2004). There is in fact a positive relationship between digital technologies and economic performance (Bughin et al., 2017; Croitoru, 2012). The most innovative companies are also those that have the greatest corporate profitability (Geroski et al., 1993).

Among the tools available to companies for improving their economy are Blockchain, Big Data, the Internet of Thing and artificial intelligence. These tools guarantee not only the improvement of economic performance, but also of social and environmental performance.

The issues of sustainability and the need to preserve the health of every living species are extremely important as well as current.

The industrial realities, due to the emissions of polluting substances due to the performance of the production activity, are among the main responsible for the environmental pollution. For this reason, the attention shown by companies towards these problems is increasing (Kotze et al., 2010). Indeed, a progressive adaptation of corporate culture to the principles of sustainability is being observed (Nowak et al., 2011). To implement this transformation, the management of business processes (BPM) must include a dimension of environmental sustainability within it (Nowak & Leymann, 2013; Reijers & Liman Mansar, 2005; Seidel et al., 2011), thus assuming the green BPM configuration (Maciel, 2017; Seidel et al., 2011; Stolze et al., 2012).

Green BPM ensures the efficiency of business processes, taking care not only of factors such as costs, quality, time, flexibility but also by looking at the ecological dimension. The aim is to reduce the environmental impact of company processes, through the use of sustainable or renewable resources, the reduction of energy or water wastes and carbon emissions according to an efficient use of resources (C. Cappiello et al., 2013; Recker et al., 2012).

Digital technologies are considered instrumental to sustainable development (van der Velden, 2018), guaranteeing the improvement of productivity, the reduction of the time-to-market of the product and increasing the flexibility of the production process in its entirety (BarNir et al., 2003). If we consider that companies operate in complex and continually perturbed environments, production flexibility ensures that the company can adapt quickly to changes in the scenario (P. Keen & Williams, 2013).

The digital transformation also favours the use of renewable energies, the saving of times, costs and the constant monitoring of energy consumption (Demartini et al., 2019).

In this sense, digitalization facilitates the development of sustainable business models which make the company more profitable (Maffei et al., 2019; van der Velden, 2018). It is an

innovative business model (BMI), where digitalization is the tool that promotes business sustainability (Maffei et al., 2019). In line with the previous literature, the following hypothesis is suggested:

H1) Is there a positive relationship between the digitalization of business processes and sustainability?

3. RESEARCH METHOD

3.1. Sample and Data Collection

The analysis focuses on the utilities sector, with a focus on Europe and the United States. We have chosen to focus on the utilities sector as its attributes and responsibilities in society contribute to economic growth by offering goods and services (European Commission, 2019b, 2019a). In addition, as digital transformation is a core of the many companies' strategy, organizations need to be remodelled and reinvented to adapt to new ecosystems, to continue to create value and successfully address new business challenges. The digital age is asking companies to transform, and utilities are no exception. Given the potential of digital tools to achieve operational excellence and value creation, business units may be tempted to implement expensive digital solutions and beat the clock (Altran, 2019).

The universe of utility companies consists of 575 listed utilities. The original sample was cleaned up of any missing values, obtaining a final sample of 118 companies from European and US geographies in 2014-2018.

To answer the research question, we have created a five-year panel dataset (from 2014 to 2018, the last year available in our data sources). These longitudinal data have "observations on the same units in different time periods". A panel dataset has multiple entities, each of which has repeated measurements over different time periods. Panel data can have individual (group) effects, temporal effects, or both, which are analyzed using fixed-effect and/or random patterns. Data on the relationship between digitization, performance and sustainability comes from the Refinitiv database (formerly Thomson Reuters Asset4).

4. ANALYSIS

In the next section we intend to study the relationship between sustainability, digitalization and performance, through an econometric analysis involving panel data to control the distortion from omitted / unobserved variables.

The analysis was carried out with the aid of the STATA software. Using the panel data technique, we can check some omitted variables without observing them and get information on changes in the dependent variable over time.

Furthermore, on the one hand, we can check the omitted variables which differ between the cases, but which are constant over time (fixed effects). On the other hand, we can also check the omitted variables which can be constant over time or vary over time (random effects). More specifically, the estimated model is as follows:

$$Y_{i,t} = \beta_0 + \beta_1 X_{i,t} + \alpha_i + u_{i,t}$$

In the model, the subscripts *i* and *t* represent ID company and period (year), respectively. The dependent variable ($Y_{i,t}$) is the *ESG Score*; β_0 is the constant and $X_{i,t}$ refers to a vector of independent variables.

4.1. Dependent Variable

In order to verify our research hypothesis, we have selected Refinitiv's ESG score dependent variable, which summarizes in itself data on environmental, social and business governance. More precisely, the overall ESG score is expressed as an arithmetic mean of the three scores: social, environmental and corporate governance. Its percentage value varies between 0 and 100.

The first dimension represented by environmental performance measures a company's ability to minimize environmental emissions and efficiently use natural resources in its processes.

As for social performance, they measure a company's ability to promote ethical values and build trust in its workforce, respect human rights, respect business ethics and create value-added products and services.

Finally, the area of corporate governance performance refers to the ability of the company to act in the interests of its shareholders through business management systems and processes. The latter is expressed in the structure, functions, roles and responsibilities of the board of directors and business committees, CSR policies, compensation policy, etc ...

4.2. Independent Variables

To test our hypotheses, we used data on environmental innovation performance (environmental innovation score) from Asset4 as well as the traditional ROE (return on equity) ROA (return on assets) and ROI (return on investment) performance variables.

The score of the category of environmental innovation reflects the ability of a company to reduce environmental costs and burdens for its customers, thus creating new market opportunities through new environmental technologies and processes or eco-designed products. Environmental performance measures a company's ability to reduce environmental emissions, to efficiently use natural resources in production processes and to support research and development of eco-efficient products and services.

The independent variables included in our econometric models are the environmental innovation score, the CSR strategy and the guidelines for GRI reports, emissions score, the presence of a committee for sustainability, research development, return on assets, return on equity and return on invested capital.

To avoid model specification errors, we check for additional variables that could affect the ESG score. In line with existing literature, we used Size as a control variable.

Table 1 shows a summary of the measurement of all variables.

Table 2. - Variable description

Independent Variable	Variable code	Variable description
Environmental Innovation Score	Env_Inn_Sco	Environmental innovation category score reflects a company's capacity to reduce the environmental costs and burdens for its customers, and thereby creating new market opportunities through new environmental technologies and processes or eco-designed products.
CSR Strategy Score	CSR_Strategy	CSR Strategy Score reflects a company's practices to communicate that it incorporates the economic (financial), social and environmental dimensions in its day-to-day decision-making processes.

GRI Report Guidelines	GRI_Guid	Is the company's CSR report published in accordance with the GRI guidelines?
Emission Score	Ems_score	Emission category score measures a company's commitment and effectiveness towards reducing environmental emission in the production and operational processes.
Sustainability committee	Sust_committee	Does the company have a CSR sustainability committee?
Research and development sales	R&D/sales	Profitability ratio given by the ratio between research and development expenses on net sales or revenues. Research and Development expense represents all direct and indirect costs related to the creation and development of new processes, techniques, applications and products with commercial possibilities.
Return on Investment	ROI	ROI (Return on Investments) represents the profitability of investments. It is given by the ratio between operating result and operating net invested capital.
Control variable	Variable code	Variable description
Total Assets	TA	Total Assets represent the sum of total current assets, long term receivables, investment in unconsolidated subsidiaries, other investments, net property plant and equipment and other assets.

4.3. Results and Discussion

The following table shows descriptive statistics for dependent and independent variables. The descriptive statistics table includes the minimum, maximum, average and standard deviation.

The average level of ESG performance (ESG SCORE) of the companies analyzed is 57,67%, with a maximum of 92,76%. This reveals that the sustainability performance of

companies for the 2014-2018 period has been very satisfactory by the standards of the definition of the score.

Similarly, the level of the environmental innovation score reaches an average value (52.63%) and the maximum value is 99.4%, suggesting that many companies analyzed uses technologies to increase their level of sustainability. In addition, the CSR strategy also has an average value of 70%, as the score emission variable shows a positive trend (61%).

The two dummy variables included in the model are: GRI Report Guidelines and Sustainability committee. In both cases the average values are positive and tending to 100%. More specifically, in the first case the average value is 70% and in the second case 67%. The R&D/sales variable, it has an average value of 0.28%. Finally, as regards the performance variables, ROA shows an average value of 3.99 ROE of 7.11 and ROI of 5.55

Table 3. - Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Id	590	59.5	34,09	1	118
N_of_year	590	5	0	5	5
CSR_Strategy	488	70,279	24,270	0,5	99,76
ESG_score	488	57,674	17,858	14,01	92,76
Env_Inn_Sco	488	52,633	27,447	0,26	99,44
GRI_Guid	261	0,996	0,0619	0	1
Ems_score	488	61,36	27,64	0,79	99,71
Sust_committee	488	0,672	0,470	0	1
R&D/sales	102	0,28	0,31	0	1,41
ROI	584	5,55	10,65	-52,15	218,21
LnTA	586	16,38456	1,749009	11,64702	21,64297

The following table reports the main results obtained from the empirical analysis. We specify that the comments that will follow the estimates (tab. 4) will concern only the model identified by the Hausman test. Linear regressions were launched, with fixed and random effects, considering the independent variables present in the data set and introducing solidity both for heteroskedasticity and for the correlation. In order to identify the model that best specified the phenomenon under investigation, we performed the Housman test and

subsequently the Breusch-Pagan test. To this end, the same regressions were launched without robustness. First, the Hausman test was launched to understand whether the fixed effects model or the random effects model should be used by specification 2; the test, presenting a p-value of the chi-square greater than 10%, tells us to use the random effects model. Subsequently, the Breusch-Pagan test was performed which, also presenting a p-value lower than 10%, confirms that it must use the second specification (if the p-value had been greater than 10%, it would have been appropriate to use the pooled model). Ultimately, from the results obtained from the Breusch-Pagan test, it is necessary to use the second specification and, since the p-value of the Hausman test is greater than 10%, it is necessary to use the random effects model.

The random effects model assumes that the variation between entities is random and unrelated to the predictor or independent variables included in the model.

To verify the joint statistical significance of the temporal effects, for each regression performed the test $ yeardum was started from which, in relation to the resulting p values, it is possible to affirm that the null hypothesis can be accepted and therefore the temporal effects are always, in the regressions performed, jointly statistically significant.

Table 5 - Regression results

Model	(A) Pooled OLS	(B) Fixed Effects	(C) Random Effects
	Coefficient (Robust SE)	Coefficient (Robust SE)	Coefficient (Robust SE)
Env_Inn_Sco	0.846	0.122***	0.124***
	(0.064)	(0.032)	(0.035)
GRI_Guid	16.45***	5.73***	8.24***
	(5.039)	(2.221)	(2.31)
CSR_Strategy	0.039	0.089	0.075
	(0.117)	(0.079)	(0.0577)
Ems_score	0,221***	0,265***	0.25***
	(0.063)	(0.087)	(0.579)
Sust_committee	19.928***	Omitted	14.33**
	(7,56)		(6.58)
R&D/sales	-2.025	3.74	1.01
	(1.70)	(3.66)	(2.11)

ROI	0.069	0.099***	0.097***
	(0.62)	0.039)	(0.036)
LnTA	1.234	-0.696	1.31
	(1.55)	(2.57)	(1.39)
Hausman test	4.46		
	(p-value = 0.9244)		
Breusch and Pagan test	41.41		
	(p-value = 0.000)		
Years	2014 - 2018	2014 - 2018	2014 - 2018
Temporal effects	Yes	Yes	Yes
Standard errors - grouped data	Yes	Yes	Yes
R-square	63,62%	46,70%	59,93%
*** = significant at 1% ** = significant at 5% * = significant at 10%			

Using the random effects model, most coefficients are statistically significant at 1%. The exceptions are the variables "CSR strategy", "R&D/sales" and the natural logarithm of the total activities which are not significant. Consequently, it can be said that most of the variables considered influence the dependent variable (Y) which, in our case, represents the ESG score.

In line with other studies (van der Velden, 2018), there is a positive impact of the environmental innovation score on ESG scores. In fact, one percentage point higher than the environmental innovation score causes a 0.124% increase in the ESG score. Reading the data, we can find positive confirmation of the theory that the presence of a sustainability committee improves the company's sensitivity to sustainability problems.

The regressor of the Guidelines for GRI reports is a dummy variable and therefore, if it assumes a value of one, the company is assumed to adopt the GRI guidelines, vice versa if it assumes a value of 0.

In line with this consideration, it can be said that the adoption of the GRI guidelines positively affects the ESG score, resulting in an increase of the same by 8.24%.

As regards the ROI (return on investment) regressor, it is statistically significant at 1%. Therefore, it is possible to affirm a positive relationship between sustainability (ESG score) and company performance. In other words, consistently with what has been stated in the literature, the companies of the sample examined that are more sustainable are also the best performing.

In order for a regression model to be satisfactory, the theory reminds us that R-sq must have values greater than 50%. Although not all regressors are statistically significant, both individually and jointly, the overall R-sq, i.e. the average between the R-sq in the groups and the R-sq in the groups, is equal to 59.93%.

Finally, analyzing the temporal effects, they were statistically significant together with 10% (p value: 0.1078) and consequently it is possible to deduce that they also influence the dependent variable.

5. CONCLUSION

This work originates from the limited number of contributions that explain the relationship between sustainability, innovation and corporate performance in the utilities sector, which has always been the focus of attention in the world of research for its contribution to economic growth, thanks to its attributes and responsibilities in society.

Corporate social responsibility, i.e. the attention of companies to social, environmental and governance issues has radically transformed the relationship between businesses and the environment, favouring the adoption of more sustainable production policies (Kotze et al., 2010). New technologies have also influenced business processes. In line with this consideration, many companies are transforming their policies, moving towards the development of a digital business strategy (Bharadwaj et al., 2013), as a key factor to achieve a competitive advantage on an ever dynamic market (Peter Keen & Williams, 2013).

In addition to promoting a competitive advantage, new technologies are instrumental to sustainable development (van der Velden 2018).

The efficient use of resources favoured by digitalization allows to reduce the environmental impact (Cinzia Cappiello et al., 2013; Recker et al., 2012).

It is precisely in this context that the new Business Process Management configuration is placed, called BPM green (Maciel, 2017).

Based on previous literature which claims that innovation as well as business performance play a key role in the company's sustainability performance, this study investigates the relationship between sustainability (ESG score), innovation and economic performance in a large sample of 118 companies listed in Europe and the United States for the period 2014-2018. On the one hand, the main results reveal that innovation and digitalization of business processes positively influence a company's ESG performance. On the other hand, corporate performance

is also positively associated with sustainability performance. For this reason, the hypothesis that a company more perforating and open to the challenges of digitization is considered an ethically sustainable and environmentally friendly company is considered probable.

The relationship between ESG performance and company size is negative. This underlines that the adoption of sustainable policies and ecological business models does not depend on the size of the company, but on other variables, such as the decisions of the board of directors or group policies.

Our contribution provides market participants with information on how digitization will impact environmental sustainability issues. Furthermore, from the management point of view, our work suggests that managers pay more attention to digitization and innovation to better meet the needs of a constantly evolving market. Precisely in this sense, digitization must be considered as an opportunity for the company to obtain a competitive advantage, as well as a reputational advantage linked to the better management of environmental problems. To improve performance in terms of sustainability, it is important to digitize processes, reduce the use of renewable resources and produce environmentally sustainable products.

Our research opens up many future research lines. First of all, the analysis could be extended to a larger sample, considering different industrial sectors. Furthermore, we have not examined the types of potentially adoptable technological innovations, but future research could go in this direction.

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TECHNOLOGICAL CAPABILITIES AS A KEY ENABLER FOR INTERNATIONALIZATION AMONG MALAYSIAN SMES IN FOOD AND BEVERAGE MANUFACTURING SECTORS

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Abstract

The main objective of this paper is to study technological capabilities as a key enabler for internationalization among Malaysian SMEs in food and beverage (F&B) manufacturing sectors. The Malaysian food and beverage (F&B) industry is a fast-growing industry, dominated by small and medium scale companies (SMEs) and has a significant contribution to Malaysian economy with revenues amounting to US$34 million in 2018 and annual growth rate of 7.6%. In order to penetrate and sustain in both domestic and international market, SMEs need to create a long-term strategy for competitive advantage through product innovation and technological capabilities. Technological capabilities play an important role in determining the success of new ventures or SMEs because it enable companies to gain market acceptance and achieve long-term competitive advantage through continuous innovation in improving existing products and/or creating new products in the market. In the current world, companies will have difficulties in penetrating the market without the application of technological capabilities. Various studies have been done on how the practice of technological capabilities is related to the business performance but not many researches focus on technological capabilities as a key enabler during the internationalization process and how it will help SMEs in penetrating the international market. Drawing on the existing literature review, we are going to conduct a qualitative research model by interviewing 6 – 12 F&B manufacturing companies in which technological capabilities not only influence firm performance but to identify its role as the key enabler in the internationalization process for SMEs to penetrate the international market. The finding of this research is going to contribute to the development of F&B industries in developing countries especially in Malaysia. It will provide important information that will be useful for Malaysian F&B industries in penetrating the international market and it will contribute to the body of internationalization knowledge and international enterpreneurship.

Keywords: *Food and Beverages, Malaysian SMEs, Technological Capabilities, Internationalization.*

1. INTRODUCTION

SMEs have been recognized as one of the main contributors to economic activity, employment, innovation, and wealth creation in many countries. According to Pasanen (2003), SMEs generate societal growth in terms of new jobs and revenues, they create innovations and they are active actors in global business networks (Iskanius & Lamminsalo, 2005). SMEs represents the vast majority of 98.5% of the business population with contribution of 38.3% to Malaysian overall GDP, 17.3% to total exports and 66.2% to overall employment in 2018 (NESDC, 2019). Comprising of various sectors including the services, manufacturing, mining and quarrying, construction, and agriculture, Malaysian small and medium-sized enterprises are indeed the catalyst for addressing economic inequalities across different classes, ethnicities, regions and supply chains (NESDC, 2019). According to the SME Annual Report 2018/2019, services sector contributed 56.7% to the overall GDP of 2018, followed by manufacturing (22.4%), agriculture (7.3%), construction (4.9%), mining and quarrying (7.6%). Services sector also reported a stronger growth of 8.1% in 2018 with 63.9% of that contribution came primarily from wholesale and retail trade, food & beverages and accommodation (NESDC, 2019). On the other hand, technological capabilities (TC) is commonly recognised at the national and company levels as a strategic source of development and prosperity (Jirayuth , Un Nabi, & Dornberger , 2013). Companies with more advanced technology will be able to gain competitive advantage by having the ability to innovate new products and achieve higher differentiation in respond to the changes in the market and demand from the customers (Jirayuth , Un Nabi, & Dornberger , 2013). In spite of internationalization benefits that promote SMEs growth, Malaysian SMEs involvement in cross border activity is relatively low compared to developed nation due to obstacles and challenges from both internal and external factors (Hasim, Ishak, & Shamsudin, 2018). Various studies have been done on how the practice of technological capabilities is related to the business performance but not many researches focus on technological capabilities as a key enabler during the internationalization process and how it will help SMEs in penetrating the international market.

This paper is prepared as follows:

1. The understanding of SMEs, internationalization, and technologiclal capabilities
2. Challenges faced by SMEs during the internationalization process
3. Pilot-case study of Haliza Industries Sdn. Bhd.
4. Conclusion and some recommendation for future studies

2. LITERATURE REVIEW

2.1. Small Medium Enteprises

Previously, there is no common definition of small and medium enterprises (SMEs) in Malaysia as every agencies define SMEs based on their own criteria and needs. Most agencies identify small and medium-sized enterprises (SMEs) based on the basis of their own metrics, typically benchmarking against annual revenue turnover, amount of full-time staff or shareholder funds (Council, 2005). This was not a surprise because most studies only focus on larger organizations or also known as multinational companies eventhough small and medium-size enterprises are growing tremendously (Baharun & Mi, 2013) and play an important role in the country's economic development and had posed a significant contribution toward Malaysian economy in term of GDP and a source of employment (Hasim, Ishak, & Shamsudin, 2018).

By understanding the needs to establish a standard definitions of SMEs in order to facilitate better identification of SMEs across sectors, the National SME Development Council has approved the first common definitions of SMEs on June 9th, 2005 and the definition has been adopted across ministries and agencies including financial institutions involved in SME development (Council, 2005). However, a review of the definition was conducted in 2013 given the facts that there were many changes and developments in the economy since 2005 such as price inflation, structural changes and change in business trends (SME Corp Malaysia, 2020). Definitions of SMEs in Malaysia are based on two main criteria which is the number of employee or annual sales turnover (Council, 2005). Table 2 shows a summary for the definition of small and medium enterprises by SME Corporation Malaysia.

Table 2. - Definition of SMEs

Category	Small	Medium
Manufacturing	Sales turnover from RM300,000 to less than RM15 million OR full-time employees from 5 to less than 75.	Sales turnover from RM15 million to not exceeding RM50 million OR full-time employees from 75 to not exceeding 200
Services and Other Sectors	Sales turnover from RM300,000 to less than RM3 million OR full-time employees from 5 to less than 30.	Sales turnover from RM3 million to not exceeding RM20 million OR full-time employees from 30 to not exceeding 75

2.2. Internationalization

The term 'internationalization' varies even among researches but from an economic point of view, it is defined as the process where business gets more involved in the international market (Azuayi, 2016). The term internationalization is also about the ongoing strategy process for most of the business firm who are transforming their business internationally (Zou, Liu, & Ghauri , 2010). Calof and Beamish (1995) further explained that internationalization is a procedure or process of adapting a firm's operation (strategy, structure, resource, etc.) to international environments. Internationalization together with the development in information and communication technology provide the opportunity for small and medium enterprises (SMEs) to expand their business into foreign market (Nik Abdullah & Mohd Zain , 2011). In today's modern world, internationalization is essential even for SMEs as they emerge as a dominant force impacting the growth of national economies (Mpofu & Sauti , 2014).

There are many factors that motivate SMEs in entering overseas markets which include market expansion, more profit exposure to new ideas (Nik Abdullah & Mohd Zain , 2011) and several studies also showed that a key driver for internationalizaiton is growth opportunities (Mpofu & Sauti , 2014). According to a survey done by HSBC including more than 202 firms from Malaysia, "Four out of five businesses in Malaysia (85%) feel they have positive prospects for international trade over the next two years," and businesses in Malaysia strongly believe in the next five years, international trade will drive innovation, provide new business opportunities and improve efficiency (Syed Jaafar, 2019). The same survey also concluded that the top five expansion markets over the next three to five years for Malaysian companies are Singapore, China, Japan, Indonesia and the United States while China (35%) and Singapore (28%) remain Malaysia's two largest trading partners, while third-placed Indonesia has increased greatly in the last 12 months to 25% from 19% a year earlier (Syed Jaafar, 2019).

2.3. Technological Capabilities

Technology capability or technological capabilities derived from the word 'technology' and 'capability.' Technology is defined as the practical application of knowledge especially in particular area (Merriam-Webster) or the application of scientific knowledge for practical purposes, especially in industry, which include the machinery and equipment developed from the application of scientific knowledge (Lexico). Another definition for the word 'technology' is the branch of knowledge that deals with the creation and use of technical means and their interrelation with life, society, and the environment, drawing upon such subjects as industrial arts, engineering, applied science, and pure science (Dictionary.com). On the other hand, the

word capability means the ability to do something (Cambridge Dictionary). That being said, technology capability is the ability to do something through the application of scientific knowledge for practical purpose.

The meaning of technology capability or technological capabilities might vary among researchers, however the definitions were not so much different from one another. Technological capabilities or TC is a term used to define a set of knowledge, skill, experience and ability to select technologies for the primarily use in operation with the main objective to increase values or to extend values to the processes and products that will benefits the company (Ahmad , Othman, & Mad Lazim, 2014). Another author defines TC as the company's ability to perform technical functions in developing new products or new processes and to operate companies' facilities effectively (Lestari & Ardianti , 2019) while Salisu & Abu Bakar (2019) defines technological capabilities as an organisation's ability to recognise, obtain, develop and also use modern and latest idea in producing the most superior product with the use of technologies during the whole processes that will best meets the current market requirements and improves the efficiency of the organisation.

Technological capabilities play an important role in determining the success of new ventures because it enable companies to gain market acceptance and achieve long-term competitive advantange through continuous innovation in improving existing products and/or creating new products in the market (Zou, Liu, & Ghauri , 2010)]. Besides, it also allows companies to address foreign limitations by helping them to be more flexible in their design of products (Lestari & Ardianti , 2019) thus enable them to compete in both domestic and international market (Zou, Liu, & Ghauri , 2010). In order to compete and sustain in the market, SMEs also need to be more resilient by strengthen their capability, which involve acquiring new skills, techniques and technologies, and how to utilise these factors to improve the business operation.

2.4. Challenges for International Growth among SMEs

In spite of internationalization benefits that promote SMEs growth, Malaysian SMEs involvement in cross border activity is relatively low compared to developed nations due to obstacles, challenges from internal and external factors (Hasim, Ishak, & Shamsudin, 2018). Additionally, small and medium enterprises or SMEs are still struggling to be competitive in the foreign market and in general, SMEs are said to be lacking in penetrating the international markets for seeking more profits and market opportunity (Hussain, Saad , Saud, & Md Isa, 2015). SMEs represents the vast majority of 98.5% of the business population with contribution

of 38.3% to Malaysian overall GDP, 17.3% to total exports and 66.2% to overall employment in 2018 (NESDC, 2019). However, Deputy Finance Minister Datuk Amiruddin said that, "38.3% is not good enough compared to other developed nations and economies, which the SMEs contributed at the rate around 60%, 70% and even 80%," (Kamel, 2019). Besides, prior research had found that 50% of the Malaysian SMEs had ended up in bankruptcy within five years of establishment, and this is due to the inability to cope with global competitions and environmental change that needs firm to innovates in many ways to keep them in line with those changes (Hasim, Ishak, & Shamsudin, 2018).

Some of the reasons behind this failure of SMEs in penetrating the international market might be due to several internal and external barriers including the inability to access financial assistance, lack of internal resources and expertise in the development of global marketing techniques for branding, foreign demand adaptation and networking with other companies (Hasim, Ishak, & Shamsudin, 2018). Another studies show that some of the internal factors faced by SMEs include the limitation to the resources, management, marketing and knowledge while at the same time SMEs also needed to face the challenges of short-term financing, shortages of labour skills, as well as insufficient production capacity (Wąsowska, 2016). Most studies showed that there is higher numbers of SMEs that did not involve in international trade which means that there are still opportunities for the government to encourage internationalization and a more comprehensive approach is needed to help these SMEs in improving their competitive advantage to compete in the international market. (Nik Abdullah & Mohd Zain, 2011).

2.5. Pilot Case Study

A lot of research had been done on how technological capabilities affects business performance in manufacturing sector. However, not many research focus on the relationship between TC in the internationalization process among Malaysian SMEs especially in F&B manufacturing sector. Hence, in order to have a better understanding on how technological capabilities are applicable to businesses especially among SMEs in the manufacturing sector, this research did a study on Haliza Industries Sdn. Bhd. or also known as HISB as a pilot case. Haliza Industries was established in 2008 and after 4 years of R&D, they came up with their first product in 2012. With the believe that snacks must also be related to nutritious foods, HISB begins to produce and sell healthy snacks focused on corn, potatoes, wheat and other grains compared to other junk foods on the market without any addition of monosodium glutamate (MSG), artificial flavor and color.

In the early stage of establishment, there was very little demand of the product in the Malaysian market thus the founder decided to use the online platform to market the product. By using the technology as the platform, they were able to get the prospect from China that was very interested in bringing the product to the different market and HISB was successful in exporting the products to their first international market in the early stage of the establishment with the help of technological capabilities. In August 2017, HISB received a grant worth RM2.5 million from Palm Oil and Rubber National Key Economic Area (NKEA) and used the money to buy fully automated machinery. According to the founder, "We used the money to buy fully automated machinery not available in Malaysia and had to be imported from overseas. Aside from creating higher-quality products, the machines improved our production from 100kg of cereal per hour to 200kg of cereal per hour" (NSTP, 2018). Currently, HISB focused on exporting the products to other country such as Arab Saudi (Jeddah and Riyadh), China (Guangzhou, Shenzhen and Shanghai), Brunei, Singapore, Maldives, Seychelles, Cambodia, Oman and Bahrain. Starting 2017 and by purchasing the new machinery and acquired new technical skills, we managed to export up to more than 10 times (Haliza Industries Sdn. Bhd.).

Technological capabilities through machinery has helped SMEs in gaining competitive advantage compare to other competitors. HISB showed that technological capabilities together with technical knowledge will help companies in product innovation and ease the overall production process. HISB was able to gain competitive advantage in the market because they have the ability to adjust their flavor, spices and packaging based on the demand from the buyers through the application of technological capabilities. When dealing with international market, SMEs need to be able to adapt to rapid changes in the market environment so that they will be able to sustain. This study takes a step towards empirically demonstrating the significance of technological capability on the internationalization strategies of SMEs companies.

2.6. Summary of Selected Literature

Below is the summary of selected literature on SME studies related to this paper's area of discussion.

Table 2.6. - Summary of selected literature.

Researh Title	Authors	Objective	Methodology and Findings
Internationalization and Performance: Small and Medium	Shankar Chelliah, Mohamed	To investigate the relationship of internationalization and performance of SMEs, this study	Quantitative Study

Enterprises (SMEs) in Malaysia	Sulaiman, Yusliza Mohd Yusoff (2010)	focuses on SMEs in the Malaysian manufacturing sector.	
A Review of Technological Capability and Performance Relationship in Manufacturing Companies	Nurazwa Ahmad, Siti Norezam Othman and Halim Mad Lazim (2014)	The major intention of this paper is to have an overview on how TC actually relates towards performance measures in manufacturing companies.	Literature Review (Conceptual Paper)
Technological Capability and Business Success: The Mediating Role of Innovation	ER Lestari and FL Ardianti (2019)	To investigate the influence of the technological capability to firm performance of SMEs who operating in Batu, Indonesia	Quantitative Method
The Internationalization Theory and Malaysian Small Medium Enterprises (SMEs)	Nik Ab Halim Nik Abdullah and Shahrul Nizam Mohd Zain (2011)	The objective of this paper is to look at the internationalization process of Malaysian SMEs and how it fits the internationalization theories.	Quantitative Method
Exploring the Barriers to Internationalisation for Malaysian SMEs	Muhammad Asyraf Hasim, Mohd Fikri Ishak, Mohd Farid Shamsudin (2018)	This study aims to determine the barriers to internationalisation faced by Malaysian SMEs. Qualitative method of research was employed, using asynchronous web-based semi-structured interviews.	Qualitative Method

2.7. Model

As mentioned earlier, various studies have been done on how the practice of technological capabilities is related to the business performance but not many researches focus on technological capabilities as a key enabler during the internationalization process and how it will help SMEs in penetrating the international market. This research is trying to identify how SMEs especially in F&B sectors will be able to penetrate international market with the application of technological capabilities.
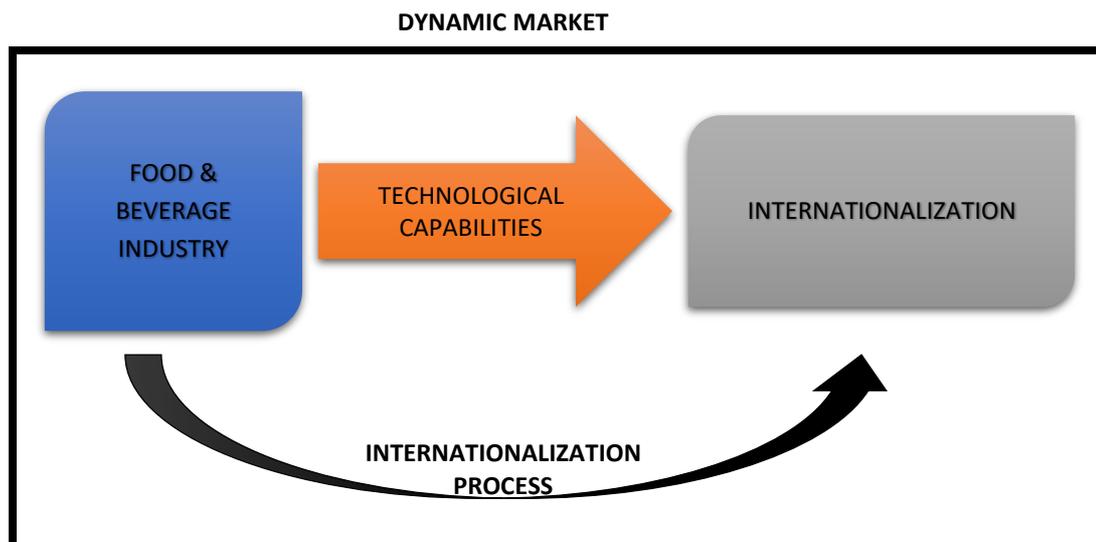
Figure 2.6. - Proposed Theoretical Framework

3. RESEARCH METHOD

The methodology used for this paper consists of library search and evaluating on the existing literature review on the subject of SMEs, Internationalization of SMEs, and Technological Capabilities. The library search encompasses from online and offline materials to article journals from several online database such as Science Direct, Google Scholar, Scopus, etc. The advance search is limited to only available resources thus the limitations from this paper could be due to limited resources from databases. In order to get a better understanding of the topic, we are going to conduct a qualitative research model by interviewing 6 – 12 F&B manufacturing companies in which technological capabilities not only influence firm performance but to identify its role as the key enabler in the internationalization process for SMEs to penetrate the international market. We are hoping that these interviews will give a better and deeper view on the topic. The finding of this research is going to contribute to the development of F&B industries in developing countries especially in Malaysia. It will provide important information that will be useful for Malaysian F&B industries in penetrating the international market and it will contribute to the body of internationalization knowledge and international enterpreneurship.

4. ANALYSIS

Most researches agreed that technological capabilities is essential in businesses because companies with more advanced technology will be able to gain competitive advantage by having the ability to innovate new products and achieve higher differentiation in respond to the

changes in the market and demand from the customers. Technological capabilities is a very broad field, but most researches agreed that in general, TC is essential for any businesses especially for the business performance of the companies. However, not many researches focus on technological capabilities as a key enabler during the internationalization process and how it will help SMEs in penetrating the international market.

5. DISCUSSION

Various studies have been done on how the practice of technological capabilities is related to the business performance but not many researches focus on technological capabilities as a key enabler during the internationalization process and how it will help SMEs in penetrating the international market. Theoretically, technological capabilities is essential for business performance but empirical data is needed in order to show the relationship of technological capabilities during the internationalization process. There is a need for futher research being done to find the connection of SMEs and technological capabilites and to identify if TC act as a key enabler for internationalization process among SMEs. Nevertheless, it is important to understand that this is a conceptual paper based on literature review and a pilot-case study. The next step in getting a better understanding regarding this paper is through data collection by interviewing companies and agencies regarding the topic on how technological capabilities help companies during the internationalization process.

6. CONCLUSION

This paper has successfully developed a theoretical framework that is helpful for future research in this area. Nevertheless, as this is a conceptual paper, there is no data collected to enable generalization to other countries. On top of that, the framework in this study is self-constructed with reference to the previous literatures. Drawing on the existing literature review, we are going to conduct a qualitative research model by interviewing 6 – 12 F&B manufacturing companies in which technological capabilities not only influence firm performance but to identify its role as the key enabler in the internationalization process for SMEs to penetrate the international market. The finding of this research is going to contribute to the development of F&B industries in developing countries especially in Malaysia. It will provide important information that will be useful for Malaysian F&B industries in penetrating the international market and it will contribute to the body of internationalization knowledge and international enterpreneurship.

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THE GROWING POPULARITY OF REMOTELY HELD MEETINGS OF MANAGEMENT BOARDS, SUPERVISORY BOARDS AND GENERAL MEETINGS (SHAREHOLDER MEETINGS) AS A MANIFESTATION OF A DIGITAL REVOLUTION IN COMPANY LAW: THE CASE OF AMENDMENTS TO POLISH LAW IN RESPONSE TO THE COVID-19 PANDEMIC

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Abstract

This paper aims at discussing one of the manifestations of the digital revolution in the corporate world – the increasingly widespread use of the remote ways of holding meetings of the management boards, supervisory boards, general meetings and shareholder meetings of companies. A crawling digital transformation in this area had been in progress across many states and for many years, but owing to the outbreak of the Covid-19 pandemic it gained strength and speed. One of the states where such an acceleration took place is Poland, which fast-tracked legislative amendments that revolutionized the remote handling of meetings and affairs of corporate authorities. In the case of supervisory boards and general meetings (shareholder meetings), the amendments reversed the rule previously in place: now, meetings may be held remotely at all times unless the by-laws (articles of association) provide to the contrary, while under the rules previously in force in-person meetings were required unless the articles of association explicitly permitted the use of remote forms of communication. As regards the management boards, no remote proceedings were previously allowed. The new law has given rise to a number of questions and doubts. They pertain both to the manner in which meetings are convened and held. In particular, it needs to be settled whether a meeting may be held in the cyberspace exclusively, without the chairman and the minute-taker being physically present at the corporate seat, or whether their presence is required after all. What is more, it is not entirely clear how open and secret ballot should be handled and if the secrecy may be waived if all members of the corporate body so decide. Doubts emerge especially as regards the contents of the rules applicable to the remote handling of meetings and the corporate bodies authorised to define and adopt them. To answer these and many other questions is the aim of this article. The discussed regulations came into force merely six months ago and are yet to be extensively discussed in legal literature. In this paper the author relied on the dogmatic law analysis supported with hands-on experiences related to the functioning of corporate authorities in the new legal reality.

Keywords: *General Meetings, Shareholder Meetings, Supervisory Boards, Management Board Meetings, Remote Communication Mode.*

1. INTRODUCTION

The Covid-19 pandemic has forced legislators of all affected states to intensify the law-making activity. To mitigate the effects of the pandemic, the states have adopted (and continue to adopt) whole packages of laws under a variety of names: anti-crisis shields (Poland) pandemic-mitigation measures (e.g. Germany) or measures to combat the pandemic (e.g. Switzerland). The anti-Covid laws include predominantly a whole range of temporary solutions (suspending other commonly applicable laws), but in many cases permanently introduce new, long-awaited solutions. It may be said that in many cases the pandemic has served as a trigger for making highly recommended changes.

This was the case of the Polish Code of Commercial Companies as regards the rules on the remote holding of meetings and making decisions by the general meetings, shareholder meetings, supervisory boards and management boards. While, for instance, the German and Swiss legislators have only made interim changes to their laws (see Article 2 of the German act on the mitigation of the effects of the COVID-19 pandemic in civil, bankruptcy and criminal law[34] and Article 6a of the Swiss regulation on the measures to combat the coronavirus (COVID-19),[35] the Polish legislator has decided to permanently amend the Code of Commercial Companies (Ostrowski, 2020, p.32). In fact, an amendment to this aspect of company law had been planned before (and the relevant tasks were delegated to the Commission for the Reform of Ownership Supervision at the Ministry of State Assets, appointed on 10/02/2020), but it was only with the outbreak of the pandemic that the works started to move at full speed.

This paper aims at presenting the new Polish solutions comparing them against the rules previously in force, as Polish experiences seem a potentially interesting source of inspiration for the legislatures of the states where the law in this area has not yet been modified at all or has been only modified temporarily.

2. RESEARCH METHOD

The research carried out by the author consisted in the analysis of legal texts – the author has relied on the dogmatic law analysis method.

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[34] The Act of 27/03/2020 – Gesetz zur Abmilderung der Folgen der COVID-19-Pandemie im Zivil-, Insolvenz- und Strafverfahrensrecht (Bundesgesetzblatt Jahrgang 2020, No. 14).
[35] Verordnung 2 über Massnahmen zur Bekämpfung des Coronavirus (COVID-19) in its version in force on 17/03/2020 (818.101.24).

3. ANALYSIS

3.1. A Historical Outline of Polish Regulations on Holding Remote Meetings of Corporate Authorities

Chronologically, the first Polish regulations allowing corporate authorities to hold meetings using the means of remote direct communication became effective on 01/01/2001, when the new Code of Commercial Companies ("CCC") came into force. They applied only to supervisory boards in private limited companies (*spółka z o.o.*) and joint-stock companies (*spółka akcyjna*) (Articles 222 and 388 CCC respectively).

Subsequently, on 3/08/2009 (by an Act amending CCC of 5/12/2008), Article 406[5] was added with respect to the general meetings of joint-stock companies. The amendment opened the door to using electronic means of communication and was adopted to implement Article 8 of directive 2007/36/EC of the European Parliament and the Council of 11/07/2007 on the exercise of certain rights of shareholders in listed companies (OJ L 184, p. 17). Although the directive itself pertained to listed companies only, the Polish legislator decided to extend the new rules to the remaining join-stock (privately-held) companies as well. At that time no corresponding rule was adopted with respect to private limited companies and it wasn't until more than a decade later, on 3/09/2019 (by an amendment of 19/07/2019), that Article 234[1] based upon Article 406[5] CCC was added as well.

