Journal of EBOR

Economics, Business & Organization Research

CONTENTS

Research Articles

EMPLOYER BRAND'S EFFECT ON ORGANIZATIONAL COMMITMENT

Anıl UCARER[1]

Abstract

Employer brand is described as the ideal workplace from an employee's perspective. Organizational commitment is an emotional attachment that an employee has to their organization. These two variables are widely studied together in literature due to their related nature. Data was collected through surveys. Participants were presented with a demographic form, the employer brand scale, and the organizational commitment scale. The participants were recruited from three different organizations in Istanbul, Bayrampasa, and a total of 63 employees took part in the study. The obtained data was analyzed using Pearson's correlation, independent samples t-test, one-way ANOVA, Kruskal-Wallis-H, linear regression, and moderation analysis run by SPSS. According to the results, the employer brand and organizational commitment levels of the participants were not affected by their demographic characteristics. There is a statistically significant relationship between organizational commitment and employer brand, and it was found that the employer brand has a positive effect on organizational commitment. The results are discussed in the context of related literature, and suggestions are presented.

Keywords: Employer Branding, Organizational Commitment, Education Level

[1] Master Student, Graduate School of Social Sciences, Faculty of Economic and Administrative Sciences, Department of Business Administration, Galatasaray University, Turkey, anilucarer@hotmail.com, ORCID: 0000-0003-2929-0411

1. INTRODUCTION

There are several definitions of the term "employer brand"; therefore, it needs to be clarified. "Employer brand" and "employment brand" are phrases that can be used interchangeably, and they refer to the same thing in Knox and Freeman's perspective (Knox and Freeman, 2006). "Employer branding" and "employment branding" are also used as alternative names. The practice of implanting a company's image or the concept of "an ideal workplace" in the minds of the target applicant pool is referred to as the employer brand. The employer brand is a long-term strategy aimed at managing and strengthening the awareness and perceptions of current and potential employees and stakeholders about the organization (Backhouse and Tikko, 2004). It can also be explained as a strategy, operation, or activity to retain current employees, increase the attractiveness of the organization to potential employees, and convince both that the organization is the best and the most ideal place to work (Ötken and Okan, 2015).

According to Sullivan (2000), employment branding is about creating an impression that motivates individuals to work for a well-managed company where they can learn and grow. Martin (2008) stresses the use of an organization's corporate image to attract exceptional workers. However, he also places significant emphasis on matching skills with an organization's brand and mission and achieving the desired results. It is essential to note that communication plays a critical role in developing an employer brand and shaping its image. This point is particularly emphasized by Jenner and Taylor (2008), who describe employer branding as an organization's efforts to communicate to both internal and external audiences what makes the company a unique and desirable employer. Lloyd, who shares a similar perspective as the author of this research, defines employer branding as "the sum of all the organization's efforts aimed at signaling to current and prospective employees that the organization is a desirable work environment" (Moroko and Uncles, 2008).

Different researchers have provided varying definitions of organizational commitment. However, the most widely recognized definition of organizational commitment is that it is "a psychological bond between the employee and the organization that reduces the likelihood of the employee voluntarily leaving the organization" (Allen and Meyer, 1996).

Organizational commitment has long been an area of interest for researchers. The most important reason for this is that every organization needs the commitment of its employees to

achieve organizational success. It has been argued that employees with high organizational commitment demonstrate extra effort in achieving their tasks and contributing to organizational success. In addition, they tend to stay in the organization for longer periods and establish more positive relationships. On the other hand, employees with low commitment are unable to fully engage with their tasks and are more likely to quit (İnce and Gül, 2005).

According to Meyer et al. (2002), there are three components of organizational commitment. The first component is affective commitment, which refers to the employee's emotional attachment to the organization, identification with the organization, and a sense of belonging. The second component is continuance commitment, which reflects the employee's perception of the costs and benefits of staying or quitting. This component is more based on the employee's need to remain with the organization. The last component is normative commitment, which is related to the employee's sense of obligation to the organization. It reflects the belief that the employee has a moral or ethical duty to stay with the organization. (Meyer and Allen, 1991).

Organizational commitment and employer brand have been studied together for a long time. Studies show that there is a positive relationship between organizational commitment and employer brand (Schlager et al., 2011; Nayır and Afacan Fındıklı, 2018; Efe et al., 2020). This means that as organizational commitment increases, employees' positive perception of the employer brand also increases. As discussed by Kashyap and Verma (2018), the employer brand is strongly related to the social values of employees and organizational commitment. The "first human/employee" approach of an organization affects employees' commitment to the organization (Greguras and Diefendorff, 2009). The literature also shows that the employer brand has a positive effect on organizational commitment. Thus, the employer brand increases employees' positive perspective of the organization, and as a result, organizational commitment increases (Kutluata Aksu et al., 2020). The same results were found in another group of employees, namely those in an airline company (Durmaz et al., 2021).

In today's competitive environment, businesses must be highly selective and attentive to the human element to ensure continuity and success. The most critical factor for achieving success is the workforce, which must be loyal to the organization to provide customer satisfaction. The impression that customers receive from employee interactions shapes the brand image of the organization. This study aims to demonstrate the significant impact of

employer brand on organizational commitment. Additionally, as previously discussed, the human factor is crucial to business success. Therefore, this study seeks to gain a better understanding of group differences among participants based on demographic characteristics regarding organizational commitment and employer brand. It is hypothesized that employer brand has a positive effect on the organization.

2. METHODS

2.1. Sample

The sample was selected from three different organizations located in Istanbul, Bayrampaşa. Of the participants, 69.8% were male, the mean age was 33.77 (SD=10.91), 73% were married, and more than half had graduated from primary education (57.1%). A total of 63 participants filled out the questionnaires.

2.2. Measurements

Demographic form was created by researcher. The form were constructed to assess demographic characteristics such as age, gender, marital status, and education level and the time of employees' working in the organization.

To measure organizational commitment level of participants Organizational Commitment Scale was used. This scale was developed by Meyer, Allen and Smith (1993); then Wasti (2000) has tested its validity and reliability in Turkish sample. The scale has 25 questions and 3 subgroups. It is asked with 7-point Likert type. These subgroups are affective, normative and continuance commitment.

Employer brand was measured by employer brand scale which is developed by Kuzu (2019) by using 3 different scales. It has developed to measure employees' perception of employer brand. It has found valid and reliable.

2.3. Statistical Analysis

SPSS 24.0 program was used to undertake the statistical analyses. The distribution of the scales was examined on the basis of the kurtosis and skewness values. Pearson Product Moment Correlation coefficients were computed to examine the relationship of the scores on the scales. Kruskal Wallis H, One Way ANOVA and Between Subjects T tests were used to analyze group differences. To understand the effect of employer brand on organizational commitment Linear Regression analysis was run. At the end, Andrew Hayes's (2013) Process v4.0 Model 1 was

used to assess the moderation effects of education level on the relationship between employment brand and organizational commitment. Significance was evaluated at p<0.05 levels.

3. RESULTS

3.1. Demographic Information of Participants

The demographic characteristics of the participants are presented in Table 1. 30.2% (N=19) of the participants were women and the rest (N=44) were men. The ages of the participants ranged between 18-56 and the average age was 33.7 (SD=10.91). Almost 3 out of every 4 participants are married (N=46). While more than half of the participants graduated from primary education (N=36), 28.6% (N=18) graduated from high school, 7.9% (N=5) from associate degree and 6.3% (N=4) from bachelor's degree. Finally, participants have been working at the organization for an average of 9.22 years (SS= 9.02). A total of 63 employees participated in the study.

Table 1. Demographic Characteristics of the Participants

Variables	N	%
Sex		
Female	19	30.2
Male	44	69.8
Age	M=33.77 (SD= 10.91)	
Marital Status		
Married	46	73
Single	17	27
Education Status		
Primary Education	36	57.1
Highschool	18	28.6
Associate Degree	5	7.9
Bachelor's Degree	4	6.3
Years of Working in the Organization	M=9.22 (SD=9.02)	

3.2. The Relationship Between Employer Brand and Organizational Commitment

The Pearson Correlation coefficient was used to determine the relationship between employer brand and organizational commitment. According to the results, there is a significant positive relationship between employer brand and organizational commitment (r=.662, p<.001). Thus, as the level of perception of the employer brand increases positively, their commitment to the organization increases in the same direction (Table 3).

Table 2. The Relationship Between Employer Brand and Organizational Commitment

(N = 63)

Variable	1	2
(1) Employer Brand	-	.662**
(2) Organizational Commitment	.662**	-

**p<.001

3.3. Results of Linear Regression Analysis of Variables That Affect Organizational Commitment

As a result of the preliminary analyses, variables that found to be related with organizational commitment were added to the model. First of all, the assumptions of Linear Regression Analysis were checked. All assumptions were met. After that, the level of employer branding was added to the model as an independent variable. The results of the analysis are given in Table 4. Employer brand explains 43.8% of the variance in employer brand ($R^2 = .438$, $p < .001$; F [1, 61]= 47.541, p<.001). As a result of linear regression analysis, employer brand ($\beta = .662$, p<.001) significantly predicts the variance in organizational commitment.

Table 3. Lineer Regression Anaysis for Employer Brand's Effect on Organizational Commitment

Variable	Model		
	B	**Std. Error**	**β**
Employer Brand	0.096	0.014	**0.662****
R^2	**0.438**		
F	**47.541****		

Not. B = unstandardized coefficient of the effect, *β* = standardized coefficient of the effect, Std. Error = standart error. **$p \leq 0.001$.

3.4. Moderation Effect of Education Level

Andrew Hayes's (2013) Process v4.0 Model 1 was used to assess the moderation effects of education level on the relationship between employment brand and organizational commitment. In the analysis, -1 standard deviation and below is taken as "low'', between -1 and +1 standard deviation is taken as "medium'' and +1 standard deviation and above is taken as "high'' group for moderation variables in graphs.

Results showed that, the relationship between employer brand and organizational commitment is stronger when education level is higher.

Table 4. Moderation Effect of Education Level on the Relationship Between Employer Brand and Organizational Commitmnet

Variables	b	Std. Error	t	p
Constant	4.05	0.104	38.898	<.001
Employer Brand	0.098	0.014	7.253	<.001
Education Level	-0.097	0.103	-0.942	0.3499
Interaction	0.036	0.013	2.755	0.0078
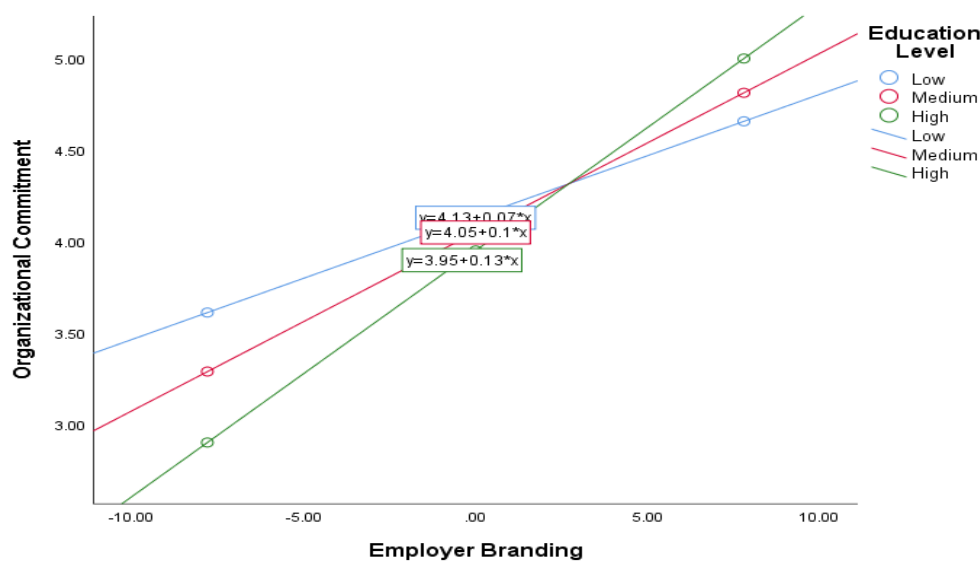
4. DISCUSSION

Employer branding and organizational commitment has been studied together very frequently in literature. As results of the study shows orgranizational commitment and emloyer branding has a positive correlation. It means that as organizational commitment increases, employer branding also increases in the same direction. The same results has been found in literature. Kutluaka Aksu and others' study showed that there is a strong positive relationship between organizational commitment and employer branding (r=.77, p<.05). Another study showed that this positive relationship is seen in all 3 subscales of organizational commitment (Durmaz et al., 2021). In addition to studies that is mentioned, studies that is conducted in other countries than Turkey and different sectors show the same positive relationship (Rana, et al., 2019; Akuratiya, 2017). Employer branding is essential to make or show the organization more attractive and it is not surprising that people commit more attractive organizations and find

7

more attracitive the organizations that they are committed positively.

Linear regression analysis showed how employer branding affects the variance in organizational commitment. Employer brand has a significant positive effect on organizational commitment. Results can be interpreted to mean that, to achieve strong organizational commitment, organizations should develop a positive and strong employer branding. They should show interest not only in financial matters but also in creating an environment that supports employees' commitment. To achieve this, they need to focus again on employer branding. These results are supported by other studies in the literature. A study conducted with 453 flight attendants showed that employer branding has a positive significant effect on all components of organizational commitment (Durmaz et al., 2021). The results are not sector-specific. For instance, another study conducted with textile sector employees showed that employer branding significantly and positively predicts organizational commitment (Kesoğlu and Bayraktar, 2017). Another study from the medical sector shows that employer branding not only positively affects organizational commitment, but it also increases the profit of the company (Bayrak, 2016).

The results show that the relationship between organizational commitment and employer brand becomes even stronger as the education level increases. This suggests that employees with a higher level of education are more likely to commit to the organization when they have a more positive perception of the employer brand. However, this relationship is weaker in the low-educated group. We can interpret these results by suggesting that highly educated employees are more likely to consider the organization's employer brand because they have more job options. On the other hand, lower-educated employees have to be more committed to the organization, even if they do not have a positive attitude towards the employer brand, because they have fewer job opportunities. In the literature search, we could not find any similar or different results on the moderation effect of education level on employer brand and organizational commitment. Therefore, the literature needs more research to interpret these results by comparing them to others.

Thus, employer branding has several benefits for organizations. Building a positive employer branding attitude positively affects organizational commitment, which is related to positive outcomes for every company. Furthermore, it is essential for organizations to consider human-related factors rather than only economic factors.

Nevertheless, the present study has some limitations. The first limitation is that the study used a convenience sampling method. Additionally, data was collected from only 63 participants from three organizations. Therefore, these limitations taken together suggest that the findings should be discussed with caution.

REFERENCES

Akuratiya, D. A. (2017). Influence of Perceived Employer Branding on Perceived Organizational Culture, Employee Identity and Employee Commitment. *International Journal of Scientific and Technology Research, 6(*8), 148-153.

Allen, N. J. & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior, 49*(3), 252–276.

Backhaus, K. and Tikoo, S. (2004). Conceptualizing and researching employer branding. *Career Development International, 9*(5), 501-517.

Bayrak, M. E. (2016*). İşveren markasına yönelik uygulamaların örgütsel bağlılık üzerine etkisi ve medikal sektöründe bir uygulama.* Yüksek lisans tezi, İstanbul Aydın Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Durmaz, İ. B. V., Temoçin, N. & Eyel, C. Ş. (2021). İşveren Markası Algısının Örgütsel Bağlılık Üzerindeki Etkisi: Özel Bir Havayolu Şirketinde Bir Uygulama. *Doğuş Üniversitesi Dergisi*, *22*(1), 39-55.

Efe, U., Karavelioğlu, C. & Ergun Özler, N. D. (2020). İşveren Markasının Örgütsel Bağlılık Üzerindeki Etkisinin Belirlenmesine Yönelik Bir Araştırma. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi,* (64), 143-161.

Greguras, G. J. & Diefendorff, J. M. (2009). Different Fits Satisfy Different Needs: Linking Person-Environment Fit to Employee Commitment and Performance Using Self-Determination Theory. *Journal of applied psychology*, *94*(2), 465-477.

İnce, M. & Gül, H. (2005). *Yönetimde Yeni Bir Paradigma Örgütsel Bağlılık.* Çizgi Kitabevi Yayınları. Konya.

Jenner, S. J. & Taylor, S. (2008). Employer branding – fad or the future of HR?. S. Humpage (Ed.), In *Research Insight: Employer Branding: The Latest Fad or The Future for HR? Chartered Institute of Personnel and Development* (pp. 7-9). Chartered Institute of Personnel and Development, London.

Kashyap, V., & Verma, N. (2018). Linking Dimensions of Employer Branding and Turnover Intentions. *International Journal of Organizational Analysis*, 26(2), 282-295.

REGARDING THE AUSTRIAN EDUCATION SYSTEM AND THE IMPROVEMENT OF EDUCATIONAL ACHIEVEMENTS OF AUSTRIAN TURKS

Murat SENGOZ[1]

Abstract

In this study, the Austrian education system and educational philosophy will be discussed from a historical perspective, the current education system of Austria will be reviewed, and a general determination and evaluation will be put forward, especially regarding the educational success of students from Turkey. In this context, it will be tried to examine the school success status of students of Turkish origin within the Austrian education management philosophy in general and the current education system in particular. Thus, some critical issues that should be adopted to improve the educational success of the Austrian Turks in the current system according to the reports of the European Union, the Organization for Economic Cooperation and Development, the Austrian Ministry of Education, and other official institutions will be tried to be revealed.

Keywords: Austrian Education System, Austrian Turks, School Success.

[1] Dr., Independent Researcher, muratsengoz74@gmail.com, ORCID: 0000-0001-6597-0161

1. INTRODUCTION

Turkish-Austrian relations go back much further (Stevens and Abbott, 2007; Matzka 2009). More than five hundred thousand Austrians spend their holidays in Turkey each year and many of them own homes on Turkey's south and west coasts. Regarding the diplomatic relations between Austria and Turkey; between Austria and the Ottoman Empire, it should be noted that since the second half of the 18th century, permanent diplomatic representations were established. The Ottoman Empire has been represented by a permanent embassy in Vienna since 1798 (Kasaba, 2008). The first diplomatic representation of the Ottoman Empire at the level of an Embassy in a European country was also established in Vienna.