What is more, no analogous regulations were put in place as regards holding the meetings of corporate executive bodies (management boards) remotely. This lacuna was filled only by the amendment adopted in connection with the outbreak of the Covid-19 pandemic. The new law comprehensively modernised the entire system of provisions governing the remote holding of meetings of corporate authorities (general meetings and shareholders meetings, supervisory boards and management boards). On the basis of relevant references, the provisions on general meetings became applicable accordingly also to partnerships limited by shares (*spółka komandytowo-akcyjna*, Article 126(1)(2) CCC), while the provisions on managements in private limited liability companies became applicable accordingly to those professional partnerships (*spółka partnerska*) that decided to appoint a management board (Article 97(2) CCC).

The modernised provisions were added to CCC on the basis of a vast Act of 31/03/2020 amending the act on specific solutions aimed at preventing, mitigating and combatting COVID-19, other infectious diseases and crisis situations caused by them as well as amending certain

other acts (OJ 2020.568), hereinafter also the "Anti-crisis Shield" – an extensive piece of legislation amending more than a hundred acts.

3.2. Holding Remote General Meetings and Shareholder Meetings

The Anti-crisis Shield amended Articles 406[5] and 234[1] CCC, referring to joint-stock companies and private limited companies respectively. Although the articles differ slightly (the rules laid down in Article 406[5] are more extensive), in both cases the amendments go in the same direction.

The most relevant of the changes is the actual reversal of the previously binding rule (which was not a Polish specificity, but a solution found also elsewhere) according to which it was possible to attend a general meeting or a shareholders meeting remotely (as an alternative to in-person participation) with the use of the means of electronic communication on condition that the articles of association so allowed. Currently the law provides that, as a rule, a general meeting (shareholders meeting) may be *ex lege* always attended remotely, save for the cases where the articles of association provide otherwise. From the practical perspective, this amendment should be viewed as highly positive development. It made it possible to remotely hold many general meetings and shareholder meetings over the last few months, which would be difficult or impossible to be held in person otherwise. Faced with the coronavirus pandemic, shareholders would often be unable to carry out time-consuming procedures to amend the by-laws (articles of association) and implement necessary solutions. Thankfully, the legislator's interference and amendments to Articles 406[5] and 234[1] spared shareholders the hassle.

Since the by-laws (articles of association) of a company may ban the attendance at the general meeting (shareholders meeting) using the electronic means of communication, it is also possible to introduce less rigid restrictions in this respect, for instance by banning remote attendance at some meetings only, such as annual meetings, meetings convened to settle specific matters, meetings to amend the articles of association, etc. (cf. Pabis, 2020, p. 8).

Secondly, under the new law, the person or body convening the general meeting (shareholders meeting) makes the decision as to whether the meeting may be attended using the electronic means of communication. In a non-conflict situation, that body, as a rule, is the management board, and if a conflict emerges and in certain specific situations – the supervisory board or even other persons (Szumański, 2020, p.9).

Doubts arising in this context include the uncertainty as to whether the meeting may be held in the cyberspace exclusively and, potentially, if such an option is not allowed, who must

attend the meeting in person (rather than relying on the electronic means of communication only). When adopting the Anti-crisis Shield, the legislator did not amend Articles 234 and 238 nor 402 and 403 CCC. Pursuant to Article 234 CCC, general meetings of private limited companies are held, as a rule, at the seat of the company, unless the articles of association specify another venue in the Republic of Poland. A shareholders meeting may be also held elsewhere in Poland, provided that all shareholders consent to that in writing. The meeting venue must be specified in the invitation to the meeting (Article 238(2) CCC). Similar rules apply to joint-stock companies. As a rule, general meetings are also held where the company's seat is, with reservation that the general meeting of a listed company may be also held in the town or the city where the company running the regulated market in which the company's shares are traded has its seat. The by-laws may lay down other provisions regarding the venue of the general meeting, but such meetings must always take place in Poland. The meeting venue must be specified in the announcement on the meeting (Article 402(2) CCC). Resolutions adopted by general meetings of joint-stock companies must be always recorded in the minutes drawn up by a notary (Article 421(1) CCC). In private limited companies, the minutes of the shareholders meeting do not need to be taken by a notary, save for the specific cases listed in the act (as enumerated by Leśniak, 2020, p. 763).

To sum up, the foregoing provisions set forth the following rules: (1) a general meeting (shareholders meeting) must be held at the venue specified in the announcement (invitation), selected in compliance with Article 403(234) CCC, (2) if required by law, a notary must be present at that venue. In this context one may ask whether a meeting could be validly held if the venue specified in the announcement (invitation) is given as a city/town where the meeting may be held pursuant to Article 403(234) CCC (without giving a specific address) and all the attendees (notary included) would be present in that city/town, each of them at a different address (e.g. at their homes with access to the internet). Alternatively, however, perhaps we should assume that being in the cyberspace the attendees are not actually at the venue referred to in the announcement (invitation)?

To respond to these questions we should start with the fact that prior to the amendment Polish scholars claimed that the announcement (invitation) must give a specific address, rather than just the town/city where the meeting will be physically held, as the "venue" within the meaning of Article 403(234) CCC is a limited section of space in a geographic sense (Engeleit, 2005, pp. 232-236, Horwath, 2007, p. 49, Leśniak 2018, p. 318). This means that the legislator did not allow for the meetings to be held exclusively in the cyberspace (Kocot, 2011, p. 12-13,

Leśniak, 2020, p. 762, Żaba, 2020, pp. 14-15). This position remains valid, additionally given that *de lege lata* the attendance at a general meeting (shareholders meeting) using the means of electronic communication is only an option left to those entitled to participate. In Articles 406[5] and 234[1] CCC the legislator used the words "also" and "as well" (a meeting may be (also) attended using the electronic means of communication), which means that the persons entitled to attend the meeting must be also given an opportunity to be physically present at the venue where the meeting is to be held. This is now the main reason which necessitates the choice of a specific venue (address) where the meeting will take place. The attendees who decide to appear in person must be given an option to do so. This rule must be complied with even when the number of persons entitled to attend a meeting is so low that the likelihood that they would not appear in person at the venue borders on certainty, as they themselves have so declared. Nevertheless, there is always a risk that they would change their mind. In consequence, as for now *de lege lata* it is not possible to hold purely virtual meetings in the cyberspace (Szumański, 2020, p. 10, Leśniak, 2020, pp. 761-762, Żaba, 2020, p. 15), although this is likely to change. It is recommendable to draft legislative amendments granting such an option, assuming that the legislator would guarantee legal security to all those entitled to participate and solve the potential conflict of laws problems arising when meetings are attended by persons located in various states, and by citizens of other countries in particular.

At least a notary (if their presence is required) or the minute-taker should appear at the venue where the meeting is physically taking place. The requirement of the presence of the chairperson, on the other hand, is disputable. Are they also required to appear at the venue where the meeting is held? To answer this question, it is important to note that the chairperson is elected only at the general meeting (shareholders meeting) itself, and not ahead of it. This is what follows directly from the rule applicable to joint-stock companies laid down in Article 409(1) CCC. The provisions on private limited companies do not contain a rule to the same effect, but there is no doubt that the same procedure applies to private limited companies as well. There are no grounds to assume that the chairperson may be elected only from among the persons physically present at the venue where the general meeting (shareholders meeting) is being held as no such limitation has been included in CCC. What is more, it would *de facto* deprive other potential candidates to the chairperson function (those remotely attending the meeting) of their passive electoral right. A conclusion to the contrary cannot be supported by the fact that the chairperson must, for instance, sign the list of attendance at the meeting or the

minutes of the meeting. Such signatures may be placed, after all, electronically (Leśniak, 2020, pp. 764-765, for an opposite view see Pabis, 2020, p. 11).

Thirdly, the rules on participation in the general meeting (shareholders meeting) using the electronic means of communication have been modified. Pursuant to the provisions currently in force, the participation includes in particular: (1) bilateral communication in real time with all persons attending the meeting, allowing them to speak during the meeting while staying at a different place than the general meeting venue and (2) the exercise of the right to vote, either in person or through a proxy, before or during the meeting. The key aspect of the amendment is the connection between the two, namely the participant is both able to speak and to vote. Under the previous solution, these rights could be separated and a participant could be granted only one of them (Szumański, 2020, p. 6). Importantly, the catalogue included in the law is not exhaustive ("participation includes in particular") and so other forms of participation in the meeting would be also admissible. In the case of listed companies, the meeting must be additionally streamed live (Article $406^5(4)$ CCC).

Fourthly, the legislator decided that the detailed rules of participation in a general meeting (shareholders meeting) with the use of the electronic means of communication need to be further specified in the form of internal corporate rules. In joint-stock companies the rules are adopted by the supervisory board, while in private limited companies this task belongs with the supervisory board or, in case of a lack thereof, shareholders themselves. In the latter case the legislator ensured that the rules could be adopted by a resolution made without holding the actual meeting, provided that shareholders representing an absolute majority of votes approve the rules in writing.

The adopted provisions implement the so-called technological neutrality rule. The legislator assumed that – given the speed of technological progress – it would not be advisable to specify detailed rules of participation in a general meeting (shareholders meeting) using the electronic means of communication in the Code of Commercial Companies (Szumański, 2020, p. 13). This task belongs with the persons adopting the corporate rules. The Code solely provides that the rules cannot lay down any requirements or restrictions other than necessary to identify the board members and ensure the security of electronic communication. This is a very welcome solution, even more so given that the Code is no place for detailed technical-legal regulations.

The rules should specify in particular how the votes are cast during meetings. In the Code the legislator did not specify whether shareholders should use electronic forms for this purposes

(as in 411[1] CCC), sign their vote with a qualified electronic signature (as e.g. in Article 412[1] (2) CCC) or by placing a signature certified with their trusted ePUAP profile (Szumański, 2020, p. 12). In consequence, we should assume that the companies were left to make such decisions for themselves when adopting relevant rules. Preference should be given to peer to peer communication models (Żaba, 2020, p. 17). However, practice has shown that the meeting organisers rely in this respect on the services of specialist providers offering the required voting infrastructure, including anonymity of secret ballots.

3.3. Holding Remote Supervisory Board Meetings

The Anti-crisis Shield amended Articles 222 and 388 CCC. Also in this case, the amendments extend to several areas, and for the purpose of this paper I will only discuss the most relevant ones. First of all, the amendments explicitly provide that a supervisory board meeting may be attended using the means of direct remote communication (Article 222 (1[1]) and Article 388(1[1]) CCC). Although regulations previously in force provided that the board members may adopt resolutions using the means of direct remote communication, they were not directly linked to the members' right to participate in the meeting in this way (some scholars deduced such a right *a fortiori* – Ostrowski, 2020, p. 33).

Secondly, the amended law now provides that members may always attend a supervisory board meeting using the means of direct remote communication unless the by-laws (articles of association) provide otherwise. In consequence, the introduced rule is the same as the one applying to general meetings (shareholder meetings). An analogous rule was also added with respect to the adoption of resolutions, reversing the previously effective provisions. Now Articles 222(4) and 388(3) CCC provide that the supervisory board may adopt resolutions using means of direct remote communication unless the articles of association provide otherwise.

Apart from allowing for the participation in a supervisory board meeting and the adoption of its resolutions using the means of direct remote communication, the legislator has left two other options open: (1) participation in the adoption of supervisory board resolutions by casting one's vote in writing by the agency of another supervisory board member – a so-called "intermediary" (who may cast votes for several people) and (2) the adoption of resolutions in writing. Such options were also allowed under the rules previously in force, but could be used only if the articles of association so allowed. Now – once the previous rule has been reversed – they are always available unless the by-laws (articles of association) provide otherwise.

Insofar as the venues of supervisory board meetings are concerned, we should conclude that they may be purely virtual, taking place in the cyberspace exclusively. This follows from the fact that the provisions of the Code of Commercial Companies governing supervisory boards, unlike the provisions on general meetings (shareholders meeting) do not contain any rules as to the venue where the meetings should be held. The provisions on invitations to general meetings (shareholders meetings) cannot by applied by way of analogy (Nowacki, 2018, p. 1432-1433).

Thirdly, as regards the rules applicable to supervisory boards in joint-stock companies, Article $406^5(3)$ will apply accordingly. In consequence, to hold a supervisory board meeting remotely, it is necessary to adopt detailed internal rules on the participation in the meeting with the use of the means of direct remote communication. We should assume that the rules are adopted by the board itself, though some scholars disagree since, as a rule, pursuant to Article 391(3) CCC, the rules of procedure of a supervisory board are adopted by the general meeting (Pabis, 2020, p. 9). However, the arguments for endowing the board with such competence may be found in the reference to Article $406^5(3)$ found in Article $388(1^1)$ CCC where the supervisory board is named as the authority competent to adopt the rules of the general meeting as well as in the fact that Article 391(3) CCC allows for a situation where the articles of association delegate to the supervisory board the task of adopting its own rules of procedure (and thus the legislator gives its permission for a situation where an authority adopts the rules of procedure for itself). The rules cannot lay down any requirements or restrictions other than necessary to identify the board members and ensure the security of electronic communication.

Fourthly, the legislator waived the ban prohibiting the adoption of resolutions on the appointment of a chairman and vice-chairman of the supervisory board, the appointment of a management board member and the appointments and suspensions of such persons using an extraordinary procedure. While in the past resolutions on such matters could not be adopted in writing or with the use of the means of direct remote communication and the members could not participate in the adoption of such resolutions by voting in writing by the agency of another supervisory board member, now such procedures are allowed. This is a welcome change. Previously the key argument supporting the ban was the importance of a discussion that should precede the decisions-making in such highly relevant matters (Ostrowski, 2020, p. 37). Nevertheless, given the current stage of advancement of remote communication technologies (especially the teleconferencing tools that allow for holding meetings which hardly differ from the traditional ones), such limitations are no longer justified.

On the basis of Article 29 of the Act of 16/04/2020 on the special support instruments in connection with the spread of SARS-CoV-2 (the so-called Anti-crisis Shield 2.0), the Code of Commercial Companies, amended only two weeks earlier, was changed again by adding two new items: Article $222(4^1)$ and Article $388(3^1)$. Pursuant to these provisions, with nearly identical wording, a supervisory board may adopt resolutions in writing or with the use of the means of direct remote communication also in matters for which the by-laws (articles of association) require secret ballot, provided that none of the supervisory board members objects to such a solution. These provisions give rise to doubts as it is uncertain what the legislator's intent was in this case. Was it to emphasize that the requirement of secrecy of the ballot on certain matters does not prevent members from adopting resolutions on such matters in writing or with the use of the means of remote communication as long as the anonymity of voting is ensured, or maybe the goal was to allow for waiving secrecy if no supervisory board members objects to such waiver? It seems that the latter was likely what the legislator wanted to achieve, but the adopted provisions fail to provide so clearly. In consequence, we should conclude that currently the provisions simply *de facto* allow for preventing a resolution intended to be adopted in secret ballot from being adopted in writing or with the use of remote communication measures by raising an objection. If no such objection is raised the resolution may be adopted, but the requirement of the secrecy must be complied with anyway. Importantly, contrary to what may seem at first glance, a resolution adopted in writing may be adopted in a way that guarantees voting secrecy (Nowacki, 2018, p. 1443, for an opposite view see Osajda, 2020, p. 24).

3.4. Holding Remote Management Board Meetings

The Anti-crisis Shield added Article 208 (5^1)-(5^3) and Article $371(3^1)$-(3^3) CCC, which lay down the rules for holding the meetings of corporate management bodies remotely. Pursuant to the new provisions, unless the articles of association provide otherwise: (1) a management board meeting may be attended using the means of direct remote communication, (2) the management board may adopt resolutions in writing or with the use of the means of direct remote communication, (3) management board members may participate in the adoption of management board's resolutions by casting their vote in writing by the agency of another management board member. The legislator has acted consistently and also in this respect introduced a general rule that the meetings may be held in the abovementioned ways unless the articles of association provide otherwise (it must be emphasized though that the provisions to the contrary may concern all or only some of the foregoing options, and the specific possibilities

offered in Articles 208(5^1)-(5^3) and 371(3^1)-(3^3) may be waived completely or simply restricted – see Ostrowski, 2020, p. 34). The new legislation should be viewed as a move in the right direction as it not only does away with the doubts as to the admissibility of holding management board meetings remotely (more on this topic in Ostrowski, 2020, p. 32-33), but also gives a green light to executive bodies to meet remotely without modifying the by-laws (articles of association) beforehand.

Insofar as the participation in the meeting of a joint stock-company's management board using the means of direct remote communication is concerned, the legislator decided that Article 406^5(3) would be applicable accordingly (no analogous regulations were introduced with respect to private limited companies). As a result, it is necessary to specify detailed rules governing the participation in management board meetings using the means of direct remote communication in the form of a separate corporate document. Such rules cannot introduce any requirements or restrictions other than necessary to identify the board members and ensure the security of electronic communication. Some doubts appear, however, as to who should adopt the rules – the management board itself or the supervisory board. Article 406^5(3) provides that the detailed regulations governing the participation in the general meeting must be laid down by the supervisory board in internal rules. In consequence, if the provision is to be applied accordingly, the rules regarding the participation in the management board's meetings should be laid down by the supervisory board as well (likewise: Osajda, 2020, p. 28). In my view, this conclusion cannot be undermined by the fact that, as a rule, pursuant to Article 371(6) CCC, management board's rules of procedure are adopted by the management board itself, unless the by-laws have granted the right to adopt or approve such rules to the supervisory board or the general meeting (see Ostrowski, 2020, p. 35). I would say it is quite to the contrary – Article 371(6) CCC shows that another authority (supervisory board) may be delegated the competence to adopt or approve management board's rules of procedure. If so, the authority may be also delegated the competence to lay down the detailed rules applicable to the participation in a management board meeting. Although it makes sense that a fully professional body, such as the management board, would be better equipped to establish such rules independently, one could hardly rely on this argument to abstain from the literal interpretation of the reference in Article 371(3^1) to accordingly apply Article 406^5(3) CCC.

When it comes to the venue where management board meetings are held, we should conclude that, just like supervisory board meetings, they may take place completely virtually, in the cyberspace. This is a consequence of the fact that the provisions of the Code of

Commercial Companies governing the functioning of the management boards, just like the provisions governing the functioning of supervisory boards, do not contain any rules as to the specification of the venue where the meetings should be held, while the provisions on invitations to general meetings (shareholders meeting) are not applicable to management boards by analogy.

4. CONCLUSION

The amendments made by the Polish legislator to the rules on the remote holding of corporate authorities' meetings should be viewed as a highly positive development. This is both because the amendments to the Code of Commercial Companies are permanent rather than temporary (unlike in some other states, which introduced temporary provisions valid only throughout the COVID-19 pandemic) and because of the nature of the adopted solutions.

It was an equally positive move to reverse the previous rule that allowed for holding the meetings of corporate authorities remotely only if the by-laws (articles of association) so allowed. The current regulation, which allows for holding meetings remotely in all cases save for those where the by-laws (articles of association) explicitly provide otherwise, is much more in tune with the current business practice than the rule previously in force. At the same time, in view of the dissemination of remote communication methods, it does not pose any major threats to it.

The principle of the so-called technological neutrality is yet another new development that should be appreciated. It is reasonable to assume that – given the speed of technological progress – it would not be advisable to specify detailed rules of participation in a general meeting (shareholders meeting) with the use of the electronic means of communication in the Code of Commercial Companies. And thus the Polish legislator is right to conclude that the Code, being a general act governing a specific area of law, is not the place for detailed technical-legal regulations.

The amendments adopted at a particularly sensitive time, marking the onset of the COVID-19 pandemic, should not be expected to settle the most complex matters. This pertains in particular to the option of holding general meetings (shareholders meeting) in the cyberspace only. The Polish legislator *de lege lata* decided that the meeting must physically take place at the venue specified in the announcement of the meeting (invitation), where the persons willing to traditionally participate in the meeting may physically appear. To allow for meetings to take place in the virtual space exclusively it would be necessary not only to modify the law amended

by the legislator, but also the provisions on how the meetings should be convened and announced. Surely, we may expect such developments in the near future, as there certainly is a demand for them from businesses, but they must be preceded by unrushed analyses. It is necessary to ensure full legal security to everyone entitled to participate in general meetings (shareholders meetings) and solve the potential conflict of laws problems which may appear if the meetings are attended by persons staying in various states, especially if they are citizens of third countries.

Undoubtedly, in the remaining scope the newly adopted Polish regulations could serve as a precious source of inspiration for legislators in other states, working on adjusting their laws to the requirements resulting from the progressive digitalisation of the business life.

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THE IMPORTANCE OF A GREEN MARKETING STRATEGY IN BRAND COMMUNICATION - M. COUTINHO MULTI-BRAND CAR DEALER CASE IN NORTHERN PORTUGAL

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Abstract

Today's consumer is better informed, are very concerned to sustainability and has an enormous power to disseminate information and opinions. This brings to the brands the need of understanding the importance recognized by their customers regarding the adoption of sustainable marketing strategies thinking how to introduce and develop sustainable practices and actions in their marketing strategies. Sustainable Marketing emerges, in this context, as an innovative way to do marketing, creating an approach these new consumer demands. It involves long-term, sustainable strategies that truly add value to society, companies and the environment. This research seeks to understand how M. Coutinho (an important multi-brand car dealer in Northern Portugal) incorporates a sustainable brand communication strategy consistent with the sustainable products they offer. In order to respond to the objective of the research, it was defined as the focus of the investigation to describe the adoption of Green Marketing-Mix techniques and its impact on global marketing strategy for M. Coutinho case. This approach makes it possible to verify if the car dealer is following the sustainable brand concerns required by consumers and how they communicate it. The research developed was essentially exploratory and qualitative. Qualitative research encompasses a variety of methods that can be applied in a flexible way allowing individuals to respond to greater reflection and expression of their views, thus allowing a collection of feelings, experiences and behaviors in their own terms and context and allows the collection of concrete information based on the interviewees' perceptions. In order to obtain the answers to the proposed objectives, the qualitative research technique used the face-to-face semi-structured interview to the marketing director of the chosen company. The present investigation gave important contributes allowing to understand the types of environmental practices adopted, the car dealer sustainable intentions and opportunities such as visibility, proximity to consumers requirements and needs, financial sustainability and sustainable brand identity. It also presents some sustainability risks and the way the brand seeks the approximation to consumer's demands. Encouraging sustainable behavior and adopting a value sustainability in recruitment the company also encompasses an internal strategy of green marketing. All the marketing mix and brand communication includes a sustainable marketing language considering always its

benefits: notoriety, cost reduction, good citizenship, dealer's promotion and competitive advantage. This article brings a new contribute for literature review on the topic of Green Marketing and brand communication strategy. The scarcity of resources, the pollution and serious health problems caused by overexploitation of natural resources lead to reflection on the concept of sustainable consumption. Green marketing is becoming more and more in fashion and it becomes, therefore, a new paradigm to be considered. Several factors have contributed to the emergence and growth of this concern: global warming, climate change, deforestation, overpopulation and perhaps the most important one, pollution. There is an increasing interest in establishing relationships between marketing and sustainability: it is one of the main trends that shape contemporary marketing. In addition, there are also a greater number of companies committed to the issue of sustainability and the development of a sustainable marketing communication and this article brings an important contribute to this development.

1. INTRODUCTION

The scarcity of resources, the pollution and serious health problems caused by overexploitation of natural resources lead to reflection on the concept of sustainable consumption. Green marketing is becoming more and more in fashion and it becomes, therefore, a new paradigm to be considered. Several factors have contributed to the emergence and growth of this concern: global warming, climate change, deforestation, overpopulation and perhaps the most important one, pollution. Many authors have been studying environmental issues since the 1970's (Martins, 2017) and since then the world took conscience that environmental destruction never stopped.

The last decades established also an important change in marketing focus: the change from marketing orientation to relationship orientation and sustainability orientation (Martins, 2017). Firms focus changed from short-term, transactional and operational issues to customer's retention and loyalty and long-term relationships (Theron & Terblanche, 2010). Firms are increasingly attempting to build strong relationships with their customers on a better way and, for this, the relationship marketing and green marketing strategy based on a different brand communication contribute where both firms and customers try to achieve some kind of mutual benefit became a priority. Organizations seek ways to develop brand equity using, for this objective, various marketing strategies (Chang and Tseng, 2005).

There is an increasing interest in establishing relationships between marketing and sustainability and authors who point to sustainability as one of the main trends that shape contemporary marketing. In addition, there are also a greater number of companies committed

to the issue of sustainability and the development of a sustainable marketing mix of products and services (Jones et al. 2008).

This led to a growing concern with the need of protection of the environment, especially in recent years and it has attracted the attention of companies seeking to profit from sustainable marketing practices. That is why in the 70s, a new concept appeared the sustainable development. Martins (2017:15) refers that sustainable development "is the form of development which aims at sustainable consumption and sustainable economic growth while tries to protect the environment. In other words, this is a type of development that satisfies the needs of the present without compromising future generations to satisfy theirs".

Peattie & Charter (2013) report that the reactions of marketers to this concern for green marketing is sometimes proactive and, at other times, reactive. Reactive towards strict compliance with legislation and response to consumer pressure on socio-environmental improvements. Proactive strategies tend to place emphasis on communicating with stakeholders beyond legislation and seeking improvements on the part of the client, with participation in debates on social and environmental issues.

Marketeers face a new challenge: how can companies fulfil the needs and expectations of consumers about sustainability. Green marketing policies emerge helping in this task and can become a mean for sustainable development as it incorporates people, profit and the planet all together (Martins, 2017). In fact, the product of green marketing is this: environmental protection (eco-friendly) for the present and the future generations (Choudhary and Gokarn, 2013).

To Lewandowska (2017) it is worth continuing the discussion and research, in order to arrive at the optimal content for marketing communication based on LCA (Life Cycle Assessment) research. I tis also important the development of further investigation on LCA results, and which method of presenting the results, would strike the consumer most effectively.

With this research, we seek to highlight how M. Coutinho (an important multi-brand car dealer in Northern Portugal) incorporates a sustainable brand communication strategy consistent with the sustainable products they offer. The investigation is focused on the comprehension and description of the adoption of Green Marketing-Mix techniques and its impact on the global marketing strategy of the company. This approach makes it possible to verify how the dealer is following sustainable brand concerns required by consumers.

2. LITERATURE REVIEW

2.1. Introducing Green Marketing: Concept, Evolution and Its Importance

There is no unique definition for the term "green marketing", sometimes also referred as ecological, environmental or sustainable marketing (Polonsky, 1994). According to Neagu (2012) in the literature different terms are employed like "green marketing", "ecological marketing" or "sustainable marketing" all to refer to environmental marketing.

Green marketing emerged between 1970s and the late 1980s (Kapelianis and Strachan, 1996; Peattie and Crane, 2005). In the 1970s, action began and the 1980s brought the responsibility of the emergence of movements for environmental preservation. However, it was only in the late 1980s and early 1990s that the concept of green marketing began to be generalized (Afonso, 2017). In fact, green marketing came, in a stronger way, into literature in late 1980's and early 1990's but it was discussed earlier in 1975 in AMA (American Marketing Association) at its first workshop related to "Ecological Marketing".

Ribeiro (2017) states that green marketing can be viewed as both a type of marketing and/or a marketing philosophy. As a type of marketing because it is concerned with marketing to green products and positioning them as green brands. As a philosophy because satisfying customers is not enough and at the same time marketers should take into account ecological interests of the society as a whole.

Polonski (1994) argues that green marketing is the set of activities developed to generate and facilitate exchanges with the intention of satisfying the desires and needs of consumers with the least possible environmental impact.

Peattie & Charter (2013) define green marketing as an holistic management process responsible for identifying, anticipating and satisfying the needs of customers and society in a profitable and sustainable way.

Literature refers that sustainable business models incorporate three dimensions: environmental, economic and socio-political, commonly referred to as "the triple bottom line" approach (Elkington, 1994). According to the "triple bottom line" model (Elkington, 2018), companies must consider three economic, environmental and social variables in their business decisions, which opens the genesis of the 3 P's: People, Planet and Profit. The triple bottom line was created to measure the financial, social and environmental performance of the corporation over a period.

In the environmental sphere (planet), the use of natural resources should not harm future generations, reducing the environmental impacts from the action of companies (Martins, 2017). In the economic perspective (profit), it is necessary to preserve the company's profitability. In the socio-political sphere (people), the relevance is centered in social justice, it matters to know how socially responsible an organization has been throughout its operations (op.cit).

Several investigators developed connections between green marketing and other constructs such as Life Cycle Assessment (Lewandowska, 2017; Ottman, 2011).

Peattie (2013) refers to three phases in the evolution of the green marketing. The first phase was known as the ecological phase, where all the marketing activities were carried out to face the increasing environmental problems and to offer solutions for these problems. The second phase was called the environmental and refers to the implementation of cleaner technologies. This phase also led to the discovery or the invention of products that would improve the environment or at least not increase the already existing problems. The last one is the sustainable phase of green marketing, which is still prevailing. According to Peattie (2013), this phase appeared in the late 90's, early 2000s and has incorporated a broad range of activities, including changes on products, production processes, packaging and advertising.

The true is that there is an increasing number of companies that mention sustainability based on green marketing issues in their communication, in their strategic plans and in their annual reports. Companies use green marketing because (Polonsky, 1994) environment marketing can be an opportunity to companies objectives, companies have a moral obligation to be socially responsible, governments are forcing companies to be more responsible, competitor's environment activities pressure firms to different marketing activities and because there are cost related to waste or reduction in material usage that lead firms to change their behavior.

Papadas et al (2017) refer the need of more integrated and holistic analysis in green marketing as they state that there isn't a generally accepted Green Marketing framework and the literature shows na absence of a rigorous operationalization of the construct.

2.2. Green Marketing Strategy and Brand Communication

Fuentes (2015) refers the need of more studies based on how green marketing is actually carried in practice and they conducted an ethnographic study of the Nordic Nature Shop and its marketing work and the specific example of green marketing concluding that green marketing practices are used mainly in window dressing, decorating, and trail making. These practices

were shown to be complex and heterogeneous, encompassing both discursive and material elements. In fact, companies that implement holistic environmental strategies send a strong message to their stakeholders, recognizing the risks and the importance of the environmental challenges that exist, demonstrating care for society and the ecosystem. The integration of sustainability-oriented marketing can be an internal and external opportunity that allows companies to achieve low costs, additional profits and competitive advantage through differentiation and business development (Papadas et al. 2017). Simão & Lisboa (2017) argue that, from a sustainable point of view, it is desirable that companies promote efficient consumption and a replacement of natural resources, waste management is necessary. The authors mention that companies can adopt more efficient practices, such as recycling and reusing materials, waste management (reducing and treating), managing soil, water and air pollution (preventing and treating), choosing for efficient energy policies and ecological products and processes (less environmental impact) and to spread green, internal and external practices. A sustainable business posture can contribute to improving the image, increasing the reputation and a greater knowledge of consumers about the company. Improving the sustainable strategy can lead to a competitive advantage for the company. The companies' commitment to sustainability, greater or lesser, can be assessed through three stages: (1) Reactive. The company's leaders consider the environmental issue as unnecessary expenses for the company, they consider a naive business trend; (2) Preventive. Companies try to avoid environmental problems. It is preferable to change the processes in order to avoid pollution because it is more expensive to treat pollution problems than to avoid them; (3) Proactive. Sustainable concern is part of the company's strategic management. It is a requirement of the future; it generates innovation and allows reaching new markets (Jabbour, 2010).

Developing green marketing strategies may imply increasing production costs for companies (because of sustainable materials complying with legislation and clean technology). However, savings in energy inputs, reducing packaging and cutting waste, can counterbalance this.

According to Ottman (1993) there are 5 rules to be considered in a green marketing strategy: customer involvement in the process (product development and communication), transparency (for consumers to believe in the legitimacy of advertised attributes), ecological guarantee (is an added value for the products), consider the price (the company must make sure that the consumer is willing to pay more for the ecological attributes of the products).

Companies that implement holistic environmental strategies show their stakeholders that they recognize the business risks and importance of today's environmental challenges, demonstrate care for society and the ecosystem, but also understand green marketing as an internal and external opportunity (Papadas et al, 2017) to achieve competitive advantage and also a differentiation factor.

Elkington (2018) proposes a strategic recall to the concept of triple bottom line for the 25th anniversary of the concept. Now sustainability must be measured thinking about the well-being of billions of people and the health of our planet.

Peattie & Charter (2013) also talk about the need of rethinking the Marketing Mix strategy if we want to proceed with a "green strategy". Thats why we start talking about not "product" but "green product" refering to the products that include attibutes connected to social and environmental impacts.

Taking into accounting the idea of green marketing as a management and marketing strategy, it appears in the literature the concept of green brand. Grant (2008:25) defines a green brand as "the one that offers a significant eco-advantage over the incumbents and which hence appeals to those who are willing to making green a high priority". Strong green brands can target both B2C and B2B customers. A successful green brand is based in alternative technology and in companies that run on green principles (Grant, 2008). "A green brand identity is defined by a specific set of brand attributes and benefits related to the reduced environmental impact of the brand and its perception as being environmentally sound." (Hartmann et al., 2005: 10). Green brand can be defined as a brand environmentally friendly, which takes action towards the sustainability and commit itself with the preservation and nature preservation.

The use of alternative technologies and/or ecologically conscious business practices usually characterize successful green brands (Grant, 2008). Green brands can base their actions in ecological and sustainable business practices such as: energy savings (or renewable energy); reducing or avoiding CO_2 emissions and other polluting substances emissions; reducing and avoiding waste; protecting and conserving natural resources and natural habitats; using alternative energy sources; training employees regarding environmental protection and sustainability; informing consumers on measures regarding how the emission of greenhouse gases can be reduced with the help of their respective products and publishing information proving the environmental commitment of the company as part of their corporate mission.

Grant (2008) give as a matrix to understand some of the strategies inherent to green brands (Table 1):

Table 1. – Green Brands

	Passive	Active
Consumer	Green Brands	All doing our bit
Citizen	Setting New Standards	Networked Resource Systems

Source: Grant (2008), pp. 26.

Grant (2008) talks about green brands as those who want to put high priority in green issues. Setting New Standards is what people think about sustainability marketing. The point is to set na exemple and hence lead the resto f your industry in that direction. All doing our bit – when you apply this approach to green marketing the natural area to address is co-operating with customers to reduce the total impact. Networked resource systems is the big development of the last decades in business.

Customers do not expect green brands to be perfect but at least, authentic (Connolly, 2009). This type of brands should aim to communicate the key benefit to consumers: purchasing green brands is in the environment's best interest. The relationship between consumers and this type of brands can be even more intensive if some personal benefits are added, such as health advantages, the common good, saving opportunities or returns on investment in environmental technologies (Hartmann and Ibañez, 2006).

2.3. Green Marketing Mix

The trend of going green can deliver significant benefits in product differentiation, positive publicity, stronger brands and increased sales (Bodger and Monks (2009). To Neagu (2012) there are twomain actors invloved in green marketing: the companies and the non-governamental organizations. Both are commited to plan and implemente communication actions that try to build consumers more responsable for the future of the planet. Papadas et al (2017) refer to a tatical grren marketing orientation that envolves short-term actions and is normally integrated in marketing mix such as product, promotion and pricing policies. Polonsky (1994) and Bodger and Monks (2009) say that green marketing is a broader concept that incorporates activities connected to product modification (process, packaging) and advertising.

Peattie & Charter (2013) suggest that to the traditional 4 P's of marketing we should add the 4 S's: (i) satisfaction (consumer satisfaction); (ii) safety (product safety and production for consumers); (iii) social acceptance of products, production and activities of the company and (iv) sustainability of products.

2.3.1. Green Product

Green and ecologically products are expected to be durable, non-toxic, made from recycled materials or minimally packaged (Ottman, 1993). Green product policies are related decisions to reduce environmental impact such as responsible packaging, recyclable materials and types of ingredientes, redefinition of product life cycle, renewable energy, and new product development refocused to improve the environmental performance.

Sustainable products seek to incorporate the three dimensions of sustainability in their design: economic, social and environmental. It is intended that these products integrate social and environmental aspects along the value chain and that they are economically competitive and successful over a long period of time (Beltz & Karstens, 2010).

Green based product strategies involve either one or a combination of recycling, reduction of packaging materials, sustainable source of raw materials, reusable and repairable, making products and packaging's that are safe for disposal, compostable, and that are safer or more pleasant to use (Polonsky, 1994 and Ottman, 2011).

Prakash (2002) suggests six ways to make products more environmentally friendly: (1) Repair: extend the life of a product by repairing its parts; (2) Re-new: extend the life of a product for much longer; (3) Remake: the new product is based on old products; (4) Re-use: design a product to be used several times; (5) Recycle: products can be processed and converted into raw materials that can be used in the same or other products; (6) Reduce: product uses less raw materials and/or generates less disposable waste, offering benefits comparable to its previous version or to competing products. These products must also promote nature conservation and protection, energy efficiency in their production and distribution, avoid waste, prevent pollution and ensure consumer safety (Ribeiro, 2017). No product is capable of having a zero impact on the environment (Reutlinger, 2012). Pomering (2017) highlights that ecological products must be evaluated based on the impact of their production process (the evaluation of a product's life cycle is an instrument that assesses and measures these impacts) and the impact of its consumption. Charter et al. (2002) state that sustainable products must be developed to satisfy genuine consumer needs, they must not be harmful to human health and as "green" as possible

throughout the life cycle. These authors point out that what is desirable for an "era of sustainability" should include products based on the following aspects: Non-polluting; Reused and recycled; Easy repair; Energy efficiency (reduction of greenhouse gas emissions); Long term; Minimized packaging; Manufactured from renewable energies; Removal of hazardous materials; Manufactured from locally sourced materials to minimize transport costs; Not be tested on animals; Do not use child labor; Do not resort to forced labor to manufacture the product. The development of greener packaging is still one of the major challenges associated with marketing.

2.3.2. Green Pricing

Green prices for green products will reflect product's ecological ingredients. When we talk about price (monetary value paid by the customer) in green marketing mix, it seems that many consumers assume green products often with higher prices than conventional products (Peattie & Charter, 2013; Polonsky, 1994). In fact, green pricing is normally higher since takes into consideration the people, planet and profit in a way the health of employees and communities and the efficient productivity are ensured. This higher price often reflects environmental concerns in monetary terms that are intrinsic and transferable to the customer. Peattie & Charter (2013) refer that the consumer demand for green products may allow companies to add green prices premiums.

Price is a key element in green marketing. Many of the environmental and social costs - in the case of pollution generated in the production of a good - are considered externalities, they are not included in the final price of the product or in the accounting of companies' production costs. Due to legislative and stakeholder pressure, this situation begins to change gradually and many of the environmental and social costs are no longer considered externalities and are now charged. An incentive to purchase sustainable products would involve an increase in prices for non-sustainable products (Charter et al. 2002). Pomering (2017) reinforces the idea that externalities should be included in the final price of the product. Sustainable consumers realize that products and services have an added social and ecological value and are therefore willing to pay a higher price. Companies and producers can rethink their pricing strategy in order to demonstrate that sustainable products do not need to be necessarily more expensive than traditional ones. A company that can add ecological aspects to its products at a low price will achieve a competitive advantage over its competitors.

2.3.3. Green Place

Place is where the product can be purchased and includes how the product is distributed to the purchase location. Green place is about managing logistics to cut down on transportation gas emissions, thus reducing the carbon footprint and the negative impact in the environment.

Companies will have to redesign the logistic activities because of the need of "reverse logistics" that allow the processo f reusing containers and end-of-life products.

Based on Peattie (1995), in recent years, retailers have shown great interest in finding new ways to make their stores more sustainable. There is a concern to be more efficient and avoid waste, allowing greater financial profitability (Reutlinger, 2012). The distribution of sustainable products has direct and indirect environmental impacts, so it is necessary to take into account all impacts generated during the distribution process. Sustainable marketing, in addition to being concerned with delivering the product to the right place at the right time, also needs to focus its attention on reducing negative impacts on the distribution process. Careful and prudent management will allow companies to find solutions to reduce the negative impacts of distribution, which involves the circulation of the product inside and outside the company (Charter et al. 2002; Reutlinger, 2012). A successful sustainable distribution is only achievable through a direct and indirect multi-channel strategy, allowing it to spread beyond the market niche. Ribeiro (2017) highlights two alternatives for companies to reduce their negative impact on the environment. One of them is to attribute greater importance to local production, instead of selling imported products. This would avoid costs associated with transporting the products and consequently a reduction in the emission of greenhouse gases. The other solution would be to identify more environmentally friendly ways of supplying products to the market to meet consumer demands. Companies can look for stores that sell only ecological products or that respect the principles of sustainability.

2.3.4. Green Promotion

Promotion includes decisions to minimize negative environmental impact of firm's marketing communications. This requires communicate environmental sponsorships and tangible environmental actions, public dialogue about green products and services. Promotion includes all activities that involve communicating with the customer about the product and its benefits and features.

The green promotion strategies must consider that the promoted benefit have a real impact (reduced harmful emissions) by identifying the product's specific benefit in terms of the product

attribute that contributes to improved environmental performance. Marketeeers shouild also provide a context to allow consumers to make meaningful comparisons.

Creating green advertisements can be a way to reduce the gap on environmental information through promotion, but Ottman (2011) has suggested another green promotion strategies: educate consumers on the environmental problems that a green product solves; empower consumers with solutions by demonstrating to them how environmentally friendly products and services can help consumers protect health and preserve the environment for future generations; and provide performance reassurance of green-based products, as many consumers perceive them to be inferior to conventional ones. Eco-labels or green certifications are also excellent communication tools that can be used by companies.

The promotion of products and services includes all types of contact with consumers, from advertising, public relations, promotions and direct marketing. Innovation has provided the development of new, greener communication practices and tools, where electronic resources should always be privileged in sustainable promotion. The sending of physical letters must be replaced by sending via electronic mail, recyclable materials must be used and printing, whenever necessary, must be done using more ecological solutions (De Craecker & De Wulf, 2009). Companies must develop communication approaches that integrate specific environmental aspects of their products and their social responsibility posture. Communication must be based on solid information based on research and the information must be communicated consistently to consumers and stakeholders. Marketing managers must always assume a posture of true and transparent communication with consumers, otherwise there is a risk of attracting negative and harmful situations to the company's image, such as a negative perception of consumers towards the company and / or product (Charter et al. 2002). It is important that marketing managers know their consumers in order to provide them with relevant information. Performance is always a good product communication tool. The symbolism and social status associated with the product are also good communication tools, especially when used by prominent public figures in society, leading to an increased interest in sustainable products. Credibility is the fundamental element for the communication of a sustainable product (Reutlinger, 2012). Through promotion, companies must assume an educational role in order to encourage their stakeholders and consumers to take a sustainable stance. Such communication must always take into account the principles of sustainability and not resort to techniques that contradict sustainability. In addition, communication can promote greater transparency and relationship with consumers (De Craecker & De Wulf, 2009; Pomering,

2017). Some companies resort to misleading advertising and the use of fraudulent messages to try to convince consumers that their products have truly ecological attributes. This situation is known as "greenwashing" and is characterized by omission of information, lack of scientific evidence, use of vague expressions and content that is difficult to prove (100% natural, "non-toxic", among others.), Attribution of benefits true but irrelevant and resort to lying. This will increase consumer distrust of environmental concerns (Almeida, 2013).

3. RESEARCH METHOD

A descriptive and qualitative research was developed. Qualitative research involves collecting and analyzing non-numerical data (e.g., text, video, or qualitative information) to understand concepts, opinions, or experiences. It can be used to gather in-depth insights into a problem or generate new ideas for research. It also encompasses a greater reflection and expression of views or behavior, thus allowing a collection of feelings, experiences and behaviors in their own terms and context (Malhotra & Birks, 2006.

Therefore, the qualitative approach corresponds to the expectations of this investigation because it allows the collection of concrete information based on the interviewees' perceptions about the topic under analysis. As a research on a very specific and complex sector of activity (the Portuguese automotive sector), in addition to a topic that is also very particular and little explored, it is essential to have a more direct contact with the interviewees in order to achieve the defined objectives.

Thus, in order to obtain the answers to the proposed objectives, the qualitative research technique used was the semi-structured interview, a technique that allows interviewees to share their experiences and cases, about the phenomenon observed by the interviewer. In the data collection process, face-to-face semi-structured interview was conducted. The data were collected between November and December 2019.

In terms of the population for this study, M. Coutinho car dealer (duly certified and authorized by the brands they represent) in Porto district (Northern Portugal) that sell BEV, PHEV and HEV passenger cars was considered. For interview was chosen the person responsible for the marketing department in order to collect information regarding the strategy and dealer's practices, the marketing mix and their point of view in relation to sustainability and marketing.

Therefore, the investigation focused on a non-probabilistic sample by judgment. Thus, and considering their size, relevance and representativeness, M. Coutinho car dealer is a

significant multi-brand dealer in Porto district (Northern Portugal) because it has an extensive dealer network of 18 automotive brands and 17 workshops. It is a national leader in the distribution of original parts, specialists in the distribution of independent parts and in the provision of collision services. The relevance of case study of M. Coutinho is connected to its economic impact in the Portuguese car sector: 48 points of sale, 67 authorized workshops, 8 points of sale for used vehicles, 9 collision centers, 2 logistics centers parts. The group also has 771 workers, billing 222 million last year, with 11.427 units (cars) sold. They assume the sustainability aspect as a priority in their business and that bet translates into 94% of their recycled or reused, which makes it a national reference in this area.

Green marketing research identifies three pillars central to the conceptualization of green marketing orientation: strategic green marketing, tactical green marketing and internal green marketing (Papadas et al, 2017) as shown in Table 2. This scale will be used to the case study considered (M. Coutinho car dealer) and the analysis will be conducted based in this scale items.

Table 2. – Green Marketing Scale (adapted from Papadas et al, 2017)

Dimension	Scale items
Strategic green marketing orientation	1. We invest in low-carbon technologies for our production processes. 2. We use specific environmental policy for selecting our partners. 3. We invest in R & D programs in order to create environmentally friendly products/services. 4. We make efforts to use renewable energy sources for our products/services. 5. We have created a separate department/unit specializing in environmental issues for our organization. 6. We participate in environmental business networks. 7. We engage in dialogue with our stakeholders about environmental aspect of our organization. 8. We implement market research to detect green needs in the marketplace. 9. Among other target markets, we also target to environmentally conscious consumers.
Tactical green marketing orientation	1. We encourage the use of e-commerce, because it is more eco-friendly. 2. We prefer digital communication methods for promoting our products/services, because it is more eco-friendly. 3. We apply a paperless policy in our procurement where possible. 4. We use recycled or reusable materials in our products/services.

	5. We absorb the extra cost of an environmental product/service
Internal green marketing orientation	1. Exemplar environmental behavior is acknowledged and rewarded. 2. Environmental activities by candidates are a bonus in our recruitment process. 3. We have created internal environmental prize competitions that promote eco-friendly behavior. 4. We form environmental committees for implementing internal audits of environmental performance. 5. We organize presentations for our employees to inform them about our green marketing strategy. 6. We encourage our employees to use eco-friendly products/services. 7. Our employees believe in the environmental values of our organization.

4. DATA ANALYSIS AND DISCUSSION

M. Coutinho's mission is to make the customer experience unique. The vision is to develop an organization open to innovation and capable of responding to new mobility paradigms. Ensuring a close and professional service offering anticipating market demands with the uncompromising ambition of exceeding customers' expectations; permanently challenge people, enhancing their development and overcoming, promoting talent. M. Coutinho's values are based on sustainability, creating value, humanism, being close, excellence, exceeding expectations, trust, promoting relationships. The company was founded in 1956 the year when Manuel Moreira Coutinho became a Ford dealer.

A - Strategic green marketing orientation	
1. We invest in low-carbon technologies for our production processes.	- Try to use washing products with the least amount of chemical product, reagents; - The workshop gloves are thinner because with a smaller thickness of plastic they still guarantee a good operation by the mechanics and reduce the consumption of plastic; - At the level of the procurement department they use recycled paper, if not in its entirety, at least in large part; - In terms of waste management, they only work with an operator who guarantees that they treat everything legally, sustainably and that they have licenses, even if this entails more costs for the group. - Replacement of lamps for low consumption lamps - Waste control; separation of 20 categories of waste;

	- Only 3% of waste is sent to landfill.
	- Respect for environmental legislation.
2. We use specific environmental policy for selecting our partners.	- Creation of strategic partnerships; - When negotiating certain contracts, they give preference to partners who have environmental sustainability concerns.
3. We invest in R & D programs in order to create environmentally friendly products/services.	- They do not have an R&D department internally but seek continuous improvement in this area; - They will make extra investment in the short term, to improve some conditions in terms of waste management, namely, investing in the placement of covers in larger containers abroad so that the waste is not damaged (for example, the papper if has a certain amount of humidity is reached, it is no longer recyclable); - The group is investing in the alteration of oil deposits (air deposits that will be visible and if there is a leak, it will be more easily identifiable and contamination can be avoided); - Investments also in the sense of workshops, in order to prevent oil spills, that is, we have invested in several retention basins to avoid spills to the soil and therefore we are doing that too and then we will invest now in reusable bottles to offer to employees, for example.
4. We make efforts to use renewable energy sources for our products/services.	- Bet on solar panels - Led lamps - Quality of the construction with which it is made, in the sense of being as energy efficient as possible
5. We have created a separate department/unit specializing in environmental issues for our organization.	- M. Coutinho develops an annual sustainability report and has a responsible person allocated to this area. - It has its own project dedicated to its sustainability: the planet M. Coutinho
6. We participate in environmental business networks.	- Within the network of brand retailers there are rules in the area of sustainability;

	- M. Continho develops actions that promote networking and promoting sustainability, such as reforestation day - Create internal and external environmental awareness actions (commemorative dates) such as: planting trees in areas affected by fires; celebration of the world biodiversity day, through a partnership with the municipal council of Vila Real, made an exhibition to raise awareness to safeguard biodiversity; world environment day - publication on what we can do in our day for more sustainable behavior; creation day - day for the protection of the oceans in partnership with the municipal chamber of Ílhavo; World Pollution Day - more sustainable driving.
7. We engage in dialogue with our stakeholders about environmental aspect of our organization.	- Environmental training and awareness - Briefings (summary of the waste that a given unit produced in a given period trying to alert to existing deviations and an eventual wrong separation of some waste - Approach to points to improve - Assessment of sustainable behaviors within the company. - Sensitize the public and local communities and partners, suppliers, brands.
8. We implement market research to detect green needs in the marketplace.	- Recycling, avoid waste - Encouraging the use of renewable sources and / or materials - Sustainability events
9. Among other target markets, we also target to environmentally conscious consumers.	- With everything they do they may not yet reach all consumers, but they believe that what was a niche is growing more and more and more people are more sensitive to these types of issues - In the group's social networks, it is possible to see that the publications associated with this environmental issue are those that have the most interactions - Increased perception that consumers really identify with environmental issues - Bet on green marketing and respective disclosure to customers, potential customers and general public (society)

B - Tactical green marketing orientation	
1. We encourage the use of e-commerce,	- Yes - It brings competitive advantages and cost reduction as well as improving the company's image)

because it is more eco-friendly.	- Brings financial benefits - Is valued by the consumer
2. We prefer digital communication methods for promoting our products/services, because it is more eco-friendly.	- Sustainable Marketing Actions - Bet on digital
3. We apply a paperless policy in our procurement where possible.	- They use stamps and digital signatures to avoid unnecessary printing. - The adoption of sustainable consumption of stationery materials is encouraged through reuse or reuse. - Whenever possible, when printing, reduce the font size and avoid color printing. - Do double-sided printing and reuse sheets for notepads. In the end, they recycle. -Before printing, check the print to avoid waste and print several pages on one sheet.
4. We use recycled or reusable materials in our products/services	- They use reusable mugs and bottles to drink water, thus avoiding disposable materials. - The adoption of sustainable consumption of stationery materials is encouraged through reuse or reuse. - Whenever possible, when printing, reduce the font size and avoid color printing. - Do double-sided printing and reuse sheets for notepads. In the end, they recycle.
5. We absorb the extra cost of an environmental product/service	- Just a part of it. The most part not

C - Internal green marketing orientation

1. Exemplar environmental behavior is acknowledged and rewarded.	- Summer try to refresh the spaces by opening doors or windows. In winter, they encourage the use of comfortable jackets instead of air conditioning. - When the air conditioner is on, doors and windows are kept closed. The temperatures are adjusted to the season (Summer: 21º to 23º; Winter: 18º to 20º). - Monitors are always turned off during pauses and, in long pauses, turn off computers. - Artificial lights are kept off whenever there is natural light. Employees turn off lights, air conditioning and equipment whenever they leave the premises. - When not in use, remove the chargers from the sockets. - Close the tap when not in use and avoid unnecessary flushing of the toilet - They do carsharing and video conferences to avoid traveling by car.
2. Environmental activities by candidates are a bonus in our recruitment process.	- We value people with a curriculum with links to environmental actions
3. We have created internal environmental prize competitions that promote eco-friendly behavior.	- Awarding prizes to the three workshops that present the best environmental results (leisure time and promotion of socializing)
4. We form environmental committees for implementing internal audits of environmental performance.	- Developed the Planeta MCoutinho project: environmental sustainability and social responsibility. - Planeta MCoutinho audits to all mechanics and collision workshops. (2x per year) (will also start auditing administrative services, to see what they do and whether they do it correctly in administrative services in order to improve the company's environmental sustainability issue)
5. We organize presentations for	- Training and awareness actions - Audits

our employees to inform them about our green marketing strategy.	- Concern with the working conditions of all employees: organization and cleanliness to ensure safety. - Awareness raising actions for the adoption of good practices for environmental sustainability (transformation of old habits into new sustainable habits) among its employees.
6. We encourage our employees to use eco-friendly products/services.	- Yes. Promotion of the bottles, the action of the day of the environment (publication of a series of measures); - Training employees on how to use certain computer tools to reduce document printing. - Constant awareness-raising actions to reduce or use consumables or supplies in order to reduce environmental impact.
7. Our employees believe in the environmental values of our organization.	- Over the course of two weeks, employees participated in building a list of good practices for sustainable consumption. The countless participations, now give rise to initiatives such as: sharing good daily practices through briefings with the teams, promoting the discussion around daily care favorable to the environment and training actions for the development of sustainable consumption of resources. - This initiative reinforces the Group's concern regarding environmental issues, the proper use of the resources of Planet Earth and the reduction of its ecological footprint.

5. CONCLUSION

The concept of green image or green corporate image has received little attention in the academic literature however; green corporate image involves the perceptions linked to environmental features, concerns and commitments. There is a growing interest in investment in environmental issues by companies because they want to show their customers that their decision makers take the green issues seriously. This is a way M. Coutinho uses to communicate its concern with environmental issues and get the consolidation of collaborative relationships with stakeholders and the creation of a positive green corporate image.

Green marketing can bring also some problems: sometimes firms environmentally responsible today may be found to be harmful in the future, it is impossible for a firm to be certain they have made the correct environmental decision and it's difficult to establish policies that will address all environmental issues. In order to green marketing to be effective it must be genuine (actual product promises), educate the consumer (showing that green products are the

reflection of the company's own culture), allow the consumer to participate in the process involving the various actions developed.

The tone of the environment is fashionable. More informed, more demanding and more environmentally conscious consumers demand increasing attention to these issues by companies. Including environmental concerns and respect for the natural environment within strategic business planning becomes obligatory for marketers. To ignore is not the solution and stay out of this issue much less.

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THE RANKING OF TURKISH UNIVERSITIES WITH COCOSO AND MARCOS

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Abstract

The ranking of universities according to their academic performance is important for both the reputation of the university and the region and country where the university is located. Additionally, universities can have the opportunity to observe their weaknesses and strengths through these rankings and draw a roadmap to improve their performance. Some organizations evaluate the performance of universities. URAP is one of the organizations assessing the performance of universities according to various criteria. The aim of this study is to rank Turkish universities according to their performances based on the 2019-year report published by URAP assessing the performance of 166 universities according to 5 criteria. For this evaluation, CoCoSo and MARCOS methods, which are newly introduced to literature, are used in this study.

Keywords: *CoCoSo, MARCOS, Ranking of Universities.*

1. INTRODUCTION

Universities are institutions where scientific knowledge is produced, education and training activities are carried out, and social and cultural activities are proceeded. The quality of these activities carried out in universities is extremely significant for the success and performance of universities. The performance and success of universities are effective in the progress, development, and level of development of the region and country in which they operate. Activities of universities, articles published according to the number of academicians, citations they have received, projects that have been accepted, etc. are effective factors in the performance of universities.

There are some organizations that assess the performance of universities in terms of various criteria and rank them according to these performances. Universities can check their situation and performance according to the assessments of these institutions, have an idea about their strengths, weaknesses, and deficiencies, and find the opportunity to draw a road map for themselves. URAP (University Ranking by Academic Performance) is one of the organizations that evaluate universities according to various criteria. The aim of this study is to rank Turkish universities according to their performances based on the 2019 year (2019-2020 Rankings) report published by URAP evaluating the performance of 166 universities according to 5 criteria (Article Scores, Citation Scores, Scientific Document Scores, PhD Scores, and The Number of Lecturer/The Number of Student Scores). In this study, CoCoSo (Combined Compromise Solution) and MARCOS (Measurement of Alternatives and Ranking according to Compromise Solution) methods are used to rank universities. These methods are newly introduced to the literature, and they were preferred in this study due to the limited number of studies on these methods.

2. LITERATURE REVIEW

Since the CoCoSo (Yazdani *et al.*, 2019a) and MARCOS (Stevic *et al.*, 2020) methods have been newly developed, the number of publications using these methods is few, and Table 1 summarizes the studies using these methods

Table 1. - Literature Review

Authors	Problem	Methods
CoCoSo Method		
Yazdani *et al.* (2019b)	Determination of supplier performances for a construction business in Madrid	CoCoSo-G

Barua *et al.* (2019)	Selecting logistics and transportation companies for a supply chain in France	Taguchi and CoCoSo
Zolfani *et al.* (2019)	Sustainable supplier selection	BWM and CoCoSo
Peng *et al.* (2020)	5G industry evaluation	Fuzzy MCDM method based on CoCoSo and CRITIC with score function
Ulutaş *et al.* (2020)	Location selection for logistics center	CoCoSo and Fuzzy SWARA
MARCOS Method		
Stevic *et al.* (2020)	Supplier selection in healthcare industries	MARCOS
Stanković *et al.* (2020)	Road traffic risk analysis	Fuzzy MARCOS
Ulutaş *et al.* (2020)	Stackers selection in a logistics system	CCSD-ITARA-MARCOS
Puska *et al.* (2020)	Project management software evaluation	MARCOS
Stević and Brković (2020)	Evaluation of human resources in a transport company	FUCOM and MARCOS

3. METHODOLOGY

In this study, CoCoSo and MARCOS methods are used to rank universities. In the methodology section, first, the CoCoSo method will be explained, and then the MARCOS method will be elaborated.

3.1. CoCoSo Method

CoCoSo procedure is as follows (Yazdani et al., 2019a).

Initial decision matrix has been formed as in Equation 1.

$$i: alternative; i = 1,2,3, \dots, m$$

$$j: criterion; j = 1,2,3, \dots, n$$

$$x_{ij}: value\ of\ alternative\ i\ for\ criterion\ j$$

$$X: initial\ decision\ matrix$$

$$X = \begin{bmatrix} x_{11} & x_{12} & \cdots & x_{1n} \\ x_{21} & x_{22} & \cdots & x_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ x_{m1} & x_{m2} & \cdots & x_{mn} \end{bmatrix} \quad (1)$$

Normalization has been made for benefit criteria as in Equation 2.

$$r_{ij}: normalized\ value\ of\ alternative\ i\ for\ criterion\ j$$

$$r_{ij} = \frac{x_{ij} - \min_i x_{ij}}{\max_i x_{ij} - \min_i x_{ij}} \quad (2)$$

Normalization has been made for cost criteria as in Equation 3.

$$r_{ij} = \frac{\max_i x_{ij} - x_{ij}}{\max_i x_{ij} - \min_i x_{ij}} \quad (3)$$

The total of the weighted comparability sequence has been calculated by using Equation 4.

$$S_i: total\ weighted\ comparability\ sequence\ for\ alternative\ i$$
$$w_j: weight\ of\ criterion\ j$$
$$S_i = \sum_{j=1}^{n}(w_j r_{ij}) \tag{4}$$

The whole of the power weight of comparability sequences for each alternative has been calculated by using Equation 5.

$$P_i: total\ power\ weight\ of\ comparability\ sequence\ for\ alternative\ i$$
$$P_i = \sum_{j=1}^{n}(r_{ij})^{w_j} \tag{5}$$

The values have been integrated with three aggregation strategy. Aggregation strategies have been shown in Equation 6, 7 and 8 respectively.

$$k_{ia}: aggregation\ strategy\ a\ for\ alterntive\ i$$
$$k_{ia} = \frac{P_i + S_i}{\sum_{i=1}^{m}(P_i + S_i)} \tag{6}$$

$$k_{ib}: aggregation\ strategy\ b\ for\ alterntive\ i$$
$$k_{ib} = \frac{S_i}{\min_i S_i} + \frac{P_i}{\min_i P_i} \tag{7}$$

$$k_{ic}: aggregation\ strategy\ c\ for\ alterntive\ i$$
$$\lambda: balance\ value; 0 \leq \lambda \leq 1$$
$$k_{ic} = \frac{\lambda S_i + (1-\lambda)P_i}{\lambda \max_i S_i + (1-\lambda)\max_i P_i} \tag{8}$$

Balance value is chosen by decision makers. 0.5 is preferable value.

The final ranking of the alternatives has been calculated by using Equation 9.

$$k_i: final\ value\ for\ alternative\ i$$
$$k_i = \sqrt[3]{k_{ia}k_{ib}k_{ic}} + \frac{k_{ia}+k_{ib}+k_{ic}}{3} \tag{9}$$

The highest final value shows the best alternative in the multi criteria decision making problem according to CoCoSo method.

3.2. Marcos Method

MARCOS procedure is as follows (Stević and Brković, 2020).

Initial decision matrix has been formed. This matrix format is same as in Equation 1.

Extended initial decision matrix has been prepared by defining the ideal and anti-ideal solution. Anti-ideal solution values have been found by Equation 10.

$$x_{agj}: anti - ideal\ solution\ value\ for\ criterion\ j$$

$$x_{agj} = \begin{cases} j \in benefit \Rightarrow \min_{j} x_{ij} \\ j \in cost \Rightarrow \max_{j} x_{ij} \end{cases} \qquad (10)$$

Ideal solution values have been found by Equation 11.

$$x_{gj}: ideal\ solution\ value\ for\ criterion\ j$$

$$x_{gj} = \begin{cases} j \in benefit \Rightarrow \max_{j} x_{ij} \\ j \in cost \Rightarrow \min_{j} x_{ij} \end{cases} \qquad (11)$$

Extended initial decision matrix can be seen in Equation 12.

$$EX: extended\ initial\ decision\ matrix$$

$$EX = \begin{bmatrix} x_{ag1} & x_{ag2} & \cdots & x_{agn} \\ x_{11} & x_{12} & \cdots & x_{1n} \\ x_{21} & x_{22} & \cdots & x_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ x_{m1} & x_{m2} & \cdots & x_{mn} \\ x_{g1} & x_{g2} & \cdots & x_{gn} \end{bmatrix} \qquad (12)$$

Extended initial decision matrix has been normalized by using Equation 13.

$$n_{ij}: normalized\ value\ of\ alternative\ i\ for\ criterion\ j$$

$$n_{ij} = \begin{cases} j \in benefit \Rightarrow \dfrac{x_{ij}}{x_{gj}} \\ j \in cost \Rightarrow \dfrac{x_{gj}}{x_{ij}} \end{cases} \qquad (13)$$

The weighted normalized values have been calculated by using Equation 14.

$$v_{ij}: weighted\ normalized\ value\ of\ alternative\ i\ for\ criterion\ j$$

$$v_{ij} = w_j n_{ij} \qquad (14)$$

Sum of the weighted normalized values have been calculated by using Equation 15.

$$S_i: total\ weighted\ normalized\ value\ of\ alternative\ i\ for\ criterion\ j$$

$$S_i = \sum_{j=1}^{n} v_{ij} \qquad (15)$$

Process has been repeated for ideal solution and anti-ideal solution. Sum of the weighted normalized values for ideal solution can be seen in Equation 16. Sum of the weighted normalized values for anti-ideal solution can be seen in Equation 17.

$$S_g: total\ weighted\ normalized\ value\ for\ ideal\ solution$$

$$S_g = \sum_{j=1}^{n} v_{gj} \qquad (16)$$

$$S_{ag}: total\ weighted\ normalized\ value\ for\ anti-ideal\ solution$$

$$S_{ag} = \sum_{j=1}^{n} v_{agj} \qquad (17)$$

Utility degree of an alternative in relation to anti-ideal solution has been found by using Equation 18.

$$K_i^-: utility\ degree\ of\ alternative\ i\ in\ relation\ to\ anti-ideal\ solution$$

$$K_i^- = \frac{S_i}{S_{ag}} \tag{18}$$

Utility degree of an alternative in relation to ideal solution has been found by using Equation 19.

$$K_i^+: utility\ degree\ of\ alternative\ i\ in\ relation\ to\ ideal\ solution$$

$$K_i^+ = \frac{S_i}{S_g} \tag{19}$$

Utility function of an alternative in relation to anti-ideal solution has been found by using Equation 20.

$$f(K_i^-): utility\ function\ of\ alternative\ i\ in\ relation\ to\ anti-ideal\ solution$$

$$f(K_i^-) = \frac{K_i^+}{K_i^+ + K_i^-} \tag{20}$$

Utility function of an alternative in relation to ideal solution has been found by using Equation 21.

$$f(K_i^+): utility\ function\ of\ alternative\ i\ in\ relation\ to\ ideal\ solution$$

$$f(K_i^+) = \frac{K_i^-}{K_i^+ + K_i^-} \tag{21}$$

In the last step, utility function of an alternative has been calculated by using Equation 22.

$$f(K_i): utility\ function\ of\ alternative\ i$$

$$f(K_i) = \frac{K_i^+ + K_i^-}{1 + \frac{1-f(K_i^+)}{f(K_i^+)} + \frac{1-f(K_i^-)}{f(K_i^-)}} \tag{22}$$

According to MARCOS method, the highest utility function shows the best alternative.

4. ANALYSIS

The Decision Matrix showing the Turkish universities, evaluation criteria, and the scores of the universities under these criteria is presented in Table 2. The performance values of Turkish Universities have been collected from 2019-2020 report released by URAP (Available at: https://newtr.urapcenter.org/Rankings/2019-2020).

Table 2. - Initial Decision Matrix

Turkish Universities	Article Scores	Citation Scores	Scientific Document Scores	PhD Scores	The Number of Lecturer/The Number of Student Scores
Hacettepe University	181.16	200.00	182.96	180.47	58.33
Middle East Technical University	193.66	185.57	186.04	173.29	44.19
İstanbul Technical University	194.86	183.10	180.08	161.94	43.70
İstanbul University	161.56	162.54	167.98	174.94	50.15
Koç University	179.11	175.23	170.73	123.53	68.36
Ankara University	155.41	154.42	157.67	190.61	50.33
Boğaziçi University	172.78	175.62	166.74	123.53	44.59
Ege University	151.35	152.70	157.36	155.43	61.36
İhsan Doğramacı Bilkent University	176.45	182.51	171.74	101.11	44.22
Gebze Technical University	160.93	165.07	158.38	132.49	56.05
Gazi University	148.01	143.48	155.80	163.74	47.43
Yıldız Technical University	166.32	147.49	151.00	142.87	42.94
Sabancı University	164.52	167.91	160.26	100.00	57.01
İzmir Institute of Technology University	154.34	157.96	144.59	112.61	54.81
Atatürk University	133.03	138.96	135.04	156.50	59.87
Bezm-i Alem Vakıf University	149.99	163.08	162.61	60.36	85.47
Erciyes University	132.23	157.85	147.15	125.91	46.13
Marmara University	129.75	132.24	137.80	153.42	42.33
Dokuz Eylül University	133.39	139.64	140.19	126.39	50.55
Selçuk University	134.01	133.75	140.26	131.15	45.90
Çukurova University	137.94	129.14	138.37	131.82	45.83
Fırat University	142.17	137.56	133.45	111.35	58.17
Karadeniz Technical University	134.24	140.79	135.37	119.47	48.55
Eskişehir Osmangazi University	133.79	130.88	135.94	111.19	57.66
Akdeniz University	129.69	128.80	136.46	111.89	55.02
Abdullah Gül University	132.27	149.53	120.47	74.07	75.60
Bursa Uludağ University	125.09	128.49	130.92	119.84	41.27
Ondokuz Mayıs University	120.50	124.28	134.05	115.11	46.81
İnönü University	123.64	114.31	127.16	125.73	49.10
Anadolu University	122.91	119.85	115.51	132.79	47.10
Süleyman Demirel University	114.57	123.29	126.86	123.35	45.87
Gaziantep University	124.25	125.01	131.33	103.67	41.68
İstanbul Medeniyet University	124.21	134.18	120.79	72.97	73.38
Sakarya University	112.47	121.98	128.35	119.52	42.94
Çankaya University	159.15	162.98	127.49	32.51	35.36
Kocaeli University	122.74	120.38	128.70	101.51	42.86
Van Yüzüncü Yıl University	115.36	115.26	116.90	94.52	66.13
İzmir Katip Çelebi University	114.40	117.83	138.96	75.15	58.73
Ankara Yıldırım Beyazıt University	105.34	99.96	114.60	116.54	62.89
Başkent University	99.46	105.40	136.51	75.91	76.28
Atılım University	149.13	126.07	118.80	58.67	37.87

University					
Dicle University	91.92	122.90	127.34	94.64	52.46
Manisa Celal Bayar University	103.56	130.54	117.01	84.29	48.86
Pamukkale University	102.34	122.54	118.23	89.28	50.00
TOBB University of Economics and Technology	112.67	114.67	126.99	71.83	52.98
Acıbadem Mehmet Ali Aydınlar University	103.98	104.13	111.47	59.37	99.00
Mersin University	112.65	108.80	110.94	93.83	48.44
Yeditepe University	100.19	111.85	113.77	116.81	30.47
Özyeğin University	123.05	131.47	113.29	62.42	38.65
Çanakkale Onsekiz Mart University	93.01	114.41	112.04	90.38	54.05
Düzce University	105.15	110.23	109.90	81.06	52.14
Tokat Gaziosmanpaşa University	103.93	116.31	112.19	76.14	49.32
Muğla Sıtkı Koçman University	105.28	101.45	111.77	86.15	51.82
Bolu İzzet Baysal University	103.47	112.49	112.30	73.38	54.27
Sivas Cumhuriyet University	110.68	111.77	111.78	67.05	48.72
Hitit University	109.13	104.72	105.94	64.57	63.84
Recep Tayip Erdoğan University	98.54	112.51	110.59	58.90	62.68
Kırıkkale University	100.26	100.00	107.45	87.27	46.40
Bursa Technical University	137.62	104.08	87.43	54.16	57.52
Necmettin Erbakan University	90.57	94.42	106.68	94.45	52.89
Kahramanmaraş Sütçü İmam University	86.51	99.86	100.91	97.40	52.14
Tekirdağ Namık Kemal University	102.33	109.49	103.51	60.22	59.43
Hatay Mustafa Kemal University	84.97	113.22	112.43	59.86	56.77
Niğde Ömer Halisdemir University	97.21	107.89	99.81	72.58	49.57
İstanbul Medipol University	96.97	98.19	109.34	73.60	48.34
Zonguldak Bülent Ecevit University	100.40	112.95	110.59	52.31	48.90
Balıkesir University	94.06	106.89	105.05	71.94	47.21
Aydın Adnan Menderes University	97.61	91.92	103.86	79.95	50.55
Harran University	94.42	97.28	104.62	68.81	54.95
Munzur University	132.62	106.59	87.94	11.90	80.88
Erzurum Technical University	103.41	112.60	86.37	53.52	60.34
Karabük University	101.27	105.20	88.07	86.43	29.69
Sinop University	97.95	137.99	95.03	14.79	63.76
Trakya University	80.39	87.77	104.36	86.44	47.36
Kütahya Dumlupınar University	84.84	123.13	105.12	62.34	29.61
Çankırı Karatekin University	102.70	102.43	88.51	40.95	66.75
Aksaray University	105.22	109.67	93.81	41.12	51.51
Afyon Kocatepe University	74.47	106.48	109.57	67.37	43.31
Adana Alparslan Türkeş Science and Technology University	115.33	96.65	82.14	26.55	80.08
Yozgat Bozok University	106.48	113.19	103.51	12.57	62.79
Galatasaray University	53.28	96.57	79.98	111.07	56.82

Adıyaman University	98.35	102.65	105.50	30.38	60.76
Yalova University	93.32	98.22	72.47	75.47	54.02
Ordu University	102.12	82.04	98.98	49.49	58.08
Bahçeşehir University	82.52	103.31	101.80	72.19	26.46
Bingöl University	99.09	101.54	88.82	35.86	57.75
Kastamonu University	97.40	86.82	77.08	81.91	39.33
Doğuş University	86.44	123.23	92.35	35.84	37.29
İskenderun Technical University	109.02	87.57	66.77	56.94	49.51
Nevşehir Hacı Bektaşi Veli University	75.58	93.20	80.98	74.55	42.78
Kadir Has University	86.18	73.63	91.48	73.87	40.89
Yaşar University	83.44	100.68	86.74	64.20	30.04
İzmir University of Economics	102.93	93.80	97.62	28.54	41.80
Demiroğlu Bilim University	64.20	93.85	102.77	9.66	91.99
Kırşehir Ahi Evran University	99.71	85.32	91.27	19.85	65.96
Bartın University	100.16	92.70	78.86	38.10	47.81
Kafkas University	70.54	84.86	97.19	48.47	55.66
Giresun University	92.28	88.84	84.52	33.23	56.83
Erzincan Binali Yıldırım University	85.37	89.79	87.29	33.62	58.28
Osmaniye Korkut Ata University	93.19	92.40	80.59	39.46	46.75
İstanbul Arel University	82.16	84.29	68.04	73.75	43.10
Işık University	86.68	92.25	94.35	42.72	30.36
Gümüşhane University	81.78	99.22	83.43	25.83	51.33
Karamanoğlu Mehmetbey University	90.45	86.43	75.89	18.60	59.26
Altınbaş University	80.11	70.22	72.17	59.91	42.58
İstanbul Bilgi University	91.63	84.73	86.92	48.56	12.31
Türk Hava Kurumu University	79.91	71.55	60.14	72.31	38.72
Bilecik Şeyh Edebali University	75.98	85.39	73.44	32.46	54.19
Bayburt University	89.73	96.37	76.81	10.19	46.91
Batman University	75.48	95.14	75.66	17.73	46.58
Bitlis Eren University	68.47	78.76	81.52	10.68	69.64
Amasya University	83.78	72.94	77.55	6.51	66.80
Piri Reis University	87.20	79.41	59.91	35.69	43.46
Burdur Mehmet Akif Ersoy University	68.68	71.80	76.65	40.99	46.29
Hasan Kalyoncu University	75.33	57.60	60.36	73.79	36.97
Hakkari University	83.61	70.12	54.47	0.20	92.57
Siirt University	86.72	82.07	77.35	4.49	46.84
Uşak University	77.81	67.98	66.22	43.91	41.08
Iğdır University	86.16	61.04	51.27	15.47	74.84
KTO Karatay University	51.91	128.64	53.84	14.30	36.84
Antalya Bilim University	84.80	86.18	75.08	0.20	39.10
Ted University	92.16	66.48	67.45	0.20	53.96
İstanbul Okan University	42.27	56.63	56.50	72.20	49.45
Artvin Çoruh University	63.55	66.39	65.32	15.59	65.64
İstanbul Commerce University	39.71	46.87	74.41	91.68	23.60
Ağrı İbrahim Çeçen University	70.17	95.81	67.69	0.91	39.12
İstanbul Aydın University	46.84	62.68	58.23	62.43	35.63

Konya Food and Agricultural University	77.05	58.29	33.51	0.20	95.88
Kilis 7 Aralık University	58.44	86.98	69.07	0.69	45.50
Mimar Sinan Fine Arts University	32.20	32.04	28.95	110.15	57.16
Maltepe University	27.88	45.46	48.98	84.53	52.84
Üsküdar University	65.19	71.93	67.55	20.99	31.00
İstanbul Kültür University	64.74	60.27	60.55	48.81	20.13
İstanbul Şehir University	37.74	89.50	61.15	19.13	42.30
Muş Alparslan University	75.35	59.85	50.70	1.18	62.27
Çağ University	35.45	144.92	49.84	11.11	0.10
Ardahan University	62.38	35.12	42.82	36.78	61.55
Ufuk University	37.25	55.79	73.59	5.33	65.72
University of Health Sciences	20.88	12.13	18.45	79.08	100.00
Biruni University	39.30	48.61	38.25	24.46	72.87
MEF University	63.83	43.57	64.59	0.20	43.96
Kırklareli University	57.59	49.67	51.09	6.55	42.40
İbn Haldun University	18.52	6.40	8.84	89.71	87.45
Beykent University	43.47	45.27	45.39	44.81	25.82
İstinye University	55.69	25.32	26.92	0.20	93.90
İstanbul Gelişim University	43.99	48.04	40.66	34.01	35.19
Higher Specialization University	37.07	48.27	28.54	0.20	87.14
Şırnak University	40.27	40.51	29.83	10.94	79.58
SANKO University	33.33	30.26	47.32	2.43	83.08
Social Sciences University of Ankara	19.09	8.10	12.84	61.66	94.45
İstanbul Yeni Yüzyıl University	27.19	39.59	43.46	17.16	60.17
İstanbul Sabahattin Zaim University	24.91	33.33	24.74	77.57	23.51
Fatih Sultan Mehmet Vakıf University	20.69	35.33	21.05	62.74	36.49
Toros University	41.80	48.05	35.57	6.00	44.19
Alanya Alaaddin Keykubat University	54.95	24.93	24.74	11.24	59.66
Alanya Hamdullah Emin University	54.95	24.24	24.74	11.24	59.66
Mardin Artuklu University	29.65	29.18	28.12	26.53	59.32
İstanbul Gedik University	16.14	18.29	23.45	49.82	62.08
Haliç University	9.50	32.68	42.48	68.43	14.51
Bandırma Onyedi Eylül University	46.52	25.04	21.45	18.79	41.48
Avrasya University	26.06	32.31	15.61	14.58	41.71
İstanbul 29 Mayıs University	0.80	1.12	9.25	58.65	55.25
Turkish-German University	8.83	35.37	9.29	17.17	53.96
Nuh Naci Yazgan University	27.92	34.55	33.32	0.20	27.69
Nişantaşı University	15.16	25.43	19.69	3.28	47.00
İstanbul Esenyurt University	15.52	19.74	14.21	0.20	48.74

The CoCoSo method was applied to the Decision Matrix shown in Table 2. The results of the CoCoSo method and the rankings of the universities according to these results are shown in Table 3.