Since Austria is a very important and well-established Central European country with functioning state institutions and establishments and because of its historical relations with Turkey, its education system is discussed and compared in this study. In this context, the Austrian education system is analyzed holistically in terms of its basic mechanisms and practices. This is because the education system is both the most valuable material investment tool of a country and a catalyst that determines the value of all other assets due to human existence. In a sense, human beings are allegorically like the soul that gives life to the material structure of a country, based on the analogy that a country is the material body of all other assets. Another aim of this study is that the Austrian education system is a source for determining the strategies that should be adopted to increase the educational success of Austrian Turks within the existing education system. In addition, every year a significant number of young people from Turkey come to Austria for higher education and various specialized training. Therefore, the Austrian educational philosophy and system are worth analyzing.

On the other hand, one of the reasons why Austrian Turks continue to live thousands of kilometers away, in a foreign country, by enduring all difficulties, is the economic, social, and cultural opportunities they have in Austria compared to their hometown, as well as the educational advantages possible for their children. Because education in Austria is free and there is no examination for entrance to higher education in general, provided that the transition to university is needed only a high school achievement examination, that is called "Matura", which is "Abitur" in Germany and "Internatıonal Bachelorya" in the United Kingdom. Due to the high demand, entrance exams are held in university departments of Universities such as medicine, architecture, and law school. But even this is not at a difficulty level that can be

compared with the exam marathons, its intensity in Turkey. In addition, the unconditional educational support provided to the youths by the Austrian State is more than the pension received by retired people in Turkey. On the other hand, in addition to the Turkish youth living in Austria, more than a thousand Turkish youth come to Vienna and other cities of Austria for university education every year. For this reason, in this study, the Austrian education system and its education philosophy will be discussed and the current education level will be reviewed.

2. PURPOSE AND METHOD OF RESEARCH

This study aims to examine the Austrian education system and education philosophy from a historical perspective to review the current education system of Austria, and to make a general determination and evaluation of the educational success of Turkish-origin students in particular. So this research article is a hermeneutic study, in which all documents and secondary data sources are obtained by the literature review technique.

3. AUSTRIAN EDUCATION SYSTEM

The Austrian education system is based on a multi-stage and diverse education system, which is depicted in Figure-1. In Austria, children start their education and training life from a much younger age in nursery and kindergarten. After that, they continue to elementary school and then secondary school education. At this point, children are being separated and directed depending on their capabilities, abilities, and academic performances to classical academic high schools, technical schools, vocational trade high schools, or ordinary vocational schools. In this context, after completing basic high school education a seventeen-year-old teenager with a lot of academic aptitudes continues to the university education, while many other students undergo further vocational training and do an internship based on their future job aspirations (Baten, 2016: 50). So, at the age of about 18, the more practical-minded students can pursue a further university education while at the same time continuing their education with non-academic studies towards a profession. During this education period, a student who continues his education without a break can attend his doctorate education at a university around the age of twenty-three.
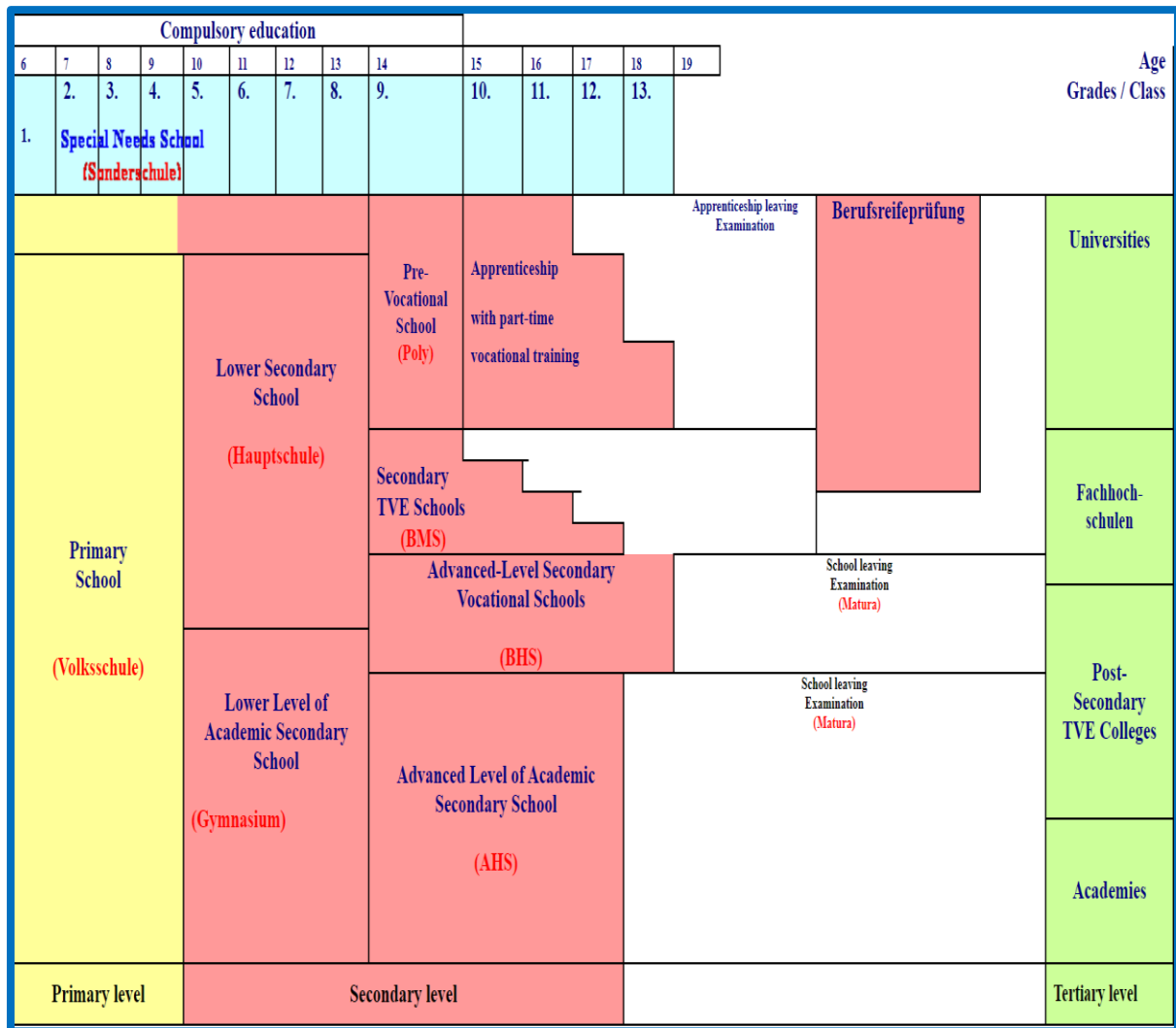
The Austrian education system consists of a four-year elementary school (Volksschule) followed by a four-year lower secondary education (Hauptschule/ Neue Mittelschule) or an academic high school education (Gymnasium). In this context, compulsory education is nine years in Austria. Approximately 95% of children aged 3-6 in Austria go to kindergartens. The academic year in Austria usually starts in September and ends in July. While the exact summer holiday is nine weeks in Austria. Also, there are Christmas and New Year holidays a winter vacation or break, which is 10 days, and normally an Easter holiday, which is called Ostern in Austria (BMBF, 2021a).

After accomplishing the first part of the academic high school (Gymnasium), students can also choose either to attend the vocational school or go on to attend an academic high school depending on their school achievement performances and grades (Baten, 2016: 50). Those

children who want to continue to study more practical issues and learn a profession and go on to vocational training schools (Berufsschule) at least for three years. After three years, students have to pass the graduation and proficiency exams (Lehrabschlussprüfung). On the other hand, students who are more academically inclined may attend a higher education institute, which is a pre-bachelor program (Höhere Schule) for four or five years. At the end of their education there, they have to take the proficiency (Matura) exam to be able to enter the university. Alternatively, children attending academic lycee programs who enjoy professional studies or want to move into a related sector may attend a vocational school (Berufsbildende Höhere Schule) before moving on to university (ECNPP, 2021).

In Austria, children aged 0 to 6 are prepared for kindergarten; aged 6 to 10 to elementary school; school-aged 10 to 14 to secondary school or Polytechnic School; 14 to 15; and some students aged 15 to 18 to high schools (lycee) or through vocational schools or vocational training schools (Beruf Schule). Education in Austria is free to charge. One of the key features of public schools in Austria is the variety of education options for students of all levels. For example, the way secondary school is split into academic and more professional paths to provide equal opportunities for children. Around 82% of 15 to 19-year-old children in Austrian schools are enrolled in vocational schools or vocational training programs. General compulsory education lasts until students reach the age of 15, but from the 2016/17 school year, all individuals are required to pursue some form of education or training (ECNPP, 2021).

In addition to this, Austrian employers offer and sponsor a wide range of internship opportunities for the youth. They provide children who are attending vocational schools and vocational training schools with opportunities to work with them and "learn while doing". Only about 8% of schools in Austria are private and many are being sponsored by religious foundations, but follow an education system that does not differ from the mainstream in general. To this extent, many private schools have principally religious roots, and most private elementary and secondary schools in Austria are run by the Roman Catholic Church. Roman Catholic schools are notorious for being more strict than other schools, but they are also known for their excellent academic standards. In terms of universities, private institutions are rare but have become more common in recent years.

4. CONSIDERING THE AUSTRIAN EDUCATION SYSTEM FROM A HISTORICAL PERSPECTIVE

The Wars of Succession between Austria and France exposed the weaknesses of the Habsburg monarchy and revealed the shortcomings of the Habsburg Empire. All these developments revealed that the empire couldn't continue with the old state traditions, education, and management approach and revealed the need for urgent and sharp education and public administration reform is inevitable. For this purpose, a series of reforms attempted by Maria Theresa to the establishment continuation of the Habsburg Monarchy. However, the most important of these reforms on which all others were dependent was the reforms of the education system. The main aim of the education reform was to build a modern, efficient state bureaucracy in order to govern the country properly. The various regions of the monarchy would be administratively united and the autonomy of individual kingdom lands would be restricted in favor of a central administrative apparatus controlled by Vienna. To achieve this, the necessary institutions were established and put into effect for the training of cadres who had played a key role in the administration of the country until then, and thus the management cadres were liberated from the monopoly of aristocratic officials and professionalized with the increasing participation of not-aristocratic class academics.

In this context, the Maria Theresa Military Academy was established in Wiener Neustadt and a new generation of military officers was trained in this Academy according to modern warfare principles, concepts, and doctrines. However, the most important educational reform carried out by Maria Theresa was the introduction of compulsory education for children with a constitutional law, which is approved in 1774. In other words, today, Austria, as a central European country, has an advanced and modern education system as a typical European Union member country but also has an educational administration philosophy that preserves its ties with its deep-rooted imperial past. However, especially since the beginning of the twenty-first century, Austria has taken important steps to combine the classical scholastic adapting of its education system with modern requirements. The foundations of the Austrian education system were shaped especially by the Common School Law (AllgemeineSchulordnung) of 6 December 1774, enacted by Empress Theresia (1740-1780) (Scheipl and Seel, 1987: 11-15).

The standards adopted by Empress Maria Theresia regarding the education system in Austria continue even today. These are the legal regulations such as the Primary School Law

(Reichsvolksschulgesetz) (Scheipl and Seel, 1987: 60-61). One of the most important of these is that the school starting age was accepted as six years old, the establishment of elementary schools even in villages, also in towns and cities under the responsibility of the Ministry of Education, and the determination of compulsory education as eight years. At that time the classical Austrian education system consisted of well-established high schools (Gymnasium), which were generally run under the responsibility of the churches, in terms of compulsory primary and secondary school and further education opportunities. In this context, elementary schools were established in villages, towns, and cities in every region of the country. Secondary schools were located in certain towns and higher education settlements, such as high schools (Gymnasium) were located in important city centers (Scheipl and Seel, 1987: 94). Every citizen of the country could send their children to a school, but of course, it was necessary to meet some success criteria to start a high school. In addition, many schools also had boarding opportunities for students from the provinces.

This system was redesigned and reorganized after the Second World War (1939-1945), although the principles were preserved. In this context, compulsory education was increased to nine years, and the success standards that students must achieve to attend higher school classes were redetermined and enacted. In addition, Teacher Training Colleges (Pädagogische Akademien) were established for the training ad education of teachers. In this context, two-year post-secondary education programs for elementary school teachers, three-year higher education and training programs equivalent to bachelor's degrees (baccalaureate) for teachers of high schools, such as Mathematics, German or English and Biology, Geography, History, Physics, Art, Music, and Physical Education branches. So, teacher training programs were standardized (Scheipl and Seel, 2004: 202).

The core of the education and training system was adopted based on the training of instructors and accepted the transfer of theoretical knowledge acquis as much as possible to the students. In this context, facts such as individualization, creativity, and original critical thinking were not taken into account yet in the education process. Being able to start high school education was a privilege given to far more successful students. This caused the children of well-educated families to support their children's education with special lesson supplements to increase their school success in order not to be deprived of university education. Because attending university was a privilege only for students who had completed their high school education and achieved the matura proficiency exam. High school education started after

elementary school, and children could get the right to start high school education with their elementary school success. This criteria also continues today. For this reason, New Secondary Schools (Neue Haptschule) were opened in Austria, which allows students to continue their high school, technical and trade colleges, or vocational schools, on their school success. This projects aim to prevent discrimination between native Austrians and immigrant children by giving them a second chance to achieve the Matura exam (BMBF, 2021b).

5. PHILOSOPHY OF THE AUSTRIAN EDUCATION SYSTEM

One of the main distinctions that distinguish developed countries from other countries is; that it is undoubtedly the fulfillment of issues such as defense management, planning of education, the establishment of law, and research and development (R&D) by elite and competent autonomous committees. Because the perspectives of politicians are limited to election periods and their perspectives are naturally short-term. For this reason, it is very valuable and essential to deal with the phenomenon of politics with a supra-political paradigm that can compete with the world and at the same time within itself in areas such as defense management, foreign policy, planning of education, the establishment of law and R&D., populist practices, which are frequently applied in socio-culturally heterogeneous societies and countries, are the main source of social inequality and faction in every sense.

The education model of a country, the way of thinking, legal and political (regarding the country's government) institutions, adopted ideologies, and philosophical patterns that constitute the infrastructure of the state. In this respect, the education system adopted is a choice of the country for the future. Today, there is no need for armies to invade a country. If a country is corrupt and far from meeting the educational requirements and needs of the age in the field of education, that country will dissolve on its own in time and lose its collective consciousness. There is a linear relationship between PISA scores and the economic development and welfare levels of countries. All of the countries that are at the forefront of PISA scores are also advanced democracies, industrialized, foreign trade surplus, and high value-added goods and services production capacities. The main feature that distinguishes the countries ranked high in PISA scores from the others, is the importance attributed to teachers, the respect shown, and/or the high wages paid in these countries. Because teachers appeal not only to the minds of their students but also to their hearts. Every country needs to raise well-educated, self-confident young people, who can think innovatively. For this, there is a need for a management climate

in the society in which individuals are not subject to any ethnic, religious, sectarian, or ideological discrimination and have the right to live all kinds of freedom provided that they do not harm others. In this respect, the main duty of the state is to offer its citizens absolute freedom and prosperity by providing opportunities and guiding them toward good, legitimacy, and transparency (IFBW, 2021).

Under these considerations, it can be said that Austria's modern educational philosophy supports students by their interests and abilities and is participatory and student-centered in terms of strengthening students' abilities and strengths in their social and personal development competencies. In this respect, the primary duty of educational institutions has been built on the identification and development of students to prepare them for life and their future professions. Austria's modern education philosophy is based on the principle of preventing children from being forced to choose a school by categorizing them according to only their elementary school education performance and on the other hand increasing the diversity of education opportunities (BMBF, 2021b).

In this context, the Austrian educational philosophy has some basic features, which depend mainly on diversity and differentiation. Diversity as an educational philosophy foresees the diversification of the education and training system, as each classroom has different interests, abilities, needs, social and cultural backgrounds, and mother tongues. In this context, the responsibility of the Ministry of Education is to transfer the necessary holistic education and training techniques to the education curriculum of this diversity. On the other hand, differentiation as an educational philosophy is the inclusion of necessary materials in the educational process to meet the needs of students with different learning styles. In this respect, Austrian educational philosophy is partially based on the teachings of Italian Maria Montessori, American Helen Parkhurst (1886-1973), and Peter Petersen (1884-1952). The common denominators of these teachings focus on meeting the authentic needs of students in education such as movement, socialization, taking proper action to the changes and uncertainty, and promoting their basic needs such as love, empathy, protection, and responsibility. In this context, the school system is democratically oriented; A libertarian education philosophy is adopted, in which responsibilities are reinforced (Eichelberger, 1997: 146).

In this respect, the basis of the Austrian educational philosophy in practice is based on the training of qualified teachers (Dangl, 2014: 37). However, young teachers must develop

their professionalism. Schratz and a group of Austrian education experts cite five areas for teachers' professionalism. These are professional awareness, reflective competencies, managing diversity, cooperation and collaboration, and personal mastery in a model that aims to develop professionalism in an international context (Schratz, 2011: 25). According to Schratz, these concepts are defined as below (Schratz, 2011: 25): Reflective competencies; enabling individuals to think about their actions about the happenings developing in their environment. Professional awareness means the appreciation of students and parents, as a core value. The essence and focus of professional awareness are related to the professional behaviors that teachers must adapt. It combines with the development of teachers' competencies and the establishment and maintenance of self-confidence.

The second critical issue is Managing diversity. Since teachers do not manage a structurally homogeneous classroom, they need to develop their knowledge and skills related to the management of heterogeneous groups. Students differ in terms of their gender, age, interests, abilities, multiple intelligences, social and cultural backgrounds, and mother tongue. are obliged to provide diversity that will appeal to the potential of their students with various methods in the context of education and training techniques and methods. Collaboration is one of the most important results of social life. To overcome daily routine collaboration between teachers must allow for the development of a shared vision in classrooms. For example, it paves the way for teachers to progress and develop from the focus of "me and my class" to the goal of "us and our school" (Senge, 1996). It is about how teachers convey what they know, rather than how much they know (Schratz, 2011: 36).

Regarding the issues explained above, in Austria, some experienced teachers must conduct a training process within the framework of coaching and mentoring programs for newly graduated teachers by the relevant authorities, through seminars, conferences, or bulletins, to contribute and convey their experiences, especially to newly graduated teachers to help them to increase their job competencies. It can be said that this project constitutes the backbone of the teacher training process (Beer, 2014: 17). Moreover, mentoring is successful when the relationship between both mentor and mentee is reliable, independent, and based on an open mind. Apart from the mentoring procedure applied in this context, regular service courses are also compulsory (Ebenberger, 2014: 223).

6. IMPROVEMENTS AND DEVELOPMENTS REGARDING AUSTRIAN EDUCATIONAL PHILOSOPHY

The main task of the Austrian Federal Ministry of Education, Science, and Research is to create the best possible framework conditions for schools, universities, and research institutions. Rapid social changes and experiences necessitate the continuous improvement of these framework conditions. In this context, the "Pedagogy Package", adopted by the Council of Ministers in 2018, foresees the implementation of some improvements that will intensify competence-oriented education in all lower levels of primary, secondary, vocational, and technical high schools, as well as in high schools providing classical academic education throughout Austria. In this context, in the school preparation regulation published in 2018, standard criteria were defined for checking school readiness for the first time throughout Austria. Along with the new school entry screening, a tool has been developed for support-based diagnosis, in which children's school-entry skills can be identified during the school enrollment process. The new education and training curriculum prepared for this purpose reflects the transition from subject-oriented teaching to competency-oriented teaching methods. The content of the curriculum is consistent and coordinated. It aims to facilitate the smooth transition from elementary education to lower secondary education. Due to its consistent redirection towards specific competencies, it offers more freedom for contemporary and future-oriented course design and aims to provide a comprehensive (reflective) basic education. The stronger focus on interdisciplinary issues encourages collaboration among teachers across subject boundaries (EUPO, 2020).

In this context, the student qualification criteria developed by the Austrian Ministry of Education are closely linked to the new education and training curriculum. Student proficiency criteria are the set of criteria developed for the concrete determination of the different need levels of the competing definitions of the students. As a pedagogical tool, student competency criteria assist teachers in planning the semester or year of study. They also support teachers in assessing students' learning and performance levels and associating them with the learning goals to be achieved. Student competency criteria can be used as a basis for discussions with students and legal guardians during formative performance feedback while facilitating the targeted differentiation and individualization of lessons. In addition, with the amendment made in the Performance Evaluation Regulation, competency orientation has also been more tightly linked

to performance evaluation. Performance appraisal is combined with feedback on skills gained, which supports learning and makes grading more transparent and understandable.

By emphasizing the diversity of performance evaluation forms, it is ensured that the evaluation does justice to the different performance potentials of the students. The essence of the education reform in question is aimed at revealing the different strengths and abilities of the students because each student has different needs and each child is special and unique. For this reason, instructors and school administrators are obliged to provide freer environments for students to unleash their creativity. In this context, open spaces on the field need careful quality control in the background to provide the best education for students. This can be achieved through systematic educational monitoring and external evaluation based on a standardized quality framework for schools (IFBW, 2021).

As a result of the explanation given above, it is possible to say that the Austrian education philosophy, in a nutshell, envisages that schools should have maximum pedagogical design freedom for simultaneous planning and resource security and the creation of innovative educational offers. To this end, the education system should have a structure that enables education concepts in which school profiles are reasonably coordinated and transitions between schools are optimally designed for students. Because in this way, the education and training climate can be created for teachers as the most critical element of education and training activity, which creates the potential to improve their qualifications and prioritizes transparent and autonomous further education and training.

7. AN OVERVIEW OF THE AUSTRIAN EDUCATION SYSTEM

An international study shows that the distribution is a more unequal level of education in Austria than in most other industrialized countries. According to the "Equal Opportunity in Education" report published by the Organization for Economic Cooperation and Development (OECD) in 2018, it is seen that the equality of educational opportunities in Austria is lower than the average of the European Union member countries (OECD, 2018). In this context, Austria has a lower average when compared to other developed modern industrial countries. According to the report in question, it is possible to say that children from disadvantaged backgrounds in Austria, whose parents receive more social assistance and have a lower socio-economic belonging than the OECD average, are even less likely to obtain a university degree, and it is possible to say that children from socio-economically disadvantaged families do not have the

same opportunities anywhere in the worldwide. In reality, there are no countries where social and economical background does not play a critical role in the educational success of children. However, there are a few certain countries, which are some northern European countries, where the social status of parents plays a relatively minor role in children's school success. In Austria, however, barriers to children from educationally disadvantaged backgrounds are relatively high and unfortunately, social mobility is very low.

Figure 2: *PISA Score-2018 The Difference Between the Average Scores of the Children of the Family in the Top and Lowest Socio-Economical Groups. A Sample*
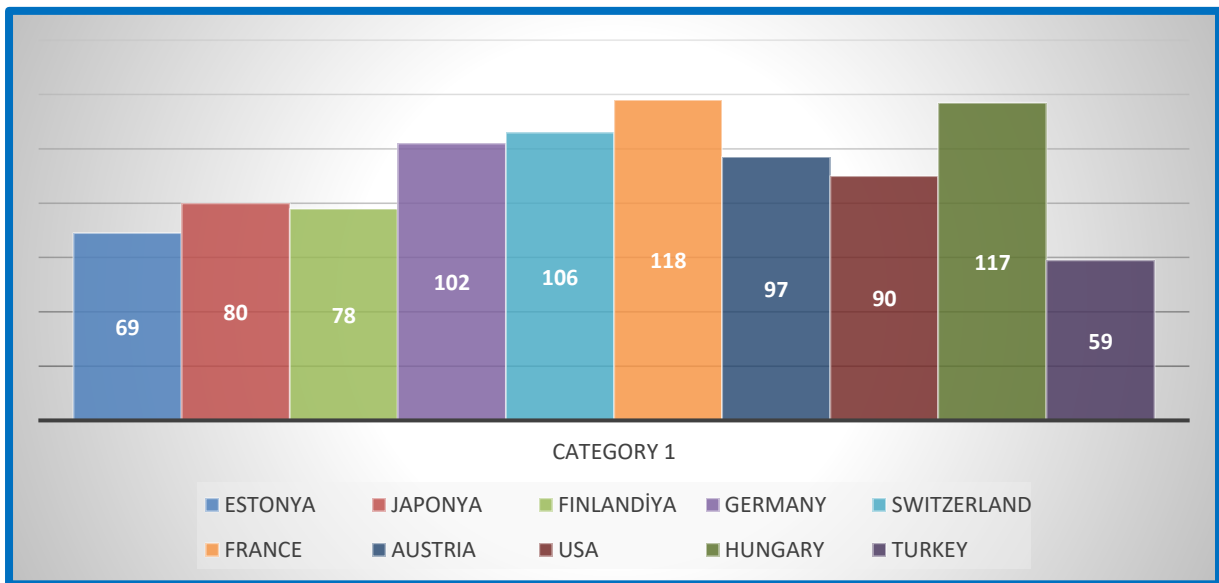
Figure 3: *PISA Score-2018. A Sample*
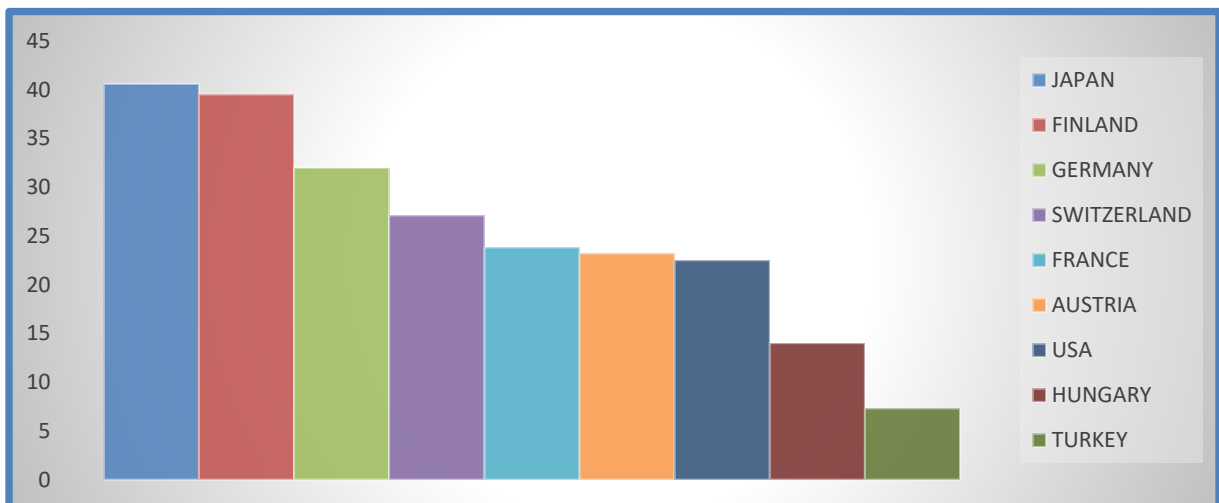
Figure 4: *University Graduations For Young People From Educationally Disadvantaged Backgrounds. A Sample*
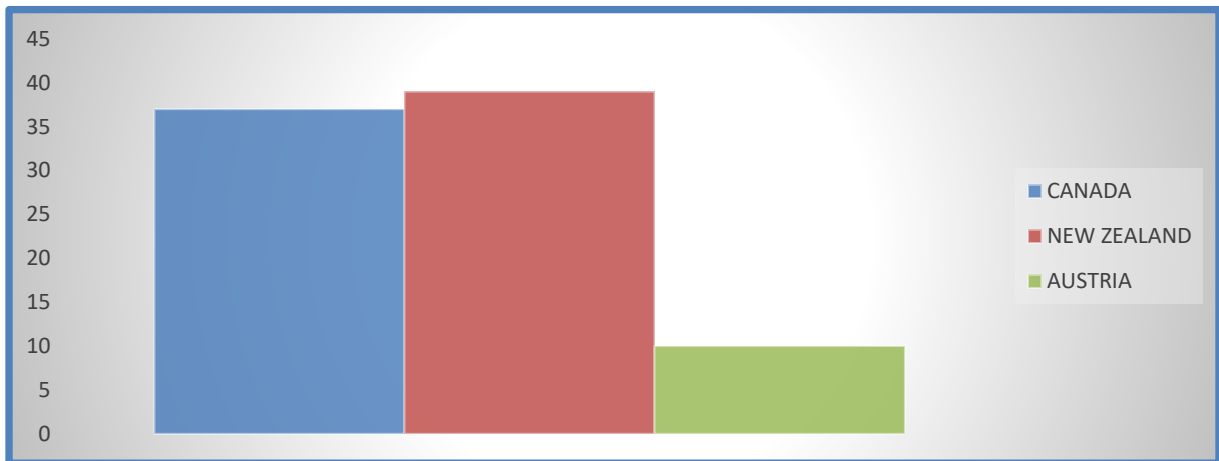
Figure 5: *A Higher Level of Education Than Their Parents. A Sample*
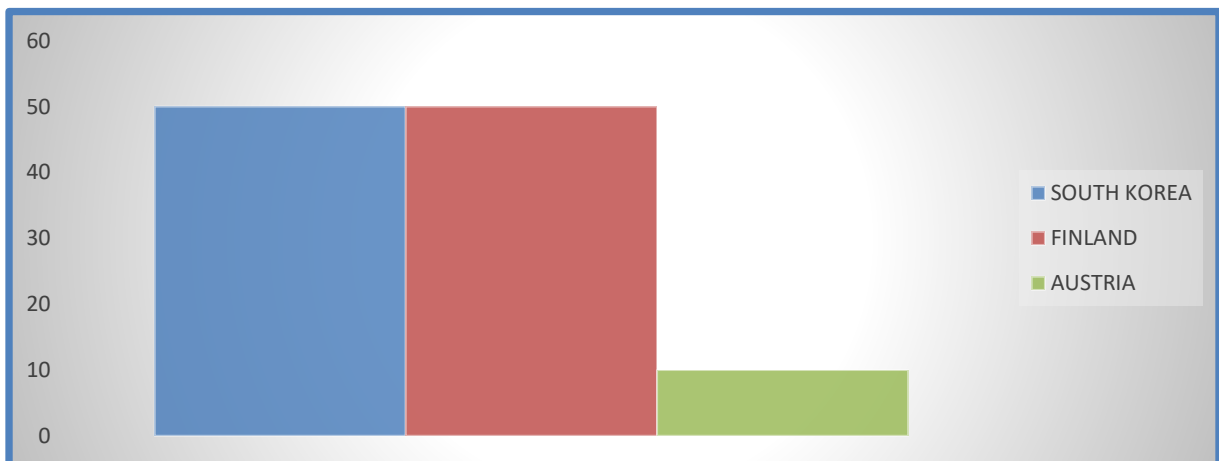
According to the PISA scores, in natural sciences, Austrian school children achieved an average of 495 points. The average of children of families in the lower quartile according to social status has got only 448 points. On the other hand, the average score of the most successful first quarter is 545. Therefore, the difference between the most successful first quarter and the average scores of children from families in the socio-economic subgroup corresponds to 97 points. This is above the OECD average, which is 88 points, which is depicted in Figure-2. In other words, the educational gap between successful and unsuccessful students in Austria is quite high. In this evaluation, determining the groups of children who have advantages or not, are determined according to the socio-economic culture levels of the children's families, the criteria of the educational and professional status of the parents, and whether the parents have a computer and internet at home, the number of books in the house or the subscription to the

newspaper were taken into account. At this point, it is possible to say that although the correlation between socioeconomic and cultural belongings of families and student achievement has a significant correlation with school achievements according to the OECD reports. Regarding this issue, countries such as Austria with 9 points, and Germany with 16 points are above the OECD average. But this issue has a much less significant impact on the countries such as Japan and Finland because Japan is 8 points and Finland is 10 points below the average. However, in the Austrian example, it is noteworthy that nine percent of socio-economically disadvantaged students are among the best quartiles in terms of success. In this context, the OECD average is 11 points. The countries with the best average in this regard are Finland and Estonia with an average of 15 percent.

Both ratios are similar in terms of the ratio of the children of disadvantaged families, who are on average in terms of PISA performance level. While this rate is 23 percent in Austria, the average of OECD countries is 25 points, which is depicted in Figure-3. In this context, the most successful countries are Japan and Finland with an average rate of 40 percent. This rate is 32 percent for Germany. Austria is also behind OECD countries in terms of university graduations for young people from educationally disadvantaged backgrounds. This rate is ten points in Austria, 39 percent in New Zealand, and 37 percent in Canada, which is depicted in Figure-4. When comparing the education level by generation, Austria has values below the standards of developed countries. For example, according to a study, which is depicted in Figure-5, conducted with people aged 26 to 65, it was found that in Austria, only 29 percent of the people surveyed attained a higher level of education than their parents. At this point, the OECD average is 41 percent. In this context, the best countries are South Korea and Finland, which have values above 50 percent (Mittelstaedt, 2018)

8. DISCUSSION ON IMPROVEMENT OF EDUCATIONAL ACHIEVEMENTS OF AUSTRIAN TURKS İN AUSTRIA

When the data of the Austrian Statistical Institute are taken into account, it is seen that the Austrian Turks have the lowest educational achievement in all of Austria. Undoubtedly, this is regrettable. In essence, Turkish society comes from a socio-cultural tradition that gives importance to school success as a source of pride. Despite this, there are of course several reasons for the low school success of Austrian Turks. One of them is the assumption that course success has a sociological inheritance. In short, this view defends the view that the children of

parents with high academic success and enthusiasm also have high academic success and enthusiasm. Austrian Turks, on the other hand, are the children of families with relatively few university graduates in their family tradition, who do not have the chance to pursue higher education in Turkey, except for a small number of people who migrate generally due to political reasons or to get a better, elite education (Şengöz, 2022: 106-112). This detail, of course, is not in terms of intelligence and talent, because every child is special regardless of their parents. On the contrary, other immigrant societies are people who have the opportunity to receive formal education for a longer period than immigrants who came from Turkey. Also, the other immigrant's foreign languages are better than Turks in terms of their socio-cultural multilanguage geography. Another important reason why Turkish parents cannot guide their children in their lessons is the lack of enough German language knowledge. When the negative memories and experiences of previous student years are added to the lack of language knowledge, the possibility of parents contributing to their children's education normally decreases.

Therefore, at this point, parents need to change their attitudes, behaviors, and priorities to contribute to their children's school success. Among the Austrian Turkish Community, the opinion is dominant for parents who complain about the education system in Austria and the educational success of their children, instead of making financial investments for the future of their children or spending a lot of money on their children's weddings and other ceremonies. Instead of this, they should spend these economical resources on the education of their children. Of course, not every child has to perform excellent school success, to have a chance to go on academic education in Austria, by accomplishing a Matura or getting a diploma from a university (Şengöz, 2022: 106-112).

However, the state of failure in the formal education system is a state of inadequacy and is not a simple situation that can only be explained by the personal characteristics of the student. The reasons for such a failure are primarily socio-psychological. Unfortunately, it is often claimed that students of Turkish origin are treated with negative prejudice and different treatment by some racist teachers because they are Muslims. The claim that some Turkish children, who are treated differently in this way, are subject to the category of "problematic or mentally handicapped" and that their right to education is hindered is certainly not a claim to be ignored. However, the issues related to this subject are the issues that should be brought to the agenda frequently, without the execution of proper research and confirmation. Because this

kind of assertation can damage society and increase prejudice regarding the Turkish community.

In addition to these, it will be more beneficial to look at the issue in terms of what can be done practically by Turkish society. The allegations that only Turkish children are deliberately eliminated from the education system and that there is institutional, structural, and systematic discrimination against Turkish children are unfortunately also a bit of political abuse. Because, contrary to the generalizations made on this subject, children born in Austria who do not have language problems can show extraordinary educational success even if their parents do not have much support. For this reason, the fact that most of the Turkish community who came to Austria for the first time did not have the opportunity to receive formal education while in Turkey, some of them could not even read and write, and they could not make the necessary contribution to the education processes of their children, negatively affected their school success. However, the children of parents who have the opportunity to pursue higher education while they are in Turkey, achieve outstanding success in their education and training lives.

The reasons such as the fact that low-income Turkish families have more household population compared to the square meter of their houses and that there is not enough studying space for children are naturally among the problems that negatively affect the school success of children. Another issue that negatively affects their school success is that children cannot learn their mother tongue properly (Şengöz, 2022: 93-116). Unfortunately, the number of Turkish students attending special education schools (Sonderschule) to which students with learning difficulties or disabilities are directed is higher than other immigrants. Certainly, a very important reason for this is that children who are not fully fluent in their mother tongue cannot learn the German language correctly, so they have difficulties in their education life. This situation creates a feeling of exclusion in children and then causes some self-confidence problems that are difficult to be solved.