Table 3. - CoCoSo Results

Turkish Universities	k_i	Rank
Hacettepe University	3.7224	1
Middle East Technical University	3.6170	2
İstanbul Technical University	3.5552	3
İstanbul University	3.4337	5
Koç University	3.4850	4
Ankara University	3.4055	6
Boğaziçi University	3.3062	9
Ege University	3.3461	7
İhsan Doğramacı Bilkent University	3.2796	10
Gebze Technical University	3.3111	8
Gazi University	3.2419	11
Yıldız Technical University	3.2002	14
Sabancı University	3.2381	12
İzmir Institute of Technology University	3.1516	16
Atatürk University	3.1663	15
Bezm-i Alem Vakıf University	3.2249	13
Erciyes University	3.0795	17
Marmara University	3.0252	20
Dokuz Eylül University	3.0340	18
Selçuk University	3.0040	21
Çukurova University	2.9974	22
Fırat University	3.0311	19
Karadeniz Technical University	2.9889	24
Eskişehir Osmangazi University	2.9894	23
Akdeniz University	2.9578	26
Abdullah Gül University	2.9745	25
Bursa Uludağ University	2.8622	30
Ondokuz Mayıs University	2.8656	29
İnönü University	2.8697	28
Anadolu University	2.8543	31
Süleyman Demirel University	2.8397	32
Gaziantep University	2.8005	36
İstanbul Medeniyet University	2.8865	27
Sakarya University	2.8031	34
Çankaya University	2.7200	41
Kocaeli University	2.7729	40
Van Yüzüncü Yıl University	2.8152	33
İzmir Katip Çelebi University	2.7854	38
Ankara Yıldırım Beyazıt University	2.7792	39
Başkent University	2.7998	37
Atılım University	2.6612	46

Dicle University	2.7154	42
Manisa Celal Bayar University	2.6839	43
Pamukkale University	2.6834	44
TOBB University of Economics and Technology	2.6821	45
Acıbadem Mehmet Ali Aydınlar University	2.8018	35
Mersin University	2.6537	47
Yeditepe University	2.5910	55
Özyeğin University	2.5955	54
Çanakkale Onsekiz Mart University	2.6355	48
Düzce University	2.6111	49
Tokat Gaziosmanpaşa University	2.5997	53
Muğla Sıtkı Koçman University	2.6055	52
Bolu İzzet Baysal University	2.6083	51
Sivas Cumhuriyet University	2.5707	57
Hitit University	2.6086	50
Recep Tayip Erdoğan University	2.5881	56
Kırıkkale University	2.5392	62
Bursa Technical University	2.5549	58
Necmettin Erbakan University	2.5520	59
Kahramanmaraş Sütçü İmam University	2.5407	61
Tekirdağ Namık Kemal University	2.5508	60
Hatay Mustafa Kemal University	2.5193	63
Niğde Ömer Halisdemir University	2.4976	65
İstanbul Medipol University	2.4955	66
Zonguldak Bülent Ecevit University	2.4861	69
Balıkesir University	2.4856	70
Aydın Adnan Menderes University	2.4939	67
Harran University	2.4927	68
Munzur University	2.5157	64
Erzurum Technical University	2.4845	71
Karabük University	2.3776	83
Sinop University	2.4396	74
Trakya University	2.4274	75
Kütahya Dumlupınar University	2.3575	86
Çankırı Karatekin University	2.4508	73
Aksaray University	2.4071	78
Afyon Kocatepe University	2.3946	81
Adana Alparslan Türkeş Science and Technology University	2.4731	72
Yozgat Bozok University	2.4031	79
Galatasaray University	2.4156	77
Adıyaman University	2.4197	76
Yalova University	2.3932	82
Ordu University	2.3996	80
Bahçeşehir University	2.2887	90
Bingöl University	2.3625	84
Kastamonu University	2.3153	87
Doğuş University	2.2714	93
İskenderun Technical University	2.2956	89
Nevşehir Hacı Bektaşi Veli University	2.2754	92
Kadir Has University	2.2706	94

Yaşar University	2.2265	100
İzmir University of Economics	2.2515	97
Demiroğlu Bilim University	2.3586	85
Kırşehir Ahi Evran University	2.3047	88
Bartın University	2.2480	98
Kafkas University	2.2793	91
Giresun University	2.2681	96
Erzincan Binali Yıldırım University	2.2690	95
Osmaniye Korkut Ata University	2.2292	99
İstanbul Arel University	2.2200	101
Işık University	2.1621	104
Gümüşhane University	2.1979	102
Karamanoğlu Mehmetbey University	2.1751	103
Altınbaş University	2.1309	106
İstanbul Bilgi University	2.0162	117
Türk Hava Kurumu University	2.1072	108
Bilecik Şeyh Edebali University	2.1427	105
Bayburt University	2.0870	110
Batman University	2.0688	111
Bitlis Eren University	2.1202	107
Amasya University	2.0939	109
Piri Reis University	2.0542	114
Burdur Mehmet Akif Ersoy University	2.0687	112
Hasan Kalyoncu University	2.0390	115
Hakkari University	1.9922	120
Siirt University	1.9925	119
Uşak University	2.0253	116
Iğdır University	2.0627	113
KTO Karatay University	1.9289	122
Antalya Bilim University	1.7985	139
Ted University	1.8241	136
İstanbul Okan University	1.9792	121
Artvin Çoruh University	2.0037	118
İstanbul Commerce University	1.8975	126
Ağrı İbrahim Çeçen University	1.8460	130
İstanbul Aydın University	1.9002	125
Konya Food and Agricultural University	1.8623	129
Kilis 7 Aralık University	1.8164	137
Mimar Sinan Fine Arts University	1.9086	124
Maltepe University	1.9168	123
Üsküdar University	1.8409	133
İstanbul Kültür University	1.8079	138
İstanbul Şehir University	1.8409	132
Muş Alparslan University	1.8323	134
Çağ University	1.4597	159
Ardahan University	1.8652	128
Ufuk University	1.8417	131
University of Health Sciences	1.8705	127
Biruni University	1.8310	135
MEF University	1.5748	154

Kırklareli University	1.6710	143
İbn Haldun University	1.5996	149
Beykent University	1.6446	146
İstinye University	1.6233	147
İstanbul Gelişim University	1.6589	145
Higher Specialization University	1.6103	148
Şırnak University	1.7420	140
SANKO University	1.7069	141
Social Sciences University of Ankara	1.7029	142
İstanbul Yeni Yüzyıl University	1.6610	144
İstanbul Sabahattin Zaim University	1.5328	157
Fatih Sultan Mehmet Vakıf University	1.5395	156
Toros University	1.5501	155
Alanya Alaaddin Keykubat University	1.5892	151
Alanya Hamdullah Emin University	1.5863	152
Mardin Artuklu University	1.5991	150
İstanbul Gedik University	1.5766	153
Haliç University	1.4362	160
Bandırma Onyedi Eylül University	1.4647	158
Avrasya University	1.3583	161
İstanbul 29 Mayıs University	1.0104	166
Turkish-German University	1.2962	162
Nuh Naci Yazgan University	1.1710	164
Nişantaşı University	1.2654	163
İstanbul Esenyurt University	1.0858	165

The MARCOS method was applied to the Decision Matrix shown in Table 2. The results of the MARCOS method and the rankings of the universities according to these results are shown in Table 4.

Table 4. - MARCOS Results

Turkish Universities	$f(K_i)$	Rank
Hacettepe University	0.8885	1
Middle East Technical University	0.8544	2
İstanbul Technical University	0.8339	3
İstanbul University	0.7927	5
Koç University	0.8088	4
Ankara University	0.7840	6
Boğaziçi University	0.7509	9
Ege University	0.7629	7
İhsan Doğramacı Bilkent University	0.7427	10
Gebze Technical University	0.7515	8
Gazi University	0.7295	11
Yıldız Technical University	0.7162	14
Sabancı University	0.7279	12
İzmir Institute of Technology University	0.6995	16
Atatürk University	0.7045	15
Bezm-i Alem Vakıf University	0.7260	13

Erciyes University	0.6760	17
Marmara University	0.6591	20
Dokuz Eylül University	0.6609	18
Selçuk University	0.6514	21
Çukurova University	0.6494	22
Fırat University	0.6600	19
Karadeniz Technical University	0.6465	23
Eskişehir Osmangazi University	0.6462	24
Akdeniz University	0.6360	26
Abdullah Gül University	0.6436	25
Bursa Uludağ University	0.6058	30
Ondokuz Mayıs University	0.6064	29
İnönü University	0.6080	28
Anadolu University	0.6036	31
Süleyman Demirel University	0.5983	32
Gaziantep University	0.5858	37
İstanbul Medeniyet University	0.6148	27
Sakarya University	0.5866	35
Çankaya University	0.5681	41
Kocaeli University	0.5769	40
Van Yüzüncü Yıl University	0.5907	34
İzmir Katip Çelebi University	0.5809	38
Ankara Yıldırım Beyazıt University	0.5793	39
Başkent University	0.5864	36
Atılım University	0.5441	46
Dicle University	0.5583	42
Manisa Celal Bayar University	0.5487	43
Pamukkale University	0.5483	44
TOBB University of Economics and Technology	0.5481	45
Acıbadem Mehmet Ali Aydınlar University	0.5909	33
Mersin University	0.5389	47
Yeditepe University	0.5204	55
Özyeğin University	0.5223	53
Çanakkale Onsekiz Mart University	0.5332	48
Düzce University	0.5256	50
Tokat Gaziosmanpaşa University	0.5220	54
Muğla Sıtkı Koçman University	0.5236	52
Bolu İzzet Baysal University	0.5249	51
Sivas Cumhuriyet University	0.5133	57
Hitit University	0.5260	49
Recep Tayip Erdoğan University	0.5196	56
Kırıkkale University	0.5027	63
Bursa Technical University	0.5111	59
Necmettin Erbakan University	0.5069	61
Kahramanmaraş Sütçü İmam University	0.5035	62
Tekirdağ Namık Kemal University	0.5078	60
Hatay Mustafa Kemal University	0.4976	64
Niğde Ömer Halisdemir University	0.4902	66
İstanbul Medipol University	0.4891	67
Zonguldak Bülent Ecevit University	0.4875	71

Balıkesir University	0.4862	72
Aydın Adnan Menderes University	0.4887	69
Harran University	0.4887	68
Munzur University	0.5114	58
Erzurum Technical University	0.4884	70
Karabük University	0.4538	84
Sinop University	0.4837	73
Trakya University	0.4678	77
Kütahya Dumlupınar University	0.4478	86
Çankırı Karatekin University	0.4794	74
Aksaray University	0.4646	79
Afyon Kocatepe University	0.4580	83
Adana Alparslan Türkeş Science and Technology University	0.4913	65
Yozgat Bozok University	0.4725	75
Galatasaray University	0.4674	78
Adıyaman University	0.4703	76
Yalova University	0.4591	82
Ordu University	0.4613	81
Bahçeşehir University	0.4261	90
Bingöl University	0.4518	85
Kastamonu University	0.4342	88
Doğuş University	0.4234	92
İskenderun Technical University	0.4300	89
Nevşehir Hacı Bektaşi Veli University	0.4216	95
Kadir Has University	0.4197	96
Yaşar University	0.4070	100
İzmir University of Economics	0.4179	97
Demiroğlu Bilim University	0.4643	80
Kırşehir Ahi Evran University	0.4385	87
Bartın University	0.4158	98
Kafkas University	0.4239	91
Giresun University	0.4229	94
Erzincan Binali Yıldırım University	0.4230	93
Osmaniye Korkut Ata University	0.4095	99
İstanbul Arel University	0.4053	101
Işık University	0.3881	105
Gümüşhane University	0.4026	102
Karamanoğlu Mehmetbey University	0.3988	104
Altınbaş University	0.3780	109
İstanbul Bilgi University	0.3477	120
Türk Hava Kurumu University	0.3715	111
Bilecik Şeyh Edebali University	0.3847	107
Bayburt University	0.3755	110
Batman University	0.3657	113
Bitlis Eren University	0.3871	106
Amasya University	0.3827	108
Piri Reis University	0.3576	116
Burdur Mehmet Akif Ersoy University	0.3602	115
Hasan Kalyoncu University	0.3511	118
Hakkari University	0.3998	103

Siirt University	0.3526	117
Uşak University	0.3472	121
Iğdır University	0.3705	112
KTO Karatay University	0.3284	126
Antalya Bilim University	0.3323	125
Ted University	0.3417	122
İstanbul Okan University	0.3354	124
Artvin Çoruh University	0.3494	119
İstanbul Commerce University	0.3110	132
Ağrı İbrahim Çeçen University	0.3198	129
İstanbul Aydın University	0.3101	134
Konya Food and Agricultural University	0.3653	114
Kilis 7 Aralık University	0.3129	131
Mimar Sinan Fine Arts University	0.3261	127
Maltepe University	0.3211	128
Üsküdar University	0.2954	140
İstanbul Kültür University	0.2832	145
İstanbul Şehir University	0.2986	139
Muş Alparslan University	0.3174	130
Çağ University	0.2467	149
Ardahan University	0.3068	135
Ufuk University	0.3101	133
University of Health Sciences	0.3363	123
Biruni University	0.3014	137
MEF University	0.2666	146
Kırklareli University	0.2553	147
İbn Haldun University	0.3039	136
Beykent University	0.2373	153
İstinye University	0.2994	138
İstanbul Gelişim University	0.2429	150
Higher Specialization University	0.2914	142
Şırnak University	0.2845	143
SANKO University	0.2840	144
Social Sciences University of Ankara	0.2951	141
İstanbul Yeni Yüzyıl University	0.2525	148
İstanbul Sabahattin Zaim University	0.2139	158
Fatih Sultan Mehmet Vakıf University	0.2180	157
Toros University	0.2238	156
Alanya Alaaddin Keykubat University	0.2390	151
Alanya Hamdullah Emin University	0.2383	152
Mardin Artuklu University	0.2363	155
İstanbul Gedik University	0.2365	154
Haliç University	0.1889	160
Bandırma Onyedi Eylül University	0.1985	159
Avrasya University	0.1745	163
İstanbul 29 Mayıs University	0.1839	161
Turkish-German University	0.1803	162
Nuh Naci Yazgan University	0.1546	165
Nişantaşı University	0.1596	164
İstanbul Esenyurt University	0.1486	166

5. CONCLUSION

It has been observed that there is a great similarity in both the ranking results in the report of the URAP and the ranking results made with the methods used in the study. According to the results of the proposed methods, Hacettepe University, Middle East Technical University, and Istanbul Technical University took the first three places. It is thought that this study will contribute to the literature since CoCoSo and MARCOS methods have been used in a few studies in the literature. In addition, this study is expected to provide informational benefits to university administrations, lecturers, and students on the basis of seeing the performance of universities.

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THE RELATION BETWEEN INFORMATION ASYMMETRY, DISCLOSURE POLICY AND CORPORATE TAX PLANNING

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Abstract

The call for greater transparency from companies it's seen as a way to help reduce tax avoidance. Although some studies have linked tax planning to various factors, few studies have examined the relation between information asymmetry, disclosure policy and tax planning. Managers visibly face conflicts between financial disclosure quality and tax planning. Academic research points financial analysts as a way to reduce the information asymmetry and reduce corporate tax avoidance. The main purpose of this paper is to discuss the relation between information asymmetry, disclosure policy and corporate tax planning, by revisiting the main empirical literature. Firstly, we discuss concept of information asymmetry and its measures. After, we analyse the concept of tax planning. Finally, we examine the relation between information asymmetry, disclosure policy and tax planning. Academic research point financial analysts as a way to reduce the information asymmetry between firms and investors, and as a consequence, they reduce corporate tax avoidance. Some authors argue that if shareholders want to monitor firms' tax related decision, disclosure policies and tax regulatory bodies should consider requiring increased tax related disclosures by firms. However, other authors argue that with increased tax related disclosure, managers are discouraged from pursuing "legitimate" tax planning activities. The added value of this work relies on the analysis of empirical literature results about information asymmetry, disclosure policy and tax planning, providing a more extensive overview of this relation. This study provides insights that tax authorities and politicians can use to better focus their strategies and actions in order to increase compliance and reduce tax evasion.

Keywords: *Information Asymmetry, Disclosure Policy, Corporate Tax Planning.*

1. THE CONCEPT OF INFORMATION ASYMMETRY

The information asymmetry is the extent to which the amount of information regarding the company varies from one group of investors to another and, thus, provides the differentiation between the informed and uninformed investors. Otherwise, the information asymmetry between administration and new shareholders can affect the investment decisions of the company because of the sub or under evaluation of the shares in the market. Information differences across investors (or groups of investors) have been a longstanding concern to securities regulators (Lambert *et al.,* 2007). To Bergh *et al.* (2019) the information asymmetry concept underlies some of the management field's most important theories and topics. To the authors, limited information may be one of the most common problems surrounding human and organizational interactions of any kind. According to Cheynel and Levine (2020) voluntary disclosures lead to higher *ex ante* information asymmetry.

The asymmetric information arises when, in the context of market transactions, the two sides that deal with the subject or content of information, in terms of quantity and quality, are not equal (Watts and Zimmerman, 1986). According to Ranaldo (2002) the information asymmetry refers to information not yet embodied in the fundamental asset value. To Brown and Hillegeist (2007: 444) information asymmetry in the stock market occurs when "*one or more investors possess private information about the firm while other investors are uninformed (i.e. have access only to public information)*". As stated previously, the separation of ownership and control in publicly listed companies gives rise to information asymmetries between managers and investors because managers have superior information on the firm's current and future performance than outside investors (Jensen and Meckling, 1976; Myers and Majluf, 1984). The literature recognizes that firms might find it advantageous to give additional pieces of information to outsiders, through the annual report or other communication channels. The information asymmetry between firms and potential investors, due to a low level of disclosure, increases the cost of capital by introducing the adverse selection between buyers and sellers of the firm's shares (Petersen and Plenborg, 2006).

According to Welker (1995) considerable resources are devoted to establish and enforce regulations that improve public perceptions of corporate disclosure practices. Despite these regulatory efforts, firms still have considerable discretion in determining the timeless, scope, content, and form of disclosure provided to equity market participants, amongst others. According to Welker (1995: 802) "*this diversity in disclosure practices produces variation in the level of information asymmetry characterizing trade in equity market*". Welker (1995) also

speaks about one persistent component of the adverse selection problem that is the possibility that material firm-specific information exists and has not been publicly disclosed by the firm. According to the author this "*withheld*" information may be privately available to select traders who invest in costly information acquisition, creating an adverse selection problem when uncertainty about the occurrence of information events exists and firms follow a policy of providing incomplete disclosures with respect to such events.

Past literature has pointed out the adverse effects that information asymmetries have on the functioning of markets (Akerlof, 1970). Information asymmetry is thought to promote reluctance to trade and increase the cost of capital as investors "*price protect*" against potential losses from trading with better informed market participants (Bhattacharya and Spiegel, 1991). The study of market microstructures formalized this notion of price protection and suggested that observable measures of market liquidity can be used to identify the perceived level of information asymmetry facing (uninformed) participants in equity markets (Lev, 1988).

To Kanagaretnam *et al*. (2007) investors possess varying degrees of information about the companies in which they invest and this may lead to the existence of informed traders, which transact with the advantage of superior information. Kim and Verrecchia (1994) suggest that earnings releases will reduce information asymmetry as they disseminate information to all market participants. However, the same authors also recognized that information asymmetry may remain at an elevated level following the earnings release because some traders are better able to process the information than others.

Analytically, Barry and Brown (1985), Diamond (1985), Diamond and Verrecchia (1991) and Kim and Verrecchia (1994) argue that more information generally reduces information risk on prices. Likewise, voluntary disclosure serves to reduce information asymmetry among traders. Empirically, Leuz and Verrecchia (2000) and Welker (1995), among others, investigate links between voluntary disclosure and stock liquidity. They found that firms with better quality disclosure have lower bid-ask spreads. In addition, Botosan and Plumlee (2002) test the capital market effect of voluntary disclosure on the cost of capital, and they found that the cost of capital decreases with more disclosure. Trabelsi *et al*. (2004) and Trabelsi *et al*. (2008) study the incentives of internet financial reporting, and found that internet disclosure helps to reduce analysts' forecasting error.

Most of the above evidences are consistent with the idea that public voluntary disclosure serves to reduce information asymmetry. Furthermore, the previous disclosure research also demonstrated that the corporate governance quality has a significant impact on both the quantity

and quality of these corporate information disclosures (*e.g.* Ho and Wong, 2001; Chau and Gray, 2002; Eng and Mak, 2003; Kanagaretnam *et al.,* 2007).

2. HOW TO MEASURE INFORMATION ASYMMETRY

The literature indicates that bid-ask spread is commonly used as a proxy to measure information asymmetry. "*Bid-ask spread is the difference between bid price a dealer is willing to pay for a security and the higher ask price at which the dealer is willing to sell the security*" (Almutari, *et al.,* 2009: 602).

In this sense, the bid-ask spread is a measure of the liquidity degree of firms' securities which was proposed by Demsetz (1968). The bid-ask spread addresses the adverse selection problem that arises from transacting in firm shares in the presence of asymmetrically informed investors. Less information asymmetry implies less adverse selection, which implies in turn a smaller bid-ask spread (Leuz and Verrecchia, 2000). Welker (1995: 803) suggests the bid-ask spread as a measure of market liquidity, because it provides a direct measure of the price protection that uninformed market participants demand as compensation for the perceived information risk associated with trading in equity markets. According to the author, "*if corporate disclosure policy is indeed effective in mitigating adverse selection, then the empirical prediction is that the bid-ask spread, which decreases in a liquid market, will be negatively related to disclosure policy*". Also to Stoll (2000) an important dimension of stock liquidity is the bid–ask spread. Attig *et al.* (2006), studying the effects of large shareholding on information asymmetry and stock liquidity, computed a measure of stock liquidity and information asymmetry. According to the authors, liquidity is maximal when traders can transact without a time delay or price concession. They use as a measure of stock liquidity the average of daily closing bid–ask spreads.

Leuz and Verrecchia (2000: 91) examine the relation between disclosure, information asymmetry and the cost of capital. According to the authors "*a firm's commitment to greater disclosure should lower cost of capital that arise from information asymmetries*".

These authors suggest the bid-ask spread and the turnover ratio as two complementary for information asymmetry. The trading volume is an alternative proxy for adverse selection but, according to the authors, less explicit. Trading volume is a measure of liquidity and captures the willingness of some investors who hold firm shares to sell and the willingness of others to buy. This willingness to transact in firm shares should be inversely related to the existence of information asymmetries. Despite this, the authors recognize that the trading

volume can be influenced by a host of other factors unrelated to information. These factors include portfolio rebalancing, liquidity shocks, changes in risk preferences, among others. There is, however, some empirical evidence supporting the authors' choice of trading volume as an inverse proxy for information asymmetry. Easley *et al.* (1996), for example, show that the probability of information-based trading is decreasing in trading volume.

More recently, Petersen and Plenborg (2006) find that the turnover ratio increases with the level of disclosure and that the bid-ask spread decreases with the level of disclosure. To the authors, both the bid-ask spread and turnover ratio seem to be appropriate measures for information asymmetry.

According to Wu (2019) studies have used the number of analysts as a proxy for information asymmetry because research analysts are shown to be an important information source for outsiders. Analysts analyze, interpret, and disseminate information to capital market participants, and thus help reduce the informational advantage of the insiders.

Share price volatility has been used by prior studies as a proxy for information asymmetry (*e.g.* Lang and Lundholm, 1993). According to Leuz and Verrecchia (2000: 99) "*to the extent that smooth transitions in share prices suggest the absence of information asymmetries between the firm and shareholders, or among investors, low levels of volatility suggest fewer information asymmetries*". However, volatility is also influenced by many factors unrelated to information asymmetry. Moreover, Bushee and Noe (2000) demonstrate that the effect of disclosure on volatility is complex and may depend on the type of investors attracted to the firm. In this sense, Leuz and Verrecchia (2000) assume that, as a measure of information asymmetry, volatility is likely to be least reliable. Some authors use insider trading profits as a proxy for information asymmetry. According to Frankel and Li (2004: 232) "*insiders' profit, when they trade on value-relevant information before public disclosure leads to its full incorporation into stock prices*". Thus, insider trading profits are related to the degree of information asymmetry between managers and outside investors. Intuitively, insider trading profit should be zero if market participants have the same information as managers. Kyle (1985) demonstrates that insider profits increase in insiders' information advantage. In his model, only the insider knows the liquidation value of the risky asset. Thus, the insider's information advantage can be defined as the variance of this liquidation value. In a model that incorporates financial disclosure into Kyle's (1985) setting, Baiman and Verrecchia (1996) show that insider profits decrease as public information becomes more precise. Their model explicitly links disclosure incentives, information asymmetry and insider trading profits.

However, Frankel and Li (2004) argue that Kyle's model does not fully capture market characteristics that limit insider profits. They give as an example, the fact that uninformed traders aware of information asymmetry may limit the losses sustained at the hands of insiders. According to Admati and Pfleiderer (1988) uninformed traders are likely to alter their trading behaviour, or in extreme, as stated by Merton (1987), leave the market.

Uninformed traders can also respond to information asymmetry by gathering information either themselves or via intermediaries. For example Barth *et al*. (2001) suggest that high information asymmetry makes private information acquisition more profitable. Although, Grossman and Stiglitz (1980) and Verrecchia (1982) state that the incentive to gather information reduce the profits of information gathering so, in equilibrium, the degree of information asymmetry and the amount of information gathering are such that information gatherers earn only a normal rate of return on their activities. Holden and Subrahmanyam (1992) find that competition among insiders also reduces the profitability of their trades.

Other actions limit the profits of insiders with superior private information, aside from private information acquisition and trader competition, such as corporate policies or governmental regulations because it can restrict inside trades. The literature presents numerous factors that can affect manager's ability to garner profits from private information. Nonetheless, some previous studies found that insider trades are profitable.

For example, the work of Seyhun (1986, 1992) and the work of Rozeff and Zaman (1988) show that insiders earn abnormal returns.

3. TAX PLANNING

The concept of tax planning is difficult to define. An evidence of that difficulty is the set of different expressions present in empirical literature to refer these practices, for example, tax planning (Cooper, *et al*. 2020; Halon and Heitzman, 2010), tax management (Minnick and Toga, 2010), tax avoidance (Anouar and Houria, 2017), among other.

Flesch (1968) defined tax avoidance as the art of avoiding tax without actually breaking the law. So Oats (2005) considered this definition wide and it fails to understand the degrees and the distinctions between the acceptable and unacceptable tax avoidance. Other authors considered tax avoidance as a legal activity representing activities within the boundaries of the law, whereas tax evasion is illegal (Blaufus, et al., 2016). The concept is not always use with the same meaning which difficult the comparison between empirical studies results. Minnick and Noga (2010: 708) define tax management "*as the ability to pay a low amount of taxes over*

a long period of time".

Tax planning activities often involve a large amount of monetary resources. Fees related to tax and legal area represent around 30% of the revenues of International Accountancy firms (AccountancyAge, 2016). There are several factors firms take into account before engage into those practices. Some firms limit their tax planning activities based on reputational effects. They fear to be considered poor corporate citizens for having low tax rates (Hanlon and Slemrod, 2009). Other companies implement tax planning activities in order to increase financial accounting results. Firms engage in tax planning activities with the purpose to improve accounting results. Although Graham *et al*. (2014) state that it´s important that tax planning activities do not harm earnings per share. Also firms attend to Generally Accepted Accounting Principles Effective Tax Rate (GAAP ETR) and paid cash taxes before defining tax planning strategies.

McBarnet (1992: 334) refers that large corporation compliance strategy tend to "*to escape tax. but at the same time, whether successful in that first goal or not, it allows them to escape any risk of stigma or penalty*". Companies tax avoidance is, in most situations, possible due to the various interpretations of the tax law letter (Sikka and Haslam, 2007). It depends on the use of preferential provisions in the tax code, such as exclusions, exemptions, deductions, credits, preferential rate and deferral of tax liability. In this context companies with good tax planning strategies are able to legally avoid a high amount of taxes. These savings have enormous possibilities through the use of foreign Direct Investment (FDI) options. Some researchers state tax planning as a key factor for competitiveness in a competitive environment (Anouar and Houria, 2017). Nowadays International institutions like OEDC or European Commission have been made efforts to fight illegal tax avoidance. For example, according to news published on 4th October 2017 the European Commission has ruled that Amazon must pay €250m in back taxes to Luxembourg. European Commission is developing efforts to crack down on tax avoidance by tech giants (COM, 2017). Close to a third of the growth of the overall industrial output in Europe is already due to the uptake of digital technologies. In 2017, 9 out of the top 20 companies by market capitalisation were technology companies, accounting for 54% of the total top 20 market capitalisation (PWCb, 2017).

Walker (2006) refers to several possible actions to improve corporate tax compliance namely simplifying the tax code, obtaining better data on noncompliance, continuing to oversee the effectiveness of Internal Revenue Service (IRS) enforcement, leveraging technology, and sending sound compliance signals through increased collections of taxes owed. The IRS has

estimated the amount of clear noncompliance to total $32 billion for tax year 2001 in the U.S. (Walker, 2006).

Considering small companies and entrepreneurs, Kirchler (1999, p. 133) refers that *"especially entrepreneurs who take the risk of establishing an enterprise perceive taxes as severe reduction of their profit and possibilities for reinvestment".*

Legal tax rules influence a large spectrum of corporative decisions in particular multinational corporations. In respect to finance theory it influences capital structure decisions, including the choice of debt, equity, leasing, and other financing instruments. The relation between tax administration and corporative tax payers play a role in corporate risk management, dividend, and share repurchase policies. Also taxes can shape the form and timing of compensation and pension policies. Sometimes they influence the choice of organizational form (corporate *versus* partnership). Finally, the complexity and richness of the international tax code provides a variety of incentives that affect corporate decisions.

Taylor and Richardson (2012) examined tax management practices within corporate groups and found that transfer pricing and the use of intragroup debt are the most widely used techniques to reduce the tax liabilities on groups. Also the world economy development and technologic advances create conditions for the appearing of new ways of develop business activities. COM (2017) outlines some examples: online retailer model, (business model of Amazon, Zalando, Alibaba); social media model (business model of Facebook, Xing, Qzone); subscription model (Netflix, Spotify, iQiyi; and collaborative platform model, (Airbnb, Blablacar, Didi Chuxing). According to PWCa, (2017:6)"the effective tax rate for digital business models lies between -10% and 25%". On average, digital business models are taxed at a rate of 10.20% which is 11.73% percentage point lower than traditional business models. The reason for this is an assumed higher portion of costs that do not require capitalisation in the investment structure (in particular software developed in-house and intangible assets) as well as more favourable depreciation rules for digital capital goods and the applicability of special tax incentives for research, development and innovation (PWCb, 2017).

4. RELATION BETWEEN INFORMATION ASYMMETRY, DISCLOSURE POLICY AND CORPORATE TAX STRATEGIES

According to Bergh *et al.* (2019) information asymmetry is a condition wherein one party in a relationship has more or better information than another. To Johnson and So (2018) the

severity and content of asymmetric information influences most interactions between economic agents, particularly in cases of adverse selection or moral hazard.

Literature provides, essentially, two potential mechanisms through which disclosure quality was expected to reduce information asymmetry: by altering the trading incentives of informed and uninformed investors so that there is relatively less trading by privately informed investors; and by reducing the likelihood that investors discover and trade on private information (Brown and Hillegeist, 2007).

In relation to the first mechanism, Merton (1987) argues that investors are more likely to invest and trade in firms that are well known or that they judge favorably. If higher disclosure quality increases a firm's visibility and/or reduces the costs of processing firm specific public information, then higher disclosure quality will induce more trading in firm's stock by uninformed investors. Also Fishman and Hagerty (1989) use a similar argument. So, quality will be associated with relatively less informed trading, which in turn will reduce information asymmetry. To Brown and Hillegeist (2007: 444) the presence of information asymmetry creates "*an adverse selection problem in the market when privately informed investors trade on the basis of their private information*". In this sense, there is the risk that an uninformed investor will trade against a privately-informed investor. For the authors a firm's choice of disclosure quality affects this information risk by altering the distribution of public and private information among investors.

In relation to the second mechanism, Verrecchia (1982) examines a setting where public information disclosed by the firm is a perfect substitute for private information. He shows that the amount of costly private information that investors choose to acquire is generally decreasing in the amount of firm-disclosed public information. Diamond (1985) also finds that the incentives for investors to acquire private information are reduced when firms disclose information publicly. Gelb and Zarowin (2002) and Lundholm and Myers (2002) find that current stock returns reflect more information about future earnings when disclosure quality is higher. Also Brown and Hillegeist (2007) state that firms with high disclosure quality are more likely to publicly release material information promptly and provide forward-looking information. As such, the authors argue that higher disclosure quality reduces private information search incentives and that more informativeness disclosures reduce the total set of information about future earnings that can be privately discovered about a firm. Since there is less information available to be discovered, in addition to the reduced search incentives, the authors expect that the frequency of private information events will be declining in disclosure

quality. Admati (1985) , Wang (1993), Dow and Gorton (1995) and Easley and O'Hara (2004) all model the activities of informed and uninformed traders, and they found that, because of the different degree of available information, informed traders and uninformed traders invest in different portfolios. Specifically, informed traders construct their portfolios on the efficient frontier associated with their superior information. Since uninformed traders have inferior information, they cannot "*replicate*" the informed traders' portfolios, thus their portfolios will always locate below the informed traders' efficient frontier. As selective disclosure causes information asymmetry, it makes informed traders better at the expense of uninformed traders.

The framework developed by Easley and O'Hara (2004) consider both public information and private information together. They provide an analytical model to demonstrate how a firm's information structure affects its capital market behavior. Their findings suggest that for stocks with more private information and less public information, uninformed investors require a higher rate of return as compensation because more private information increases information asymmetry and the information risk uninformed investors face.

In addition to disclosure's effect on information asymmetry, the previous arguments also show that the level of information asymmetry is likely to influence the firm's choice of disclosure quality, because the firm may choose a higher level of disclosure quality when the current level of information asymmetry is high.

Tax planning by firms is a highly significant activity. Tax planning by firms is of wider public interest since it can affect the level of provision of public goods which can then contribute to social issues (Slemrod, 2004). Although traditionally tax planning has been viewed as benefiting shareholders via increased after tax earnings, more recently the underlying motivation has been questioned. Desai and Dharmapala (2006) argue that when an information asymmetry exists between managers and shareholders with respect to tax planning, it can facilitate managers acting in their own interests resulting in a negative association between tax planning and firm value.

According to Hanlon and Heitzman (2010), tax avoidance is seen as the reduction of explicit cash taxes, which includes all types of transactions, from investing in a municipal bond to using tax shelters.

Kerr (2012) finds that information asymmetry leads to tax avoidance. In contrast, several other studies find that aggressive tax planning affects earnings quality and information

asymmetry (e.g., Hanlon (2005), Ayers, Jiang, and Laplante (2009), Comprix, Graham, and Moore (2011), and Balakrishnan, Blouin, and Guay (2012)).

According Chen and Lin (2017), the question of whether the information environment affects or is affected by tax avoidance is under debate because the direction of the causality between these two constructs is unclear. Furthermore, unobservable factors could be correlated with both information asymmetry and tax avoidance at the same time. These authors found that firms avoid tax more aggressively after a reduction in analyst coverage. This effect is mainly driven by firms with higher existing tax-planning capacity, smaller initial analyst coverage, and a smaller number of peer firms. Moreover, the effect is more pronounced in industries where reputation matters more and in firms subject to less monitoring from tax authorities.

The authors also argue that financial analysts care about corporate tax policies because a firm's tax shield is associated with capital budgeting, cost of capital, and eventually firm valuation. Financial analysts have both the abilities and incentives to produce and distribute tax-related information and hence reduce information asymmetry between the firms they cover and their investors. This reduction in information asymmetry might make it more difficult for a firm to hide earnings through tax sheltering or complicated financial structures because the transaction costs for tax avoidance will tend to be higher.

Chen and Lin (2017) find that a significant increase in tax avoidance exists only in the subsample of firms with low initial analyst coverage. This finding further strengthens the main hypothesis that information asymmetry materially affects corporate, the cost includes both direct cost and indirect cost. Direct costs include the risk of being detected by tax authorities, and indirect costs include reputation costs and financial costs. The authors also find that the strong effects of analyst coverage on tax avoidance are mostly concentrated in the consumer-oriented industries, as customer perception of a firm is more important in these industries (also see Hanlon and Slemrod (2009) and Graham et al. (2014). Graham et al. (2014) provide evidence that if tax avoidance hurts a firm's overall reputation among customers, it will be more cautious in its tax-avoidance behavior. Chen and Lin (2017) also find that the effect of a reduction in analyst coverage on tax avoidance is more pronounced for firms with a smaller number of peer firms and when tax-authority monitoring is low.

5. CONCLUSION

This paper examines the relation between information asymmetry, disclosure policy and tax planning activities. The added value of this work relies on the analysis of empirical literature

results about information asymmetry, disclosure policy and tax planning, providing a more extensive overview of this relation. The information asymmetry results from the fact that managers have more and much better information, than the general investors, about the present situation and future perspectives of the company. The expression tax planning was applied to refer to all the activities designed to have a positive effect on effective tax rate. From an economic perspective it is a rational behaviour that a company uses legal loopholes in order to reduce the amount of taxes to pay.

Academic research point financial analysts as a way to reduce the information asymmetry between firms and investors, and as a consequence, they reduce corporate tax avoidance.

Some authors argue that if shareholders want to monitor firms' tax related decision, disclosure policies and tax regulatory bodies should consider requiring increased tax related disclosures by firms. Increased disclosure reduces "illegitimate" activity and so shareholders and tax administrators would benefit.

However, other authors argue that with increased tax related disclosure, managers are discouraged from pursuing "legitimate" tax planning activities. So, it's difficult to determine the extent and form of additional disclosures and the boundary between "legitimate" and "illegitimate" tax planning.

This study provides insights that tax authorities and politicians can use to better focus their strategies and actions in order to increase compliance, reduce tax evasion, fight underground economy and increase country´s competitiveness.

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A CONCEPTUAL APPROACH TO SENIOR ENTREPRENEURSHIP IN MANAGEMENT RESEARCH*

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Abstract

This study aims to create a conceptual approach to senior entrepreneurship to demonstrate the challenges and benefits of being a senior entrepreneur. In order to achieve the aforementioned aim, we discuss the scholarly literature by considering living conditions, capitals and career stages for elderly individuals. Thus, the present study highlights the strengths of being a senior entrepreneur and why the countries need to have inclusionary approaches to elderly individuals in entrepreneurship practices. Also, the findings that come from the literature show that there is a common exclusionary approach to senior entrepreneurship since government policies mostly focus on young entrepreneurship.

Keywords: Senior Entrepreneurship, Capital, Living Conditions, Career Stages, Elderly Individuals.

1. INTRODUCTION

Both research and government policies on entrepreneurship mostly consider young entrepreneurs as a focus group (Sakallı, 2019; Namal et al., 2018). This situation shows an exclusionary approach to individuals who are more than 45 years old when they want to create a business (Aydin et al., 2019) because governments' practices provide financial incentives for younger individuals. For instance, governmental units (i.e. Small and Medium Enterprises Development Organisation, in Turkish: "*Küçük ve Orta Ölçekli İşletmeleri Geliştirme ve Destekleme İdaresi Başkanlığı*") in Turkey provides financial incentives for young generations in two ways. First, they create some seminars for new university graduates or someone who wants to create a business with an approved business plan. Second, some universities have an agreement with the government units, and they have certain lectures such as 'Applied Entrepreneurship'. Then, the universities give entrepreneurship certificates to the students for using the opportunities that can come from the government units (KOSGEB, 2020). Such practices demonstrate that senior entrepreneurs are not included in the economic system. This situation causes a lack of employment opportunities because if they become entrepreneurs, there can be more employment opportunities for individuals seeking a job. Thus, in the present study, we aim at creating a conceptual approach to senior entrepreneurship to demonstrate the challenges and benefits of being a senior entrepreneur. In order to create the aforementioned approach, we critically discuss the scholarly literature by considering the living conditions, concepts of capitals and career stages.

The present study has two sections. First, we provide a literature review to create a conceptual framework; and second, we conclude this study by giving suggestions for further research.

2. LITERATURE REVIEW ON SENIOR ENTREPRENEURSHIP

In this section, we present three aspects to conceptualise senior entrepreneurship. They are the living conditions, types of capital, and the types of career stages.

Economic and social conditions have an impact on adopting entrepreneurial practices in the countries. Pilkova et al. (2014) demonstrate that elderly individuals in developed countries have a low tendency to become an entrepreneur because of the two reasons. First, the exclusionary government policies against elderly individuals in entrepreneurship practices cause a lack of intention to become a senior entrepreneur. Second, since the developed countries provide social and economic welfare for elderly individuals, they have enough budget to live in the country.

Matricano (2018) considers entrepreneurship within the scope of capitals. The research shows that elderly individuals have more social and intellectual capitals than the younger generations. Also, the work experiences contribute to the richness of the capitals, and senior entrepreneurs are exceptionally rich in having such capitals. This situation raises the need for using the spare capacity that comes from elderly individuals. As Lewis and Walker (2011) highlight, if elderly individuals are considered a group that retires from the labour force, their experiential knowledge remains unusable. For this reason, the states need to adopt an inclusionary approach to senior entrepreneurs (Fachinger, 2019).

The career stages of entrepreneurs present the differences amongst generations in terms of abilities and skills. Three career stages are early, middle and late. The individuals who are in their early career stage (younger than 40 years old) explore themselves. Since they do not have entrepreneurial experiences, they learn through failures (Super, 1957; Gibson, 2003). The individuals in their middle career stage (40-50 years old) can have a job, and they can consider entrepreneurship practices as a risk since there is a possibility to fail. Thus, the tendency of being an entrepreneur can be low. However, in the late-career stage (older than 50 years old), individuals can adopt entrepreneurship practices as an alternative to being retired. For this reason, they can tend to become an entrepreneur (Greller and Simpson, 1999). Also, elderly individuals consider being an entrepreneur for providing benefits for society, such as creating employment opportunities (Webster and Walker, 2005).

3. CONCLUSION

The present study creates a conceptual approach to senior entrepreneurship by considering living conditions, capitals and career stages for elderly individuals. The scholarly literature demonstrates that governmental policies have an exclusionary perspective on elderly individuals in their entrepreneurial practices, and they mostly focus on young entrepreneurship. Since developed countries do not create an inclusionary approach to elderly individuals in terms of operating a business and being an entrepreneur, the senior entrepreneurship is relatively low because when the individuals have social and economic welfare, they may not tend to create a business. Thus, the present study shows if the countries want to decrease the level of unemployment in the society, they need to provide more employment opportunities and senior entrepreneurship incentives can create a potential to increase the employment opportunities. Also, the studies demonstrate the success of senior entrepreneurship is more than the young entrepreneurship. For further research, scholars should focus on theoretical approaches to legitimise senior entrepreneurship in societies through adopting intersectionality and

institutional perspectives. Thus, these kinds of research can enrich the literature on senior entrepreneurship, and the study contributes to the visibility of senior entrepreneurship in society.