9. CONCLUSION

Undoubtedly, education and training are one of the most important phenomena of the modern world as it directly affects the socio-economic status of individuals in society. In this context, a person spends at least one-fifth of his average life directly and only engaged in formal education and training activities, which is a life-long process in many developed countries. Education and training activity in this aspect Education and training is an important apparatuses

of social development, especially in the socio-economic context (BMBF, 2021b). On the other hand, it is one of the most important facts of social life. In this respect, education and training activity is a process that should be carried out with a certain purpose. The purpose, which is essentially driven by education and training activities, also constitutes the essence of the philosophy of education. Educational philosophy describes the basic idea that guides education policies and educational practices and provides the basis for the formation of theories about education by the future dream of society. In this respect, considering the philosophical foundations of the Austrian education system, it can be said that under the influence of an eclectic combination of existing philosophical mindsets such as idealism, naturalism, progressivism, pragmatism, conservatism, and materialism. It can be stated that Austrian education philosophy is more exposed to the political and ideological effects of today's harsh liberal political discourse. One of the important indicators of this is, for example, the hanging of LBGT flags at school entrances or the practices related to positive discrimination applied in this context, especially in high schools and equivalent educational institutions. This issue is the result of the goal of raising students in a heterogeneous pluralism and in a character that is respectful to the values of society but compatible with all segments of society.

Considering the philosophical foundations of the Austrian education system in terms of structure and functioning, it is seen that a conservative understanding is maintained in the context of the structure of schools, examination, assessment and evaluation system, and curriculum. However, it has a very progressive philosophical background in the use of educational tools and technologies and has a modernist attitude. In this context, it can be said that the conventional education philosophy is continuing in the sense of education and training within the frame of modern liberal education perceptions, concepts, and doctrines. As a result, the grading of education and the modular education approach was adopted and harmonized by the preservation of the classical examination, measurement, and evaluation system. Also, it is preserved especially the privileged legal status of vocational and technical schools and the establishment and replacement of education modules in a way that can meet the demands of the professional labor market, from secondary education institutions to higher education institutions.

Regarding the issues such as the strict preservation of school transitional standards, the philosophy and policies of teacher training, a realistic education planning for the potential employment market, preserving transparency and equal opportunity in all levels of the

education system, compatibility of the content and aims of education with the common value judgments of the society, it can be stated that Austria has a great potential in overall education. So, in Austria, the traditional and classical education mindsets have harmony to achieve to adapt to the very compatible modern requirements of the age. Considering these issues, the steps that should be taken to increase the educational success levels of Austrian students of Turkish origin are, to increase the language development and thinking capacity of the students, to increase the incentives for increasing the number and qualifications of voluntary or publicly supported educational and cultural non-governmental organizations and to increase the quality of the initiatives will facilitate the requirements ıf educational need of Austrian's Turks.

REFERENCES

Baten, J. (2016). *A History of the Global Economy. From 1500 to the Present*. Cambridge: Cambridge University Press.

Beer, G. (2014). *Mentoring im Berufseinstieg eine mehrperspektivische Betrachtung. Projektbeschreibung*, *Mentoring im Berufseinstieg* Wien: Lit.Verlag, 2014.

Beer, G., Benischek, I. Dangl, O. & Plaimauer, C. (2014). *Mentoring im Berufseinstieg.* Wien: Lit-Verlag.

Bundesministerium für Bildung und Frauen (BMBF) (2021a). *Neue Mittelschule*, www.bmbwf.gv.at. [Accessed: 23rd April 2022]

Bundesministerium für Bildung und Frauen (BMBF) (2021b). *The Austrian education system*, www.bmbwf.gv.at. [Accessed: 23rd April 2022]

Dangl, O. (2014). *Das Feedback der Teilnehmer/innen am Projekt „Gelingender Berufseinstieg.* Wien: Lit-Verlag, 2014.

Ebenberger, A. (2014). *Erleben der Schulleitung – Gelungenes Onboarding.* Wien: Lit-Verlag.

Eichelberger, H. (1997). *Handbuch zur Montessori- Didaktik.* Innsbruck: Studien Verlag.

European Commission National Policies Platform (ECNPP) (2021). *National Education System Austria Overview,* www.eacea.ec.europa.eu/national-policies/eurydice/content/austria_en [Accessed: 23rd April 2022]

European Union Publications Office (EUPO). (2020). *Education and training monitor 2020-Austria*, www.op.europa.eu/en/publication-detail/ austria_en [Accessed: 23rd April 2022]

Institut für Bildungsforschung der Wirtschaft. (2021). *The Austrian education system*, www.bic.at [Accessed: 23rd April 2022]

Kasaba, R. (2008). *The History of Turkey: Volume 4, Turkey in the Modern World*. Cambridge: Cambridge University Press.

Matzka, C. (2009). *Austria and Turkey: their burden of histories.* Wien: Universität Wien.

Mittelstaedt, K. (2018). *Bildung wird in Österreich überdurchschnittlich vererbt*. Wien: Universität Wien.

Organization for Economic Co-operation and Development (OECD). (2018). *PISA 2018 results*, www.oecd.org/pisa/publications/pisa-2018-results.htm [Accessed: 23rd April 2022]

Scheipl, J. & Seel, H. (1987). *Die Entwicklung des österr. Schulwesens von 1750 – 1938*. Graz: Leykam.

Scheipl, J. & Seel, H. (2004). *Das österreichische Bildungswesen am Übergang ins 21. Jahrhundert*. Graz: Leykam.

Schratz, M. (2011). *Professionstheoretische Grundlagen und thematische Annäherung*. Wien: facultas.wuv.

Schratz, M.; Paseka, A. & Schrittesser, I. (2011). *Pädagogische Professionalität: quer denken – umdenken – neu denken. Impulse für next practice im Lehrerberuf*. Wien: Facultas Verlags- und Buchhandels AG.

Senge, P. (1996). *Die fünfte Disziplin. Kunst und Praxis der lernenden Organisation*. Stuttgart: Klett.Cotta.

Stevens, J. & Cabot, A. (2007). *The Empire of Austria: Its Rise and Present Power*. Berlin: Verlag BiblioBazaar.

Şengöz, M. (2022). Viyana'da Yaşayan Avusturya'lı Türklerin Sosyal Aidiyet Algısı Üzerine Bir Değerlendirme. *Türkiye Sosyal Araştırmalar Dergisi*, 26 (1), 93-116.

THE NEW AGE FOR THE DYNAMICS OF LOW-CARBON TRANSITIONS IN MENA COUNTRIES: THE NOVEL EVIDENCE OF GREEN TECHNOLOGY INNOVATION, RENEWABLE ENERGY, AND GREEN GROWTH

Sinem KOCAK[1]

Abstract

Improvements in green technology, renewable energy, and green growth are anticipated to usher in a new era in the dynamics of the transition to low-carbon. However, the role of these dynamics in MENA countries that incorporate clean energy top places as the strategic initiative has not yet been explored in the literature. Unlike many previous studies to identify determinants of environmental degradation in MENA countries, the present research extends the existing literature by discovering the effectiveness of green innovation, renewable energy, and green growth in this disruption. The aim of current analysis is to put to the proof the effect of green technology innovation, renewable energy and green growth on CO_2 emissions of 13 MENA countries, based on the period 2010-2018. The panel data results of estimated Driscoll-Kraay robust standard estimator show that the effects of green technology and renewable energy on CO_2 emissions are negative and statistically significant. Also, green growth has a positive and significant effect on emissions. The results of the paper are important in terms of addressing the effects of the relevant variables for the first time in the MENA countries.

Keywords: Green Technology, Renewable energy, Green Growth, Panel Regression

[1] PhD., Independent Researcher, Trabzon-Turkey. sinemakcay@hotmail.com.tr, ORCID: 0000-0002-2313-0161

1. INTRODUCTION

Globally, environmental challenges and the accompanying climate crisis have been exposing their impact in ever-growing detail. Climate-disrupting activities, both human- and economic-induced, accelerate this process, making it even more essential. On the contrary, the mindful harmony of these two sources may trigger a rapid and permanent decarbonization process. The rapidly advancing climate crisis makes itself felt by increasing weather temperatures, droughts, fires, water-food crisis, decreasing rains, and flood disasters. With ongoing climate-disrupting activities, it is very probable that the intensity and frequency of such natural disasters are to worsen. However, rising early deaths, healthcare costs, and job losses are among the other future social and economic costs of these climate-disrupting activities.

Along with all changing dynamics, last year's Russia-Ukraine war has highlighted the dimensions of the world's energy crisis and brought countries' dependence on energy supply to a turning point. The war also economically underlined the importance of energy prices in terms of global inflation. While challenges and solutions are common in this regard, large differences in practices exist among countries. Although many countries have started to switch to green energy and renewable energy as alternative energy sources, these breakthroughs are still not enough to meet the global energy needs (Sharif et al., 2023). Green technology innovations, frequently passed as greentech, green growth policies, and a smooth transition from non-renewable to renewable energy have been seen as among the leading components of new climate change solutions that can be seen as the clef to unravel the alarming environmental disaster. According to the International Energy Agency (IEA), the biggest harbinger of this transition is the entering of the world into a new age of clean technology manufacturing (IEA, 2023).

The Middle East and North Africa (MENA), a highly diverse region both economically and politically, has one of the world's most abundant fields of energy. Because of its well-endowed reserves of natural gas and crude oil, the region plays a strategic role as a cornerstone of global trade and a major exporter of energy. On the other hand, globally, the MENA is one of the vital regions maintaining produce the highest per-capita CO_2. Moreover, the oil and gas-opulent region confronts a strong need to diversify its greener energy sources in order to satisfy the rising local demand for electricity, tackle the increasing CO_2 emissions, and foster economic growth just like any other nation. Whereas the region has two crucial regional climatic

superiority arguments to support renewable energy attempts, primarily solar and wind energy, nowadays renewable energy sources have performed poorly in addressing the region's expanding energy demand.

The countries in the MENA, which manage to incorporate clean energy top places as the strategic initiative, took important ventures to push forward their climate change scenario in this parallel. Shifting to low-emissions solutions such as hydrogen strategies, solar and wind power, natural gas reserves for blue hydrogen, and seawater has become a climacteric task for the region to sustain innovative and ambitious renewable energy strategies. Also, with healthy regional coordination, the adoption of greentech, and green growth coordinated with the utilization of rising renewable energy sources are becoming more and more vital to acquire a long-term goal of decarbonization as a result of this escalating necessity.

Given current global advancements, a number of obstacles still prevent the widespread sprawl of green energy in the MENA region and globally (Awijen et al., 2022). The region does not appear to have made as big of a difference as it could in the energy transition yet. So, future projections reveal that the main source of energy for the region still depends heavily on fossil fuels by 2050 (DNV, 2022). The good thing is that in the process, countries in the region have been able to adapt green technologies such as vertical farming, carbon capture and storage, green buildings, electric vehicles, algae biofuel, waste electricity generators, and plastic roads to take this decarbonization transition to the next level. Having a tremendous opportunity waiting to be explored by green technologies is another important long-term advantage of the decarbonization strategy in the MENA region.

For economies navigating a fertile transition to clean-environment requirements parallel with the Sustainable Development Goals (SDGs), green growth is another paramount strategiy of green dynamics. Therefore, meticulous planning of every stage of green growth for lower and more efficient energy consumption plays a supreme role in the transition to a net-zero economy. In fact, green growth supported by GTI can greatly support the efficient production of energy while minimizing carbon emissions (Yikun et al., 2022). At this stage, it seems quite possible that the accelerated GTI provides a double benefit in the transition to a net-zero economy. Countries in MENA are willing to allocate green resources such as technological innovation and clean energy to this region to maximize green growth and take advantage of abundant and cost-effective renewable energy sources due to the two significant regional

benefits described above. Therefore, meticulous planning of every stage of green growth for lower and more efficient consumption of energy acts a supreme role in rapid decarbonization.

Despite the rising body of research on the factors that affect CO_2 in MENA nations, the studies on these countries do not provide enough proof of the relationship between GTI, GGR, and carbon quality (Kahia et al., 2019; Jalil, 2014; Awijen et al., 2022; Belaid et al., 2021; Razi and Dincer, 2022). Futher, many indicators such as patent and trademark applications, the number of research studies, technical cooperation grants, and R&D expenditure by governments have been used to represent technology innovation in the literature. However, although these indicators pertain to technological innovation, they are not specific to environmental innovation This could not reflect technological advancement in technology pertaining to the environment. (Adebayo and Kirikkaleli, 2021; Sinha et al., 2020; Bilal et al., 2021).

This analysis is contributing to the existing literature in the following ways: First, the literature presented above exposes a vast gap in the body of knowledge on greentech, green growth, and renewable energy in the MENA region, which is also of tremendous value to low-carbon transition dynamics. We concentrate on the MENA region because of its ongoing fundamental efforts for green transition and green technology leaps, as well as its strategic role in the energy supply. Therefore, this paper try to fill the gap in the literature by simultaneously investigating the effects of GTI, REN, and GGR variables on carbon emissions for MENA countries. Secondly, As mentioned above, green patent data has not been used to represent greentech. Therefore, this analysis aims to contribute to the literature by including green patent data for MENA countries in the analysis. According to the author's knowledge, green growth data is an extremely rare dataset for MENA countries. In addition, despite the data limitations, the goal was to include as many MENA countries as possible in the analysis.

Given the above discussion, the core grail of the prevailing research study is to examine the effect of GTI, REN, and GGR on CO_2 emissions by using the Driscoll-Kraay robust standard estimators for the case of 13 MENA countries over the period 2010–2018.

The current study is organized under the following headings: literature, methodology and data. After the results section, we handle the conclusion part in the study's last section.

2. LITERATURE

With growing global climate concerns, the discovery of low-carbon transition dynamics has been substituted as much more than just a prominent research area in recent years. Some fresh papers highlighted the significance of greentech (GTI), green growth (GGR), and the role of renewable energy (REN) as the key to mitigating CO_2 emissions. Over time, it can be said that three major literature trends have emerged about these dynamics. While a minority of these studies addressed GTI and REN, and GTI and GGR together, the majority focused on REN. However, studies dealing with GTI and GGR together are still in their infancy and open the door to a very important research topic for the literature. Few research have focused on the impact of GTI and GGR both together and separately (Guo et al., 2021; Zhang et al., 2022; Razzaq et al., 2023; Abid et al., 2022; Yu et al., 2022; Razzaq et al., 2021; Afshan et al., 2022; Sun et al., 2021; Yunzhao, 2022; Cao, 2022; Irfan et al., 2022; Chien et al., 2021a; Xia, 2022; Zhang et al., 2022; Du et al., 2019; Santra, 2017; Suki et al., 2022a; Köseoğlu et al., 2022; Oguzturk and Özbay, 2022) on environmental degradation, but the number of studies, in growing literature, has not yet reached a sufficient level.

The paper exerted by Shan et al. (2021) on the cointegration relationship between GTI, REN, and CO_2 reveals the reducing effects of GTI and REN on CO_2 in Turkey. For the N-11 economies, the negative long-term effects of GTI and REN on CO_2 emissions are proved by the paper of Shao et al., (2021). Also, empirical evidence shows that the impact of GTI on CO_2 emissions in the short-term is insignificant. In the case of Malaysia, in their recent paper, Suki et al., (2022b) show that, both in the short and long terms, GTI has a positive and negative association with growth and CO_2 emissions, respectively. For G10 economies, Jian and Afshan (2022) reported that both the long-term and short-term results confirm that GTI promotes carbon neutrality. Using load capacity factor as a new proxy for Brazil, Kirikkaleli and Adebayo (2023) exhibit that there exists a time-varying feedback causality between political risk, GTI, green financing, economic growth, social globalization, and environmental quality. The empirical results in the paper of Sharif et al., (2022) demonstrate that both GTI and green financing have a negative and significant impact on CO_2 emissions in the context of G7 countries. In another paper for 57 developing countries, Wang et al., (2022) report the presence of cointegration relationships among GTI, green financing and environmental performance.

Another result for G7 countries, in Hao et al., (2021)'s paper, demonstrated the reducing

effects of GGR and REN on CO_2 emissions. One of the research that addresses both GTI and GGR simultaneously is that of Yikun et al., (2022). They proved the encouragement of GTI and GGR for environmental sustainability in the long-term for G7 economies. The newest results of Chien et al., (2021b) for US economy exhibited that there are significant and negative effects of GGR, GGR^2, GTI, and environmental taxes on determining CO_2 emissions.

As evidenced by the above studies, the studies for MENA countries are lacking in sufficient evidence on the relationship between GTI, GGR, and carbon quality. Despite the growing literature especially for the MENA countries (Issa and Jabbouri, 2022; Gorus and Aydin, 2019; Taghvaee et al., 2022; Kahia et al., 2017; Yilanci and Gorus, 2020), there is a huge lack of evidence on the effects of GTI, GGR and REN on CO_2 emission. Because so little is discovered about the MENA region, the aim of this study is to provide evidence for the mentioned dynamics for MENA countries.

3. METHODOLOGY AND DATA

This paper employs panel regression analysis for 13 MENA (Algeria, Egypt, Jordan, Iran, Israel, Lebanon, Malta, Morocco, Qatar, Saudi Arabia, Tunisia, United Arab Emirates, and Turkey) countries in which the selection is based on data availability. The panel annual data set shrouds a time span of 2010–2018. The description of variables used in the analysis is summarized in Table 1.

Variables	Definitions	Sources
CO₂	Carbon emissions (metric tons per capita)	World Bank
GTI	Green technology innovations (the number of patent applications in technologies related to environment)	OECD database
REN	Renewable energy (% of primary energy supply)	OECD database
GGR	Green growth (production-based CO2 emissions, tonnes, millions)	OECD database

The most determining factor in the selection of countries and periods was the accessibility of the data. Following Du et al., (2019), Sharif et al., (2023), Ali et al., (2022), the number of patent applications in technologies related to environment is used as the proxy of GTI. For proxy of GGR, the paper of Wei et al., (2023) is followed. Since the time series of GTI is quite fresh for some countries such as Qatar in MENA region, it restricted the sample size and the

time period of the examination. Given the availability of data, it is crucial to note that this study encompasses the greatest number of countries, with the longest period for the variables evaluated. The sample of the MENA region is one of these examples.

In order to establish the impacts of GTI, REN and GGR on CO_2 emissions, we estimate the following model in Equation (1) and (2) (Wei et al., (2023).

$$LCO_2 = f(LGTI, LREN, LGGR) \qquad (1)$$

$$LCO_{2_{it}} = \beta_i + \alpha\,LGTI_{it} + \delta LREN_{it} + \theta LGGR_{it} + \varepsilon_{it} \qquad (2)$$

in Equation (2), the term, i, denotes the countries, whereas the term, t, shows the period taken for the analysis. Also, β_i shows the constant term of the countries, α, δ ve θ indicate the coefficients to be estimated. ε_{it} stands for the error term. L stands for variables with measured by natural logarithms. Both green technological innovations and green growth are also expected to be crucial for lowering CO_2 emissions and raising environmental standards (Acemoglu et al., 2016; Saleem et al., 2022).

At the beginning of the panel data analysis, determining whether the model (2) would be estimated with a one-way model with only unit effects or only time effects, or with a two-way model where unit and time effects were present at the same time is important (Karış and Tandoğan, 2019; Kaynak et al., 2021; Erdem et al., 2019). Another important process that follows the identification of these models is to determine whether the effects are constant or random. Therefore, these tests are generally considered as a three-stage process. Firstly, homogeneity tests including F-test are performed to decide between Common effects (pooled, CE) and Fixed effects (FE) models. Secondly, Breusch-Pagan Lagrange Multiplier (LM) and the likelihood ratio (LR) type tests are used to choose between CE and Random Effects (RE) models. Finally, the Hausman test is used to choose between FE and RE models (Gujarati ve Porter, 2012; Çınar, 2021). In addition, the assumption of cross-sectional dependence in panel regression analysis was examined with the Pesaran (2004) test. The existence of the heteroskedasticity problem in the estimation regression equation was tested using the Modified Wald statistic, and also the fact of the autocorrelation problem was determined using the Baltagi-Wu LBI statistic. Finally, a robust estimator approach of Driscoll-Kraay standard errors suggested by Driscoll and Kraay (1998) was adopted for the estimation regression equation because of the exhibiting the existence of the problems determined in the regression estimation equation (Yamak et al., 2016).

Table 2 holds forth the statistical details of the variables. The details of descriptive statistics show that LCO_2 takes a mean value of 8.798 ranging from a minimum value of 1.594 to a maximum value of 39.398. While the lowest mean value belongs to LREN with 3.782, the highest one is 161.55 for LGGR. The lowest standard deviation value is seen for LREN, which is 4.063, while the highest one is obtained 174.75 for LGGR.

Table 2. Descriptive Statistics of Variables

Variables	Mean	Standart Deviation	Minimum	Maximum	Observation
LCO_2	8.798	9.506	1.594	39.398	117
LGTI	35.926	66.865	0.200	280.72	117
LREN	3.782	4.063	0.004	13.253	117
LGGR	161.55	174.75	1.350	586.23	117

4. RESULTS

In this study, Equation (2), which was developed to determine the effects of LGTI, LREN and LGGT on LCO_2 emissions, was estimated by panel regression analysis. The test results for the mentioned three-stage process are shown in Table 3. As seen in Table 3, the findings from both the F-test and the LR test statistic (523.26 and 396.19, respectively) have shown that unit and time effects are present in the estimation regression model. But the statistical values (0.06 and 0.00, respectively) of two tests for determining whether individual effects, only the existence of unit effects, or only the existence of time effects, exhibit that there is no time effect in the regression model. According to these results, it is determined that the estimation regression model contains only the unit effects. In the one-way regression model in which the presence of unit effects is detected, Hausman test was used to determine whether these effects were fixed or random and this test's statistical value was obtained as 23.78. This result demonstrates that H_0 hypothesis is rejected at 1% level of significance. The Hausman test statistic disclosed that the most suitable model to estimate is the unit-effect FE model.

Table 3. The Determination Results of Panel Regression Estimator for Equation (2)

Tests	Statistics	H_0 Hypothesis	Results
F_{unit} FE	477.70[***]	No unit effect	Unit-effect FE
F_{time} FE	0.06	No time effect	Unit-effect FE
$F_{unit-time}$ FE	523.26[***]	No unit and/or time effect	Unit-time Effect FE
LM_{unit} REM	365.22[***]	No time effect	Unit-effect RE
LM_{time} REM	0.00	No unit effect	CE

LM$_{unit-time}$ REM	396.19***	No unit and/or time effect	Unit-time Effect RE
Hausman	23.78***	RE	FEM

Note: ***, p<0,01.

Table 4 show the diagnostic test statistics of Pesaran, Modified Wald and Baltagi Wu LBI for cross-sectional dependence, heteroskedasticity and autocorrelation problems, respectively. The value of the Pesaran test statistic was calculated as 4.694 in the regression equation in which the cross-sectional dependence was examined for the one-way fixed effects model, and this result verified the subsistence of a strong correlation at the 1% significance level. Modified Wald and Baltagi Wu LBI test statistics calculated to detect the heteroskedasticity and autocorrelation problems in the model were 9838.75 and 0.683, respectively. Obtained statistics confirm that there is both heteroskedasticity and autocorrelation problem in the model.

Table 4. Diagnostic Test Results

Assumption tested	**Test used**	**Test Statistics**
Cross-Sectional Dependence	Pesaran CD LM	4.694***
Heteroskedasticity	Modified Wald	9838.75***
Autocorrelation	Baltagi Wu LBI	0.683

Since the econometric problems detected in the previous stage are detected in the relevant estimation regression model, using approaches that reveal robust estimators may provide more reliable results. For this purpose, the fixed effect regression equation was estimated by the Driscoll-Kraay robust estimator in the study and the estimation results are presented in Table 5.

Tablo 5. Results of Driscoll-Kraay Robust Estimator

LCO$_2$	**Coefficient**	**Driscoll/Kraay Standard Errors**	**t**	**P>|t|**
LGTI	-0.019	0.0100	-1.97	0.072
LREN	-0.090	0.0257	-3.51	0.004
LGGR	0.569	0.0529	10.76	0.000
Constant	-0.679	0.2487	-2.73	0.018
$R^2 = 0.90$	F-stat = 94.27***	Number of observation =117	Number of groups= 13	

The calculated F-statistic for the regression equation estimated under fixed effects is statistically significant at the 1% level. Furthermore, the value of R^2 is 0.90. The estimated

coefficient of LGTI is negative and statistically significant at 10% level. Green tecnology innovation negatively affects carbon dioxide emissions. The results indicate that a 1% rise in green tecnology innovation results in a 0.019% decrease in environmental degradation. Moreover, it can be said that green innovation significantly ameliorates the environment's quality in MENA countries. LREN affected LCO_2 negatively at 1% level of statistical significance. Likewise, a 1% increase in LREN leads to a decrease in environmental degradation by 0.090%. Although the effect sizes of LGTI and LREN seem relatively small, it can be said that these dynamics have started to contribute positively to the decarbonization process in MENA countries. Empirical findings from current paper for LGTI and LREN support the results of Shan et al. (2021), Jian and Afshan (2022). Green growth has a statistically significant and effective role on LCO_2. But this effect is positive contrary to expectations. A 1% change rises in LGGR results in a 0.569% increase in environmental degradation. As growth in green increases, environmental degradation increases. This result does not support that of Hao et al., (2021), Chien et al., (2021b).

5. CONCLUSION

The increasing economic activities of countries in the industrialization period, particularly since the Industrial Revolution, have significantly contributed to air pollution and climate change. In this regard, global product demand is increasing on the one hand, while environmental degradation and environmental threats are increasing on the other. As environmental degradation and threats worsen, green technology innovations, green growth, and the use of renewable energy sources appear to be the best way to mitigate the negative effects of environmental degradation.

New climate change solutions that can be seen as the clef to unravel the alarming environmental disaster have been seen to include green technology innovations, green growth policies, and transition from non-renewable to renewable energy. Recent studies have brought attention to the phenomenon of green growth, which is defined as producing goods and services with the fewest amount of emissions possible. This is done by implementing environmentally friendly technologies that transform the current supply chain and result in comparatively cleaner production. Improved operational effectiveness and productivity are among the green technology innovations, which are complemented by the use of renewable energy.

This research examines the effect of green technology innovation, renewable energy and

green growth on CO_2 emissions of 13 MENA countries using a panel data set over the period 2010-2018. Because of data availability, this time period was chosen. The estimated Driscoll-Kraay robust standard estimator panel data results show that the effects of green technology and renewable energy on CO_2 emissions are negative and statistically significant. Green growth also has a positive and significant impact on emissions.

Green innovation and renewable energy significantly ameliorates the environment's quality in MENA countries. The finding for green technology innovation is consistent with the paper of Jian and Afshan (2022), Wei et al., (2023), but this study's results for green growth does not show parallelism with the results obtained in the study of Chien et al., (2021b), Hao et al., (2021). CO_2 emissions from production still have negative impacts on environmental degradation in the MENA region. This effect may be due to the fact that green growth encourages economic development and financial growth. Green growth, like green innovation and renewable energy, is a vital tool in reaching decarbonization, and also SDGs goals. Therefore, it is essential for this region to use dynamics that have the effect of reducing carbon emissions level while planning simultaneous policy practices that support both green growth and economic growth.

REFERENCES

Abid, N., Ceci, F. & Ikram, M. (2022). Green growth and sustainable development: dynamic linkage between technological innovation, ISO 14001, and environmental challenges. *Environmental Science and Pollution Research*, *29*(17), 25428-25447.

Acemoglu, D., Akcigit, U., Hanley, D. & Kerr, W. (2016). Transition to clean technology. *J. political Econ*. *124*(1), 52-104.

Adebayo, T. S. & Kirikkaleli, D. (2021). Impact of renewable energy consumption, globalization, and technological innovation on environmental degradation in Japan: Application of wavelet tools. *Environ. Dev. Sustain*. *23*(11), 16057-16082.

Afshan, S., Yaqoob, T., Meo, M. S. & Hamid, B. (2022). Can green finance, green technologies, and environmental policy stringency leverage sustainability in China: Evidence from Quantile-ARDL estimation. https://doi.org/10.21203/rs.3.rs-2228067/v1

Ali, N., Phoungthong, K., Techato, K., Ali, W., Abbas, S., Dhanraj, J. A. & Khan, A. (2022). FDI, Green Innovation and Environmental Quality Nexus: New Insights from BRICS Economies. *Sustainability, 14*(4), 2181.

Awijen, H., Belaïd, F., Zaied, Y. B., Hussain, N. & Lahouel, B. B. (2022). Renewable energy deployment in the MENA region: Does innovation matter? *Technological Forecasting and Social Change, 179*, 121633.

Belaïd, F., Elsayed, A. H. & Omri, A. (2021). Key drivers of renewable energy deployment in the MENA Region: Empirical evidence using panel quantile regression. *Structural Change and Economic Dynamics, 57*, 225-238.

Bilal, A., Li, X., Zhu, N., Sharma, R. & Jahanger, A. (2021). Green Technology Innovation, Globalization, and CO2 Emissions: Recent Insights from the OBOR Economies. *Sustainability, 14*(1), 236.

Cao, J. (2022). The dynamic coupling nexus among inclusive green growth: a case study in Anhui province, China. *Environmental Science and Pollution Research, 29*(32), 49194-49213.

Chien, F., Ajaz, T., Andlib, Z., Chau, K. Y., Ahmad, P. & Sharif, A. (2021a). The role of technology innovation, renewable energy and globalization in reducing environmental degradation in Pakistan: a step towards sustainable environment. *Renewable Energy, 177*, 308-317.

Chien, F., Ananzeh, M., Mirza, F., Bakar, A., Vu, H. M. & Ngo, T. Q. (2021b). The effects of green growth, environmental-related tax, and eco-innovation towards carbon neutrality target in the US economy. *Journal of Environmental Management, 299*, 113633.

Çınar, M. (2021). *Panel veri ekonometrisi: Stata ve Eviews uygulamalı*. Ekin Yayınevi.

DNV, (2022). https://www.dnv.com/about/index.html

Driscoll, J. C. & Kraay, A. C. (1998). Consistent covariance matrix estimation with spatially dependent panel data. *Review of Economics and Statistics, 80*(4), 549-560.

Du, K., Li, P. & Yan, Z. (2019). Do green technology innovations contribute to carbon dioxide emission reduction? Empirical evidence from patent data. *Technological Forecasting and Social Change, 146*, 297-303.

Erdem, H. F., Demirel, S. K. & Erkan, E. (2019). Genç işsizliğin intihar oranları üzerindeki olası etkisi: panel veri analizi ile bölgesel karşılaştırma. *Anadolu İktisat ve İşletme Dergisi, 3*(2), 76-92.

Gorus, M. S. & Aydin, M. (2019). The relationship between energy consumption, economic growth, and CO2 emission in MENA countries: causality analysis in the frequency domain. *Energy, 168*, 815-822.

Gujarati, D. N. & Porter, D. (2012). *Basic Econometrics*. (Çev. Ü. Şenesen, & GG Şenesen), Literatür Yayıncılık, İstanbul.

Guo, J., Zhou, Y., Ali, S., Shahzad, U. & Cui, L. (2021). Exploring the role of green innovation and investment in energy for environmental quality: An empirical appraisal from provincial data of China. *Journal of Environmental Management, 292*, 112779.

Hao, L. N., Umar, M., Khan, Z. & Ali, W. (2021). Green growth and low carbon emission in G7 countries: how critical the network of environmental taxes, renewable energy and human capital is?. *Science of The Total Environment, 752*, 141853.

IEA (2023). Energy Technology Perspectives 2023, https://www.iea.org/reports/energy-technology-perspectives-2023

Irfan, M., Razzaq, A., Sharif, A. & Yang, X. (2022). Influence mechanism between green finance and green innovation: Exploring regional policy intervention effects in China. *Technological Forecasting and Social Change, 182*, 121882.

Issa, H. & Jabbouri, R. (2022). Green Innovation in the MENA Healthcare Industry: A Knowledge-Based View. *International Journal of Technology and Human Interaction (IJTHI), 18*(1), 1-26.

Jalil, S. A. (2014). Carbon dioxide emission in the Middle East and North African (MENA) region: a dynamic panel data study. *Journal of Emerging Economies and Islamic Research*, *2*(3), 5-14.

Jian, X. & Afshan, S. (2022). *Dynamic effect of green financing and green technology innovation on carbon neutrality in G10 countries: fresh insights from CS-ARDL approach.* Economic Research-Ekonomska Istraživanja, 1-18.

Kahia, M., Aïssa, M. S. B. & Lanouar, C. (2017). Renewable and non-renewable energy use-economic growth nexus: The case of MENA Net Oil Importing Countries. *Renewable and Sustainable Energy Reviews, 71*, 127-140.

Kahia, M., Ben Jebli, M., & Belloumi, M. (2019). Analysis of the impact of renewable energy consumption and economic growth on carbon dioxide emissions in 12 MENA countries. *Clean Technologies and Environmental Policy, 21*(4), 871-885.

Karış, Ç., & Tandoğan, D. (2019). The Effect of Education on Democracy: Panel Data Analysis of High Income Countries. *Universal Journal of Educational Research, 7*(11), 2425-2431.

Kaynak, S., Ekinci, A. & Kaya, H. F. (2021). The effect of COVID-19 pandemic on residential real estate prices: Turkish case. *Quantitative Finance and Economics, 5*(4), 623-639.

Kirikkaleli, D. & Adebayo, T. S. (2023). Political risk and environmental quality in Brazil: Role of green finance and green innovation. *International Journal of Finance & Economics*, *5*(9).

Köseoğlu, A., Yücel, A. G. & Ulucak, R., (2022). Green innovation and ecological footprint relationship for a sustainable development: Evidence from top 20 green innovator countries. *Sustainable Development*, *30*(5), 976-988.

Oguzturk, B. S. & Özbay, F. (2022). The Relationship between Green Innovation, CO2 Emissions, Gross Domestic Product, and Renewable Energy Supply: A Panel Data Analysis for BRICS Countries and Turkey. *Istanbul Business Research, 51*(1), 237-256.

Pesaran, M. H. (2004). *General diagnostic tests for cross section dependence in panels.* University of Cambridge, Faculty of Economics, Cambridge Working Papers in Economics No. 0435. Cent. Econ. Stud. Ifo Inst. Econ. Res. CESifo, 41.

Razi, F. & Dincer, I. (2022). Renewable energy development and hydrogen economy in MENA region: A review. *Renewable and Sustainable Energy Reviews, 168*, 112763.

Razzaq, A., Wang, Y., Chupradit, S., Suksatan, W. & Shahzad, F. (2021). Asymmetric inter-linkages between green technology innovation and consumption-based carbon emissions in BRICS countries using quantile-on-quantile framework. *Technology in Society, 66*, 101656.

Razzaq, Asif & Sharif, Arshian & Afshan, Sahar & Li, Claire J., (2023). Do climate technologies and recycling asymmetrically mitigate consumption-based carbon emissions in the United States? New insights from Quantile ARDL. *Technological Forecasting and Social Change, Elsevier*, *186*.

Saleem, H., Khan, M. B. & Mahdavian, S. M. (2022). The role of green growth, green financing, and eco-friendly technology in achieving environmental quality: Evidence from selected asian economies. *Environ. Sci. Pollut. Res. 29*, 57720–57739.

Santra, S. (2017). The effect of technological innovation on production-based energy and CO2 emission productivity: evidence from BRICS countries. *African Journal of Science, Technology, Innovation and Development*, *9*(5), 503-512.

Shan, S., Genç, S. Y., Kamran, H. W. & Dinca, G. (2021). Role of green technology innovation and renewable energy in carbon neutrality: A sustainable investigation from Turkey. *Journal of Environmental Management*, *294*, 113004.

Shao, X., Zhong, Y., Liu, W. & Li, R. Y. M. (2021). Modeling the effect of green technology innovation and renewable energy on carbon neutrality in N-11 countries? Evidence from advance panel estimations. *Journal of Environmental Management*, *296*, 113189.

Sharif, A., Kocak, S., Khan, H. H. A., Uzuner, G. & Tiwari, S. (2023). Demystifying the links between green technology innovation, economic growth, and environmental tax in ASEAN-6 countries: The dynamic role of green energy and green investment. *Gondwana Research, 115*, 98-106.

Sharif, A., Saqib, N., Dong, K. & Khan, S. A. R. (2022). Nexus between green technology innovation, green financing, and CO2 emissions in the G7 countries: the moderating role of social globalisation. *Sustainable Development*.

Sinha, A., Shah, M. I., Sengupta, T. & Jiao, Z. (2020). Analyzing technology-emissions association in Top-10 polluted MENA countries: How to ascertain sustainable development by quantile modeling approach. *Journal of Environmental Management*, *267*, 110602.