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THE EFFECT OF TAXES ON INCOME DISTRIBUTION: AN ANALYSIS FOR TURKEY AND OTHER SELECTED OECD COUNTRIES

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Abstract

Equal distribution of income is important for social peace and economic stabilization. However, income is not distributed equally in any country and the governments try to provide the fairest distribution of income by intervening with various instruments. As an economic instrument, taxation is one of the most direct way to keep inequality in check and reduce poverty in the short term.

This study aims to investigate the effect of taxes on income distribution. In this context, to what extent the change in the share of total tax revenues in the Gross Domestic Product affects the gini coefficient in Turkey and other selected OECD Countries between 2002 and 2019 is analyzed by using Panel ARDL (Auto Regressive Distributed Lag) model. As a result of the analysis, it is concluded that an increase in the share of tax revenues in GDP decreases the Gini index by 0.17.

Keywords: Tax Income, Income Distribution, Gini Index.

1. INTRODUCTION

Increasing the social welfare of individuals is possible with as much equal distribution of income as possible. However, the equal distribution of income is not possible in any country by itself. Therefore, the governments must ensure equality in income distribution by intervening with economic instruments. One of the most important of these economic instruments is taxation.

After Wagner expressed his views drawing attention to the close relationship between social fairness and justice of taxation, reducing inequalities in income distribution has become one of the main objectives of taxation policy (Caliskan, 2010, p. 95). For this reason, countries have begun to regulate their tax systems to ensure more fairness. Therefore, they tried to decrease the share of indirect taxes and increase the share of direct taxes in their tax systems.

One of the most used methods to measure fairness in income distribution is the Gini index that is developed by the Italian statistician Corrado Gini (Demirgil, 2018, p. 119). "The Gini index measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution" (The World Bank, 2020). As the Gini coefficient approaches zero, the inequality decreases and increases as it approaches one.

Although the extent to which tax types or indirect and direct taxes affect income distribution has been discussed in the literature, there is no study that addresses the correlation between total tax revenues and income distribution as a whole. Therefore, in this study we investigated to what extent the share of total tax revenues in Gross Domestic Product (GDP) affects the income distribution mainly in Turkey and in other selected OECD countries between the years 2002-2019.

Following the literature, we explained the relation between taxation and income distribution. In the following chapters, we discussed methods and findings.

2. LITERATURE REVIEW

There are various studies in the literature examining the effects of taxes on income distribution. Some of these studies conducted empirically in the literature as below:

In the paper, Prasad (2008) has looked to what extent taxes and social transfers are effective in redistribution of income for the six Latin America countries. He has found that a

redistribution with direct taxes affect 0.6 percent decline in the Gini coefficient. On the other hand, a redistribution with direct taxes increase the Gini coefficient approximately 0.5 points.

Bargain (2009), has analyzed how tax benefits affect income distribution in the UK over 1998-2001. He has found that the extensions of the income support and the family tax credit seem to be the most effective redistributive policies.

Fuest et al. (2009), have examined how disposable income inequality is affected by different components of the tax and transfer systems in EU member countries. According to their findings, taxes and social contributions are the most important factors to reduce income inequality.

Sameti and Rafie (2010) have analyzed the economic growth and income distribution effects of taxes on economic growth and income distribution in Iran and some selected East Asian countries for the period 1990-2006. They have argued that the impact of indirect taxes on inequality and growth is unimportant. However, direct taxes have positive and important effects on economic growth and Gini index.

Vazquez et al. (2012) have analyzed effects of taxation and public expenditure policies in income distribution for 150 countries between 1970 and 2009. They have argued that progressive personal income taxes and corporate income taxes decrease income inequality. On the other hand, indirect taxes such as consumption taxes have a negative impact on the Gini index.

Duncan and Peter (2012) have analyzed the effect of progressive tax systems on income inequality for wide scale countries between 1981 and 2005. They have found that progressivity reduces observed inequality of income, but at the same time has a significantly smaller impact on actual inequality.

Cevik and Correa-Caro (2015), have investigated the main features of income inequality in China and BRIC+ countries with a concentrate on the redistributive effect of fiscal policy between 1980 and 2013. They have argued that public expenditures and taxes have contrary effects on inequality of income. While public expenditures appear to have a worsening impact, taxation policies improve income distribution.

Balseven and Tugcu (2017), have examined the effect of fiscal policy on income distribution in 30 developed and 17 developing countries between 1990 and 2014. In consequence of their survey, they have found that tax revenues have a positive impact on income inequalities in developing countries.

Demirgil (2018), has investigated the relation between taxes and income distribution in Turkey between 1980-2014 by using Autoregressive Distributed Lag Bound Test (ARDL) bound testing approach. According to his findings, an increase of 1% in the indirect tax rate increased the Gini index as 0.10% and a 1% increase in the direct tax rate decreased the Gini index as 0.05%.

Oboh and Eromonsele (2018), have examined the effect of taxation policy on income inequality in Nigeria. They have used a time series data for 34 years for the period 1980-2014. According to results, indirect taxes have negative effects on income inequality in Nigeria. Conversely, direct taxes are very useful for income equality in Nigeria.

Kanca and Bayrak (2019), have examined whether indirect and direct taxes have any effects on the income distribution. They have used data for 36 OECD countries for the period 1990-2017 by using panel data analysis. They have found that the increase in both indirect and direct taxes have negative effects on income distribution.

Eser and Genc (2019), have tested the impact of income and wealth taxes on income distribution was employed in the OECD countries for the period of 1990-2017. In consequence of the panel regressions estimations, they have argued that taxes on income and wealth have an affirmative effect on the income distribution.

Kilinc Savrul and Taskin (2020), have investigated the effects of different types of taxes on income distribution in Turkey by Kernel Regression Method. According to their findings; indirect taxes increased the Gini index by %28.1, while direct taxes reduced the Gini index by %14.1.

3. THE RELATION BETWEEN TAXATION AND INCOME DISTRIBUTION

There are two possible ways to increase the living standards of individuals. The first of these is to increase the productivity of individuals by increasing their knowledge and skill levels with a better education. The second is the redistribution of income in favor of lower earners by using various instruments (Aktan and Vural, 2002, p. 5).

As an economic term, the income distribution means the distribution of national income. The income distribution is defined in various ways such as; geographical income distribution, sectoral income distribution, functional income distribution and personal income distribution. However, when the subject is the degree of equality or inequality of the distribution of national income, personal income distribution is considered (Turk, 2005, p. 313-317). In this respect, what is meant by income distribution in the study is personal income distribution.

Personal income distribution shows how income is distributed among individuals or households. The aim here is to show how much share each individual gets from the total income (Kirmanoglu, 2013, p. 204).

It is important to ensure fairness in personal income distribution. First of all, fair distribution of income ensures social peace. Redistribution of income in favor of low-income earners increases social welfare. A fairer distribution of personal income increases equality of opportunity and thus increases the income earning opportunities and living standards of the low income groups. Finally, ensuring the fairness in personal income distribution has positive effects on economic stability (Aktan and Vural, 2002, p. 5).

There are various methods to measure fairness in income distribution. The most common of these methods are the Lorenz curve developed by the US economist Max Otto Lorenz and the Gini index developed by the Italian statistician Corrado Gini (Demirgil, 2018, p. 119).

"The Gini index is based on the comparison of cumulative proportions of the population against cumulative proportions of income they receive" (OECD, 2020a). "The Gini index measures the extent to which the income distribution among individuals or households within an economy deviates from a perfectly equal distribution" (The World Bank, 2020).

"The Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the lowest income owner. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line" (The World Bank, 2020). Thus a Gini index ranges between 0 in the case of perfect equality and 1 in the case of perfect inequality (OECD, 2020a).

The income is not exactly distributed equally in any country. Although there are some differences, the aim is to ensure that everyone has an income level that will provide a decent living standard and to prevent large income differences (Akdogan, 2011, p. 490-491). However, when the change in the Gini index over the years is examined, it is seen that income inequality has increased (The World Bank, 2020).

The income distribution has substantially impaired with starting the process of change, especially in the period after 1980 in Turkey. After 1980, changes in tax policies, contractionary policies brought into unionism systems, rapid population growth, unemployment, inflation and economic crisis have created a negative impact on income distribution in Turkey. The development plans included matters aimed at solving the income distribution problems and the

governments implemented some policies to reduce the unfair distribution of income. However, these policies did not produce the desired results (Demirgil, 2018, p. 122).

Table 1 shows the distribution of income in Turkey in the last 10 years.

Table 1. Distribution of Annual Equivalised Household Disposable Income by Order of 20 Percent Groups, 2010-2019

Years	Population Groups					Gini Coefficient	P80 / P20 Ratio*	P90/P10 Ratio**
	First 20% (Lowest)	Second 20%	Third 20%	Fourth %20	Fifth 20% (Highest)			
2010	5,8	10,6	15,3	21,9	46,4	0,402	8,0	13,9
2011	5,8	10,6	15,2	21,7	46,7	0,404	8,0	14,4
2012	5,9	10,6	15,3	21,7	46,6	0,402	8,0	14,2
2013	6,1	10,7	15,2	21,4	46,6	0,400	7,7	13,6
2014	6,2	10,9	15,3	21,7	45,9	0,391	7,4	12,6
2015	6,1	10,7	15,2	21,5	46,5	0,397	7,6	13,3
2016	6,2	10,6	15,0	21,1	47,2	0,404	7,7	13,6
2017	6,3	10,7	14,8	20,9	47,4	0,405	7,5	13,4
2018	6,1	10,6	14,8	20,9	47,6	0,408	7,8	13,7
2019	6,2	10,9	15,2	21,4	46,3	0,395	7,4	13,0

Source: Turkish Statistical Institute, 2020.
* The ratio of the income of the 20% with the highest share to the income of the 20% of the lowest share
** The ratio of the income of the 10% with the highest share to the income of the 10% of the lowest share

According to the Table 1, the share of the 20% group with the highest income is around 46% in Turkey. The 20% group with the lowest income has 5-6% of the income. When looking at the Gini index, an improvement of 0.013 is striking in 2019 compared to the previous year.

For fighting against the growing income inequality, governments have two effective economic instruments: Public spending and taxes (Yuce, 2002, p. 12). Taxation and income transfers to the poorest part of society are the most direct way to keep inequality in check and reduce poorness in the short term (Bourguignon, 2018, p. 22). Since the taxes paid by every income group in the society and the public services they benefit from are not equal, the national income is redistributed through taxes and public expenditures (Turk, 2005, p. 324).

Policy practitioners use taxes for a variety of purposes; they can raise revenue for the government, provide incentives or disincentives for certain activities and correct market failures. They also use taxes for distributing income and helping to reduce inequality (Prasad, 2008, p. 6). Because the social purpose of the taxation policy is to ensure the distribution of income and wealth that cannot be achieved adequately with the expenditure policy in favor of low-income people (Yuce, 2002, p. 13).

Although it varies depending on the structure and technical characteristics of the taxes, the indirect or direct features of the taxes have different effects. There is a consensus that if the taxes are indirect, the low income earners, if the taxes are direct, the high income earners bear the tax burden (Akdogan, 2011, p. 491).

What determines the effects of taxes on income distribution is their reflectability (Altay, 2015, p. 156). The negative impact of indirect taxes on income distribution arises through the reflection. Because a significant part of the consumption taxes is reflected on the consumers depending on the supply and demand conditions of the market mechanism (Sener, 2014, p. 322).

Consumption taxes generally increase the inequality in income distribution since they do not take into account the personal situation of the taxpayers. In addition, the marginal consumption tendency of the consumers in the low income group is more than the consumers in the upper income group. Therefore, the distribution of income is distorted against low income earners as they tax a higher proportion of their income (Aktan and Vural, 2002, p. 11). Direct taxes, on the other hand, can create redistributor effects on income due to the progressive tariff structure, discounts, exemptions and the possibility of being personalized in varying sizes according to tax types (Akdogan, 2011, p. 491).

The majority of direct taxes in total tax revenues reduces the unfairness in income distribution by showing a kind of transfer from high-income earners to middle and low-income earners (Demirgil, 2018, p. 121). Therefore, in a tax system it is desirable that the share of direct taxes is higher than indirect taxes to ensure fairness. Table 2 shows the share of direct and indirect taxes in Turkey and in other OECD countries.

Table 2. Percentages of Direct - Indirect Taxes in Turkey and Other OECD Countries (%)

Years	Percentages of Direct - Indirect Taxes in Turkey		Percentages of Direct - Indirect Taxes in OECD Countries	
	Indirect Taxes	Direct Taxes	Indirect Taxes	Direct Taxes
1960	61%	39%	39%	61%
1970	62%	38%	33%	64%
1980	37%	63%	33%	67%
1990	48%	52%	33%	67%
2000	59%	41%	33%	67%
2010	68%	32%	34%	66%
2011	68%	32%	34%	66%
2012	67%	33%	34%	66%
2013	69%	31%	33%	67%
2014	68%	32%	33%	67%
2015	69%	31%	33%	67%

2016	67%	33%	33%	67%
2017	67%	33%	33%	67%
2018	63%	37%	33%	67%
2019	61%	39%	--	--

Source: Demirgil, 2018, p. 121; OECD, 2012, p. 104; OECD, 2013, p. 99; OECD, 2014, p. 93; OECD, 2015, p. 89; OECD, 2016, p. 103; OECD, 2017, p. 53; OECD, 2018, p. 64, 66; OECD, 2019, p. 63, 65; OECD, 2020b, p. 63; Republic of Turkey Ministry of Treasury and Finance, 2020.

Table 2 shows that, the share of indirect taxes is higher than direct taxes until the 1980s, in Turkey. This situation, which reversed in favor of direct taxes after 1980, has deteriorated since the 2000s. It is obvious that the share of indirect and direct taxes in OECD countries are opposite to the situation in Turkey. Because the share of indirect taxes in OECD member countries is much lower than direct taxes.

4. THE DATA

In this study, we use annual unbalanced panel data for selected OECD countries for the period 2002-2019. Due to the data limitations in selected countries, we chose 2002 as the starting period. We have obtained the data from the database of the World Bank (https://databank.worldbank.org). The data set used in the study is as follows:

- ➢ GINI: GINI index (World Bank estimate)
- ➢ INF: Inflation Rate, consumer prices (annual %)
- ➢ TAX: Tax revenue (% of GDP)
- ➢ GDP_PC: GDP per capita (constant LCU)
- ➢ UNEMP: Unemployment Rate, total (% of total labor force) (modeled ILO estimate)

In Table 3, we demonstrate the descriptive statistics. All the variables but the TAX have not a normal distribution, positive skewness value and leptokurtic distribution functions.

Table 3. Descriptive Statistics of the Variables

	GINI	INF	TAX	GDP_PC	UNEMP
Mean	32.34524	2.887803	20.79146	857012.9	8.452688
Median	31.90000	2.116042	21.46018	37150.25	7.722000
Maximum	55.50000	44.96412	36.50029	17192802	27.46600
Minimum	23.70000	-4.478103	9.183122	8048.795	2.251000
Std. Dev.	5.524206	3.734118	5.415548	2796315	4.216790
Skewness	1.425746	4.635281	-0.144742	4.422553	1.773489
Kurtosis	6.329930	43.12264	2.786342	22.98440	7.158615
Jarque-Bera	336.3403	29675.96	2.265384	8358.212	522.8149
Probability	0.000000	0.000000	0.322165	0.000000	0.000000
Sum	13585.00	1212.877	8732.415	3.60E+08	3550.129
Sum Sq. Dev.	12786.56	5842.384	12288.50	3.28E+15	7450.373
Observations	420	420	420	420	420

5. UNIT ROOT TESTS

Before the main estimates, we conduct the panel unit root tests. Panel ARDL approach considers the different integration degrees unless the order 2. For that reason, we need to perform the panel unit root tests to show whether the variables are stationary or not.

We perform the tests developed by Levin et al. (2002), Im et al. (2003), and Fisher ADF-Fisher PP proposed by Maddala and Wu (1999), and by Choi (2001). The entire tests but the LLC assume individual parameters (heterogeneity). The LLC test assumes the non-heterogeneity. The null hypothesis of the tests refers to "non-stationary". Rejection of the null hypothesis means stationary process. We put the unit root results into the table 4. Gini is stationary according to LLC and Fisher-PP tests; however, it is non-stationary to the IPS and Fisher-ADF tests. INF, TAX, GDP_PC, and UNEMP are stationary to the all tests.

Table 4. Panel Unit Root Tests

	Levin, Lin & Chu (LLC)		Im, Pesaran & Shin (IPS)		Fisher-ADF		Fisher-PP	
Variables	Level Prob.	First Difference Prob.	Level Prob.	First Difference Prob.	Level Prob.	First Difference Prob.	Level Prob.	First Difference Prob.
GINI	0.022^{**}	-	0.6465	0.000^{***}	0.3175	0.000^{***}	0.000^{***}	-
INF	0.000^{***}	-	0.000^{***}	-	0.000^{***}	-	0.000^{***}	-
TAX	0.000^{***}	-	0.000^{***}	-	0.002^{***}	-	0.000^{***}	-
GDP_PC	0.000^{***}	-	0.000^{***}	-	0.001^{***}	-	0.000^{***}	-
UNEMP	0.000^{***}	-	0.000^{***}	-	0.001^{***}	-	0.000^{***}	-

6. PANEL ARDL MODEL

We use a panel error correction model called Panel Autoregressive Distributed Lag (Panel ARDL) approach developed by Pesaran and Shin (1999) and Pesaran et al. (1999). Panel ARDL allows to estimate short and long run simultaneously and heterogeneity of the coefficients regardless of integration degree (Pesaran and Shin, 1999: 7-9).

Equation 1 and equation 2 show the long run and short run Panel ARDL (p,q) model respectively:

$$GINI_{it} = \alpha_i + \sum_{j=1}^{p} b_{1ij} GINI_{it-j} + \sum_{j=0}^{p} b_{2ij} INF_{it-j} + \sum_{j=0}^{p} b_{3ij} TAX_{it-j} + \sum_{j=0}^{p} b_{4ij} GDP\_PC_{it-j} + \sum_{j=0}^{p} b_{5ij} UNEMP_{it-j} + u_{it}$$

$$
\begin{aligned}
\Delta GINI_{it} = \alpha_i &+ \sum_{j=1}^{p} b_{1ij}\Delta GINI_{it-j} \\
&+ \sum_{j=0}^{p} b_{2ij}\Delta INF_{it-j} \\
&+ \sum_{j=0}^{p} b_{3ij}\Delta TAX_{it-j} + \sum_{j=0}^{p} b_{4ij}\Delta GDP\_PC_{it-j} + \sum_{j=0}^{p} b_{5ij}\Delta UNEMP_{it-j} + \omega GINI_{it-j} + \varphi INF_{it-j} \\
&+ \theta TAX_{it-j} + \delta GDP\_PC_{it-j} + \vartheta GDP\_PC_{it-j} + u_{it}
\end{aligned}
\tag{1}
$$

Where Δ shows the difference operator, ω is the error correction coefficient. Equation (1) includes the levels of the variables. The coefficients in Equation 1 are long-term coefficients. Equation (2) shows the short-term coefficients. The negative and statistically significant error correction coefficient indicates the long-term relationship between the Gini index and other independent variables.

There are two types of estimator in the Panel ARDL approach. One is the Mean Group (MG) Regression and the second one is Pooled Mean Group (PMG) Regression. MG estimator has no restriction on the parameters. MG derives long-term parameters on the average of individual ARDL model parameters. Unlike the MG estimator, PMG estimator allows long-term homogeneity and short-run heterogeneity in parameters (Pesaran et. al., 1999: 621). In addition, Pesaran et al. (1999) states that Hausman test can be considered in the selection of regression between MG and PMG.

7. PANEL ARDL RESULTS

We perform the Panel ARDL approach to find out how the tax revenue affects the income inequality (Gini index). On the other hand, we considered inflation, unemployment, and GDP per capita for the reason that they can affect the Gini index either.

Table 5. Panel ARDL Model (PMG)

Dep. Var.:Gini	Coefficients	Std. Err.	z	P>|z|
Long Run (Error Correction)				
INF	0.1424177***	0.045730	3.11	0.002
TAX	-0.170004***	0.056119	-3.03	0.002
GDP_PC	-7.42e-07**	2.99e-07	-2.48	0.013
UNEMP	0.190671***	0.017933	10.63	0.000
Short Run				

Ec	-0.4310152***	0.05348	-8.06	0.000
INF |D1|	0.0019143**	0.04584	0.04	0.967
TAX |D1|	0.1360415**	0.06159	2.21	0.027
GDP_PC|D1|	0.0000963	0.00018	0.53	0.597
UNP|D1|	0.1249266	0.07662	1.63	0.103
Constant	14.77618***	1.90169	7.77	0.000
Hausman Test	1.28 [0.7345] H_0: Difference in coefficients not systematic/PMG			

PMG: Pooled Mean Group Regression. *** and ** indicate significance level of 1 % and 5 % respectively. AIC is used in the selecting optimal lag length.

We demonstrate the Panel ARDL results on the table 5. The results are based on the PMG estimator. According to the Hausman test PMG is the efficient estimator (with the rejection of the null hypothesis). In the long-run estimates, we see significant long-run parameters of the independent variables. An increase in the inflation rate and unemployment rate increase the Gini index by 0.14 and 0.19 respectively. That means that a rising in the inflation and unemployment rates aggravate income inequality in the selected OECD countries. Unemployment rate has the biggest impact. An increase in the Tax revenue (% of GDP) decreases the Gini index by -0.17. In OECD countries, we consider this result as an expected one due to the fact that the tax revenues consist of direct tax revenues mostly. Finally, GDP per capita has a decreasing effect on Gini index but this effect is extremely small. The results show that inflation and unemployment policies are important for income inequality in the OECD countries. However, tax revenue (% of GDP) also has a determining effect on Gini index. It indicates that tax policy contributes to equal sharing of income.

In the short run, the findings show that only the parameter of the tax revenue (% of GDP) is significant. This result indicates that the tax policy can be more efficient than the others can in the short run for income inequality. Furthermore, the error correction coefficient is negative and statistically significant. This result provides an evidence of convergence of the short-run to long-run.

8. CONCLUSION

Governments have various economic instruments to redistribute income that is not evenly distributed. One of the most important of these instruments is taxes.

This study examined to what extent the increase in the share of tax revenues in GDP affects the Gini index. According to the findings, as tax revenues increase, a more equal income

distribution is approached. The most important reason for this is that the share of direct taxes in the tax systems of most of the OECD member countries considered is higher than indirect taxes.

Among the other variables, the increase in inflation and unemployment rates increases the Gini index. In other words, the inequality in income distribution increases with the rise in these variables.

Finally, the increase in per capita GDP provides an increase in equality in income distribution. However, this effect is quite small. The negative impacts of inflation and unemployment variables are greater.

The results show that inflation and unemployment rates have bigger negative effects than the positive effect of GDP per capita in OECD countries. However, tax revenue (% of GDP) also has a determining effect on Gini index. It indicates that tax policy contributes to equal sharing of income both in the short run and in the long run. For that reason, the tax policy can be more efficient than the others can for income inequality.

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CONSIDERING THE STRANDS OF DIVERSITY IN CALCULATION OF

UNEMPLOYMENT RATE: AN EMERGING RESEARCH AGENDA

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Abstract

This research aims at demonstrating the role of diversity for increasing unemployment rate for the countries. Also, it brings a multidisciplinary perspective for the fields of management and economics. The main reason for adopting such a perspective is to create a research agenda for decreasing unemployment rate. In order to achieve the aforementioned aim, we focus on subtle factors as externalities that come from the strands of diversity. In the present study, we focus on gender, religion and age as the subtle factors that can create negative externalities and increase the calculation of the unemployment rate. Based on examining the scholarly literature, we provide evidence for the subtle factors, and we conclude our study to open a research agenda for future research.

Keywords: Diversity, Externalities, Gender, Religion, Age, Unemployment

1. INTRODUCTION

Unemployment is a critical macroeconomic indicator to create an economic plan for the countries (Claveria, 2019). Also, the effects of unemployment can be seen in daily life in terms of new job applications because as Arulampalam (2001) states unemployment experience of an individual can be considered as a penalty because of the various reasons. First, employers may use the length of unemployment process as tool for separating good workers from bad workers (Lockwood, 1991). For this reason, the employers tend to pay less wages for the individuals who are not employed for a long time. Second, the business owners may consider that individuals who do not work for a long time have loss of skills (Pissarides, 1992). All these reasons result in discouraging individuals who seek for new job opportunities since they may not accept the offers that include a low-wage rate and they continue to look for a new job. Thus, these individuals remain unemployed. These assumptions demonstrate that the length of unemployed process tend to increase the unemployment rate for a country because of the micro-behaviour. In the present study, micro-behaviour refers to the approach of an individual who has power and belong to the majority of society to another individual who are amongst the disadvantages groups.

Many research (e.g. Chodorow-Reich et al., 2019; Calvo et al., 2018) focuses on the macroeconomic effects of unemployment in government policies and economic recession. However, there is a dearth of research on the subtle factors that can have an effect on the unemployment rate in micro-behavioural level by considering the strands of diversity such as gender, religion and age. For this reason, the present study aims at providing a conceptual knowledge of the subtle factors that are considered in the strands of diversity and may have an invisible effect on the unemployment rate for a country. Thus, this study will create research agendas for future research that focus on unemployment rates, its effects and results in an economy.

This study has three sections. In the first section, we demonstrate how diversity and the strands of diversity are conceptualised as subtle factors that can be linked to unemployment. In the second section, we provide evidence for the effect of subtle factors on unemployment. Then, we conclude this study.

2. CONCEPTUALISING THE STRANDS OF DIVERSITY

Since there is no common definition of diversity, there are various approaches to defining it. However, in the context of the present research, we adopt the definition of Harrison and

Klein (2007:1201) that state "*Diversity is distributions of differences among the members of a unit with respect to common attribute, X, such as tenure, ethnicity, conscientiousness, task attitude.*". Also, based on the conceptual taxonomy of Jackson et al. (2003), the concept can be divided into relations-oriented diversity and task-oriented diversity. Demographic factors such as age, gender, ethnicity shape interpersonal relationships in relations-oriented diversity. On the other hand, task-oriented diversity includes the differences in knowledge, skills and abilities.

Relations-oriented diversity creates subtle factors for considering the issue of unemployment in the society. The reason for adopting this type of diversity as a subtle factor stems from the concept of economic externalities. This externality refers to the effect of processes related to consuming, producing specific goods and services or creating industries on a third party that is not directly related to this process (Abi Younes et al., 2020). There are positive and negative externalities. For instance, positive externalities such as noise reduction and pleasant view dominate the prices of properties in the green areas (Głuszak, 2018). On the other hand, as Peksen (2019) states being women can be negative externalities that cause unemployment amongst women rather than men because the economic instability and contraction result in sanctions that tend to create more unemployment rate for women since they have less job security in comparison to men.

In order to examine the subtle factors in an evidence-based approach, in the next section, we provide the critical strands of relations oriented diversity as gender, religion and age.

3. SUBTLE FACTORS AS EXTERNALITIES FOR THE STRANDS OF DIVERSITY

In this section, we aim at providing evidence for gender, religion and age as subtle factors in order to demonstrate how they can create negative externalities for increasing unemployment rate for countries. For this reason, we focus on the groups that face discrimination within these strands of diversity, and we provide evidence from discussing the existing literature. Thus, we will be able to open a research agenda for multidisciplinary studies such as the fields of economics and management within the context of the present study.

Women face many challenges when they look for a job related to their expertise. The challenges mostly come from the patriarchal social structure that refers to the domination of men in the private and public sphere (Altay, 2019). For instance, in the conceptual study of Bakıcı and Aydın (2020), they demonstrate social field assigns specific roles to the women such as child care and housework. For this reason, men dominated industries have an exclusionary

approach to women employees even though they have enough skills to work. Thus, this kind of social perspective prevents women from including the workforce, and it has a potential impact on increasing unemployment rate. In addition to the exclusion of women in the workforce, they can face similar challenges when they create a business. For instance, Xheneti et al. (2019) show that many women entrepreneurs do not support their family to operate a business, which causes the prevention of potential employment opportunities. The consequence of this situation can increase the unemployment rate of countries.

Religion is amongst subtle critical factors that influence the unemployment rate because it brings approaches to social orders and economies. For instance, Uygur and Aydin (2015) raise the religious differences as an indicator for job preferences because some workers may avoid working in a job that can be considered as a sin in the religion. For instance, Catholic nurses may not be involved in abortion or Hutterites may not have any willing to drive cars. Also, Muslims may refuse to work in a company that produces or sells drinks (Haddad, 2002). For this reason, religious individuals may not involve in certain sectors, and it can have an effect on increasing the unemployment rate for countries.

Many individuals are retired in some certain ages around the world. Every county has its own rule about the retirement age. However, many studies (e.g. Soto-Simeone and Kautonen, 2020; Saiz-Álvarez and Coduras-Martínez, 2020) demonstrate that even if individuals are retired, they still can work. Also, the retired individuals have social, cultural and economic capitals to run a business and to create employment opportunities for younger generations (Aydin et al., 2019). In the literature, the individuals who are entrepreneurs after a certain age are called senior entrepreneurs (Mouraview and Avramenko, 2020). However, many countries do not support this type of entrepreneurship, and this has an effect on increasing the unemployment rate in the countries.

4. CONCLUSION

This study sheds light on the conceptual and theoretical relationship between the strands of diversity as a subtle factor and its potential effect on the unemployment rate. In order to discuss the aforementioned factors, we specifically focus on gender, religion and age because these factors are relation-based diversity that creates personal approaches to any specific groups. Thus, we create emerging research agendas for the scholars in the field of management and economics because this study shows that there is a dearth of research that focuses on the economic externalities that are created by the strands of diversity. For future studies, scholars need to pay attention to the subtle factors in a broad way, and the practitioners must be aware

of the subtle factors that can have an adverse effect on unemployment. Also, they need to create inclusionary policies for the disadvantaged groups within the mentioned strands of diversity.

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EXPLORING THE COMMUNICATION EXPECTATIONS OF HEALTH CARE WORKERS: EMPIRICAL EVIDENCE FROM TURKEY

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Abstract

The aim of this study is to demonstrate the communication expectation levels of healthcare workers (HCWs) and their level of emotion. This study, in which 521 Turkish health workers participated, is a survey study. I explored the communication expectations and emotion levels of the participants in terms of professional title, gender and geographical region. The results show that the adverse emotions felt by healthcare workers are at a high level and that the workers have high expectations of attention, understanding, patience, and tolerance from the people they interact with. Those in the Aegean feel a higher level of negative emotion than those working in other regions. The results show that society has substantial responsibilities for healthcare workers. Society should avoid stigmatizing behavior towards healthcare workers and should be treated in a way that makes them feel good.

Keywords: *Communication Expectations, HCW, Covid-19, Adverse Feels, Turkey*

1. INTRODUCTION

The World Health Organization (WHO) reported that more than 60 million people were infected and more than 1.5 million died in November 2020 (WHO, 2020a). Healthcare workers (HCWs) are struggling in this process. As the number of cases increases, the working hours and workload of workers gradually increase. Moreover, this increases the likelihood of healthcare workers getting viruses. Studies (e.g. Banerjee et al., 2020; Muiry, Parsons & Madan, 2020) show that healthcare workers are more likely to get the virus due to fatigue and stress. Based on the data of July 2020, HWCs constitute 10% of positive cases worldwide (Who, 2020b). When this rate is considered for November 2020, it is thought that approximately 6 million healthcare workers have been infected with the virus.

According to the results of a study conducted in China, 50.4% of the healthcare workers experience depression, 44.6% anxiety, 34% insomnia, and 71.5% trouble. The mental health of the personnel serving in regions where covid positive cases are intense is under more threat than those working in others (Lai et al., 2020). Similarly, in another study conducted in Ecuador in March 2020, Chen et al. (2020) reported that 32% of HCWs experienced psychological distress and 28.2% had anxiety disorder. The situation is similar in countries like Italy (Di Tella et al., 2020).

Studies indicate that workers are more concerned about infecting their families, lack of equipment, and lack of social security. Women workers, elderly personnel, and HCWs who have contact with positive patients are more negatively affected by the developments caused by covid-19 (e.g. Almaghrabi et al, 2020; Chen et al., 2020; Di Tella et al., 2020). Despite all these adverse developments, healthcare workers continue to do their jobs without interruption.

People in various countries went out on the balcony to applaud HCWs to show their gratitude (Yıldırım & Taşdan, 2020). Public transportation was made free of charge for HCWs in big cities (Göçümlü, 2020). There was frequent news on television channels glorifying HCWs. Although there is positive news in the media that healthcare workers are declared heroes (Congar, 2020), unfortunately, researches also reveal that healthcare professionals are stigmatized by society (Ramaci et al., 2020; Taylor et al., 2020). Based on a study conducted on 3551 people in the United States, one-fourth of participants think that healthcare workers should be kept separate from society and their families. Also, participants stated that workers should be subject to restrictions because they think healthcare professionals may carry viruses (Taylor et al., 2020). Unfortunately, society's stigmatization of healthcare workers adversely affects the mental health and emotions of workers. Moreover, stigma affects emotionally

sensitive workers, have poor coping skills, and have suicidal attempts, more adversely. Teksin et al. (2020) state that Turkish healthcare workers (n452) who come into contact with covid 19 patients, show symptoms of covid-19, delay testing due to anxiety, and receive psychological support have higher perceptions of stigma. Moreover, the developments caused by covid-19 are so terrible that healthcare professionals even stigmatize their colleagues because of the virus. An example is given in the following excerpt. Grover (2020) recounts the experience of a healthcare worker stigmatized by her/his colleagues (p. 1);

> *...Although she had not come in contact with any known high-risk contact for COVID-19, she decided to get herself tested for COVID-19. Just prior to getting herself tested, she informed her supervisors about her going for the testing. However, immediately, after getting herself tested, she started receiving messages and phone calls from the colleagues about the rumors of her being tested positive. Everyone at her workplace was informed that she is positive for COVID-19. She felt very bad and helpless about the same. Next day her COVD-19 test came out to be negative, but she had to undergo a quarantine/self-isolation for 2 weeks as per the protocol. Throughout these 2 weeks she would hear about the rumors of her being COVID-19 positive and people blaming her for carrying the infection to the workplace. Due to this, she started remaining distressed, would often break into tears, had difficulty in falling asleep and maintaining asleep, her appetite reduced, was not able to concentrate on her work, would feel helpless, would be worried about the reaction of others in the future. During the self-isolation, she found that other HCWs living close to her accommodation, who were earlier friendly with her had started to avoid her, would walk in the corridor in such a way, as if trying to avoid physical contact with her. This would make her more distressed; make her feel an outcast and being ridiculed at...*

All these developments cause physiological and psychological difficulties for workers. The ability of healthcare professionals to perform more effectively against the virus depends on their well-being and strong emotional resilience. Therefore, instead of stigmatizing healthcare professionals, it is necessary to understand their communication expectations and improve their well-being. As a matter of fact, this requirement is also a social responsibility.

In the current study, I explore the communication expectations of healthcare professionals and their positive and negative emotional levels in the context of demographic factors. The results contribute to the discussion aimed at reducing the anxiety and adverse feelings of the health care workers. The questions of the research are as follows;

- RQ1: What are the communication expectation levels of healthcare professionals?
- RQ2: What is the level of positive and negative emotions experienced by healthcare professionals?
- RQ3: Do the communication expectations of the participants differ according to the

professional title?

- RQ4: Do the feelings of the participants differ according to the professional title?
- RQ5: Do the communication expectations of healthcare professionals differ according to gender?
- RQ6: Do the emotions felt by healthcare professionals differ according to gender?
- RQ7: Do the communication expectation levels of healthcare professionals differ according to the geographical region?
- RQ8: Do the emotions felt by healthcare professionals differ according to the geographical region?

2. RESEARCH METHOD

This study is a survey research. According to Sukamolson (2007) "*survey research uses scientific sampling and questionnaire design to measure characteristics of the population with statistical precision*" (p. 4).

2.1. Procedures

I gathered from health care workers in Turkey on research data of 2-15 October 2020. Participants were people working in randomly selected hospitals. After obtaining legal permissions, I sent the survey link to the hospitals' Facebook, Telegram, and WhatsApp groups. When the participants clicked on the research link, they confirmed that they "voluntarily filled out the questionnaire" on the screen. The survey form was created through the website surveey.com and the survey form consists of 3 different parts. These sections are; The Personal Information Form (PIF), Communication Expectations Form (CEF), and The Scale of Positive and Negative Experience (SPANE).

2.2. Measures

Personal Information Form

The items in this form ask the healthcare personnel for information about their gender, age, marital status, whether or not they have a child, job title, geographic region where they work, and whether positive patients are cared for.

Communication Expectations Form

CEF was developed by Aktaş and Pasinlioğlu (2017). This research has been adapted for CEF healthcare professionals. The form contains items that measure the extent to which the participants have expectations from other people they interact with. Responses range from "1"

(I have no expectations) to "5" (My expectations are very significant). The increase in the response scores indicates that the communication expectations of the participants are high. The items are presented in Table 1.

Table 1. Items of Communication Expectations Form

It is about to be greeted with a smiling face comes from others…
It's about others listening to me well and caring about what I say…
It is about others being more patient with me…
It is about others being sincere to me..
It is about giving me confidence that comes from others…
It's about others avoiding incriminating statements against me…
It's about others showing more interest and understanding for me…
It's about other people's respect for me…

The Scale of Positive and Negative Experience (SPANE)

SPANE was developed by Diener et al. (2009) to measure positive and negative experiences. The scale includes 12 items, 6 measure positive emotions and 6 measure negative emotions. In this study, 4 items were used to measure positive emotions and 4 items to measure negative emotions. Because when the items in the scale are translated into Turkish, some items have very close meanings. The reliability value (cronbach alpha) for the positive and negative emotions dimension of SPANE is $\alpha = .84$ and $\alpha = .80$ (p.257). SPANE includes inclusive expressions such as "good - positive - pleasant - bad - negative - unpleasant" to identify positive and negative emotions. In this way, SPANE can easily determine whether the emotions in different cultures are positively or negatively. Also, SPANE can focus on emotions that take place within a certain time frame. In this research, SPANE focused on how healthcare professionals felt in October 2020.

3. ANALYSIS

Kurtosis and skewness values of the data are between +1 and -1 (Table 2). Hair et al. (2014) state that data with kurtosis and skewness values between +1 and -1 are normally distributed. Therefore, I analyzed the data with parametric tests.

I evaluated the communication expectations of the participants based on the average scores of the CEF form. Similarly, I evaluated the positive and negative emotion levels of the participants based on the average scores on the SPANE scale. I analyzed how the level of communication expectations of healthcare professionals and their emotions differ according to demographic factors with ANOVA and T-Test. I evaluated the groups with significant differences with the Tukey test.

4. RESULTS

The communication expectation levels of the participants and the positive and negative emotion levels they felt during the pandemic period are shown in Table 2.

Table 2. Descriptives Statistic

	Mean St.	SD St.	Skewness St.	Skewness SE	Kurtosis St.	Kurtosis SE
Communication Expectations Form (CEF)	3,57	1,005	-,880	,107	,120	,214
It is about to be greeted with a smiling face comes from others...	3,32	1,186	-,568	,107	-,533	,214
It's about others listening to me well and caring about what I say...	3,65	1,123	-,958	,107	,228	,214
It is about others being more patient with me...	3,41	1,207	-,658	,107	-,563	,214
It is about others being sincere to me..	3,49	1,228	-,671	,107	-,502	,214
It is about giving me confidence that comes from others...	3,58	1,244	-,748	,107	-,405	,214
It's about others avoiding incriminating statements against me...	3,62	1,264	-,755	,107	-,463	,214
It's about others showing more interest and understanding for me...	3,60	1,228	-,857	,107	-,206	,214
It's about other people's respect for me...	3,86	1,294	-,741	,107	-,089	,214
POSITIVE EMOTIONS	3,46	,77658	-,396	,107	-,106	,214
NEGATIVE EMOTIONS	2,52	,80676	,083	,107	-,329	,214

x=1.0 - 2.0 Mean: Low Level   x=2.1 - 3.1 Mean: Medium Level   x=3.2 – 5.0 Mean: High Level

RQ1: Based on the average values in Table 2, the health personnel's expectation of empathic communication (x = 3.57) is very high. Particularly workers have very high expectations from people about "not using accusatory expressions against themselves" and "being understanding towards themselves".

RQ2: The adverse/negative emotions felt by the workers during the pandemic period also have a high level. On the other hand, the positive emotions they feel are moderate.

RQ3: The communication expectations of the participants do not differ significantly according to the professional title ($F_{3, 517} = 2.45, p > .05$).

RQ4: The level of negative emotion felt by the participants according to the occupational title does not differ significantly ($F_{3, 52} = 1.84, p > .05$). The level of positive emotion felt by the workers differs significantly according to the professional title ($F_{3,52} = 5.51, p < .05$). When the significant differences between binary groups are examined (Tukey); Doctors experience more positive feelings than nurses (x = .31014*) and health technicians (x = .40795*).

RQ5: The communication expectations of the participants significantly differ according to gender ($t_{519} = 2.71, p < .05$). Empathic communication expectations (x = 3.6) of female HCWs are higher than expectations of male HCWs (x = 3.3).

RQ6: The positive emotions felt by the participants differ significantly according to gender. ($t_{240.6} = -2.13$, $p < .05$). Male workers (x=2.6) feel more positive than female (x = 2.4) workers. The negative emotion level of the participants also varies significantly according to gender ($t_{231.5} = 4.27$, $p < .05$). Female health workers (x = 3.5) feel more negative emotions than male workers (x = 3.2) during the pandemic period.

RQ7: The communication expectations of healthcare professionals differ significantly depending on their geographic region ($F_{6,51} = 2.71$, p < .05). Significant differences between dual groups were analyzed using the Tukey test. The results show that those in the Marmara Region (x = .48939 *) and those in the Mediterranean Region (x = 56357 *) have a higher level of communication expectation than those in the Southeastern Anatolia Region.

RQ8: The positive ($F_{6,51} = 3.33$, p < .05) and negative ($F_{6,51} = 4.56$, p < .05) emotions felt by healthcare professionals differ significantly according to the geographical region they work in. Comparisons between groups are shown in Table 3. Based on Table 3, the negative emotion felt by the health personnel working in the Aegean region is higher than the employees in all other regions.

Table 3. Positive and Negative Emotions of Workers by Region

Dependent Variable	(I) Region:	(J) Region:	Mean Difference (I-J)	SE	Sig.
Positive Emotions	Aegean Region	Eastern Anatolia Region	-,61806*	,16784	,005
	Blacksea Region	Eastern Anatolia Region	-,53350*	,16409	,021
Negative Emotions	Aegean Region	Marmara Region	,52982*	,12139	,000
		Central Anatolia Region	,41627*	,12897	,022
		Eastern Anatolia Region	,66944*	,16045	,001
		Mediterranean Region	,45204*	,12476	,006

5. DISCUSSION AND CONCLUSION

Within the scope of this research, the positive and negative emotion levels felt by healthcare professionals in October 2020, and the communication expectation levels of the workers were explored. Besides, communication expectations and positive-negative feelings of the workers were examined in terms of factors such as occupational title (e.g doctor, nurse), gender, geographical region where they work, and covid-19 patient contact.

The results show that the communication expectations of healthcare professionals are quite high. Based on the results, employees experience high levels of negative feelings during the pandemic period. On the other hand, positive emotions felt by the employees are at average

levels. The level of positive emotion may increase when employees' communication expectations are satisfied. Therefore, society has substantial responsibilities. People should avoid expressions that stigmatize HCWs. As Teksin et al. (2020) stated, some individuals are sensitive among healthcare professionals. When these people are exposed to stigmatizing behavior, their mental health is in serious danger. Besides, the behaviors of healthcare workers towards each other also affect the positive and negative emotions (Grover et al., 2020). Therefore, workers should adopt an attitude that meets the communication expectations of their colleagues while dealing with their colleagues. Healthcare professionals in higher positions have substantial duties in this regard. Although the official procedure takes the subordinate-superior relations as a reference, the HCWs' being kind and more understanding towards each other during the pandemic period will make the employees feel better.

According to the results, negative emotions felt by healthcare workers residing in the Aegean region are higher than all other regions. By examining the working conditions in the Aegean region, strategies can be developed to improve the living conditions of healthcare professionals.

The subject that workers expectation the most within the scope of their communication expectations is that "people do not use accusatory expressions against them". Stigmatizing behavior of people towards healthcare professionals may have influenced this result (Teksin et al., 2020; Ramaci et al., 2020; Taylor et al., 2020). Some people think that healthcare workers carry viruses. Therefore, healthcare professionals are exposed to discrimination even in the buildings they reside in. For example, in an incident in Sinop, the apartment management left a note on the elevator door for healthcare workers not to use the elevator. Thereupon, the health personnel residing in the building; *we sacrifice our own lives in order to serve the society. This discriminatory approach adversely/negatively affects our determination to work. You are discriminating even though you have to ask "Do you need help?"* answered in the form (Sözcü, 2020).

Finally, in the pandemic period when online education has become widespread, various trainings for the society can be given via television or the internet. In these trainings, the communication expectations of healthcare professionals can be explained to the public. Thus, collective consciousness can be created in the fight against the virus.

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DOES TRADE OPENNESS CONTRIBUTE TO ECONOMIC GROWTH AND DEVELOPMENT OF MOROCCO?

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Abstract

This paper examines the dynamic relationship between trade liberalization on economic growth and economic development in the Kingdom of Morocco. Using yearly data obtained from the Federal Reserve Bank of Saint Luis (FRED) for the period of 1960-2018 and employing Granger Causality and an Auto-Regressive Distributed Lag (ARDL) time series model, we analyze the effects of trade openness, economic growth, and economic development. Our results suggest that trade liberalization Granger causes economic growth. Moreover, ARDL results show that trade openness has a statistically significant yet negligibly small impact on economic growth both in the short-run and in the long run. The effect of trade liberalization on economic development is not statistically significant in the short-run and long run.

Keywords: *Trade Liberalization, Trade Policies, Economic Growth, Development, ARDL, Morocco.*

1. INTRODUCTION

Trade openness and its impact on economic growth has been researched in the literature extensively during the past few decades. Trade openness can potentially increase economic growth by increasing efficient allocation of resources and improving total factor productivity through technology adoption and knowledge dissemination. Hence, trade is perceived as a means to improve the income and living standards in a given country (Andersen and Babula, 2006; Liu, 2016). Thus, countries around the globe adopted various policies to liberalize their trade. Beside unilateral trade and other nonreciprocal treaties such as the General System of Preferences (GSP), trade policies are mainly adopted through mutual international trade negotiations, either multilaterally under the umbrella of the World Trade Organization (WTO) or bilaterally through regional trade agreements. Trade liberalization policies are relatively easier to implement compared to other policies that require significant reforms and are politically sensitive.

The majority of research has been done on the impact of openness oneconomic growth, while the effect of openness on economic development has attracted little attention (Nourzad and Powell, 2003). In the 1970s, a differentiation between growth and development emerged. Economic development shows the overall welfare of the people including education, health, nutrition and so on (Nourzad and Powell, 2003). Some studies show that economic growth and economic development are not correlated while others indicate that growth and development are interdependent since policies that increase growth also foster development The dominant view is that while development is an condition of economic growth, growth itself not sufficient for development (Mazumdar, 1996).

This paper investigates the effects of trade openness on economic growth and economic development in the Kingdom of Morocco. Using yearly data obtained from the Federal Bank of St Louis for the period of 1950-2017 and employing an Auto Regressive Distributed Lag (ARDL) time series model, we analyze the dynamic relationship between trade openness, economic growth and some economic development indicators for the Kingdom of Morocco. To the best of our knowledge, this is the first study examining the effects of trade liberalization on economic growth and development of Morocco.

The organization of this paper is as follows. The next section reviews the literature. Section three introduces the methodology and data followed by section four that presents results and the last section concludes.

2. LITERATURE REVIEW

Trade and growth

Many studies have shown that trade openness has a positive impact on growth (Tahir, Mazhar and Afridi, 2019). The positive impact is attributed to the diffusion of technological inventions, capital flow, economies of scale, and rise in productivity (Anderson and Babua, 2009). One of the early studies that examined the effectiveness of trade openness was the work of Feder (1983). The study shows that trade openness boosts economic growth by not only raising output levels of capital and labor but also by redistributing resources from less productive companies to higher productive ones. Furthermore, within the framework of the endogenous growth model, Ahmed (2003) studies the correlation between trade liberalization and industrial performance in Bangladesh. He finds that there is cointegration between the industrial production and its determinants of investment-GDP and the average share of export in GDP, and secondary school enrolment. Ahmed (2003) concludes that long-run correlation between local investment, education, export, and industrial production in the Bangladeshi economy. Yanikkaya (2003) used a cross-country regression to a panel data of more than 100 developed and developing nations for the 1970-1997 period. He finds that trade openness contributes significantly to economic growth. Moreover, the findings show that trade effects on growth are largely similar between developed and developing countries. Wacziarg and Welch (2008) examine the correlation between trade liberation and growth in a large sample, which includes 141 countries over the 1950-1998 period. They conclude that nations with liberalized trade experienced an average 1.5-percentage points higher comparing to pre-liberalization period. Moreover, trade liberalization increases investment by 1.5-2.0 percentage points. They argue as well that liberalization of trade boosts growth in the liberalized nations through increasing the physical capital accumulation. Madsen (2009) relies on a long data set for 16 industrialized countries to examine the correlation between openness and economic growth. He finds that trade openness does not considerably affect growth. However, he shows that openness combined with foreign knowledge positively increases productivity.

On the other hand, other studies argue that trade openness is not always positive. Jang (2011) studies how free trade agreements affect foreign direct investments among OECD countries. The study concludes that a trade treaty between two developed countries has a negative effect on the economy as the inward foreign direct investment can be decreased if these investments are a crucial contributor to their economic growth (Jang, 2011). Moreover, Menyah, Nazlioglu and Wolde-Rufael (2014) study the impact of financial development and

trade openness on economic growth in 21 Sub-Saharan African nations covering the period from 1965-2008. They found a limited causal correlation between financial development and trade openness. There is little evidence that trade liberalization leads to economic growth in sub-Saharan African countries. Furthermore, Tahir et al. (2019) find that trade openness affects economic sectors differently. Trade openness has a positive impact on agriculture and industry, while it influences negatively the third sector.

In the Middle East, Haouas, Al-Shourbagui, and Rachied (2014) studied the effect of trade openness on the economic growth in 13 MENA countries during 1990-2011 period. Their findings show that increasing the degree of liberalization of trade has a slightly insignificant positive impact on economic growth in those countries. Similarly, Ayad and Belmokaddem (2017) examine the correlation between trade openness and economic growth in 16 MENA nations for the period 1980-2014. They find that trade openness has little impact on economic growth. Moroever, they argue that despite the liberalization reforms in the global trade, the MENA countries get very little gain. Moreover, Rehman, Ali, and Nasir (2015) investigate the correlation between trade openness and economic growth in Saudi Arabia from 1971 to 2012. They find there is a unidirectional correlation between economic growth and trade openness, where the trade openness leads to economic growth.

Trade and Development

The relationship between trade openness and development has attracted the attention of scholars for a long time. Eusufzai (1996) conducted one of the pioneer study to establish the correlation between the two. He finds a positive relationship between trade openness and development. He assesses the impact of trade openness on several variables such as infant mortality rate, access to safe water, the human development index (HDI), and the income-distribution-adjusted HDI. Moreover, Frankel and Romer (1999) argue that nations with higher opportunities to trade have a higher income. They examine empirically the effect of international trade on standards of living, with a special focus on countries' geographic characteristics. They conclude that trade improves income. Trade raises income by encouraging human and physical capital and by augmenting output for certain levels of capital (Frankel and Romer, 1999).

Dollar and Kraay (2001) examine the variance among countries that involved in globalization and those that resisted it. They show that nations, which engage in the globalized world, are catching up wealthy countries, while non-globalizers stay poor. Using a 100 countries panel dataset, Dollar and Kraay (2001) assess the correlation between trade openness

and growth rate. The globalizers' growth rate rose, while developed countries' growth rate slowed down. Trade openness contributes to alleviating poverty in globalizing developing economies. Moreover, trade openness leads to faster growth and poverty alleviation in poor nations. Therefore, according to these findings, trade openness is a tool to alleviate poverty in developing countries by boosting people's income. Similarly, Nourzad and Powell (2003) examine the direct correlation between the level of development and trade openness. They find that trade openness positively affects both social development and economic growth. Furthermore, they found that economic growth has a positive impact on development. Their results showed that development decelerates growth (Nourzad and Powell, 2003). Relying on a panel data from 219 countries, Owen and Wu (2007) investigate the correlation between trade openness and health outcomes over 1960-1995 period. They find that openness is bound up with lower infant mortality rates and higher life expectancy, particularly in developing nations. Winters and Martuscelli (2014) find that generally trade liberalization increase income and reduces poverty. Sun, MacIsaac, Duclos, and Lilly (2019) examine the impact of trade liberalization on skill acquisition. The attempts to determine the effect on the demand and supply for skills. They find that trade with developing countries leads to pressure low-skilled workers while raising the demand for high-skilled jobs (Sun et al, 2019). Jawadi, El Gouddi, Ftiti, and Kacem's (2018) is one of few study that examine the impact of trade openness on development in the Middle East. They investigate the impact of trade openness on health in 12 MENA countries. Using a panel data for the period 1970-2015, the study assess if the trade has an impact on life expectancy and the infant mortality rate. They conclude that trade openness has indeed a positive impact on health in the MENA countries, as it decrease the infant mortality rate and improves life expectancy for both men and women.

3. METHODOLOGY and DATA

We used trade openness, GDP growth and Human Capital index data starting from 1950 to 2017. All data are obtained from the Federal Reserve at Saint Luis. The functional form of the relationship between GDP and related variables can be expressed as follows:

$$Y = f(OPEN) \qquad (1)$$
$$HCI = f(OPEN) \qquad (2)$$

Where Y represents the real GDP of Morocco and OPEN represents the trade openness. Conventionally, this relationship is specified as a single-equation expressed in linear logarithmic form linking the GDP and trade openness variables as follows:

$$lnY_t = \alpha_0 + \alpha_1 lnOPEN_t + \varepsilon_t \tag{3}$$

$$lnHCI_t = \alpha_0 + \alpha_1 lnOPEN_t + \varepsilon_t \tag{4}$$

Where ln represents the logarithmic form of the variables, subscript t represents time. α_0 is the intercept and α_1 is the coefficient of variable OPEN in level equation, which is the variable of interest. Theoretically, trade openness is expected to have a positive impact on economic development. Hence, we expect the sing of the coefficient α_1 to be positive and statistically significant ($\alpha\_1>0$). Finally, ε is the error term assumed to be white noise with zero mean, constant variance.

Since the data are time-series, it requires the transformation in equations (4) and (5) Various methods can be used to estimate the time series model in equation (4) and (5) such as Error Correction Model (ECM) and Vector Autoregressive (VAR). However, Autoregressive Distributed Lag (ARDL) has several advantages over others. First, ARDL approach does not require variables to be integrated of the same order. It can be employed whether the variables are I(0) and/or I(1). Secondly, ARDL performs better if the sample size is small, which is the case for our study. Third, ARDL approach differentiates between the short-run and the long-run effects and estimate both in one-step. Finally, Paseran et al. (2001) indicates that there is no need for a unit-root test because the critical values of the F test that they tabulate has integrating properties of all variables in a given model. Hence, this study employs ARDL model.

The generalized form of ARDL model:

$$\Delta lnY_t = \beta_0 + \beta_1 lnY_{t-1} + \beta_2 lnOPEN_{t-1} + \sum_{j=1}^{n} \beta_3 \Delta lnY_{t-j} + \sum_{j=0}^{n} \beta_4 \Delta lnOPEN_{t-j} + \varepsilon_t \tag{4}$$

$$\Delta lnHCI_t = \beta_0 + \beta_1 lnY_{t-1} + \beta_2 lnOPEN_{t-1} + \sum_{j=1}^{n} \beta_3 \Delta lnY_{t-j} + \sum_{j=0}^{n} \beta_4 \Delta lnOPEN_{t-j} + \varepsilon_t \tag{5}$$

Where Δ is the first difference operation. The coefficients of first-differenced variables (β_3 and β_4) indicate the short-run effects while the coefficient of level variables (β_0-β_2) reflects the long-run effects. The estimation of equation (4) and (5) gives both the short-run and the long-run effects in one step.

4. RESULTS

The results of estimations are presented in the following tables 1-5 followed by diagnostic tests. Granger causality results show a unidirectional causality from trade openness to real GDP.

Table 1. Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
LNOPEN does not Granger Cause LNGDP	59	3.29585	0.0446
LNGDP does not Granger Cause LNOPEN		2.78964	0.0703

When examining the short-run relationship between trade openness and economic growth, the short-term is expressed as β_4 in equation (4) and referred to as DLN(OPEN) in Table 2 below. The short-run coefficient in Table 1 is 0.006 and corresponds to a p-value that is smaller than 0.05 suggesting that, in the short-run, the impact of openness on economic growth is statistically significant. However, the magnitude of the effect is quite smaller such that GDP increases by 0.06 percent per 10 percent increase in openness.

Table 2. Coefficient estimation for short-run

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.020381	0.081738	-0.249348	0.8040
RGDP(-1)	0.005721	0.006825	0.838157	0.4055
OPEN(-1)	2.02E-05	0.000334	0.060464	0.9520
D(OPEN)	0.006205	0.000950	6.530231	0.0000

Table 3. Coefficient estimation for long-run

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OPEN	0.093527	0.057439	2.061404	0.0413

As for the long-run relationship between tourism and economic growth, the long-run coefficient is expressed as β_2 in equation (4) and referred to in Table 3 as OPEN. The long-run coefficient in Table 4 is 0.0935 and corresponds to a p-value that is lower than 0.05. This suggests that, in the long-run, the impact of openness on economic growth is statistically significant. In other words, a 10% increase in number of openness would cause about a 0.1 % increase in GDP.

Table 4. Coefficient estimation for short-run

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.003129	0.001667	1.876915	0.0658

HCI(-1)*	-0.001537	0.002000	-0.768668	0.4454
D(OPEN)	-1.97E-05	1.33E-05	-1.482980	0.1438
D(HCI(-1))	1.010232	0.052884	19.10274	0.0000

Table 5. Coefficient estimation for long-run

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OPEN	-0.012793	0.022689	-0.563830	0.5752

Looking at the effects of openness on development in table 4 and 5, the short-run coefficient of D(OPEN) in table 4 corresponding β_4 in equation (5) is not statistically significant. Similarly, the long-run coefficient of OPEN in table 5 corresponding β_4 in equation (5) is not statistically significant. These results suggest that trade openness does not have any impact on economic development in Morocco.

To assess the validity of the assumptions our model, we tested the model for serial correlation issues, normality, constant variance, and stability of the model. To ensure that the model was checked for autocorrelation issue Breusch-Godfrey Serial Correlation LM Test is used. The null hypothesis is that there is no serial correlation in the data used. The test output shown in Table 6 below has corresponding p-values that are greater than 0.05. Thus, we fail to reject the null hypothesis. This implies that we accept the null hypothesis and the model is not serially correlated.

Table 6. Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.518900	Prob. F(2,50)	0.5983
Obs*R-squared	1.199703	Prob. Chi-Square(2)	0.5489

To check the model validity for a constant variance in the error terms, we used Breusch Pagan Godfrey test for heteroskedasticity. The null hypothesis suggests that there is no heteroskedasticity, which means there is no constant variance in our data. According to the results shown in Table 7, the corresponding p-values are greater than 0.05, which implies that we reject the null hypothesis. Thus, the results show that there is a constant variance in our data.

Table 7. Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.698245	Prob. F(6,52)	0.1400

| Obs*R-squared | 9.666891 | Prob. Chi-Square(6) | 0.1394 |
| Scaled explained SS | 9.569990 | Prob. Chi-Square(6) | 0.1440 |

To test if the data are normally distributed, we tested the model using Jarque-Bera test. The null hypothesis is that the data are normally distributed. According to the test's output presented in Figure 1 below, the corresponding p-value is 0.18, which implies that we fail to reject the null hypothesis suggesting that the data used are normally distributed.
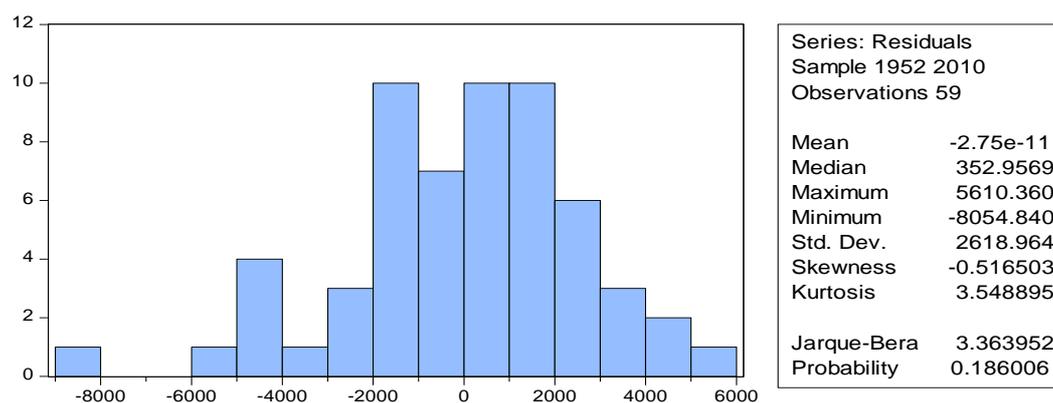

Figure 1. Normality test.

5. DISCUSSION and CONCLUDING REMARKS

In this paper, we attempted to examine the impact of trade openness on the economic growth and development in Morocco. Using trade openness index, GDP, and Human Capital Index data obtained from the Federal Reserve of Saint Luis and employing Granger Causality and ARDL methods, we find unidirectional causality running from trade openness to economic growth. We also find that trade openness has statistically positive impact on economic growth both in the short run and in the long run, but the magnitudes of the contribution are negligibly small. These findings are in line with the findings of Haouas et al. (2014) and Ayad and Belmokaddem (2017). Despite the liberalization reforms in the global trade, the MENA countries get very little gain from trade. On the other hand, effects of free trade on economic development is not statistically significant both in the short-run and long-run. This is not surprising as economic development can be achieved mainly through economic growth. Future studies can focus on effects of free trade on sectoral level economic growth as disaggregated data would provide more information at sectoral level. Moroever, different indicator of development can be used to test the effects of openness on economic development.

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MOBILE TECHNOLOGY: A TOOL TO INCREASE HOTEL SALES AND REVENUE

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Abstract

Purpose - Mobile technology enables users to access information and applications anytime, anywhere, providing greater flexibility in communication, collaboration and information sharing. The strategic importance of mobile technology should not be underestimated, given that the rapid pace at which mobile technologies are being adopted and improved is creating opportunities for new, innovative services that can be delivered via mobile devices. The purpose of this paper is to explore the possibilities of mobile technology as an extremely important tool for hotel companies, helping them to distribute information, simplify processes and increase productivity and sales in general. In addition, the purpose of this paper is to determine the status and role of mobile technology in driving revenue growth in the hotel industry.

Design/Methodology - Based on an extensive desk research in the existing literature, this study examines how mobile technology can significantly improve hotel operations. Secondary data were used to draw conclusions about the potential of mobile technology in the hotel industry.

Findings/Results - The paper contributes to the discussion on the increasingly important role of mobile technology in the hotel industry. However, mobile technology has changed the perception of hotel guests and the way they experience good things. Therefore, this paper, which deals with the significance and importance of mobile technology in hotel operations, attempts to answer these questions: To what extent is mobile technology present? How are they used? What role do they play in modern hotel operations and in the hotel industry in general?

Originality/Value - This paper focuses on the mobile technologies, like mobile apps, in order to deeply understand to what extent hotel guests' accept the usage of these technologies for the choice of hotel, by providing issues for researchers and practitioners. Mobile technology still has growth potential as technological development never stops, and this will completely change the traditional and conventional approach to hotel management.

Keywords: *Mobile technology, Mobile apps, Hotel industry, Hotel Sales.*

1. INTRODUCTION

The figure of nearly 3 billion smartphone users (Statista, 2020) cannot leave anyone indifferent. Both the tourism industry and the hotel industry have realized the benefits of using mobile technology and smartphones in business. The future of the hotel industry will increasingly depend on mobile technology, and therefore it is necessary to continuously monitor new achievements and technological solutions that it enables. With the right deployment and usage, it is possible to increase both hotel sales and hotel revenues. In a dynamic and increasingly sophisticated market, new technologies are emerging that are on their way to completely transform the hotel industry. Mobile hotel apps are redefining the customer experience in the hotel industry. Guests are looking for convenience, and customized hotel apps play an important role in providing the best experience to customers. Mobile technology plays a critical role in the guest experience of a hotel stay, adding incredible value and enhances guest satisfaction by improving the quality and flexibility of hotel services, communication efficiency and personalization of services (Zhang et al., 2019).

Mobile technology has transformed most people's business lives and is present in almost every aspect of the modern economy. The increase in the number of mobile devices in the world and access to the internet have made it possible to conduct numerous activities, regardless of where the user or hotel guest is located. Mobile devices have reached every corner of the world and are indispensable for business and leisure travelers (Lei & Law, 2019). Many hotel guests appreciate hotels that continually introduce and offer new technological amenities that directly impact guest satisfaction and provide hoteliers with an additional source of revenue (Bilgihan et al., 2016).

The combination of mobility and Internet access provides hotels with many opportunities to improve their service and keep pace with the increasingly rapid development of mobile technology. The growth, proliferation, and adoption of mobile technology is having an amazing impact on the hotel industry, affecting the guest experience pre-arrival, during the stay and post-departure. Hotel companies have implemented mobile applications that cover the entire cycle of the hotel guest, from searching for a hotel, booking, checking in, using the application as a concierge to search for various services, to leaving the hotel.

Mobile devices, with their functionality and mass of users, have stimulated a completely new business platform, forcing all serious companies, especially in the hotel industry, to pay special attention to this segment. This happened through various mobile applications developed by hotel companies to offer new services to guests and facilitate the development of existing

services. One of the latest trends in the hotel industry is the integration of mobile technology in almost all business processes, through which they achieve a new dimension of contact with guests while offering them new products and services. As competition for market share increases, hoteliers need to transform their business to adapt to new multi-device mobile Internet connectivity and deliver a personalized user experience to exceed expectations and win back customer loyalty (Lam & Law, 2019).

2. MOBILE TECHNOLOGY

As an innovative and competitive marketing tool in offering services and online transaction capabilities, mobile technology is critical to the success of businesses. For hotel businesses to survive and thrive in a competitive environment, digital transformation has become a necessity (Lam & Law, 2019). Nowadays, tourists are becoming more tech-savvy and demanding, looking for unique and personalized experiences and interested in interacting with mobile technologies (Dorcic et al., 2019; Bounatirou & Lim, 2020). The following data also shows how important and present mobile technology is in the hotel industry (Kumari, 2020):

- about 85% of international tourists use a mobile device during their trip,
- about 74% of travellers say they would prefer the hotel app for booking and other details,
- almost 70% of last-minute reservations are made on a mobile device,
- mobile hotel apps help about 70% of travellers make booking decisions,
- 88% of hotel guests want a mobile app that offers them a personalised experience.

Mobile technology is undoubtedly one of the key drivers of new ways of traveling. The mobile device has become a travel guide, travel agent, calculator, camera, translator, the best restaurant finder and much more. According to TripAdvisor, 45% of users use their smartphone for everything related to their vacation. Furthermore, as there is a need to adapt corporate services and communication through mobile devices, KLM has created an information service for travellers with Facebook Messenger (Vidal, 2019). The right use of mobile technology increases guest satisfaction on the one hand and creates the prerequisite for an increase in revenue on the other. Tourists are addicted to mobile technology to do everything from book a restaurant or a family pass at a theme park to translate key terms, ask for directions and guiding themselves toward new places (Çınar, 2020).

3. MOBILE TECHNOLOGY TRENDS IN THE HOTEL INDUSTRY

Growing customer acceptance of technology, combined with shorter technology lifecycles, presents a major challenge for hotels (Brochado et al., 2016). Mobile technologies are transforming the intangible hotel services into tangible (Lukanova & Ilieva, 2019). Modern guests have become increasingly expert in the use of new technological solutions, forcing hoteliers to offer precisely those services that rely on new technologies. To provide personalized service and a quality experience at the hotel, hoteliers are embracing new trends such as (Kumari, 2020):

- Artificial intelligence and chatbots
- Big data and virtual assistant
- Internet of Things (IoT)
- Direct bookings through the App
- Augmented reality (AR) and Virtual reality (VR)

3.1. Artificial Intelligence and Chatbots

Artificial intelligence is playing an increasingly important role in the hotel industry and performs some human functions that help potential hotel owners save significant costs, minimize human errors, and provide better service. The use of artificial intelligence helps improve the quality of services, such as faster responses to guest requests and the ability to handle a large number of requests simultaneously with almost no capacity constraints.

The best example of using artificial intelligence is to use it to provide a personalized service. The Hilton hotel chain uses a robot named 'Connie' that is able to provide information to guests who communicate with it. It also has the ability to learn from human speech and adapt to individuals (Revfine, 2020). It is important to keep in mind that technology is not an employee substitute, but a tool to help employees perform better (Leung, 2019).

3.2. Big Data and Virtual Assistant

Big Data can be used to provide personalized services. It allows the hotel to adapt to real-time trends, run targeted marketing campaigns, make recommendations for specific locations based on age, gender, places previously visited, etc. Crucially, they can be used in predictive and behavioral analytics, helping hoteliers identify key trends or patterns (Revfine, 2020).

Virtual assistants are becoming one of the foundations for delivering a superior and personalized user experience. Moreover, Gartner predicts that by 2021, virtual assistants will conduct approximately 15% of business interactions with customers (Priyadarshini, 2020).

3.3. Internet of Things (IoT)

The Internet of Things is being used in many different areas to increase efficiency and provide a better customer experience. Homes are increasingly transforming into smart homes and starting to give way to smart hotels. This offers hoteliers the opportunity to better serve guests, offer value-added services, and run the facility on the back end with far greater efficiency than was ever possible before (Car et al., 2019). IoT improves the guest experience and helps to better understand guest behaviour (Nadkarni et al., 2019).

For example, "Hilton and Marriott have experimented with slightly different takes on the 'connected room' concept, where users are able to control many of the room's features from their mobile phone, or from a provided tablet" (Revfine, 2019).

The Internet of Things (IoT) is a very important factor in the tourism and hotel industry, enabling new ways of doing business. Numerous industries have potential benefits from the Internet of Things, but the travel industry is already a pioneer when it comes to IoT investment. Table 1 shows the IoT location and its function.

Table 1. Recommended IoT Location

IoT Location	Type of IoT/sensor	Function
Inside Hotel		
Guest Room	Movement sensor	Energy management system adjusted in-room environment and ambiance according to guest presence and their location inside guest room.
	Voice sensor	Voice activation controlling in-room devices such as curtain, lightings, room temperatures etc
	Temperature sensor	Measure room temperature ensure guest can stay with comfortable environment
	Door lock	Mobile app can act as keyless card for door lock system
	Wearable sensor	Monitor guest health situation during their workout and provide
Restaurant & Lobby	Location sensor	Identify registered members presence and send push welcome message or events invitations
	Promotion beacon	
Hotel facilities	Availability beacon	Delivery availability notifications to hotel guest
Warehouse	Inventory tag	Detect item profile and location; Examine expiry date and par-stock level
Outside hotel		

Building	Temperature sensor	Measure external temperature and make adjustment on energy management system
	Light sensor	Detect the sunlight and adjust the blinds and brightness of the lighting system
Roadside	Traffic sensor	Detect parking space and traffic situation
Social network	Content sensor	Monitor social network and UGC sites content related to hotel and alert manager to feedback promptly; customer's stay history can be extracted from internal big data for management review.
PEST Data	Contextual data extractor	Extract PEST contextual data around the world and store in hospitality big data

Source: Retrieved from Buhalis & Leung (2018)

3. 4. Direct Bookings Through the App

Mobile applications and smartphones enable a business to provide information and services at the right time and place. Mobile applications provide a direct connection between the business and the consumers. A direct connection brings two benefits: lower distribution costs and increased customer loyalty (Qin et al., 2017).

In the modern hotel industry, the existence of mobile applications enables the booking of accommodation through mobile devices, either through online booking platforms or through hotel mobile applications. Accommodation revenue is the most significant and takes the largest share of a hotel's total revenue, but in addition to selling accommodation through the mobile application, it is possible to find additional sources of revenue through various offers and services placed directly to users. Furthermore, advances in technological solutions offer benefits not only to hotel guests but also to hotel service providers (Linton & Kwortnik, 2019).

3.5. Augmented Reality (AR) and Virtual Reality (VR)

The technology AR allows elements that do not exist in real life to be seen through an application via the screen of a device, usually a mobile phone, and has become an important concept in the hospitality industry in recent years. Augmented reality is typically applied through a smartphone app and used to add more layers to the real environment. For example, the user can point the phone at the restaurant and view guest reviews or point the phone at the hotel map to find additional information about nearby attractions.

Virtual reality is a technology that allows virtual tours of places in 3D. Large hotel establishments allow tourists to experience VR with the possibility of a 360-degree view of the accommodation, which gives the guest a sense of space and security. This can make a difference, especially at the stage when customers are ready to make a reservation, as it gives

potential customers a much clearer impression of what to expect when they actually visit (Revfine, 2020).

4. THE IMPACT OF MOBILE TECHNOLOGY ON HOTEL SALES AND REVENUE

By investing in mobile technology, almost all hotels have the primary goal of increasing revenue, improving guest service, and positively impacting the overall efficiency of the hotel (Jung et al., 2014). Many hotels and accommodation businesses have experienced improved financial performance following the introduction of new technologies, and it is argued that IT applications could increase the competitive advantage of hotels, for example by reducing operating costs, creating additional value, increasing agility, reducing service turnaround time, and developing new products and services (Hua et al., 2020; Vikas & Deependra, 2019).

Hotel experts recommend hotel owners to invest in new technologies as the share of reservations and sales of products and services via mobile devices in total bookings and sales is increasing day by day, which can eventually translate into strong growth in hotel revenues and earnings.

Digital transformation and technology are becoming key to generating higher customer demands. FinancesOnline's study confirms this statement, reporting that the hospitality industry has seen a 135% increase in revenue and a 71% reduction in guest complaints as a result of implementing new technologies (Graph 1). In addition, 81% of guests want a better digital customer experience from hotel brands (Knepp, 2020).

Graph 1 Key ROI Benefits
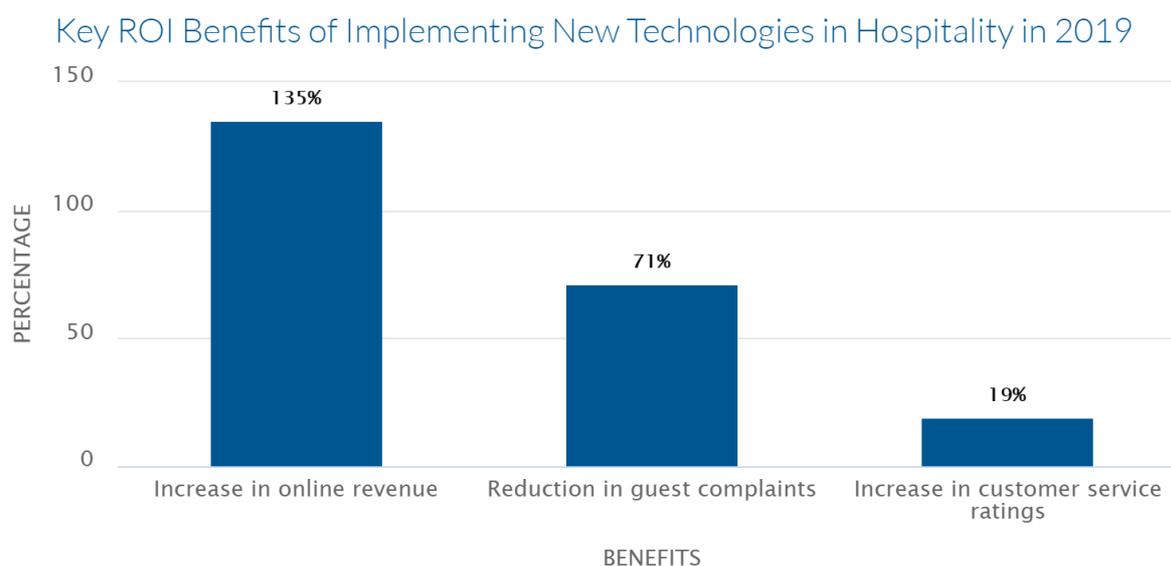
Source: Gilbert (2020)

Immediately after arriving at the hotel, one of the first things guests do is to organize their experiences at their destination as quickly as possible. The starting point of their entire journey becomes the hotel, which immediately opens up a unique opportunity for hoteliers to not only get closer to their guests by increasing their satisfaction, but also to increase hotel service and sales at outlets such as spas, restaurants, and more. To achieve successful hotel communications that drive better reviews and higher sales, the need to implement technology is critical. As we all know, hotel staff is the most important factor that influences hotel guests. However, hotel establishments need to ensure that their guests can not only easily access the information they want whenever they want, but also stay informed about all the experiences that have been created just for them (Morantis, 2019).

The increased use of mobile devices has changed customer needs and expectations. As more and more people use mobile devices to find out about products and services, the mobile market has become a very efficient and profitable new distribution channel. With a dedicated app, hotels can easily reach their guests and inform them about special promotional offers. Through the application, it is possible to offer the guest who has booked the accommodation to move to a better room, at a certain extra cost, of course if there is free capacity in the hotel.

When the user of the application, who is on his way to the booked accommodation, accesses the hotel's mobile application to perform a mobile check-in, he must be offered additional options to improve the existing reservation at an additional cost. The goal of any quality hotel application is to provide the guest, the user of the application, with as many options to choose from as possible. By simply adding local attractions, local services, or internal menus, hotels can significantly increase revenue from their existing facilities through a mobile app. Another very crucial mobile technology that can significantly improve a hotel's revenue is "contactless payment technology". This includes smart payment gateways such as Apple Pay, Android Pay, Samsung Pay, Visa Paywave and MasterCard PayPass (Hussain, 2019).

Faced with this new scenario, many managers in the tourism sector have insufficient knowledge of the new information technologies and therefore need to familiarize themselves with the benefits of these tools and spend both time and effort to improve their management (Ortega-Fraile et al., 2018).

5. CONCLUSION

Mobile technologies and the advent of smartphones have already shaped the global tourism market and will continue to do so in the coming years. The number of smartphone users is increasing year by year, opening up new opportunities for those hotel businesses that want to keep up with the times or keep up with the development of new technologies. In this sense, the competitiveness of each economy depends, among many other factors, on its ability to simultaneously use new technologies to create new jobs, contribute to GDP growth, create new services and / or industry and achieve a better online presence through new business models, processes and innovations.

Hotel companies that have realized the importance and significance of mobile technologies and the placement of information on mobile devices through mobile applications have also gained a competitive advantage over others and increased the loyalty of their guests through the various programs they offer. However, mobile technologies offer a variety of new features and opportunities that hotels can take advantage of to improve revenue and customer satisfaction.

Knowing that information is available to the user at all times, regardless of the location or country the user is in via their mobile devices, should not be ignored. To stay and survive in the challenging market, hotels must follow the trends and achievements of the modern world, especially the innovations in mobile technology. The importance of mobile technology and users' dependence on it is growing by the day, so hoteliers need to decide how and in what ways to incorporate it into their business to ensure that their guests are satisfied and loyal. To operate as successfully as possible and gain a competitive advantage, hotel companies cannot ignore the importance and benefits of using mobile technology in the hospitality industry. The use of mobile technology can not only improve the user experience, but also bring financial and operational benefits to the hotel.

To prepare for what is to come, hotel managers and hotel staff should be ready to adopt new technologies to improve the efficiency and effectiveness of various work processes. We believe that this article will be useful for researchers and practitioners in this field and help them understand the great potential of mobile technologies, especially in the hotel industry. Furthermore, this paper can be the basis for further research to determine and investigate the extent to which mobile technologies influence guest satisfaction and the extent to which they encourage guests to spend more at a particular hotel or destination.

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THE VOLUME OF FOREIGN TRADE AND RELATIONS OF CURRENCY ARDL BOUND TESTING ANALYSIS (TURKEY EXAMPLE)

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Abstract

The study aims to produce scientific results for policymakers. Theoretical studies are consistent with the results obtained in this study. The USD / TL parity used in the analysis was used as the dependent variable, and import and export data were used as independent variables. Central Bank of the Republic of Turkey from the Electronic Data Dissemination System (EDDS) has received data set covering the period 2013M01-2020M07 and consists of 91 observation posts. The autoregressive Delayed Distribution Model (ARDL) was preferred in the analyzes because the data were stable to different degrees.

As a result of the statistical analysis, a cointegration relationship was found between variables according to the estimated model, but the long-term relationship was not found significant according to the "P" value. When the values calculated according to the Bayesian approach are interpreted, it can be said that there is a long-term negative relationship between the dependent variable exchange rate and the import of the independent variables. It can be said that there is a positive relationship between exchange rate and exports.