Suki, N. M., Suki, N. M., Afshan, S., Sharif, A. & Meo, M. S. (2022a). The paradigms of technological innovation and renewables as a panacea for sustainable development: A pathway of going green. *Renewable Energy*, *181*, 1431-1439.

Suki, N. M., Suki, N. M., Sharif, A., Afshan, S. & Jermsittiparsert, K. (2022b). The role of technology innovation and renewable energy in reducing environmental degradation in Malaysia: A step towards sustainable environment. *Renewable Energy, 182*, 245-253.

Sun, Y., Duru, O. A., Razzaq, A. & Dinca, M. S. (2021). The asymmetric effect eco-innovation and tourism towards carbon neutrality target in Turkey. *Journal of Environmental Management, 299*, 113653.

Taghvaee, V. M., Arani, A. A. & Agheli, L. (2022). Sustainable development spillover effects between North America and MENA: Analyzing the integrated sustainability perspective. *Environmental and Sustainability Indicators, 14*, 100182.

Wang, Q. J., Wang, H. J. & Chang, C. P. (2022). Environmental performance, green finance and green innovation: What's the long-run relationships among variables?. *Energy Economics, 110*, 106004.

Wei S, JiandongWand Saleem H (2023), The impact of renewable energy transition, green growth, green trade and green innovation on environmental quality: Evidence from top 10 green future countries. *Front. Environ. Sci. 10*, 1076859.

Xia, Q. (2022). Does green technology advancement and renewable electricity standard impact on carbon emissions in China: role of green finance. *Environmental Science and Pollution Research*, 1-14.

Yamak N., Gürel F. & Koçak S (2016). Socio-economics and demographic determinants of theft crime: Panel data analysis. *TİSK Akademi, 11*(21), 56-69.

Yikun, Z., Woon Leong, L., Cong, P. T., Abu-Rumman, A., Al Shraah, A. & Hishan, S. S. (2022). Green growth, governance, and green technology innovation. How effective towards SDGs in G7 countries?. *Economic Research-Ekonomska Istraživanja*, 1-19.

Yilanci, V. & Gorus, M. S. (2020). Does economic globalization have predictive power for ecological footprint in MENA counties? A panel causality test with a Fourier function. *Environmental Science And Pollution Research, 27*(32), 40552-40562.

Yu, Y., Radulescu, M., Ifelunini, A. I., Ogwu, S. O., Onwe, J. C. & Jahanger, A. (2022). Achieving carbon neutrality pledge through clean energy transition: Linking the role of green innovation and environmental policy in E7 countries. *Energies, 15*(17), 6456.

Yunzhao, L. (2022). Modelling the role of eco innovation, renewable energy, and environmental taxes in carbon emissions reduction in E− 7 economies: Evidence from advance panel estimations. *Renewable Energy, 190*, 309-318.

Zhang, K. Q., Chen, H. H., Tang, L. Z. & Qiao, S. (2022). Green finance, innovation and the energy-environment-climate nexus. *Frontiers in Environmental Science, 602*.

Zhang, S., Luo, S. & Afshan, S. (2022). Role of climate technologies, financial development, and renewable energy in the facilitation of social, economic, and environmental goals. *Renewable Energy, 199*, 169-178.

EXPORTED TURKISH TELEVISION SERIES AND REPRESENTATION

Yunus Emre OKMEN[1]

Abstract

Turkish television series have also achieved significant success in the recent period and started to be exported to more than 250 countries from many continents. This situation has led to an increase in diplomacy traffic in interstate communication, and the discovery of Turkish culture by the citizens of other countries with interest. At this point, whether television series representing Turkish culture contain positive or negative images has been of interest to researchers in this field. While the number of touristic visits to Turkey has increased, the positive or negative image of the country has created the problem of this study. With this study, some television series that have been exported in the last period have been examined, and it has been tried to reveal how they are reflected in terms of the themes discussed and the places represented. The study was conducted by adopting the principles of the qualitative research method. The design of the research is case study. By applying to document analysis data in the literature related to the subject were collected. The situation of the data collected in this study was analyzed by descriptive analysis and aimed to contribute to the existing situation in the literature. The results show that Turkish television series represent Turkish culture with its positive and negative aspects. It is thought that the TV series industry should be developed in

[1] Dr., Süleyman Demirel University, Faculty of Communication, Türkiye, yunusemreokmen@gmail.com, ORCID: 0000-0001-9704-8040

relevant contexts. It has been concluded that it should be supported by different media tools within the scope of creative industries.

1. INTRODUCTION

The current literature states that in the digital era we are in, there is an orientation towards audiovisual contents and that these contents gain weight at the point of consumption. According to the course, the audience or users actively use audio-visual content both in terms of the time they allocate and in terms of the contents that determine the agenda of the society. The main audio-visual contents are; movies, television series, television programs, documentaries, short videos and videos produced for social media channels such as YouTube.

Audio-visual content has a special place in public diplomacy. The most practical way to gain the interest and sympathy of citizens of other countries in interstate communication is to transform cultural elements into audiovisual content. In the context of public diplomacy, soft power is the use of cultural content as a means of gaining sympathy. Contrary to hard power, it is an example of soft power that attracts the attention of citizens of another country by popularizing the cultural products of a country. The concept of soft power is identified with Joseph Nye (2005).

Television serials are the leading audio-visual content. Television series, which started with the active use of television and whose effect continues exponentially until today, have become one of the most important tools used actively to get to know a country's culture and to promote a country. In this respect, Turkish serials, which have been exported to many countries in the recent period, are an important field of study for communication scientists. Especially recently, Turkish television series, which have been popularly exported to many countries, have been in an important position in the promotion and representation of Turkish culture in every country broadcast. This effect has grown even more with Turkish movies that won awards at film festivals such as Cannes, and Turkish television series as a soft power factor increased their presence in the sector.

This study evaluates how Turkish TV series are represented in exported countries. When the messages from the source are transmitted to the receiver without any problems, the reception process begins. In this regard, it should be added that reception studies need a certain infrastructure. When and where the reception studies started, what the reception studies mean in the context of media tools, and the determination of the universe and sample to be researched are among the most important issues. This study makes evaluations and determinations on how Turkish cultural values are represented in the eyes of the audience watching Turkish television

series. It presents data by making inferences about how exported Turkish television series promote Turkish culture and what the audience might think about Turkey after watching the series.

This study gains prominence because of the power of television series, which is an entertainment tool, to affect the image of the country as a tool of cultural diplomacy. It is an important field of study that television series, which are assigned a mission to promote the culture of the country, create an image in the country where they are marketed. The findings to be obtained in this study will guide the series producers in the sector. At events where the public and private sectors come together, it is expected to share working data and consult. Thus, the producers will be able to make improvements in the transmission of Turkish culture and make innovations within the scope of the creative industries.

In this context, the problem and research questions of the study on Turkish television series, which have recently been on the rise, are as follows; What are the exported Turkish TV series? Which producers export TV series? Which countries are Turkish television series exported to? Why is there an interest in Turkish TV series that have recently been exported to various parts of the world? How do Turkish television series represent Turkish culture? Is there a positive image of Turkish culture? What elements should be present in the series to create a positive image? How can Turkish television series be integrated into innovations within the scope of creative industries?

The aim of this study;

1. to reveal what kind of image the exported Turkish television series creates in the eyes of the audience by broadcasting it abroad. In this context, to evaluate the image of Turkish culture in the eyes of the viewers who consume Turkish TV series.
2. As a result of the evaluation of the TV series, to make recommendations to the TV series producers in the sector. Thus, by ensuring that the diplomacy process formed by Turkish television series is more qualified and positive, to direct the negative aspects for consumers to be improved.
3. To make suggestions on what should be done to increase the efficiency of Turkish television series in the market and to be more active. Thus, to present the concrete situation for the expansion of the trade volume and for the Turkish television series to become more qualified.

4. To make suggestions on what needs to be done for innovative reinterpretation of series within the creative industries.

5. To analyze the state of the sector in order to expand the exported serials by evaluating them within the scope of transmedia narratives.

6. To identify the common features of places such as Arab countries, Latin American countries and the Balkans, where Turkish TV series were first exported.

This study adopted the principles of qualitative research method (Yıldırım & Şimşek, 2016). The studies in the literature are evaluated by using document analysis, one of the most frequently used data collection techniques in qualitative research. In addition to the literature, the study adds up-to-date data on the serials that have been exported recently, and deals with the current situation together. The study evaluates how television series present representations by making use of representation studies theoretically. By analyzing the data, it reveals a descriptive analysis of the existing situation. Thus, this study; It refers to the past situation, current situation and possible future situations related to the subject.

2. REPRESENTATION IN MASS MEDIA

The contents created for mass media are published when the production process is completed and circulated for mass consumption. The media in which content such as television series is broadcast also affects the structure of the content. In this respect, the communication medium through which the content is published can determine the structure of the message. For example, while the content produced for the radio is expected to reach only the listener consumers; on television, there are contents that combine different channels such as sound, image and text. In this context, first of all, the means by which the content is put into circulation affects many stages from reception to consumption practice. Mass media are considered together with the concept of representation. Characters, locations, costumes, etc. that the audience sees. everything represents the reality in the plot. In this respect, it should be considered that there is a representation value under every object seen in mass media. How to understand representations in content is part of the reception process. Whether the represented values reach their goal as desired by the content creators is revealed after the reception study. In this respect, it is an issue that should be considered together that the objects in the mass media are represented for certain purposes and that the audience receives it according to the information in its background. However, in order to find out the level of reception, it is

necessary to conduct research on a determined population and sample. In this study, reception will not be made, but only occasional examples will be given considering that the represented values reach the audience as a result of reception.

According to RA.White, there are four different perspectives in reception theories. "1) Characterized by the neo-Marxist trend and draws heavily from structuralist analysis. The Anglo-American tradition of cultural studies, 2) An American tradition of symbolic interactionism that stands much closer to functionalist approaches. 3) In the cognitive cultural anthropology of thinkers as diverse as Geertz, Levi-Strauss, and Turner The tradition of consensual cultural studies with strong roots, 4) A tradition based on the theories of hegemony that invites and recognizes the active cultural contribution of the lower social classes and attaches them to the power structure in a way that wins their consent (cited in Mutlu, 2012: 78-99). In this respect, it is thought that an important determinant is whether the ideology created, whether or not it is related to the power, provides social benefit in the big picture. It is expected that the content in which ideologies are planted will be received by the audience in an accurate and understandable way.

According to Avcı, texts in cultural fields such as literature, cinema and television series are linked to the discourses of current power and ideologies (2019: 108). From this point of view, how audio-visual content is approached is quite open to criticism. This is also seen in the studies on the TV series Dallas. Although it is a mixed culture, there are many motifs from American culture in the series. Considering that America is a pioneer in the culture industry, American-made movies and TV series are seen in a dangerous position. However, foreign viewers were able to develop different readings for the series. Considering Assman's work on memory, it is seen that he distinguishes between mimetic, objects, communicative and cultural (2001: 32-34). According to Assman, memory is very prone to learning by imitation and fulfilling behavioral patterns by imitation. The most important source that individuals will be fed at the point of imitating what they see is the mass media. In this respect, television series can have a decisive role in the transmission of memory. Television series have the power to direct individuals and societies by influencing them. When it comes to representation, the representation of the past or the historical is also an important issue. When the relationship between history and representation is mentioned, the first concept that comes to mind is nostalgia. Human beings yearn for the past every day. Experienced social and cultural changes carve past values and a sense of longing for the past comes to the fore in people. This situation,

which also shows itself in audience research, has created the idea of bringing nostalgic elements to the fore in television productions. The most concrete example in this regard in Turkey is seen in the television series Eighties.

All production elements of the TV series broadcast on TRT, such as clothing and decor, were designed to remind them of the 1980s. Those who watch the series go back to the past and remember those days and experience a kind of satisfaction. In this respect, the nostalgia element blended with history in television series is found to be sympathetic by the audience and positively affects the viewing rates of the series. There are many views on what history means and what it is. While some researchers draw attention to the objectivity of history and its being based on evidence, some researchers He pointed out that history is a human-made and subjective process (Connerton. 1999: 15).

As a result of the research and examination, it is believed that both exist in places where historical issues are discussed. Unbelievable historical interpretations will not be taken seriously by people. On the contrary, an understanding of history in which everything is objective and proven does not seem possible. Because some of the issues experienced in history do not have an official source in writing or legal language. At this point, an understanding of history created by human hands comes into play. In this context, the personal life experience and ideological orientations of the person who created the history are decisive.

In this respect, historical series can be preferred by the audience. It may be preferable for people to watch a movie rather than reading an academic article on a historical subject. When we look at the Turkish TV series that have been exported recently and have achieved success in viewing rates, the existence of historical TV series draws attention. The most concrete example of this situation has been the TV series Payitaht Abdulhamid and Diriliş Ertuğrul. The first success of these series is in the country. It is thought that the domestic audience watches the series due to different production elements. However, it should be added that there are many reasons and variables. Based on the reasons for watching the series, it can be stated that they watch Turkish culture and history because they are interested, liked and tried to ensure its sustainability. These series constitute a separate category in that they combine historical issues with the audience's sense of nostalgia. Similarly, the re-watching of TV series like Dallas from time to time is another example of this situation. The emotion that leads people who feel that they are connected to a group to act jointly is that they return to the common point in their past,

that is, it is based on collective memory. Halbwachs expressed important views in the context of the concept of social framework. According to him, the social framework is the unique forms of social relations that social groups develop within themselves. This means that individuals who are conscious of the collective memory draw a framework and act according to the common values of the group and do not go beyond it. This situation provides the opportunity for like-minded individuals to support and keep each other strong (Halbwachs, 2017: 65). From this point of view, television series or movies can serve the collective memory. The social framework of a particular group can be supported by such narratives.

According to Randall, the stories that accumulate in the memory are based on people's pasts. People process the memories they bring from the past with various accumulations of emotions. The self does not remain objective in the face of developing events. Experienced events cannot be thrown into memory without being touched. People tend to memorize the events they choose. And these events according to the intensity of emotion. can interpret. Thus, experiences in memory become experiences (Randall, 1999: 228-230). Halbwachs, in his Collective Memory study (2017), also discussed the ways in which past events took place in memories. According to him, the reinterpretation of the past and transferring it to the memories is actually for the interests of the present. According to Halbwachs (2017: 66), representations of the past are amenable to modification to be interpreted according to the present period. The way in which the past events are remembered in a society is important (Connerton, 1999: 38). The way historical events are remembered can be expressed by distinguishing between individual memory and collective memory. While personal experiences and experiences are at the forefront in individual memory, multi-faceted experiences such as mass media and opinion leaders play an active role on collective memory. According to Medin, collective memory is the memory that individuals inherit and transfer (2019: 124).

Events experienced in this context are sometimes tragic and do not want to be remembered. Sometimes, it is especially desired to be remembered, kept alive and transferred to the next generations (2019: 124). The most concrete example of this is wars. While the wars that a nation has lost and do not want to remember are tried to be forgotten, the wars of heroism are tried to be conveyed with the events held every year. In order for a society to continue its development by gaining self-confidence, such events in its history are kept alive in the collective memory. Bringing together the memories of the past has positive associations in people. In this case, negative emotions are forgotten, emotions dominate the memory, making

people smile. The feeling of nostalgia activates the person by reminding the information in the memory again. The feeling of nostalgia, as a sum of positive feelings about the past, affects people's life positively (Özgüneş, 2020: 62-63). In this context, television series based on nostalgia or history can be effective on the audience. The negative emotions experienced in the past are thrown aside and the moment is savored and the meanings attributed with the watched series are redefined. In this section, history as a discipline, its representation in mass media and how the represented subjects are circulated in micro-scale memory and macro-scale collective memory are discussed. It is known from many examples that historical serials were transformed into content suitable for mass media. These contents are actually means of representation. And this representation has a reflection on society, on collective memory. The way the subject is expressed and its ideological orientation are decisive.

The progress of history and its reinterpretation according to the period put it in a different position. While the representations constructed to create memory satisfy some segments, some segments may be disturbed. However, it is believed that this and similar discussion environments will contribute to the society. Thus, it can be said that television series represent both the present and the past, while benefiting from the audience's longing for nostalgic elements. Since the representation of historical issues through television series is a very common situation recently, it is thought that it is important to add depth by thinking about the subject in the axis of the concepts and discussions discussed in this section.

3. TELEVISION SERIES FROM AUDIO-VISUAL CONTENT

This study focuses on television series of audiovisual content, which is considered as an important instrument of cultural diplomacy. The study is limited to television series and excludes other audiovisual content and media. Television series produced in Turkey have recently attracted interest from various parts of the world and have started to gain a share in the market. In general, Turkey has moved from being a country that imports TV series to a country that exports TV series and attracts tourists to the country with these series (Özarslan, 2020: 234).

Television series, seen as people's leisure time entertainment, are important in the context of public diplomacy and in terms of directing the agenda of the society. A country's diplomatic relations can be supported through cultural diplomacy products such as television series. TV series are an important supporter in terms of promoting and transmitting the country's culture

and having a voice in the world as an element of "soft power" (2005) as conceptualized by Joseph Nye.

"Dallas", which was watched with great interest all over the world in the 1980s, is one of the leading American television series that were watched with great appreciation and marketed as export products. Following this series, "Slave Isaura" and "Wind of Lie" shows alongside with soap operas, which were widely popular among female audience, started to play an effective and persistent role in daily life. Many academic studies discussed how "Dallas" was exported almost all over the world and watched with interest in almost all societies. This series has started to influence the cultures of other societies as they experienced the first adventures of soap operas.

It can be said that the exportation of the series "Dallas" resulted in the americanization of other countries. The series, which has a special importance among television series, stands in a different position in terms of achieving firsts.

In this respect, television series have various effects in the exporting countries. A series that is admired and popular throughout the society continues to exist for many years and somehow extends into people's daily routine. The TV series' depictions of lifestyles, fashion, and cuisine cultures serve as role models for individuals and inspires them to enjoy living similarly. This aspect of television series is also important for cultural diplomacy. Viewers who watches the series consider buying the accessories they see in the series and traveling to the country where the series was filmed. In this respect, the guiding power of audiovisual content is quite effective. TV series from audiovisual content increase the reality dimension through the editing process and affect the viewers who watches the series.

4. AN EVALUATION ON THE REPRESENTATION AND DEVELOPMENT OF TURKISH TELEVISION SERIES

Turkish TV series have started to become a part of viewers' daily life in the countries where they are broadcast. In addition, Turkish TV series have introduced different elements of Turkish culture in the countries where they are broadcast. Cultural values are spread to many countries through TV series and pave the way for foreign publics to learn these values directly and indirectly. Turkish TV series that attract the attention of foreign publics also create their own audiences and fan bases. Viewers show great interest in the series characters they follow closely and try to learn about their lifestyles, countries, and cultures. TV series have become a

very important element of soft power for Turkish public diplomacy, however they have been utilized quite late.

The report of TESEV (Turkish Economic and Social Studies Foundation), which also conducts research on these issues, is worthwhile. Thanks to Turkish TV series broadcast, studies showed that the popularity of Turkish culture in the Middle East has seen an upward trend and there was a significant rise in number of tourists coming to Turkey from the Middle East. In a survey conducted in 16 Middle Eastern countries, 74% of 22 Cultural Diplomacy respondents stated that they watched at least one Turkish TV series ("Beyazcama in the Middle East", 2012). This rate shows that Turkish TV series should also be transformed into a strategic communication tool.

Miriam Berg conducted a study on the impact of Turkish TV series in the Middle East. Within the scope of the study, she interviewed one hundred Qatari youth and as a result of the research, she stated that Turkish TV series helped to break prejudices against Turks and Turkey. The similarities between Turkish and Arabic, ethnic and cultural affinities have been effective in directing viewers to dubbed Turkish TV series, especially in Qatar. (Çınar, 2018).

Çalıkuşu can be considered as the first Turkish television series to be exported and broadcast abroad. Russia was one of the first countries to broadcast Çalıkuşu. The series became a surprising breakthrough when it was broadcast in Russia. TIMS Pruduction has made a name for itself as a production house that exports many TV series and movies made in Turkey. Timur Savcı, the founder and owner of the company, emphasized the potential of the sector by stating that many more successes can be achieved with Turkish TV series as they have great power as a country, adding that stories will never end in these lands.

Looking at the number of TV series exported up to now, it is seen that Turkish TV series have been watched in more than 200 countries, leading to interaction in various fields. While Turkish TV series have been prospered in the Middle East, the Balkans, Eastern Europe and South America, Turkish TV series have also begun to be exported to Central European countries (such as France and Spain), which are difficult markets to break into. It is estimated that the exported TV series have reached more than 600 million viewers worldwide ("Turkish TV series in the world", 2018; "Turkish TV series as a Public Diplomacy tool workshop", 2019).

Television series fulfill a major task in the process of promoting and transmitting the cultural values of the country they represent (Doğanay &Aktaş, 2021: 870). TV series present

to audience around the world many unknown details of a country's culture. A detailed look at the Turkish TV series that have been exported recently reveals that some TV series reached very different audiences from very different stories both in Turkey and abroad. Huge international fan base of millions of viewers has grown up for TV shows like Binbir Gece, Gümüş, Muhteşem Yüzyıl, Anne, Aşk ve Ceza, Paramparça, Kurtlar Vadisi, Kurtlar Vadisi Pusu, Kösem Sultan, Fatmagül'ün Suçu Ne, Ezel, İstanbullu Gelin, Yaprak Dökümü, Sakarya Fırat, Bir zamanlar Osmanlı Kıyam, Ihlamurlar Altında, Diriliş Ertuğrul, Payitaht Abdülhamit, Sıla, Öyle Bir Geçer Zaman ki, Medcezir, Erkenci Kuş, Paramparça, Adını Feriha Koydum, İffet, Asi, Vatanım Sensin, and Yabancı Damat.

Looking at the exported Turkish television series, A breakthrough is noted in their potential to represent Turkish culture, the interaction traffic that takes place after watching, and the development process of the series within the scope of creative industries, however it needs further improvement. Some of the exported series are series with historical stories, they deal not with present-day Turkey, but with issues based on the Seljuk Empire or the Ottoman Empire, giving these series barely an opportunity to showcase existing cities in terms of tourism. This eliminates the potential to attract instant tourists to the country. Nevertheless, it can be said that the costumes, accessories, music and decorations used in the series attract attention and were successful in the context of creative industries.

Another situation that needs to be mentioned is the impact and debates that Muhteşem Yüzyıl TV series has developed at home and abroad. The fact that the series, which deals with the reign of Kanuni, mostly featured stories set in the Harem was highly criticized, and the series, including the political actors of the period, occupied the agenda of the country for a long time. In terms of representation, the series included many cultural contents related to the Ottoman Empire. Those who watched the series abroad learned about many wars, characters, places, etc. from that period. The representation of the Sultan, the main character of the series, is a controversial issue. While some audience did not see any negativity in the representation of the Sultan, other audience groups reacted that the life of a Sultan who went on horseback to unceasing wars throughout his life was never shown, only his Harem life was shown. Overseas viewers traveled to Turkey a lot after this series, and there was a significant influx of tourists to the places that were frequently used at that time, especially Topkapı Palace and Süleymaniye Mosque. In this respect, it is seen that television series fulfill an important task in terms of both diplomacy and representation.

Another series that made a great impression in terms of representation was the Diriliş Ertuğrul series. Again based on a historical story, the series broke export records and was screened in more than 250 countries. Various heads of state have also become fans of it and it has been very successful in terms of diplomacy in that country. Thanks to the series, domestic and international viewers had the opportunity to learn more about the history, characters and wars of that period. Television series are considered to be more effective than reading a history book, as they have been able to transfer the representation of history from generation to generation in an instructive way. Looking at the representation of the series abroad, it is seen that the metaphors frequently used in the series can be sold in the context of the creative industry. Some of these products were Kayı Boyu Ring, Diriliş Ertuğrul music album, Börk, Kılıç-Kalkan. In this respect, it can be said that TV series representing Turkey are successful representation products in terms of country promotion and diplomacy by breaking domestic and international views records.

In addition to these positive developments, there are also negative developments in Turkish television series. A different field of Turkish TV series is the melodrama of a very poor family and the life of a high level rich family, especially in the Sarıyer region which overlooks a magnificent scene of the Bosphorus, both are fictionalized in the same series. Such series, which focus on the lives of rich and poor families, are among the leading series that have been exported to many countries in recent years. The representation of the family structure and daily life in these series raises the question of what kind of image they create in terms of the transmission of Turkish culture through TV series. A detailed look at these series reveals that consumer culture and the use of brands brought about by the global capitalist system come to the front, and their compatibility with Turkish culture raises doubts.

Another situation that raises doubts about the representation of the exported Turkish television series and is thought to create a negative image is the violence in the TV series. There are examples of violence in various dimensions, such as violence by men against women, violence by men against men, violence by mothers or fathers against children, and by a friend against a friend. No matter what culture it comes from, the elements of violence negatively affect the image of a country. When we look at the Turkish television series, it is seen that the elements of violence and conflict are used quite frequently. In particular, the subject of domestic violence and incompatibility is frequently handled in TV series, and unhappy family tables are constructed in almost every TV series. Considering that the producers of the series produce

content inspired by the existing situation, it can be accepted that there is a certain share of reality. However, increasing this dimension and including it in every TV series and every episode can reveal negative situations regarding the Turkish family structure.

Violence is another issue creates a negative image in the series and raises doubts about the representation of the exported Turkish television series. There are examples of violence in various dimensions such as violence by men against women, violence by men against men, violence by mothers or fathers against children, violence by friends against friends. Regardless of the culture, violence negatively affects the image of a country. Violence and conflict are used quite frequently in Turkish television series, especially the domestic violence and incompatibility issue covered in the series as unhappy family tables are depicted in almost every one. Considering that producers tend to be inspired by the existing situation, it can be accepted that there is a certain degree of truth. However, widening this dimension and including it in every series and every episode may show the Turkish family structure in negative situations.

Another negative aspect of Turkish TV series, which are exported to many continents and more than 250 countries, is the lack of innovative steps in country branding. First of all, most of the exported TV series are set in Istanbul and are stuck in Istanbul. Many cities in Anatolia, especially those in the Aegean and Mediterranean regions, stand out with their natural beauty, historical background and local characteristics. However, this is not sufficiently portrayed in the TV series and foreign viewers mostly see Istanbul. In addition to cities, it is a similar situation that brands from various sectors of the country are not brought to the forefront. If domestic companies from Turkey are presented in the series through product placement or other techniques, this will accelerate the sales and marketing process of other products from Turkey and provide financial inflow to the country. However, it is seen that Turkish TV series do not have any initiative in this regard, and a sectoral unity has not been achieved.

Finally, it is thought that Turkish television series should be innovatively developed in the context of the creative industry and transmedia. As is known, transmedia narratives are the continuation of a story in different media. For example, one of the most common examples is the transformation of a story presented to readers as a novel into a television series and then into a computer game. In this respect, it is observed that some of the exported Turkish television series were previously presented as novels and then adapted into television series. However, it is seen that the necessary steps have not been taken to adapt them to the gaming industry, the

music industry, and the motion picture industry. In this respect, it becomes clear that Turkish television series need to be developed.

Turkish television series exported abroad have produced positive and negative images in the eyes of audience. There are positive representations about the promotion of culture, diplomatic mobility and tourists' travel to the country. On the other hand, there are drawbacks in terms of the conflict between rich and poor families, the representation of violence and the sector's cooperation in the context of creative industries. It is thought that places where Turkish TV series were first exported such as Arab countries, Latin American countries and the Balkans, have some mutual characteristics. Turkish television series were first screened in these countries rather than in Central European countries. The existence of a society that can spare time for television series can be cited among the reasons for this. In the European region, personal education and leisure time is filled with activities such as sports, culture and art, while in Arab and Middle Eastern countries, entertainment tools determined by global mainstream media such as television remain dominant.

5. DISCUSSION AND CONCLUSION

As a result, it is seen that Turkish television series have been on the rise in the recent period, and they have been exported to more than 250 countries from many continents. The ease of consumption of audio-visual contents has led to the representation being more active in this field. In this respect, it has been revealed that great tasks are attributed to audio-visual content such as television series in terms of representation. In this direction, it has been revealed that the Turkish television series exported have a mission both in terms of international diplomacy traffic and in terms of promoting Turkish culture and represent cultural values.

Turkish television series, whose popularity has increased recently, are watched a lot due to reasons such as family, love, city, history and drama. Television series representing Turkish culture in the exported countries have achieved great success in promoting Turkey. However, every success of viewing does not mean correct and qualified promotion of culture. As a matter of fact, distinctions such as rich and poor in Turkish television series, the fiction of violence and conflict, the presentation of intrigues rather than the developing areas in Turkey, damage the promotion of Turkish culture in terms of ethics, quality and accuracy. It has been seen that the classical drama fiction, rather than the philosophical events that will bring Turkish culture to the fore and create an interest in the culture, damage Turkish culture and cause negative

representations from time to time.

In addition, it has been revealed that creative industries, transmedia narratives and country branding studies should be used for the improvement of Turkish television series. It has been observed that there is no sectoral cooperation in this regard, and no steps have been taken towards the idea that the same story can be continued in different media channels. It has been revealed that Turkish television series, which are promising in terms of export figures, cannot use these areas sufficiently. In such a period when country and city branding studies are spreading rapidly, it has been determined that almost all TV series were shot in Istanbul and the industry was stuck here. Thus, it is thought that this study is important in order to make the diplomacy and representation process formed by Turkish television series more qualified and affirmative. Both the elimination of the negativities in the representation and the development of innovative aspects will accelerate the Turkish TV series industry.

REFERENCES

Assman, J. (2001). *Cultural Memory–Writing, Remembrance and Political Identity in Ancient High Cultures.* Ayrıntı Publications, Istanbul.

Avcı, Ö. (2019). History Series as a Tool to Historicize the Past: Diriliş, Payitaht, Kûtul'amâre. *Journal of Sociology, 39*, 103-139.

Connerton, P. (1999). *How Do Communities Remember?*(Translator Alâeddin Şenel). Ayrıntı Publications, Istanbul.

Çınar, Ö. F. (2018). Turkish TV series destroy prejudices. GZT.com, https://www.gzt.com/aktuel-kultur/turk-dizileri-on-yargilari-yikiyor-3431893 (30th June 2019)

Halbwachs, M. (2017). *Collective Memory* (Translator Banu Barış). Heretik Publications, Ankara.

Doğanay, M. M. & Aktaş, M. K. (2021). Televısıon Serıes Industry In Turkey. *Marmara Üniversitesi Öneri Journal, 16*(56), 852-878.

Medin, B. (2019). Power, Memory and Cinema. *Journal of Akdeniz University Faculty of Communication, June*(31), 123-146.

Mutlu, Erol. (2012). *Communication Dictionary.* Sofos Publications, Ankara.

Nye, J. (2005). *Soft Power* (Translator R. İnan Aydın). Elips Publications, Istanbul.

Spring in the Middle East with Turkish soap operas (2012). YouTube, https://www.youtube.com/watch?v=99NpSTkXDtA (2nd July 2019)

Özarslan, K. (2020). Turkish TV Series in the International Press and the Image of Turkey in the Context of Country Branding. *Dokuz Eylül Üniversity, Journal of the Social Sciences Institute, 22*(1), 215-238.

Özgüneş, R.E. (2020). Living in Tastes Longing for the Past: Gastronostalgia. *International Journal of Turkish World Tourism Studies, 5*(1), 60-75.

Randall, W. L. (1999). *Stories That Make Us Who We Are.* Ayrıntı Publications, Istanbul.

Yıldırım, A. & Şimşek, H. (2016). *Qualitative Research Methods in the Social Sciences.* Seçkin Publications, Istanbul.

THE ROLE OF COLOUR IN SUCCESSFUL FUNDRAISING CAMPAIGN

Nataliya PANASENKO[1]
Tatiana FILLOVÁ[2]

Abstract

Colour many a time has been in the focus of research of scholars, who not only defined its physical properties but accentuated possibilities of its practical application. As far as colour implies visual communication, it is widely used in marketing, namely in different materials attracting the attention of potential clients, i.e. mainly in advertisements of any kind. The article presents the results of the analysis of the colour semantics in Unicef's promotion materials focusing mainly on psychological aspect and symbols of colour. We claim that proper use of colour and its combination considerably influences fundraising campaigns and makes their management successful.

Keywords: *Management, Marketing, Colours, Advertisement, Campaign, Unicef.*

[1] Prof., DrSc., University of SS Cyril and Methodius in Trnava, Faculty of Mass Media Communication, Trnava, Slovak Republic, lartispanasenko@gmail.com, ORCID: 0000-0003-4377-9088

[2] Master of Marketing Communication, Freelancer, Berlin, Germany, tatiana.fillova@gmail.com, ORCID: 0000-0003-3481-7150

1. INTRODUCTION

Colours play an important role in our life. Adopting different approaches, scholars have identified ways of producing colours (neurology and physiology), their perception (psychology), understanding (philosophy, semiotics), and naming (linguistics, anthropology).

Colours are widely used in marketing. Implementation of colour theory into any company's design and advertising is a crucial undertaking that may have a ripple effect overall organisation. Associations are formed in order to carry out the company's goal. Colour is more than just aesthetics; it also delivers precise information engaging with customers by invoking emotions, behaviours, and memories. Colour associations are taught and passed by culture and generation. Brands research the market and determine whom they want to target as part of the process of developing their brand. They reinforce their identity on a subconscious level by selecting the appropriate colour palette. Brands are able to enhance associations with the brand and establish greater trust by visually matching the company's aims to colours. Colour theory and colour psychology are commonly used by businesses when selecting colours for a brand or advertising materials.

In this paper we present the results of the colour semantics analysis in the materials promoting Unicef's fundraising campaigns. Though we have applied many theories and approaches to our material processing, the fundamental work is by Berlin and Kay (1969) who singled out 11 basic colours, which can be found in most world cultures and are traditionally named "focal colours". Out of them we have chosen those, which are most popular in Unicef's ads. Taking into account psychological approach and symbolic character of colours, in this article we consider in detail two cold colours (blue and green) and two warm colours (red and yellow). Our analysis we accompany with some technical characteristics of colours, like hue, chroma and saturation. Special programme facilitates visualization of these and other colour properties and vividly proves the importance of colour in fundraising campaigns.

2. STEPS OF SUCCESSFUL MANAGEMENT

Management in general is traditionally understood as science and art of winning; the ability to achieve its goals using labor, motives for behavior and the intelligence of people. In other words, management is a human capability, by which leaders use resources to achieve the organization's strategic, tactical, and operational goals. Information about basics of management varies from the popular anonymous definitions from the Internet (like Five golden

rules of management including the set of five general functions: planning, organizing, staffing, leading and controlling) or Ten golden rules of management, which make your management style effective, to serious studies, like "A framework for marketing management" by Kotler & Keller (2011) or "Marketing management" by the same authors (Keller & Kotler, 2012) and many others.

Templar in his book "The rules of management" (2013) singles out 107 rules, which are connected with one's team and personal management. All these rules ranging from five to 107 can be considered as crucial principles of management and can be specified as those, which explain how to be a successful manager.

In many companies these principles of management in the field of production inevitably bring profits. Thus the methods and techniques of management constantly change and specialists work on their further improvement.

As far as we have chosen as the object-matter of our research fundraising campaigns of Unicef, the final result of them is not connected with profits; this organization always reminds people that it is non-profit and its general aim is to help keep children safe and healthy. Their activity includes the following aspects of helping and protecting children: nutrition and life-saving food, education, emergency relief for children, protection from climate change, water, sanitation and hygiene, vaccines and some others (https://www. unicef.org.uk/why-donate-to-unicef/).

Judging from the reposts they regularly post on their official website, most (if not all) their fundraising campaigns are successful. They do not specify how much money they have fundraised; they report what they have done for this money. E.g., in 2015 UNICEF vaccinated 23 million children against deadly measles or with the help of donations; they provided 1.3 million sets of winter clothes for Syrian children in 2015.

All this huge volume of work in 190 countries, including Ukraine, Yemen, Afghanistan, Syria and its neighbours is done mainly by volunteers who are properly trained and supplied with fundraising materials (https://www.unicef.org.uk/fundraise/fundraising-ideas-toolkit/). They find new volunteers and promote their ideas in a different format: social nets (photos, videos, and posters), advertisements on TV and radio; printed media and booklets they offer may also be effective (Krajčovič & Čábyová 2017). Thus, most useful principles out of ten Golden rules, in our opinion, will be such as clear, concise and complete communication;

precise goals set for the team; public recognition of hard work; good contacts with team members; encouragement of opinions and ideas. These rules will ensure the success of any fundraising campaign.