As a result, according to the findings of the research, a consistent relationship with long-term cointegration and theory was found. However, due to the difference in the results, it cannot be mentioned in the studies in the literature.

Keywords: ARDL Bounds Test, Conventional Exchange Rate Theory, Foreign Trade and Exchange Rate Relationship.

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1. INTRODUCTION

In this article, the direction and ratio of the relationship between the dependent variable dollar / TL rate and the independent variables import and export quantity are analyzed. The theoretical framework of the relationship has been described as "traditional exchange rate theory". The traditional exchange rate theory assumes a relationship between the balance of payments and the exchange rate. Import and export amounts are followed in the main balance of payments accounts.

This study presents a comprehensive literature (1973-2018) examining the relationship between foreign trade volume and exchange rate variables. When the literature is examined, it is noteworthy that the results obtained differ.

According to Aktaş (2010), the results are contradictory since there is no relationship between exchange rate and foreign trade volume. According to Vergil and Erdoğan (2009: 36), different development levels and analysis methods of the countries studied affect the results. Either (1973); Dellas and Zilferfarb, (1993); According to McKenzie (1999), the results may differ as the internal dynamics of the analyzed country (such as investment risk, investor attitudes, consumer preferences, and substitute product status) affect the exchange rate more than imports and exports. Clark et al. (2004: 20-21) links the different results obtained in the studies to the political and economic structure of the country studied, to the data set, variability and preferred analysis methods.

This employee aims to produce scientific data for policymakers. Selected analysis method (ARDL) and Bayesian approach used in interpreting the results contribute to the literature. The sample consists of 91 observations for the period 2013M01-2020M07. In the study, the USD / TL rate is the dependent variable, and the import and export data is the independent variable. The time series used in the study, Turkey's Central Bank from the Electronic Data Dissemination System (EDDS) is taken as secondary data. It is thought that using different methods with the same data set will affect the results.

In this study, the Traditional Exchange Rate Theory was first discussed. Later, a large literature on the exchange rate and foreign trade volume variables was explained. In the last section, the stationarities of variables are examined by unit root test. Specification analysis was performed for the model estimated by ARDL. The proposed statistic was considered reliable as all tests were compatible with the assumptions. As a result, cointegration between variables was found for the predictive model according to the analysis results. Also, the calculated statistics

show that the long-term relationship is meaningless. However, considering the signs of statistical values calculated according to the interpretive Bayesian analysis, a long-term inverse relationship between the dependent variable exchange rate and imports and a similar relationship with exports were observed.

2. THEORY (TRADITIONAL EXCHANGE RATE THEORY)

In international trade relations, payment is usually made in reserve currency. Therefore, the Traditional Exchange Rate Theory discusses the effect of foreign trade volume on the exchange rate. In other words, the basic assumption of the theory is the relationship between foreign trade volume and exchange rate. According to the theory, it increases the exchange rate required to finance the current account deficit. The foreign exchange supply causes the exchange rate to fall. In other words, the exchange rate takes a position according to the balance of payments.

According to Seyidoğlu (2007: 418), all variables that affect foreign trade volume also affect the exchange rate. The exchange rate is also directly related to the general price level in the international market. There is an inverse relationship between the exchange rate and import. While the demand for the product whose price is falling in the market increases, the demand for the product whose price is increasing decreases (Krugman and Obstfeld, 2003: 436-37; Altıntaş and Çetin, 2008: 36-37). In other words, while the increase in the exchange rate decreases the demand for imported products, it increases the demand for domestic products. As the demand for imported goods increases, the foreign exchange supply also increases (Dinler, 2007: 240).

Foreign exchange demand refers to the financing to be paid at the end of the current year (Dinler, 2007: 240). Therefore, one of the main variables affecting the foreign exchange supply in the domestic market is export. The theory claims that there is a similar relationship between export and exchange rates. Export-based imports are also directly affected by exchange rate changes. Therefore, the change in the exchange rate changes the competitiveness of the country. As the change in the currency will affect the price of imported products, changes in consumer preferences are expected. As a result, substitution can cause a reduction in domestic production. The decrease in the domestic market also affects the labour market negatively (Bilgin, 2004: 82).

Unstable exchange rates increase the uncertainty in foreign trade. Therefore, it negatively affects long-term plans and commercial relationships. Conversely, a stable exchange rate

increases confidence in the market. The safe market also facilitates the investor to establish long-term commercial relationships (Salvatore, 2019: 9; Baxter and Kouparitsas, 2006: 11). Due to the fluctuations in exchange rates, the risk to be undertaken by international businesses increases. The high risk in foreign trade causes a contraction in import and export volumes. That is, there is a negative relationship between exchange rate volatility and foreign trade volume (Hodge, 2005: 5).

In reality, as the theory suggests, foreign trade volume is not the only variable affecting exchange rate change. Different results obtained in empirical studies prove this. According to Arize (1997) and Takaendase et al. (2005), national and international uncertainties also affect the exchange rate level. Also, these uncertainties harm imports and exports. When uncertainty increases, domestic investors are expected to use their savings in favour of foreign exchange. Apart from this, the portfolio preferences of foreign investors and loans were taken from international financial institutions also affect the exchange rate (Ertek, 2007: 413-414). Markets and financial structures of countries without reserve money features are more affected by changes in exchange rates. Therefore, the competitiveness of states in international markets is directly dependent on exchange rate changes (Yılmaz and Kaya, 2007: 70).

As a result, although the theory has been heavily criticized, it has provided very simple and useful suggestions for understanding the relationship between exchange rate and terms of trade. In summary, the dependent variable of the traditional exchange rate approach is the exchange rate and the independent variable is the trade rates. The assumption of the theory is a fully integrated foreign trade and free exchange rate regime. Therefore, the trade rate at the end of the current year is the main variable in the up or down movement of the exchange rate. Many variables in the real world affect both the exchange rate and terms of trade. Some of these are global eco-political and strategic choices, cultural differences and ideological influences. The variables are not quantitative, making it difficult to analyze the relationship with the exchange rate.

3. LITERATURE

Many studies in the literature investigate the relationship between the exchange rate and foreign trade volume. However, it is seen that studies have reached quite different results from each other. The reasons for the different results may arise from the level of development of the country studied, the variety of samples and variables, and different geopolitical situations. Besides, variables that cannot be included in the established model change the results of the studies. Advances in information processing technologies can also cause different results.

Therefore, it will not be very meaningful to develop an eco-political strategy according to the literature. Every country, every business, every economic structure should be suggested to act according to their own analysis. The reason for keeping the literature wide is that empirical findings lead to different results.

Clark (1973) found an inverse and significant relationship between exchange rate risk and foreign trade volume. However, Hooper and Kohlhagen (1978) could not find any relationship. Koch and Rosensweigh (1992) analyzed the relationship between the US dollar and the US foreign trade volume using the Granger Causality Test and found a weak relationship between dollar trade volume. Therefore, he criticized the assumptions of the Traditional Exchange Rate Theory. Savvides (1992) examined the impact of exchange rate changes on foreign trade volume in both developed and developing countries. Thus, it has been proven that the development levels of the countries affect the results. Similarly, Als and Oskooee (1995) could not find a long-term relationship between variables in their study, where they examined the relationship between exchange rate and foreign trade for developed and less developed countries. Unlike others, Sercu and Uppal (2003) linked the relationship between exchange rate and foreign trade volume to transportation costs and risk factors.

Baum et al. (2004) analyzed the relationship between foreign trade volume and exchange rate of thirteen developed countries using the GARCH method, but could not reach a meaningful result outside Germany. Wang and Barrett (2007) analyzed Taiwan's foreign trade figures on a sectoral basis with the exchange rate variable. In the analysis made with the GARCH-M method, it could not find a relationship in other sectors other than the agricultural sector and exchange rate.

Petrović and Gligorić (2010: 23-41) analyzed Serbia's foreign trade volume and exchange rate data for the period 2002M01-2007M09 with the ARDL boundary test. It determined that the change in the exchange rate had a positive impact on foreign trade volume in the short and long term. Baek (2014) examined the trade volume and exchange rate relationship between the USA and South Korea. In the analysis made with the ARDL limit test, it is concluded that exchange rate changes have a direct effect on the foreign trade volume for both countries. Barak and Naimoğlu (2018) examined foreign trade and exchange rate changes in five fragile countries. As a result of ARDL panel data analysis, it found a strong correlation in the same direction between trade volume and exchange rate in both the long and short term.

As a result, when the literature is examined, it is seen that there are many studies. When the studies in this article are examined, it is seen that the development levels, currencies,

analysis methods and data sets of the countries are different. Each different variable directly affects the experimental results.

4. METHOD

Central Bank of the Republic of Turkey Electronic Data Dissemination System Study (EDDS) data are used. Analyzes were made with Eviews 10 program. USD / TL exchange rate dependent variable, import and export volume are independent variables. The data set consists of 91 observations for the period 2013M01-2020M07. Due to the root types of the data, the ARDL Boundry test was used in the analysis. The long and short term cointegration relationship between variables and the direction of the relationship was examined in the study. Results are evaluated according to both classical and Bayesian approaches. Empirical findings may differ according to the data set used, analysis method and package program.

4.1. Analysis Method

According to ARDL Boundary test approach; The calculated value is compared with the calculated table values and comments are made. For the reliability of ARDL Limit test results, other tests should be applied to the data sets before and after the test. According to Pesaran, Shin, and Smith (2001), the ARDL boundary test can analyze the degree of cointegration between variables. The variables are expected to be stationary at the I (0) level or I (1) level. According to Quattro (2004), it would be wrong to use variables that do not provide the assumption of stationarity.

Before proceeding to the ARDL Boundary Test, the stationarity checks of the time series are made. For fixed series, a model is estimated by the ARDL Limit Test. Specification tests should be done to make the predicted model meaningful. These tests; Autocorrelation Test, Variance Analysis, Specification Error Analysis and Normality Tests. The model passing the specification tests can be interpreted in terms of short and long term cointegration and relationship according to the calculated values. The interpretation of the same values with a Bayesian approach is the researcher's choice.

4.2. Unit Root Test

Often, financial data take an erratic path. However, in econometric analysis, the data are expected to be stable for correct results. Therefore, the first step in the analysis is to determine the stationarity (unit root) in the series. Many methods have been developed for unit root research. Each test has its strengths and weaknesses and can offer different results. However, the literature does not present any restrictions on the method researchers will choose. In this

study, the Phillips-Perron Unit Root Test was preferred. The stationarity results of the variables used are given in Table 1.

Table 1. Stationary Results of the Variables

Variable	Calculated Statistics	Calculated P value	Explanation
USD / TL Rate	-5.944.502	0.0000	Calculated Phillips-Perron test statistic = -5.944502 is stationary since it is -3.50559 at 1% significance level. Likewise, it is fixed for 5% and 10%. Test data is significant as P = 0.0000 <0.05. In I (1).
Import	-4.411.013	0.0006	Calculated Phillips-Perron test statistic = -4.411013 is stationary since it is -3.504727 at 1% significance level. Likewise, it is fixed for 5% and 10%. Test data is significant as P = 0.0006 <0.05. I (0)
Export	-5.983.997	0.0000	Calculated Phillips-Perron test statistic = -5.983997 is stationary since it is -3.504727 at 1% significance level. Likewise, it is fixed for 5% and 10%. Test data is significant as P = 0.0000 <0.05. I (0).

As a result, the exchange rate data is fixed in I (1). Data import and export is constant at the I (0) level. Therefore, the difference series was used for exchange rate data in the analysis. However, the originals of export and import data were used.

4.3. ARDL Bounds Test

As a result of the analysis, the adjusted period 2013M07 2020M07, lag time 12, estimated ARDL model (5,0,0) was calculated. Based on the calculated values, the model was estimated with 85 observations due to the delays.

When Table 2 is examined, the estimated (5, 0, 0) model is significant since P = 0.000009 <0.05. The calculated F-statistic = 9.365713> I (0) bound and/or I (1) boundry indicates the cointegration relationship between the variables.

Table 2. ARDL Bounds Test Statistics

F-statistic	9.365713	2
Significance	I0 Bound	I1 Bound

10%	3.17	4.14
5%	3.79	4.85
2.5%	4.41	5.52
1%	5.15	6.36

A value between I (0) boundary and I (1) boundary indicates that the cointegration between variables is not clear. Therefore, the values in Table 2 show that there is a cointegration relationship between variables at all levels.

4.4. ARDL Long Term Relationship Test

The Long Term Test statistic calculates the long term correlation coefficient of the model. When Table 3 is examined, the relation with 0.05 significance is insignificant since export P = 0.9540 and import P = 0.5526> 0.05. However, 0.10 is significant.

Table 3. Long-term Relationship Test Statistics

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Export	0.000000	0.000000	0.057894	0.9540
İmport	-0.000000	0.000000	-0.596501	0.5526
C	0.134078	0.161454	0.830439	0.4089

The sign of the calculated Coefficient value gives information about the direction of the relationship. In this context, while there is a long-term adverse relationship between the exchange rate and imports, it can be mentioned that there is a correlation in the same direction with exports.

For cointegration and long-term relationship to be significant, the estimated ARDL Boundary Test Model should be analyzed with specification tests.

4.5. Specification Analysis

Before the predictive ARDL model can be interpreted, it must go through some feature revisions. When the test results are examined;

Autocorrelation Analysis (Series Correlation LM Test);

Autocorrelation is not required for the series and predicted ARDL model used. For this, the Breusch-Godfrey Series Correlation LM Test can be used. Since the calculated P Chi-Square is 0.8907> 0.05, there is no autocorrelation problem in the model.

Normality Test (Jarque-Bera);

It examines whether the variables are normally distributed. For this purpose, the Jarque-Bera normality test can be done. The series is normally distributed as P = 0.476754> 0.05.

Heteroscopicity Test;

Examines whether there is a variance problem in the model. For this purpose, the Breusch-Pagan-Godfrey Test can be used. Calculated test statistic Obs * R-square is 8.063092 and since the probability value for this value is P Chi-square (7) = 0.3271> 0.05, the variance of the model is constant.

Specification Error Analysis (Neglected Variables);

It examines whether there is a specification error in the model. For this, "Inverse Value Squares" can be used. The purpose of the test is to see if errors were made while building the model. Since the calculated F statistic value is 0.000912 and the probability of this value is P = 0.9760> 0.05, there is no specification problem in the series.

When the assumptions of the ARDL Bounds Test estimation model are examined; There was no specification problem in the model. In this case, cointegration and long-term relationship results can be accepted for ARDL test.

4.6. ARDL Bounder Test Results

In this study, the USD / TL series is the dependent variable consisting of 93 observations. Data import and export are arguments. For the Unit Root test, the exchange rate remained constant at I (1), with import and export data at I (0). The model (5, 0, 0) was estimated with the ARDL Limit Test. The number of observations dropped to 85 due to the model's delayed prediction. The cointegration relationship between the predictive model and the variables was found. However, although the statistics calculated for a long-term relationship are not significant for P = 0.05, they are also significant for P = 10.

When the signs of the statistical values calculated are evaluated with the Bayazcı Approach, it can be said that there is a long-term inverse relationship between the dependent variable exchange rate and imports. A long-term relationship has been found in the same direction as exports. The results obtained in this study are consistent with the theory. However, it is not possible to say the same for the literature.

5. CONCLUSION AND RECOMMENDATIONS

In an economic context, policy makers aim to increase social welfare. Economic tools are used to develop policy making strategies and achieve goals. In doing so, keeping the general

level of the exchange rate under control, which is thought to be directly related to all economic processes, should be one of the first goals. To keep the exchange rate stable, it is necessary to understand the variables that are thought to affect the exchange rate. The purpose of this study is to produce scientific data for policy makers. The results obtained in this study coincide with the theory.

The literature can produce very different results even in the same analyzes due to its different economic structures, foreign trade policies and internal dynamics that are very difficult to predict. For this reason, it cannot be said that the result of this study is fully compatible with the literature. Further studies with other macro and micro variables are recommended to understand the change in exchange rate correctly.

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THE IMPORTANCE OF ONLINE ADVERTISING WHEN CHOOSING TOURIST DESTINATIONS

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Abstract

Tourist destination is a spacious unit that must attract its potential contents and attractions to potential tourists to satisfy their tourist needs. Marketing in tourism is a coordinated activity of private and public sector organizations. The tourist market represents an economic space where tourist offer and tourist demand meet. In marketing in tourism it should be taken at first place their specific characteristics, unlike marketing in general manufacturing. Destination marketing is type of marketing that promotes certain destination with the intention of increasing the number of visitors. The aim of the research is to determine the importance of online advertising about travel destinations for respondents, and to determine the specific impact of advertisements and reviews on respondents' decision to visit a particular tourist destination. For the purpose of the survey, a survey was conducted in September 2019.

Keywords: *Tourism, Destination, Marketing.*

1. INTRODUCTION

The topic is the analysis of marketing importance within tourism. The tourism market is characterized by changes that are also accompanied by increased competition. Therefore, a unique and recognizable tourism product, constant improvements of the tourism offers and the preservation of indigenous elements are crucial in the contemporary tourism.

This topic is relevant because marketing has a special position within tourism, which results from the uniqueness of the tourism market and the business that is related to it. This topic is especially relevant for our domestic tourism market due to the extreme importance of tourism for the Croatian economy. Accordingly, a well prepared marketing strategy is of great importance for attracting new guests, as well as for keeping the current ones. Along the four main elements of the marketing mix, another three elements can be added to it, and those are the people, the process, and the physical environment. The aim of this research is to investigate how much influence does a good marketing have on tourism, or whether a good marketing strategy can significantly increase the tourist demand for a specific destination. Also, the research will investigate which elements of the marketing mix have the biggest influence on the success of marketing and attracting the tourists. The questions investigated are: marketing determination of tourism, marketing apply in tourism, the importance of promotion, sales, and distribution.

2. MARKETING IN TOURISM

As a concept, marketing is oriented on the consumer and the development of an integrated business programme, as well as being focused towards achieving its goals (Kesić, 2003). Marketing is based on: „determining the needs and desirabilities of consumers, recognizing the differences between them, satisfying the specific needs and desirabilities, the long-term assessment of opportunities and dangers of the business, and coordinated decision-making and control" (Andrlić, 2007). Demonja and Gradičak (2014) state that the motives of tourist movements are diverse and are caused by different preferences of tourist demand. In those countries which have natural predispositions for development, tourism is certainly a very important industry which among other things advances other industries. According to the UNWTO, a tourist destination is defined as "an important place to visit during a trip and distinguishes three types of destinations: remote, main, motivating" (Bartoluci, 2013).

Tourist destinations are viewed in the context of tourism development. (Cetinski, 2005) state that tourism as an activity can make a positive contribution to social and economic development. A tourist destination, to be visited or to act as a tourist destination, must contain

the elements of conservation and attractiveness. It is known that there are natural elements and elements made by man himself, which are churches, works of art, parks, beaches and more. These elements are interconnected and dependent on each other. It is not enough to have just some art in a tourist destination if the climate or attitude towards tourists is not appropriate. The growth of a tourist destination cannot be expected unless all the elements are in balance.

The concept of competitiveness is based on sustainability, and they are also a tourism resource. "In order to attract tourists, tourist destinations must meet the basics of every trip: price, convenience and timeliness." Despite the elements of the sustainability of tourist destinations, the price, convenience and timeliness can have an impact on the development of the destination, and it can be stated that the price is a crucial factor for most tourists. for the reason that human psychology is "how to do a lot from a little".

Tourism is a universal and diverse concept, and it imposes the need for explaining the term itself. Theoretically, taking into consideration the International Association of Scientific Experts in Tourism (AIEST), tourism is generally defined as a set of relationships and occurrences which come about as a result of travelling and staying of a visitor at a certain location, if the staying does not include permanent residence and if it does not include any type of economic activity. Therefore, tourism is a concept that includes the intertwining of social and economic elements. Numerous factors influence the forming, behaviour, and consumption of the tourist demand, which causes interrelationships to occur. Tourism necessarily includes activities which are based on one's free time. Similarly, marketing in tourism is a part of a wider activity which is called the marketing of leisure.

Andrlić (2007) claims that, along with the development of tourism in the world, the number of dominant factors in the area of marketing is increasing as well. Due to the specific relationship between tourism and its marketing environment, it is important to understand the difference between this environment's influence and the influence of other branches of economics on tourism. The external environment of any branch of economics, especially tourism, has numerous interdependent factors which must be classified in a way.

According to Meffert et al. (2015), one of the important tasks of quality marketing is to create an optimal communication and marketing strategy that will ensure the desired goal with consistent application of action measures. There are two types of marketing applications in tourism: marketing of individual companies that generate their income in the tourism market, marketing at the level of individual spatial units. According to Kesić (2003), when creating a positive attitude towards a product, advertising has a limited effect. Advertising communication

can only occasionally affect a change of attitude, also it can only reinforce already existing attitudes in a positive or negative direction, and form some new attitudes. This is most often the case with new products and services with which the consumer has not previously had any experience. Furthermore, Kesić (2003) states that when it comes to public relations, it is important to consider everything from the perspective of the audience, to give it a sense of involvement in communication and the subject being discussed, to present that subject as part of the environment in which the audience lives, to communicate with people and not to people, and to localize the problem, that is to bring the message closer to the lifestyle of these people. Public relations are extremely useful as part of strategic management. Strategic public relations are aimed at achieving goals that contribute to the purpose and mission of the organization in general Tkalac Verčić, (2016). Therefore, the publicity challenge must be carefully considered and strategically developed, as it can then produce the best results. According to Pejaković (2015), social networks have established themselves as an indispensable part of the everyday life of modern man, and their power has been recognized by numerous companies. On this basis, social networks are becoming a space through which businesses are increasingly communicating with the public, which further strengthens the status of social networks on the Internet and in society and, in general, the media space (Čolić, Dunđer, 2015). Social media has left a big impact and changed destination marketing. Facebook, Twitter, Instagram are just some of the social networks served by many people around the world today. Social media is a type of tool that encourages and accelerates bidirectional or multidirectional communication of active users and is thus most easily promoted. Facebook is currently the largest and most well-known social network with over two billion active users. The marketing mix is an important concept when it comes to marketing strategies in general. This mix is represented by a specific combination of elements which are used to achieve the aims of companies and satisfy the needs and wishes of the target markets. The tourism business primarily deals with services, which are a lot different than products. There are five basic specifics of services: intangibility, indivisibility, they cannot be stored, heterogeneity, and absence of ownership. Every consumer, it this case a hi-tech platform user has to be under various factor influences which will help him in the process of choosing a tourist destination. Some of the factors that influence the choice of a tourist destination are: demographical, terrain and price related, infrastructural, attractive, cultural, and the author would like to present the consumers all the factors in one place. The consumers would pick their main destination much easily, they would know what awaits them, and most important of all, they would be able to plan motivational destinations as well.

Hi - tech platform would replace tourist agencies that are not objective and do not suggest destinations according to factors rather than suggest them by the "key" where we have the best earnings there (Paliaga, 2008). It would allow an objective and transparent view of tourist destinations, suggest no choice, each destination would be in the same situation as the others. By arriving at the Landing Page, the consumer would see continents in the first step and there would not be a favourite. It gives consumers more confidence because they do nothing and allows them plenty of time to choose and plan a tourist destination. In one place, the consumer would learn all the features of tourist destinations starting from currency, movement statistics, gender share, and other parameters that would show the tourist destination as it is. There would be no focus on specific "resorts" that are now receiving all the credit for a particular tourist destination. It has gone in the wrong destination, and today, tourists are being offered standardized products such as a resort and possibly several optional excursions. Each destination has its own features and consumers should primarily see and feel it. This will give them a sense of satisfaction. A service is intangible, which means that it cannot be touched, tried out or taken home, but it rather represents an experience. Also, a service cannot be owned. Furthermore, a service is indivisible and cannot be stored since the time of production and the time of consumption are basically simultaneous. Heterogeneity of a service shows that it is connected to the human factor during the providing of the service. The service mostly depends on the one who provides it, so it can be said that the quality of the service is dependent on the human factor as well.

The marketing mix includes tactics and programmes which support every marketing strategy and which are used to achieve defined strategies and goals that have been set. There are four elements of the marketing mix: the product, the price, the promotion, and the sale and distribution (Kesić, 2006).

The tourism product is a main element of the marketing mix and is further relied upon by other elements. Kotler, Bowen, Makens (2010) state that a product entails all that can be offered to the market to arouse attention, stimulate purchase or consumption while satisfying the wants or needs of customers. While determining the promotional strategy, it is necessary to identify a target group, to set goals which are to be achieved by promotion, to define the means of promotion and determine the desired mix of promotional components.

Promotion is an expense for the tourist company, so there has to be a strategy for implementing this element of the marketing mix. The basic steps while determining a strategy are the following: "identifying a target audience, determining promotional goals, defining

promotional means (promotional mix: advertising, sales promotion, personal sales promotion, publicity or public relations promotion), determining the desired mix of promotional components, and choosing a specific strategy for each of the chosen elements of the promotional mix (advertising, sales promotion, personal sales promotion, publicity or public relations promotion)" (Petrić, 2011).

Promotion as a type of communication with potential consumers in different stages of the decision making process about the tourist travelling consists of: "encouraging people who have a desire for tourist movements, it influences the choice of concrete integral and/or partial tourism product, it helps with providing relevant pieces of information regarding the geographical, historical, cultural and other characteristics of the tourist destination, and it rationalizes, confirms, or legitimizes the decision of the tourist destination choice itself" (Popesku, 2013). "Marketing in tourism is a social and managing process in which individuals and groups receive what they need and want through creating and exchanging products and values with others" (Popesku, 2013).

In marketing in tourism, there are numerous coordinated activities and there is a lot of organizing within the private and the public sector in order to recognize the needs and wishes of target groups, and to deliver the services and satisfy the needs of the consumers as efficiently as possible compared to the competition (Weber, Boranić, 2000).

Motives of tourist movements are diverse, and they are caused by different preferences of the tourist demand. Therefore, in countries which possess natural predispositions for development, tourism is definitely an important industry which, among other things, improves other industries as well. The tourism market is the economical area where the tourist supply and demand meet. This is where the prices and the amount of products sold or bought are determined, and the tourism products are traded. A tourism product is a component of a certain tourist destination. In order for a location to become a tourist destination, or a tourism product, it has to meet certain preconditions, such as transportation accessibility, attractiveness, promotion and the effectiveness of promotion as well as the existence of an organizational approach, sufficient accommodation capacity and quality, etc. It is necessary to take into consideration the particularities of marketing in tourism with regard to marketing in the production activities. Since tourism is a service activity, applying marketing in the service activities is different from applying marketing in the production activities, primarily because of the specifics of the services as related to a concrete physical product.
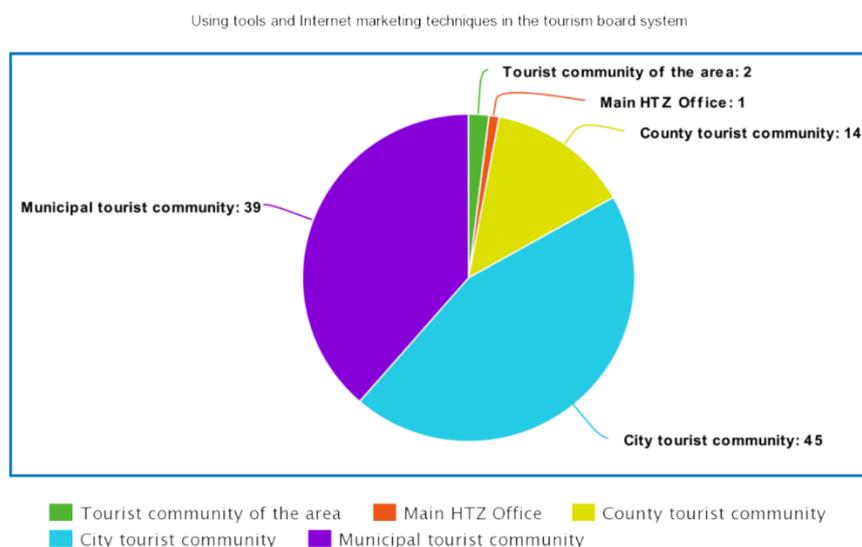
According to Kos Kavran and Kostel, (2014), the basic task of destination marketing is to create a good and recognizable image of a tourist destination with an emphasis on optimal tourist reception with the provided quality and high level of conservation of natural and social resources as the only possible long-term tourism development. The contribution of local tourism marketing activities are local internal and local external tourism opportunities. Locally, the internal capability of a destination should be viewed as a function of the internal actions of municipalities, cities, associations, businesses and within the destination, its structure and regulations. These include accommodation and eating establishments, activity establishments, leisure facilities, and cultural establishments, site image, landscape image, other factors (kindness of the population, weather, climate, etc.), agglomeration of people on vacation (Magaš, Vodeb, Hit, 2018). Tourist attractions are the main generator of tourism since they mostly attract visitors and thus develop tourism in a destination. For this reason, transparency and information on tourist attractions are very important as it enables them to be used optimally to develop the marketing of the attraction and, in general, the development of tourism. (Križman Pavlović, 2003). Identities include values that lie not only in the furnishing and surroundings of the hotel but also in: "the degree of quality of service, the program being offered, the culture and the people, skills, and treatment" (Pavlek, 2016). Satisfaction is a measure refers to the client's impression that they gain during and after their stay, which can be positive or negative. An image is created in the guest's head that does not always correspond to identity, thus creating a divide called "implementation gap". Implementation, that is identity, is transformed into image by performances in which the human factor plays a big role. Therefore, pleasure is expressed emotionally through sympathy, fidelity, and is measurable in: "guest retention, repeated bookings, new guests arriving, encouraged by those who spread a positive voice" (Pavlek, 2016). According to Senečić and Vukonić (1997), while analysing the marketing in tourism, one must begin with: the specifics of the relationships dominating the tourism market, the specifics of the tourism goods and products, and the specifics of the tourists as consumers and their behaviour on the tourism market.

The development of tourism is tied to a certain space in which the tourism trade is developed because this space has certain attractions and monuments which motivate tourist movements. The tourism object does not necessarily have the same business interest as the site where it is located, but they must have at least one common goal. There are two types of applying marketing in tourism: the marketing of individual companies which generate their income at the tourism market, and the marketing at the level of individual spatial areas. The

marketing of individual companies which generate their income at the tourism market includes the marketing of specific branches of economics, such as: the catering marketing, the hotel industry marketing, and the tourism mediation marketing, etc.

Marketing at the level of individual spatial areas includes a specific macro approach of applying marketing related to the placement of a tourism product of a certain destination. The main goal of the marketing activity of both types of marketing is the satisfaction of tourists' needs, as well as acquiring profits for the participants of the tourism offers and the carriers of marketing. The sale and distribution are probably the most sensitive stages of the business in the tourism market. The importance of these stages is clearly visible in the characteristics of the tourism market as a market of service, where the most important characteristic is the separation of the tourism services production process and the process of their purchase, as well as the high risk which is visible in the business at the tourism market. The fact that the production process and the purchase process do not occur at the same time, it is possible to purchase the tourism product before using it.

The direct distribution, or the distribution without a mediator, is specific for the so-called product consumption. The direct sale can be realized by using a reception at the place of the sale, through mail, by a telephone (telemarketing), by "door-to-door" sales, at the tourism manifestations, over the Internet, etc. Indirect distribution is consisted of distribution channels, or the marketing channels, the aim of which is to facilitate the transfer of the goods and ownership from the producer to the buyer. The mediators of the tourism product sales can be the representatives of hotel companies or tourist agencies; organizers of travels; consortiums; global distribution systems; national, regional and local tourism organizations; tourist information centres, etc. Nowadays, Internet channels are an indispensable part of promotion and marketing, and they appear to provide good results. This is especially true for younger generations, who obtain most of their pieces of information regarding potential tourist destinations over the Internet. You can see their influence and the use of internet techniques within the marketing of Croatian tourism boards below.

Using tools and Internet marketing techniques in the tourism board system

Figure 1. Aspects of internet Marketing in System TZ in Republic of Croatia
Source: https://www.slideshare.net/ivankelic/aspekti-internet-marketinga-u-sustavu-tz-a-u-republici-hrvatskoj

3. METHODOLOGY AND RESEARCH RESULTS

For the purpose of the survey, an online survey called "Research on Online Advertising and Using Social Networks in Choosing Tourist Destinations" was conducted. The survey was posted in specific groups on Facebook and social portals. The survey included a sample of 108 respondents. The survey was conducted in September 2019. The aim of the research was to gather as much information as possible regarding the habits of the users of the tourist offer.

64% of women and 36.1% of men participated in the survey. In terms of education, the most represented are respondents with a university degree, while the least are those with a Ph.D. In terms of income, the majority of respondents are in the group that earns monthly income between 5,000.00 HRK and 7,000.00 HRK, 28.7% of them, while the least of those who earn an income is 9,000.00 HRK or more, with 12%.

The results showed that 55% of respondents surveyed online offers of tourist destinations on various tourist online portals and that a slightly larger number of them decide to visit some destinations based only on the online offer and presentation of a particular tourist destination.

Furthermore, the majority of respondents 84% believe that tourist destinations are not advertised too much through online channels, and regarding the credibility of advertisements and brochures of tourist destinations, the majority of respondents (68%) are restrained so only partially trust such ads, and the least are those who fully believe such ads (1%).

Most respondents (67%) have never traveled to a tourist destination solely based on advertisements presented by channels and media other than online channels, and those who traveled largely believe that the advertisement was justified and realistic and that there are no major deviations from the actual bid.

Regarding the importance of a brand of a particular tourist destination, most respondents (66%) are not important, and when ranking it is important, the most are those to whom it matters very little, while the least to those who are extremely important.

Furthermore, the survey showed that far more respondents are informed about tourist destinations on social networks, with Facebook (52%) leading the way, while no one is informed via Twitter. Regarding reading reviews and reviews of previous guests about tourist destinations, a significantly higher number of respondents read them (87%). Such ratings and reviews, for the most part, have a solid influence on the decision to travel to a particular destination, while for the most part, they have almost no impact.

Considering only positive reviews and ratings, a significantly higher number of respondents (68%) are those who have never decided to travel to a tourist destination based solely on positive reviews and reviews. It was precisely those who traveled solely based on such reviews, who stated that their impression was largely satisfactory, as confirmed by the positive reviews, while very few of them did not obtain a satisfactory impression.

On the other hand, considering only negative reviews and ratings, the largest number of respondents (60%) are those who have never given up visiting a particular tourist destination based on negative reviews alone, although a solid number are those who have given up. Looking only at the group of respondents who did not give up traveling, their impression of a tourist destination was still satisfactory for the most part (30%).

This research aimed to determine the extent to which tourism marketing is used, with an emphasis on online advertising channels when selecting tourist destinations. It is important to emphasize that respondents believe only in tourist destination advertisements and brochures only partially, therefore, they are aware that the real situation may deviate somewhat from the offer. The majority of respondents do not care that a potential tourist destination has a good brand, that is when choosing a tourist destination they are not burdened by the fact that the destination must have a reputation. This should take into account the circumstances in our society where economic power is not the best, and consequently, in most cases, domestic consumers cannot even afford to go to some exclusive destinations.

4. CONCLUSION

It was determined that, in order to successfully form and launch a destination to the market, it is first necessary to carry out certain marketing activities, such as identifying the tourism potential of a destination, forming the offer and determining the target group. It has been determined that, for succeeding in the contemporary tourism market, it is necessary to offer quality products, services and activities that will attract guests and motivate them to return to a specific destination. Therefore, it is important to choose a right marketing strategy which is the crucial part of the targeted communication with the market, the aim of which is to attract the guests. Promotion is of great importance as well, since the target group, the aims that are to be achieved by promotion, and the means of promotion must be carefully chosen while determining the promotional strategy. Marketing is a social and managing process which, through creating values, offers and exchanges, gives individuals and groups what they require and what they need. When it comes to marketing in tourism, what is taken into consideration is the classification of marketing according to the targeted market, which is related to the tourism market and the tourists. Marketing in tourism entails the applying of general postulates of the marketing activity regarding the specific conditions in which the relationships between the subjects of the tourism market are formed, whereas the uniqueness of the marketing in tourism comes about as the result of the specific characteristics of the tourism demand, offer and purchase. The strategies of marketing in tourism are oriented towards the positioning of a destination in the desired niche at the receptive tourism market.

This work has investigated and presented the importance of marketing in tourism, the specifics of applying the marketing mix in tourism, and the importance of all elements of the marketing mix. The results of this research can be used for future research instances that will examine the appropriate strategies and elements of the marketing mix. This can serve as the basis which indicates the importance of marketing and a well - chosen strategy.

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A PUPIL FROM A SOCIO-ECONOMICALLY DISADVANTAGED ENVIRONMENT AS AN ACTOR IN THE EDUCATIONAL CONCEPT OF PROTECTION AND SECURITY

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Abstract

Each of us in our lives will face emergencies, whether a fire, accident, traffic collision or natural disaster, and it is crucial that we know how to recognise them and how to adequately react. The legally-guaranteed protection in the case of emergencies and for the protection of life and health of the citizenry or property is primarily the remit of the integrated emergency response system. Protection provided by the integrated emergency response system does not arrive in mere seconds, and a person is thus forced by necessity to deal with the situation and help as well. For this reason, it remains necessary to support and perfect the education and training of citizens, and it proves effective that this process is supported by schools or educational institutions.

The main research aim is to determine the knowledge level in protection and safety among primary school pupils from the first to third grade in socioeconomically marginalised localities. Building upon these findings, it will apply the topic module of the project weeks and determine the knowledge level of the given target group.

The empirical part follows from the project – Development of Civic Competencies in Safety and Protection of the Citizenry among Pupils from Socioeconomically Disadvantaged Backgrounds – where thematic project weeks that concluded with a test/questionnaire were, among others, implemented. The thematic areas/modules should be aimed at increasing the knowledge of pupils, specifically so that a pupil would understand the evident danger connected with risks of everyday life (traffic, chemical substances in the home, electric current, sports and hobbies), with fire and with an emergency, then know how to call for help (using any of the learned methods) and, last but not least, to know how to use emergency numbers to make calls and master basic communication methods with the operator (suitable for their age).

Equal opportunity and fair access to quality education of children/pupils/students should be among the basic pillars of human rights. A considerable influence, not only in social, economic and cultural terms, is the family, which impacts the results of the school success rate of pupils, the educational process and, last but not least, the life and professional course. School can also

be included among the crucial pillars that have an undoubtable impact on education and the whole development of an individual.

The current system only shows the possibilities and what path is selected and whether attention will be paid to a topic in a given faith so that is would be attractive to the pupils depends on the teachers themselves. Therefore, the question remains whether the teaching materials for the teaching staff should be unified. Despite the wide spectrum of tests and aids, certain areas are prepared differently and do not always suit the given time and reflect the social events that may cause a threat. Therefore, unifying and updating materials would reinforces the topic and support the lesson. Multimedia and interactive textbooks can be used to make topics appealing.

The research done shows that it is suitable to inform and guide pupils in the first grade in the area of protect and safety in the form of games and exercises before memorising theoretical material itself. It is evident from this that we would target deepening theoretical knowledge with practical exercises in first aid during second grade. The basics of first aid and calling aid should be integrated into the whole cross-curricular education of protection of the citizenry. Further topics are obviously also necessary.

Keywords: Educational Process, Emergencies, Pupil.

1. INTRODUCTION

Each of us in our lives will face emergencies, whether a fire, accident, traffic collision or natural disaster, and it is crucial that we know how to recognise them and how to adequately react. The legally-guaranteed protection in the case of emergencies and for the protection of life and health of the citizenry or property is primarily the remit of the integrated emergency response system. Protection provided by the integrated emergency response system does not arrive in mere seconds, and a person is thus forced by necessity to deal with the situation and help as well. For this reason, it remains necessary to support and perfect the education and training of citizens, and it proves effective that this process is supported by schools or educational institutions.

The term "protection of the citizenry" has been defined by, for example, Fiala and Vilášek as "…the system intended to protect safeguarded activities, especially of the citizenry during emergencies. Protection of the citizenry is by its nature an integrated system that entails bonds, relations and specific measures" (Fiala and Vilášek, 2010, p. 65).

Considering the definition of this term, it is also necessary to mention the legislative definition that emerges from Act no. 239/2000 Coll. on the Integrated Emergency Response System and Amendments to Certain Acts, i.e. "…performing tasks of civil protection, especially alerts, evacuation, providing shelter and emergency survival of the citizenry and

other measures to safeguard the protection of its life, health and property" (Act no. 239/2000 Coll. on the Integrated Emergency Response System and Amendments to Certain Acts).

1.1. Education in the Protection of the Citizenry in the Czech Republic, Central Europ

Over several years, a variety of concepts have focused on the correct and effective adjustment of the educational process regarding protection of the citizenry. One such document is Koncepce přípravy občanů k obraně státu 2019-2024 (Conceptualisation of Preparation of Citizens for the Protection of the State 2019–2024). It follows on from Koncepce přípravy občanů k obraně státu na roky 2013–2018 (Conceptualisation of Preparation of Citizens for the Protection of the State 2013–2018). One of the main outputs of Koncepce přípravy občanů k obraně státu 2019-2024 is evidence of several critical defects. A crucial finding was the fact that educational staff at primary and secondary schools are not sufficiently prepared to teach in the field of state defence. There is a lack of information, training or materials that may be suitable for teachers. The findings above thus show that positive results in the protection of the citizenry at elementary schools are not being achieved. The document goes on to point out that the teachers themselves at several schools are not devoting time to the protection of the citizenry or the state. However, this topic is entrusted to other organisations that replace the role of educational staff. Therefore, it is necessary to improve the quality of education at primary and secondary schools and thus improve the current state of preparation of pupils and students to protect the state.

The results of research conducted especially by the Fire Rescue Service of the Czech Republic point to the fact that one of the crucial factors that powerfully affect the level of a system of education is the evident high standards for the teaching staff. A comparison that applies here is the level of preparedness of pedagogical graduates at universities depends on the quality of their professional or specialist preparation. Following expert recommendation, the Government of the Czech Republic approved on 5th October 2011 by its resolution no. 734 the material for the Incorporation of Topics called Ochrana člověka zamimořádných událostí, péče o zdraví a dopravní výchova (Protection of a Person during Emergencies, Care of Health and Traffic Education) into the course of the pedagogical faculty. "The aim of the material is to create a collective knowledge base (Foundation Course I) for the tertiary education of teachers. It should prepare graduates to be able to adequately react during the occurrence of an emergency and protect themselves and the children in their care. The material includes the knowledge bases intended to prepare future teachers who will teach the issue in question. (Foundation Course II;

Foundation Course III)" (Ministry of the Interior – General Directorate of the Fire Rescue Service of the Czech Republic, online, citation, 2019-12-06).

The options and methods of applying into practice the aforementioned document depend on the possibilities of the specific university, specifically regarding accreditation and reaccreditation of courses connected to the professional preparation of teaching staff. Following on from the professional preparation itself, it is necessary to draw attention to other facts that help along the achievement of education in the given field. Specifically, it concerns the possibility of using prepared aids, textbooks or professional manuals.

1.2. Education Delivered by a Framework Educational Programme for Primary Education

The education as understood at the 1st grade of primary education is at its core about transferring from pre-primary education, which is tightly bound to the family, into a regular and systematic educational system. The cornerstones for achieving the educational objectives at the 1st grade of primary school education rest, essentially, on the development of individuality, of respect, of understanding and the possibility and interest of each child/pupil, including children/pupils with special educational needs and gifted and exceptionally gifted children/pupils. The educational system is based on the active component emphasising the practical nature, including the application of adequate methods where there is a motivation to teach the child/pupil more, leading them to teaching activities and to an understanding that it is possible to search, discover, create and find the suitable way in addressing problems or in a range of difficult life situations (Framework Educational Programme for Primary Education, 2017).

Key competencies are target categories expressed in the form of outputs. In the Czech curricular documents, they are generally formulated as: "a set of knowledge, skills, abilities, attitudes and values important for personal development and utilisation of each member of society. Their selection and approach are based on values generally accepted in society and on generally communicated ideas about which competencies of an individual contribute to his/her education, a satisfied and successful life and to strengthening the function of civil society" (Framework Educational Programme for Primary Education, 2017, p. 10).

Key competencies can be used at the general level as a valuable indicator of determining quality of education, not only within the process itself, but in terms of the outcomes. The educational objectives are, regarding content, an educational tool that should determine the

educational direction or objective, but the role of the teacher is always as the person who implements and interprets the given educational aims to help the appropriately selected educational methods and grading system. Lessons should thus be planned and conceived so the given competency is gradually imparted to the children/pupils. "Each key competency is formed gradually in the pupils so that the constituent knowledge and skills of pupils obtained in various circumstances are interconnected" (Čechová et al., 2006, p. 12).

Veteška et al. (2011, p. 83) state that a part of the primary education stage under the Framework Educational Programme for Primary Education, include the following key competencies:

• for learning
• for problem solving
• communicative,
• social and personal,
• civil,
• work (2011, p. 83).

The duty of primary schools lies also in the necessity of implementation so-called cross-curricular topics into an educational framework that pervades school topics. School should offer all subject areas of each cross-curricular topic. Their scope and method of implementation is set by the school's curriculum. These cross-curricular topics are as follows:

• personality and social education
• civics
• education for thinking of European and global contexts
• multicultural awareness
• environmental awareness
• media awareness

(Framework Educational Programme for Primary Education, 2017, p. 125)

Mastering key competencies can thus be regarded as a lifelong learning process since it interconnects teaching with the individual's life experience. And given that learning at its core is a lifelong process, this statement thus suggests the importance of individuality of the person and also his/her understanding in the way experience and life events are gained. Competencies are thus an integral part of life stories, and obtaining them may be conscious and unconscious. Both findings can be drawn on not only in the school environment but also in the family or the environment in which the individual/child lives. Competent behaviour itself is formed with regards to life stages, professional employment and partnered relationships. Competencies can be gained throughout an individual's life. Therefore, it is possible for someone to learn to be a competent person.

2. THE INDIVIDUAL AND HIS/HER BACKGROUND

Equal opportunity and fair access to quality education of children/pupils/students should be among the basic pillars of human rights. A considerable influence, not only in social, economic and cultural terms, is the family, which impacts the results of the school success rate of pupils, the educational process and, last but not least, the life and professional course. School can also be included among the crucial pillars that have an undoubtable impact on education and the whole development of an individual. Therefore, the following subchapters address the cooperation and mutual support of the family and school regarding efficacy within the educational process of the child/pupil.

2.1. Family

With social changes come changes to the family environment. A critical change includes the relationships between parents and children themselves at moments where parents have no idea how the child spends his/her free time, what interests them and what friends they have. The social tempo, which is not only felt by the parents themselves and which stems from a stressful environment that is hectic and ethically, morally or, in certain areas, socially untethered, also opens up gulfs in family relationships. The family is more isolated from the outside world, and it is less able to cope with the process of raising children. It thus attempts to shift the certain educational areas/responsibility of raising children to various institutions and specialists.

The definition of the term "family" cannot be unambiguously characterised or defined. The position of the family as the educational actor has changed over recent years, and the same is true over the course of history as society has changed. Generally, the family is defined in connection with its position in the social system. Given the focus of the article, the sociological perception of the family is the primary concern. The most concise definition is thus the definition according to the Large Sociological Dictionary "…the family is the most important social group and institution that is a basic element of the social structure and basic economic unit that has the primary function of propagating the human species and raising or socialising the young and transmitting cultural examples and maintaining the continuity of cultural development" (Linhart, J. et al., 1996, p. 28).

The significance of the family for a child is undeniable, whether it is a feature of the emotional backdrop, which is the hardest to fulfil today, or security and safety, but also whether

it is a sufficient impetus and transmission of experience that derives from the role of parents or citizens of a given country in relation to the cultural identity.

In today's society, families differ according to their own social status that may positively or negatively influence the child. Social status is defined as "…the social position that the individual or group has in the vertical social hierarchy. There is social inequality between people with different status. Differing social statuses are evident in the level of education, qualification, wealth, power position, etc. Social levels, classes and property groups in this way form. Individual property groups also have distinct social approbation or prestige. Social status is connected to various lifestyles" (Průcha, Walterová, Mareš, 2013, p. 272).

One of the factors that influences the raising and education of a child is the level of education attained by the parents themselves. The family and its social status are determined in relation to the actual level of education because, according to Leiman (1996), education contributes to a person's improved facilities and his/her future career and thus position in society.

"The interconnection of upbringing and education with the economic, political and cultural development is a manifestation of their close connection to the development of the social structure. In traditional society, the social position was predetermined by tradition and origin. Even though there was mobility (wars, domestic service, usury, etc.), education was more of a privilege, a confirmation and symbol of the existing status then a tool of attainment (with the exception of a small group of officials and the priesthood). In modern societies, it plays one of the most important roles of integrating people into a professional structure" (Havlík and Koťa, 2011, p. 81).

Family impact or influence on education is evident, even in the field of professional career, as the family becomes the actor that may determine the very direction in this area when, for example, given the age of the child, his or her dreams and wishes, which have their justified place, are not a possible starting point. The educational institution itself is then also related to this influence. The gist of the text is that the influencing factor is thus the cultural background of the family and its economic capital in a broader conception.

Inequalities in education, which are influenced by various factors, are present everywhere in the world. They may be caused by both an attitude to study, interest and will to study or ability itself and also, for example, race, gender or religion. Problems in relation to social

justice and cohesion could be included in this area. In developed countries, including the Czech Republic, the level of inequality is decreasing, especially between urban and rural areas.

The already conducted research that examined this topic, such as Study into the Attitude toward Education: Equal attitude toward education in the Czech Republic: situation and recommendation shows that the education of children directly corresponds to the initial situation in the family. Across the spectrum of university students, the percent of those who have university-educated parents or families from a higher socioeconomic status.

"Stark differences are statistically demonstrated: the likelihood of university studies for a child from a "professional" family is more than twice as high than for a child from a "static working family" (Matějů, Večerník, 1998, p. 59).

Another factor that influences upbringing and education is the socioeconomic level of the parents. The financial situation of the family, primarily the parents, may encourage, or conversely prevent, the attainment of a level of education the child wants to achieve.

According to Možný (2002), the socioeconomic situation of parents affects several areas that impact upon the child's educational process. One such area is the living arrangements of the family where the level of incomes is reflected in the size and location of the home. Children who have their own rooms and more opportunity to concentrate on studying have different chances than children who share a room with siblings and have their concentration disrupted by the actions of their siblings. A suitably secured family can also afford to live in a "better neighbourhood" where the child may interact with equally advantaged friends and attend an "elite" school.

Danielsbacka et al. (2017) also interconnect the socioeconomic status with the degree of attention focused on the child. They put forward the idea that parents with a higher socioeconomic status devote more attention to a child. The parents' attention is itself one of the constituent parts that affect the school results of the child.

The family arrangement influences, along with the operation of the family, the upbringing and education of the child. The internal arrangement of the family has a close influence on the process of school success rate of the child. Today's family setup, in terms of number of children, is largely limited to one or two children. Within larger sibling bonds, various educational processes/approaches are reflected in each sibling. The general claim can be made that more responsibility is placed on the older sibling as the parents were able to devote a greater degree of attention to him/her. Consequently, parents did not devote so much attention to the younger

siblings during childhood. This general claim can also be supported with regard to historically significant figures among whom can be included Alfred Adler (Austrian physician and psychologist), whose claim was based on the idea that only-children and first-borns have the best school results. They are under more pressure and receive more attention than other children in the family. Family size and birth order influence the educational process and its results.

In each family, conflicts may play out. Their source may be for diverse reasons (infidelity, suspicion of infidelity, insufficient funds, unsuitable behaviour of one of the partners…). These conflicts may adversely affect the child, especially in terms of mental development or psychological needs, following on the social development of the child. The parents must not at all feel that their conflicts affect or influence their child. These experiences will be deeply etched into the memory of the child.

Single-parent families, where one parent dies, leaves or a child is born out of wedlock, may have a similar adverse effect not on the educational process. Matoušek (2010, p. 45) contends that "unlike two-parent families, single-parent families are more often threatened by unemployment, lack of access to adequate housing, social isolation, poverty and social exclusion".

2.2. The School and The Pupil

Communication, trust and respect are areas that serve to ensure effective cooperation between a family and school. The parent or the school has a joint-responsibility in the educational process of the child. The positive impact on the child cannot be ensured without mutual cooperation. Within the scope of this cooperation between the family and the school, there are various prominent factors that may support the function, or cause the malfunction, of this mutually cooperative apparatus. They are, in particular, the personality of teaching staff in terms of approach to the family, professional age, experiences, the atmosphere in the given class when the issue is an over-crowded class, relations in the class, bullying, group work – both in positive and negative terms; how a parent regards school, whether he/she attended the school and if he/she has roots there or whether it concerns a school that suits the family and there are no connections to it that may be, for example, in the context of the school's specialisation.

To meet the efficacy of the cooperation between a family and school, Krejčová and Kargerová (2003) present the following list of ten points for cooperation with a family:

1. We respect the role of parents. Various factors will be able to influence a child's development, yet parents are the most influential. They have the right, and at the same time the duty, to make important decisions concerning their children. Let's bear this role in mind in each situation and deal with it accordingly. Let's build mutual respect between the teaching team and families.

2. We maintain confidentiality. During the child's school attendance as well as after, parents have a right to protect their personal information. Information requested from families are critical in the effective provision of a child's education. Only the family/parents have this information available. When this information must be provided to others, we notify the parents in advance and request their consent.

3. We inform parents of expectations that we have for ourselves. Especially at the start of the school year (or of school attendance or still before the child enters school), but even during the school year, we find out how the parents conceive their child's education and the mutual cooperation. Openly present intentions, objectives and plans.

4. We support cooperation with parents and offer more strategies for their involvement. Each family is specific. What is suitable for one may not be important for another. We are flexible and creative so that a family is able to have a choice according to its own preferences and possibilities.

5. We respect that the family itself will select its specific form of cooperation. The task is thus to offer to the family the broadest range of options possible. The option/way of cooperation selected by the family will be up to the family itself.

6. We strive to involve the whole family. We encourage not only the child's parents to cooperate. Other members of the family and their friends may contribute.

7. We plan parent meetings and consultations at a time that suits the parents. A parent may choose based on its own time possibilities when to come for a consultation. Having a consultation timetable available will better prepare them.

8. We focus on the family's strengths and provide positive feedback. We emphasise the family's strengths and any success achieved. Families know that we appreciate their cooperation and involvement in the class.

9. We cooperate with the school's other partners. We support not only the community life but also other institutions and organisations that we cooperate with and make use of their services. Openly cooperate and coordinate in various fields.

10. We understand that it won't all come immediately. We build relations and intensive cooperation with parents gradually, building gradually on small victories. It requires time and effort. We know it's demanding, but we don't give in.

The parent should be interested in how the child views school and whether he/she is coping or not at school. Cooperation with the school should promote a feeling of cooperation and definite belonging. Space is opened here for more specific understanding of the child in terms of easier identification of his/her strengths and weaknesses, which can be built upon through directing leisure activities and professional preparation. Suitable cooperative communication also happens within the transmission of information that children bring from school. The parent may easily verify the information, obtain reflections on working with the child at school and question everything concerned with the educational process. An educational institution may affect/influence not only a child/pupil but also their family.

From the teacher's point of view, well-established cooperation is a great aid in determining an adequate level of access to a pupil. If the teacher correctly evaluates the causes of the child's behaviour and has the opportunity to compare his/her own observations or knowledge with the information from the parents, he/she can honour his/her professional commitment to achieve the learning objectives in accordance with the appropriate approach to a particular pupil. The teacher must be realistic, so not every parent will want to cooperate. It is the duty of the school to inform parents about punishments and ways of solving the problems of children and to direct them to institutions or organisations that can help the child, parents and family.

Even the educational institution or teachers themselves may have an expectation in relation to the family/parents. According to Rabušicová and Pol (1996), these are:

- The parents will be willing to resolve the problem;

- The parents will create a positive home environment;

- The parents will manifest a duty of care for their child and check it;

- The parents will ensure the children bring aids to school;

- The parents will oversee the fulfilment of the teacher's requests;

- The parents will be interested in meeting the teacher.

3. METHODOLOGY

The main research aim is to determine the knowledge level in protection and safety among primary school pupils from the first to third grade in socioeconomically marginalised localities. Building upon these findings, it will apply the topic module of the project weeks and determine the knowledge level of the given target group.

Constituent research questions are created by building on the main research objective. Three research questions were set in total. They were:

Research question no. 1: What is the initial level of competencies of pupils from socioeconomically disadvantaged backgrounds in the areas of safety and protection of health and life?

Research question no. 2: How were civic competencies of the target group of pupils from socioeconomically backgrounds perfected by the implementation of the project weeks?

Research question no. 3: How can the motivation of pupils be supported in the classroom to actively involve them in educational processes?

3.1 Research Method

The research method incorporated several fields of study so that the research aim was met. The basic research area has been defined in this chapter, not only in terms of the general characteristics of the examined issue, but also with regards of the characteristics of the target group, the environment or ethical nature of the research.

3.2 Initial Information

The empirical part follows from the project – Development of Civic Competencies in Safety and Protection of the Citizenry among Pupils from Socioeconomically Disadvantaged Backgrounds – where thematic project weeks that concluded with a test/questionnaire were, among others, implemented. The thematic areas/modules should be aimed at increasing the knowledge of pupils, specifically so that a pupil would understand the evident danger connected with risks of everyday life (traffic, chemical substances in the home, electric current, sports and hobbies), with fire and with an emergency, then know how to call for help (using any of the learned methods) and, last but not least, to know how to use emergency numbers to make calls and master basic communication methods with the operator (suitable for their age).

The implementation team of pedagogical coordinators composed 10 educational modules and each of them was concluded by a verification test intended for the given target thematic area. These thematic areas were:

Module no. 1: PRINCIPLES OF THE CORRECT ROUTE TO SCHOOL

Module no. 2: WHEN, WHERE AND HOW TO CORRECTLY REPORT AN EMERGENCY

Module no. 3: PRINCIPLES WHEN EVACUATING A BUILDING

Module no. 4: PRINCIPLES WHEN ENCOUNTERING ILLEGAL BEHAVIOUR I.

Module no. 5: PRINCIPLES WHEN ENCOUNTERING ILLEGAL BEHAVIOUR II.

Module no. 6: PRINCIPLES OF CORRECT BEHAVIOUR ON THE TRAIN AND RAILWAY

Module no. 7: GETTING LOST IN NATURE

Module no. 8: FIRST RESPONDERS AND UNIFORMS

Module no. 9: FIRE, HOW TO PREVENT IT, ITS CAUSES AND CONSEQUENCES I.

Module no. 10: FIRE, HOW TO PREVENT IT, ITS CAUSES AND CONSEQUENCES II.

Given the main research aim and constituent research questions, we have decided to use the quantitative research method.

To distribute the questionnaires that were devised in a battery of tests for individual project weeks, we decided to send it out via email. This form was agreed by the participating primary school teachers at a personal meeting that happened as part of the aforementioned project "Development of Civic Competencies in Safety and Protection of the Citizenry among Pupils from Socioeconomically Disadvantaged Backgrounds" The test for the given module was always sent by the end of the previous month; the teachers or the pupils always completed only one module test at a time. They did not receive all the tests at once. Teachers always had the option of face-to-face, telephone or email consultation. At the participating schools, a single week was set when the project activities were carried out, and it ended with the completion of the test of the given thematic module. The tests were then sent by post to the administrative office of the implementation team of a given project.

Ten primary schools were involved in the project activity in total. Ten students from socioeconomically disadvantaged backgrounds were supported at each school. The activities and also the module tests for each project week were intended for all the other children from a

given group. And they were not counted in the results, specifically with regards to the pre-determined indicators of the participating/supported individuals. Data from the questionnaire obtained during the pilot test was included in the interpretation of data. Regarding the interaction, the return rate of the module tests was a proven 100%. Therefore, 100 questionnaires/module tests in total were used throughout school year.

Given the essential setup of project, the target group was strictly delineated. In particular, it concerned the specification of the given target group – i.e. first to third grade primary school pupils in socioeconomically disadvantaged localities. More specifically, it concerned first to third grade pupils who attended the after school programme. Additional specifications for the selection of the studied group of individuals were not set.

Table 1. Overview of the research sample

Identifier		Region	School capacity	The founder of the school	Population of the city
elementary number 1	school	Liberec region	300	city	12 000
elementary number 2	school	Liberec region	1 260	city	37 000
elementary number 3	school	Liberec region	500	city	1 700
elementary number 4	school	Karlovy Vary region	700	city	23 000
elementary number 5	school	Karlovy Vary region	450	city	6 700
elementary number 6	school	Karlovy Vary region	90	city	6 700
elementary number 7	school	Usti region	560	city	13 000
elementary number 8	school	Usti region	450	city	93 000
elementary number 9	school	Usti region	900	city	50 000
elementary number 10	school	Usti region	685	city	50 000

(Source: own processing)

Given the fact that all the material – project weeks and the follow-on module tests were never used, it was necessary to ensure their verification. Verification was done by one of the participating primary schools where verification was carried out on the monitored sample of children. No changes occurred in the pilot test – either in the content or in the structure of the parts. By using the pre-study/pilot test, we wanted to find out whether the given questions were comprehensible and unambiguous. The essential modifications were to ask a question in the positive sense – modifications included formulating the questions as "tick the correct answer". This specific correction emerged from the age-group of the pupils. Furthermore, the partial

phrases were edited so that the text was unambiguous and comprehensible even for the given target group of pupils – in terms of age since it was completed by children from the first to third grades of primary schools from socioeconomically disadvantaged localities.

4. RESULTS

4.1. Initial Knowledge Survey

The initial knowledge survey focused on several critical areas that were connected to the thematic areas of safety and protection of health and life of pupils from the first to third grades of schools that are in socioeconomically marginalised localities.

Given the scope of the text, the main thematic findings are presented at the general level. They target the acquired knowledge of respondents in awareness of emergency numbers; principles of safe conduct; anti-fire protection; protection of health and behaviour on railway tracks.

Emergency numbers

- ❑ 60% of pupils knew this term. Half of the children knew that they had to provide factual information during the call (what, where or their name).

- ❑ The most well-known number was 150 (72% of pupils) and 158 (70% of pupils), then 155 (66% of pupils). In contrast, fewer pupils knew number 112 (41% of pupils).
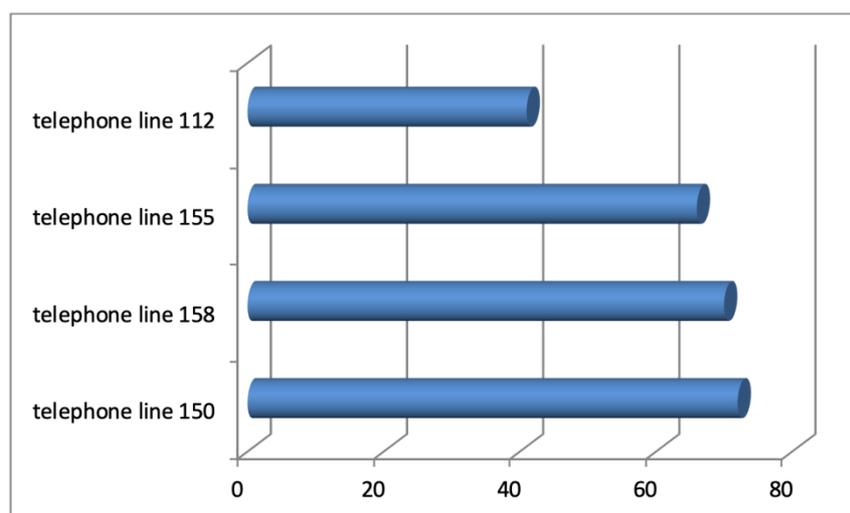
Image 1. Knowledge of respondents of emergency lines

Source: own research

Principles of safe conduct

- ❑ 15% of pupils would get into a lift with a stranger.

- ❑ Pupils were less likely to be lured by the telephone.

- ❑ Pupils would more likely open the door to acquaintances and relatives.

- ❑ 29% of pupils informed parents where they were going or the time of their return.

Fire protection

- ❑ 24% of pupils think that a fire could not start from a small spark and 13% of pupils that it could not start from a match thrown into dry grass.

Health protection

- ❑ After a walk, 30% of respondents checked for ticks, and 31% washed their hands and body.

- ❑ On a trip in summer (or to the water) 45% would take water to drink, and 27% would pack sunscreen. (Only 15% of pupils would take both.) In addition, pupils mentioned bathing costumes and other swimming aids.

- ❑ 45% would tell an adult about finding a syringe. In contrast, 13% would do nothing. 5% did not know what to do, and a full 11% would try to throw it in the rubbish.

- ❑ 13% of pupils did not consider jumping into unfamiliar water dangerous. And only 34% stated the proper risk (unknown water/depth, chance of injury).

- ❑ The majority of pupils know about the risk of injury at home. They mentioned cutting with knives, jumping, running, climbing on furniture, being in the vicinity of the stove, appliances, wood stoves and heating and taking the stairs as dangerous activities.

Behaviour on Train Tracks

4% of pupils did not know it was forbidden to play close to the tracks or walk on the tracks. 11% did not know it was forbidden to cross anywhere other than at a crossing.

Partial summary of the initial survey

The aforementioned study and partial outputs show that children/pupils must be shown the existence of the possibility of various dangers whether to health, life, property or the state. In each of the areas of the questionnaire research, there is a higher proportion of respondents whose answers stimulated discussion on awareness itself of risks and risky behaviour in their

life and surroundings. The basic presumption is that we avoid or are able to at least minimise such injuries, harm and losses, that we know about them and we could talk about/show what these risks/risky situations are and respond appropriately as part of practical lessons. It is thus to target the form of prevention through activities that lead to the preparation of children and pupils in an emergency. In the evaluation process, it was shown that testing the knowledge of pupils through this method is possible. However, it requires very precise preparation of the questions asked and consideration of the actual abilities of the children at different ages. The use of various questions and schematics where pupils may easily grasp the given situation and respond to the question with comprehension.

4.2. Survey After a Year of Activities

The number of respondents is after a year of the project activity identical to the initial information survey.

Given the scope of the paper, the findings from the topic-based survey that targets the obtained knowledge from respondents in knowledge of emergency numbers, principles of safe conduct; fire protection; protection of health and behaviour on train tracks are presented. The aforementioned areas are thematically identical to those within the initial knowledge survey.

Emergency number

❑ 91% of children knew this term, and its proportion significantly grew – in the last round it was only 60% of pupils.

❑ The majority of pupils also knew that they had to provide factual information during the call
(what happened and where or their names). In this case, there was a significant improvement. Pupils were two to three times better informed about what they should do compared to the last round.

❑ The best-known number was 150 (93% of pupils). Then came number 158 (90% of pupils) and 155 (90% of pupils). In contrast, the less well-known was number 112. (74% of pupils). Knowledge of all the lines significantly increased compared to the last round – there was a growth of approximately 20%. The least well-known number 112 almost reached a level of familiarity similar to the other number.
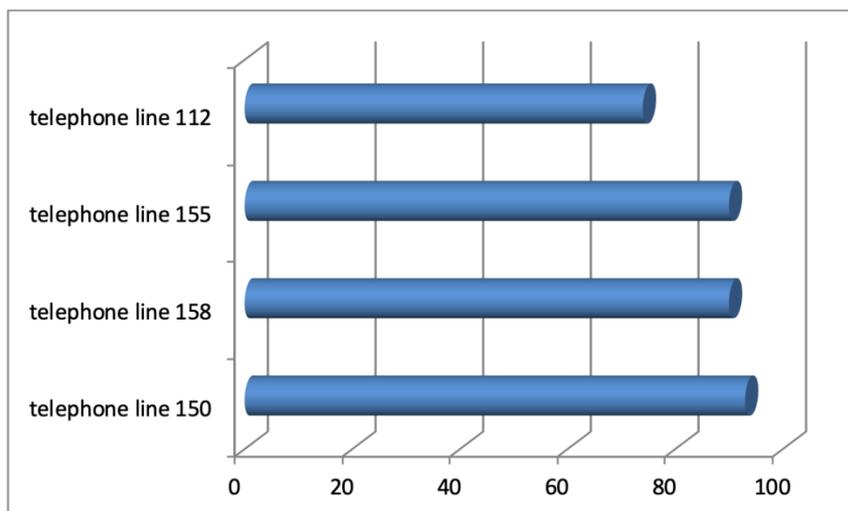
Image 2: Knowledge of respondents of emergency lines after a year of activity

Source: own research

Principles of safe conduct

❑ Only 2% of pupils would get into a lift with a stranger, which was a significant drop in comparison to the last round (15%).

❑ Fewer pupils allowed themselves to be tempted on the phone. Based on the responses, almost all the pupils were wary. The level was roughly the same as in the last round.

❑ Pupils would mostly open doors for parents and relatives or to those whom they know. A fifth of pupils stated that they would open it to no one. In contrast, one pupil was found who would open it to anyone. The proportion of parents and acquaintances to whom they would open the door rose since last time, whereas the proportion of those responding with "no one" fell. Obviously, a portion of pupils understood this as "no one except parents".

❑ 69% of pupils (and almost a fifth of children gave a greeting) informed their parents about where they were walking. Meanwhile, only about 60% gave a greeting in the last round, and the place, and route was only given as information by a fourth of the children.

Fire protection

❑ Only 2% of pupils thought that a fire could not start from a small spark. (In the last round, it was practically a quarter of the children) and 3% of pupils stated that a fire could not start from a match thrown into dry grass (last round – 13%). It could be said, more or less, the rate of pupils being informed almost reached the maximum.

Protection of health

❑ After a walk, 79% checked themselves for ticks, and 19% washed their hands/body. Compared to last year's initial survey, there was considerable growth in mention of ticks. Only 30% of pupils mentioned this activity last year. Thus awareness-raising worked.

❑ On trips in the summer (or to the water) 57% would take water to drink and 46% sunscreen (only 23% both). These two items significantly grew to the detriment of other items. Furthermore, pupils mentioned bathing costumes, goggles, headgear and other swimming aids. It can be stated that pupils mentioned more important equipment during last year's round.

❑ 20% of pupils would report finding a syringe to an adult/parent. A third of pupils stated that they would not touch it. (In the initial findings, it was a quarter.) Half of children would call the police (a fifth in the initial findings).

❑ 11% of pupils did not consider jumping into unfamiliar water dangerous. This only 2% less than in the initial survey. In this case, there was no improvement. Other pupils recognised the risk. The majority of them correctly stated the right reason (unfamiliar water/depth, chance of injury).

❑ Similarly, as in the initial survey, the majority of children knew about the risk of injury at home. They mentioned cutting with knives, jumping, running, climbing on furniture, being in the vicinity of the stove, appliances, wood stoves and heating and taking the stairs as dangerous activities.

Behaviour near train tracks

❑ 2% of pupils did not know it was forbidden to play close to the tracks or walk on the tracks. 11% did not know it was forbidden to cross anywhere other than at a crossing. In this regard, the situation remained at a similar level as in the initial findings. Obviously, the rate of being informed was generally in total high with the exception of the prohibition on crossing.

4.3 Survey after two years of activities

The number of respondents in the second year of the project activities is identical to the initial information survey.

Given the scope of the paper, the findings from the topic-based survey that target the obtained knowledge from respondents in knowledge of emergency numbers, principles of safe conduct; fire protection; protection of health and behaviour on train tracks are presented. The aforementioned areas are thematically identical.

Emergency number

❑ 96% of children knew this term in the last round, which is a little more than during the previous school year (91%) and considerably more than two years ago. The majority of children immediately recalled the main components of the emergency response system or that that serious incidents are reported using the emergency number. Other children recalled the 112 number or other emergency numbers.

❑ The majority of pupils knew that they must provide factual information during the call (what happened and where or their names). A full 60% of them named all three pieces of information and only 6% of pupils, in contrast, did not name any. In this case, there was a significant improvement compared to the previous year.

❑ Awareness of all numbers was very high, and the originally significant differences in awareness of the numbers disappeared. The best known number was 150 (93% of pupils) then 158 (95% of pupils) and 155 (87%). The comparatively least well-known was number 112 (80% of pupils). The most significant year-on-year changes occurred between 2017 and 2018 when awareness of all numbers grew. In 2019, knowledge of lines 150 and 158 remained at the same level as last year; knowledge of 112 slightly increased year-on-year, and knowledge of 155 dropped somewhat in contrast.

Principles of safe conduct

❑ 6% of pupils would get into a lift with a stranger. This was a year-on-year increase of the proportion, but it remained lower than in comparison with the results from 2017, which was a significant drop in comparison to the last round (15%).

❑ Regarding offers to meet over the telephone, pupils were less wary than in the previous year. The proportion of pupils who would inform their parents about this type of situation significantly grew compared to the previous year.

❑ Pupils would open the door most of all for parents and acquaintances or someone who they know. A fifth of pupils stated that it would be for no one. The results almost did not change year-on-year.

❑ This year the pupils would inform parents where they were going without hesitation (92%). Half of them had become used to informing parents of the time of their return, which was a significant change compared to the last round.

Fire protection

❑ Only 2% of pupils over the school year, just as last year, thought that a fire could not start from a small spark. Similarly, only a small percentage of pupils (2% in 2019, 3% in 2018) stated that a fire could not start from a match thrown into dry grass. In both questions, the situation significantly improved in comparison to 2017.

Protection of health

❑ After a walk, 80% checked themselves for ticks, and 9% washed their hands/body. Other students either stated nothing or mentioned a different domestic activity. The higher rate of being informed about the dangers of ticks was noticeable between 2017 and 2018.

❑ On trips in the summer (or to the water), 77% would take water to drink, and 56% would take sunscreen and, now, 46% headgear. A full 46% of pupils would take a drink and sunscreen at the same time – this is twice as much as last year. These two items grew significantly year-on-year to the detriment of other items, both this year and last year.

❑ The proportion of pupils who would not pick up a syringe significantly grew from 25% to 48%. Two fifths of them would call the police in this case – this here was a drop compared to last year, despite the proportion of these children being twice as high as in 2017.

❑ 8% of pupils did not consider jumping into unfamiliar water as dangerous. The rate of being informed slightly improved. (In 2017, it was 13%). Nonetheless, the majority of pupils (91%) recognised the risk, and the majority (88%) gave one of the correct reasons (unfamiliar water/depth, chance of injury).

❑ Similarly, as in the previous year, the majority of children knew about the risk of injury at home. They mentioned cutting with knives, touching the stove, being in the vicinity of appliances and wood stoves, moving through the kitchen or when food is cooking and jumping and running.

Behaviour near train tracks

❑ 1% of pupils did not know it was forbidden to play close to the tracks and 2% that it was forbidden to walk on the tracks. 7% did not know it was forbidden to cross anywhere other than at a crossing. Awareness-raising about the prohibition to play was evident in the question about dangerous places to hide, where children overwhelmingly list tracks, train stations and railways more often compared to the previous years. Awareness about the prohibition to play and walk was high from the beginning. There was a slight improvement in awareness regarding the prohibition to cross compared to last year.

Partial summary of activities

❑ In the second project year, in a summarised perspective, the values across the project weeks were in the same range but slightly more favourable. The highest average proportion of correct answers was achieved in the 3rd and 6th project weeks about the topic "Principles when leaving a flat" and "Principles of good behaviour on the train and railway", where the median of the proportion of correct answers was above 90%. On the contrary, the least favourable values for correct answers were found in the 7th project week "Getting lost in nature". However, as in the previous project year, question 3 remained the most problematic issue in the 6th project week. The only question with 100% correct answers is Question 5 in Project 8: "Select the correct uniform for firefighters to use in an emergency, which appeared in the tests for the first time. This time, the most balanced test results were achieved in the first project week.

5. RESULTS - ASSESSING PARTIAL RESEARCH QUESTION

Research question no. 1: What is the initial level of competencies of pupils from socioeconomically disadvantaged backgrounds in the areas of safety and protection of health and life?

With regards to conducting the survey of the initial level of pupils in safety and protection of health and life, it is necessary to point out the existence of various threats, whether to health, life, property or the state. In each of the areas of the questionnaire research, there was a higher proportion of respondents whose answers stimulated discussion on awareness itself of risks and risky behaviour in their life and surroundings. The very fact that the term "emergency telephone numbers" was known to 60% of respondents highlights the necessity to address and deal with the issue of safety and protection. Alarming findings were in other critical topics of the initial

level of pupils. 24% of pupils thought that a fire could not start from a small spark and 13% thought a match thrown into dry grass could not cause the same. In the area of protection of health, 30% of pupils would check themselves for ticks after a walk. 31% would wash their hands/body. The need for pedagogical help and support in these thematic areas is thus evident from the initial data. The basic presumption is that we avoid or are able to at least minimise such injuries, harm and losses and we could talk about/show what these risks/risky situations are and respond appropriately as part of practical lessons. It is thus to target the form of prevention through activities that lead to the preparation of children and pupils in an emergency. In the evaluation process, it was shown that testing the knowledge of pupils through this method is possible. However, it requires very precise preparation of the questions asked and consideration of the actual abilities of the children at different ages. The use of various questions and schematics where pupils may easily grasp the given situation and respond to the question with comprehension.

Research question no. 2: How were civic competencies of the target group of pupils from socioeconomically backgrounds perfected by the implementation of the project weeks?

In comparison to the results from the project weeks from both project years, the differences across the project weeks are evident at first glance. Meanwhile, perfection of the knowledge of students occurred in certain modules. Other modules kept presenting problems to pupils.

The most recognisable improvement occurred in the tests at the end of the second project week regarding the topic "When, where and how to correctly report an emergency". In the relevant test there was an improvement in results by even more than 20% compared to the previous year. In contrast to this in the seventh project week, "Getting lost in nature" and in the eighth project week "First responders and uniforms" and ninth project week "Fire, how to prevent it, its causes and consequences I", there was a slight worsening of results, though only in single digits of a percent.

Research question no. 3: How can the motivation of pupils be supported in the classroom to actively involve them in educational processes?

Given the tested activities that were connected to the implementing the project weeks it is evident that the education must be active for pupils and may actively involve them. Although the research was done within the after school programme, the recommendations below can be applied in the classroom. They are: employ non-traditional forms and methods of teaching;

support the pupil communicating his/her practical experience about a given issue, especially the essence of communicating already obtained information; support awareness of the atmosphere in society – not only in the classroom but also in the environment where the pupil lives or is active; search for information together from a given area that can be worked with in a variety of ways, and create a situation and opportunity so that a pupil may verify his/her reactions, observations and thoughts. An integral task of teaching staff is the correct organisation of lessons and the use of community life around the school – communication with the local fire department, emergency rescue service…

6. CONCLUSION, DISCUSSION AND RECOMMENDATION FOR PRACTICE

The primary practical recommendation is the constant need of specialist support for teaching staff, to improve accessibility of topic materials and support the importance of a topic through its appeal, which is what happened in implementing the project when there were visits by fire departments or excursions to integrated emergency response departments…

A further resulting recommendation is an awareness-raising activity or prevention that should cover not only an educational institution but also extracurricular activities that will prepare the pupil's knowledge about emergencies and support their protection. It may be a matter of activities (games, competitions, excursions…) that are held in the after school programme or as a part of children's leisure activities when they visit different activity groups.

The current system only shows the possibilities and what path is selected and whether attention will be paid to a topic in a given faith so that is would be attractive to the pupils depends on the teachers themselves. Therefore, the question remains whether the teaching materials for the teaching staff should be unified. Despite the wide spectrum of tests and aids, certain areas are prepared differently and do not always suit the given time and reflect the social events that may cause a threat. Therefore, unifying and updating materials would reinforces the topic and support the lesson. Multimedia and interactive textbooks can be used to make topics appealing.

The research done shows that it is suitable to inform and guide pupils in the first grade in the area of protect and safety in the form of games and exercises before memorising theoretical material itself. It is evident from this that we would target deepening theoretical knowledge with practical exercises in first aid during second grade. The basics of first aid and calling aid should be integrated into the whole cross-curricular education of protection of the citizenry. Further topics are obviously also necessary.

Another, no less important, topic is material safety, which is essential for obtaining such important practical knowledge for pupils, for example, using CPR manikins or simulators and first aid trainers. Financial support for educational materials and activities of individual interested subjects can be drawn from multiple sources – state, European and sponsors.

The role of the teacher is among the categories of factors that may influence not only the quality of information transmission but also the very motivation of the pupils. Society places various demands on teachers, and there is an expectation that these demands will be met. However, expectations differ, for example, from the school principal, school bodies, parents, pupils or school friends. Here it is evident that teaching staff will be better able to manage emergencies that occur and succeed in situations threatening their own health and life and those close and those entrusted to them, providing he/she is led to it personally and has the option to educate and develop themselves in this area. In the interest of leading school and staff, as well as principals, it is necessary to know that a team is created by employees who are prepared and are personally responsible not only for themselves but also their entrusted pupils and colleagues.

The involvement of parents into extracurricular activities is also a fact that may help along the topic being addressed. No less important is if one of the parents is in a profession connected to emergency response services. However, a parent is not always involved, and he/she is only a passive actor with regards to their child attending school. However, it concerns a child who is close to them and also from whom they hear what happened at school and what activities were done at school. Therefore, a parent may passively accept information from a given topic for a child.

The use of accessibility and coordination with the integrated emergency response system will no longer be referred to, if the idea that it is very effective for pupils is evident. However, the support of the profession that helps in an emergency – whether it is the fire brigade, police or physicians – becomes the stimulus…when a child may obtain his/her own professional role model, and a teacher may become a tool that helps make a child's wish a reality.

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