Out of all the aspects of Unicef advertisements we have chosen colour, because we consider it as the basic means of visual communication. Different properties of colour and approaches to its study are presented below. Now we will discuss in brief functions of colours in advertisements, because colour is the key component of attracting the attention of a customer or, in our case, possible donator. On a subconscious level, people notice colours before any word they read. That is why colours in advertisements are used for:

- changing moods and attitudes (for association of certain brand or products, how they make a viewer feel when he thinks of them);

- grabbing attention (works easier with colours than with words);

- consumer targeting abilities (for increasing sales by researching customers and what colours they might be attracted to and to fit their needs and desires);

- product characteristics showcase (for putting emphasis on the specific products and to convey a message) (Lister, n.d.).

Proper application of colour semantics strategy in advertisements can make the fundraising campaign successful. Why? Colour is used to evoke emotion and express personality; it promotes association with the brand, and accelerates differentiation. As consumers, people depend on familiarity within their comfort zone. Many companies want to be recognized by the signature colour of their brand. Choosing a palette for a new identity requires a basic understanding of colour theory, a clear idea of how the brand should be perceived and differentiated, and the ability to master coherence and meaning of shades of use. While some colours are used to unify an identity, others can be used to clarify brand architecture through product or services. Traditionally, the main colour of the palette is assigned to the symbol and the secondary to the logo, description, or slogan (Wheeler, 2009: 128). Unicef has chosen blue colour for its logo.

Psychologists found out that the impression of colour is responsible for up to 60 percent of the acceptance or rejection of a product or service. A designer's job is to choose the hues that evoke the right responses. Designers must carefully consider who the advertisement is designed

for and how the audience will read the design in terms of colour alone. It's not just an aesthetic choice. Designers must harness the importance of colour schemes to achieve clients' goals (Moroika & Stone, 2006: 35).

Building a colour scheme for brands, logos or advertisements can be regulated by eight simple rules: 1) setting a purpose – why these colours, for who; 2) reviewing colour basics – relationships between hue, saturation, contrast, building a scheme; 3) choosing dominant and accent colours; 4) shade selection – shades and brightness change the impression of colours and may also have different meanings; 5) compatibility – hues cannot clash, it should be pleasant for the eye; 6) less is more – using less colours is more beneficial than using many of them, two or three are usually the best choice; 7) colours in action – using colours on different applications and variants is the best way to choose the most suitable design; 8) saving progress – keeping a log of the previous colour palettes is good to prevent repetition, or for further improvements and changes (after Moroika & Stone, 2006: 41).

The use of Golden rules of management, proper colour and its place in the advertisement are important for the successful fundraising campaign.

3. AIMS, METHODS, AND RESEARCH SAMPLE

The subject-matter of our research is marketing material of the non-profit organization Unicef, because the third sector (public sector) is an important part of marketing communication. As we mentioned above, Unicef (abbreviation variant – UNICEF, meaning United Nations International Children's Emergency Fund, in the text using as Unicef) is a non-profit and non-governmental organization. In 1945, the United Nations was founded. A year later, UNICEF was established, which helped children during World War II. The Children's Fund is a worldwide organization that aims at long-term and systematic help to children in need. The slogan of the company is: for every child (About Unicef, n.d.).

Unicef uses advertisements on physical media, such as magazines, newspapers, billboards, or TV commercials but since many companies, including Unicef, switched to online platforms during the pandemic we shifted our focus mainly on the Internet for this reason, as well as for the more accurate depiction of colours on OLED display. Our collected materials are mainly from Unicef's Instagram page, Facebook and Twitter advertisements. Most of the chosen posts can be also found on other social media platforms and their webpage as well. We have chosen more than 100 advertisements, in which it is possible to specify the domineering

colour or a mix of colours. Because the aim of these advertisements is to convey a certain message and evoke emotions of sympathy and empathy, the visual interpretation and choosing colours is an important process.

The purpose of this study is to determine which colours are most popular in a chosen subject and to define the roles of colours in definite types of advertisements. The research is based on so called "focal colours", which were initially defined by Berlin and Kay (1969).

We have made a collection of the best examples of each focal colour. We analysed each material with an online software to create a colour palette and to have a look at exact colour attributes to state if the colour is cold, warm, highly saturated, and bright. We chose the palette out of four colours from each material. In each colour category, we analysed the first shade in the palette, because this shade prevails in the image most of all.

We can't deny that colour perception is very subjective. To make our research more objective we use a special online software (www.imagecolorpicker.com) to create palettes of each chosen material. To interpret data obtained properly, we made a detailed analysis of each advertisement or photo taking into account psychological, cultural, and digital factors. Using this platform is an advantage, because it is already built-in system that allows us to dive deeper into the details of each colour, not only seeing the hex code. We used this tool, because it offers us a palette of an uploaded image, as well as digital attributions of a photo, such as hue, saturation, and brightness.

Several scientific methods appeared to be very helpful for the analysis of visual and text materials: qualitative, semiotic analysis, and image analyses enhanced by the ethnographic aspect. Semiotic analysis is based on understanding sign systems, by primary significance of the symbol and secondary one, that is influenced by culture, politics, history, or social context (for details see Panasenko & Mudrochová, 2021). Symbolism of colours also appeared to be useful in our research (Panasenko, 2020; Panasenko & Korcová, 2011). As far as Unicef works in 190 countries, with the purpose to understand national-cultural specifications of the advertisements, we took into account ethnographic aspect to define cultural influence in colours. Image analysis is focused on visual elements of the content in media. We have used this method to analyse what is depicted on the materials, why and in what colours (Panasenko & Greguš, 2022).

Making the analysis of Unicef's advertisements, posters and photos we pay attention to

such basic colour properties, as hue, light and contrast, and saturation. We also focus on digital implementation (RGB) of colour and the main hue location on the spectrum because our chosen examples are used online. The highest possible value in RGB is 255, hue is measured in degrees (maximum 360), depending where on colour wheel the colour is located, the percentage in saturation could range from 0 to 100, from black to the most intense colour and brightness is measured also in percentages, 0 being black, 100 white.

These are technical characteristics of colour. Now let us discuss other colour's properties and the way they are treated by the representatives of different branches of science.

4. BASIC FEATURES OF COLOUR AND APPROACHES TO ITS STUDY

Colour surrounds us and paints our whole world. It is huge part of marketing, generally used in advertisements, materials, and corporate identity. Numerous research have been conducted to investigate the usage of colour: contemporary colour (Bleicher, 2012), colour psychology (Elliot & Maier 2014), symbolism (Adams, 2017; Cirlot, 2001), and its impact (Cerrato, n.d.). When establishing a corporate identity, we must consider what colours to use, how they will complement one another, and the effects they may have on customers.

Earlier we made a detailed analysis of such approaches, as psychology of colour, philosophy of colour, anthropology of colour, neurology and neuropsychology of colour, and language of colour (Panasenko & Korcová, 2011). Our next contribution was the analysis of colour as means of creating female and male, positive and negative characters in the literary text (Panasenko, 2020). These publications also highlight symbolic character of colour and its connection to many world cultures.

Colours are more significant in marketing than we often think. They have an impact on the consumer's decision when it comes to selecting the proper products or services. Every brand and every advertising medium, whether online and offline, seeks to capture the attention of the viewer at first glance. Because colour is one of the most powerful forms of non-verbal communication and can convey meaning, emotions, and mood in a split second, the developer of an advertisement should have a good grasp of colour and its symbolism and significance. There is no objective impact on individuals, but some colours evoke emotions and memories, which customers react to and by this influence, choose their preferred product or service. Colours have an impact on our state of mind, mood, thinking and behaviour. If the colours are not chosen carefully, they might misinterpret a company's whole message and it may have a

negative impact on its corporate image.

Colour semantics may be expressed by symbols, associations and can be influenced by age, ethnicity, beliefs, or social psychology (Li, n.d.). There are many cultures in the world, where colour semantics depends on ethnic and religious parameters, so a single colour can mean many different things. Colour semantics cannot be separated from psychology, cultural symbols, and politics. Colour theory ensures a universal look and colour scheme of advertisements combining it with psychology using the advantage of the human perception to make us feel a certain way. Marketers are trying to tap into customers' thoughts regarding the brand and their products. The biggest influential factor is life associations, cultural knowledge, political and artistic background, religion, ideology, and social system. Semantics of colour is always changing according to its aesthetic value with the change of the times, so if a certain colour is serving as a symbol, it is possible over time it will have a different meaning (Li, n.d.).

Division of colours. When describing each colour and their meanings, we are going to mention hex code. This stands for programming language CSS (cascading style sheets), styling commands, that consists of six digits, two hex digits for each colour value (red, green, blue). This is called hexadecimal notation, therefore a hex code.

We differentiate 12 main colours in the RGB colour wheel that can be divided into primary, secondary, and tertiary. Primary colours are those, that when added together, create white – those are red, green, and blue. Secondary colours represent those that are mixed by two primary colours – in this case it is cyan, magenta, and yellow. Tertiary colours are created by combining secondary colours with primary colours (Color wheel, n.d.).

In applicable strategies not only in advertisement but in any colour use as well, the most important of these attributes are hue, lightness, and chroma. Hue is based on wavelengths. This is what most people project in the back of their mind when they hear the word for a specific colour (red, blue, green, etc.) Lightness is essentially a white-to-black property of the colour and can be applied to any hue. Chroma is similar to saturation. It is described as the intensity or liveliness of a colour. Each of these attributes can affect the psychological impact of a product or service, so only one of them should be allowed to vary in a well-controlled experiment.

Berlin and Kay (1969) name 11 basic colour categories, which are traditionally called focal colours: white, black, red, green, yellow, blue, brown, purple, pink, orange and grey. We have found out that in Unicef advertisements not all of them are used. The most popular colours

are as follows (in decreasing order): the mix of colours, blue, yellow, green, red, pink, and orange.

Of all the properties of colours we have chosen those, which are most important for the advertisements and other instruments of fundraising campaign and will discuss them in short. In this paper, we also limit ourselves only to two cold (blue and green) and two warm colours (red and yellow) and with the help of examples illustrate how important symbolic and psychologic nature of colours is.

4.1. Symbolism and Psychology of Colours in Unicef's Promotion Materials

From psychological aspect not only colour terminology, but also colour harmony, colour preference and colour symbolism can be taken into consideration. Symbols carrying strong emotional connotations can affect our colour perception. In some cases, we may speak of the designations, which appeared thanks to the synesthesia of different information procession channels, like vision and smell, vision and touch, i.e. "the sensation of warmth and cold: the sensation of warmth, richness, freshness, etc. and can also determine the observer's reaction to a colour: warm red – cool blue, cold blue; light pink – heavy purple; luscious green – opulent red; fresh yellow" (Wyler, 1992: 107).

Cirlot (2001: 52), e.g., offers the following classification of colours. The first group embraces warm 'advancing' colours, corresponding to processes of assimilation, activity and intensity (red, orange, yellow and, by extension, white), and the second covers cold, 'retreating' colours, corresponding to processes of dissimilation, passivity and debilitation (blue, indigo, violet and, by extension, black), green being an intermediate, transitional colour spanning the two groups. The idea to use temperature sensations comes from psychology and is closely connected with colour perception. He names the following most popular symbols of colours: red is associated with blood, wounds, death-throes and sublimation; orange with fire and flames; yellow with the light of the sun, illumination, dissemination and comprehensive generalization; green with vegetation, but also with death and lividness; light blue with the sky and the day, and with the calm sea; dark blue with the sky and the night, and with the stormy sea; brown and ochre with the earth; and black with the fertilized land (ibid., 53).

Summing up popular classifications (Elliot & Maier, 2014; Haller, 2019; Khattak et al., 2018), we may state that colours are divided into warm, cold and neutral. Warm colours are represented by red, yellow, brown and orange. They heat the person and make our mind

creative. On the contrary, green, blue, violet, which are representative values of cold colours, cool our body and make our mind meditative (Panasenko & Korcová, 2011: 125).

Now let us characterize some cold and some warm colours and show how they are used in Unicef's promotion materials. We will specify their symbolic character, give their technical characteristics and explain how this knowledge can be used in marketing.

Blue. It is often connected with the sky and water; it is sometimes associated with issues of the spirit and intellect; it is linked to loyalty, fidelity, constancy, and chastity. Its link to the sky also connotes eternity and immensity, time and space (Dictionary of symbolism, 2001). It is the colour of Unicef. Water is connected with life, fertility and maternity. Many producers of denim use blue in their logos, as well since the colour is linked with jeans. It can also be found in 53% of flags in the world.

Each shade of blue has a code, like dark blue – #00008b, dark midnight blue – #003366, blue gray – #6699cc, indigo – #4b0082, azure – #f0ffff, etc. (List of colors by name, n.d.).

Lighter shades (hex code: #D1EAF0) represent tranquillity, reliability, trustworthiness and innocence, more vibrant ones (hex code: #00FFEF) dreams, youth, reinvigorating feelings, while deep hues (hex code: #191970) are connected to intelligence, authority, conservatism, and elegance (Meaning of the color blue, n.d.).

With the help of these codes we visualized different shades of blue and gave them their exact names (see Figure 1), which a very good proof of blue being a cold colour.

Figure 1. Visualization of the shades of blue (after Panasenko, 2020)

All these shades are skilfully used in the Unicef fundraising advertisements (see Figure 2).

Each photo on these sites is accompanied by the detailed description of the aim of this campaign and the people who represent it. In these pictures we see most important Unicef projects: water supply, clean water, planet natural resources saving, and maternity.

For a detailed analysis we have chosen the photo of two school girls in Congo (see Figure 3).

**Figure 3.** School Girls, Congo

Source: Unicef
(https://www.instagram.com/unicef/)

In this photo, we can see two girls greeting each other on their first day back to school. We can mostly see bright and deep shades of blue. Here blue is seen as calming, non-threatening, stable, and reliable. It is also used to increase productivity and it supports hard work. Bright blue is as a symbol of dreams, and youth, while darker shades of their skirt of the school uniform represent intelligence, authority, and conservatism.

This is a generated colour palette of the five most used colours in the photo, three of them

Economics Business and Organization Research

being shades of blue. We used a programme mentioned earlier to generate this palette, and to analyse data of the most used colour in the photo – the first one in the palette. Digital attributes of the most intensive shade of blue are reflected in Figure 4.

Figure 4. Digital attributes of the first shade of blue.
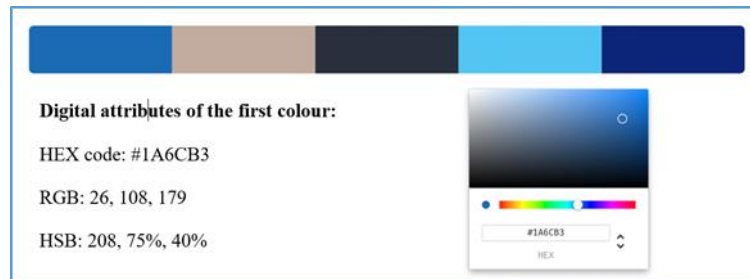
On the scale picture, we can see the selected hue and its saturation. The colour being on the right side of the spectrum, makes it a vibrant colour of darker tint because 75% of saturation makes it a highly saturated colour, and 40% of brightness falls into darker scale. The contrast of an image is monochromatic, consisting mostly of blue hues. There is no text in the photo itself, having all the focus on the colour blue and two African girls. In this advertisement, blue is used in connection with studies, scholars, and youth.

Now let us analyse the properties of another cold colour.

Green. In many cultures this colour is often associated with spring, life, vegetation, growth, freshness, and youth. It is the colour of Islam and of some flags of Islamic states. The usage in marketing is mostly for relaxing a customer, for military gear, cleaning products, green energy, and to address environmental issues. In opposite meaning to red being stop and green safety, it is used at traffic lights as a symbol of free to go. Feeling safe and relaxed promotes decisiveness in customers. Many health facilities use its benefits. Huge brands using this colour are Starbucks (café, coffee), Green Peace (NGO), Animal Planet (TV programme about nature), John Deere (agricultural machinery), Whole Foods (organic groceries), or BP (oil and gas company).

Light (hex code: #90EE90) and pastel shades (hex code: #D0F0C0) are pointing to relaxation, fresh start, inexperience, youth, being dependable. True green hues (hex code: #00FF00) are associated with health, growth, wealth, money and being eco-friendly. More earthy tones (hex code: #C5E384) stand for earth, rawness, sourness, sickness, jealousy, and deep hues (hex code: #003333) are professional, respectable, expensive, sophisticated

76

(Meaning of the color green, *n.d.*).

Using various system of codes we can visualize different shades of this colour like this (see Figure 5).

Figure 5. Visualization of the shades of green
(after Panasenko, 2020)

In Figure 6 we see the use of various shades of green in the long-lasting (till 2030) campaigns connected with planting millions of trees, protecting earth's ecosystems, ensuring equal access to health care, safe childbirth, and some others.

Figure 6. Source: own processing of photos and pictures from Unicef official sites on Instagram and Facebook

For a detailed analysis we have chosen a photo of Simon from Haiti (see Figure 7).

During the pandemic Unicef also started to spread awareness and reminders that we should take care of our environment, by supporting and promoting education, campaigns, and fundraising events. In this photo we can see a boy from Haiti, who promotes climate education. At first glance, the landscape is covered by green leaves, the contrasting blurred background in darker shades of green, and the boy's shirt in a deeper, soothing shade of blue, which makes image look colder. As mentioned above, green is closely related to nature and forests, so it's a great choice for raising environmental awareness.

The palette of this green picture shows three main green shades, one grey shade of cold hue and a deep blue. When we look at the meanings of blue, dark blue represents in this case education, as well as it may be a symbol of our seas and oceans, as well as freedom. Digital attributes of this photo are presented in Figure 8.

Figure 8. Digital attributes of the first shade of green.
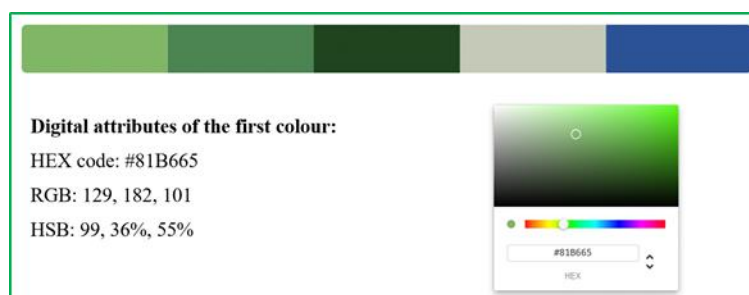
Source: own processing

In this scheme, we can see that the first colour in the palette is pure green, but it cannot be considered a bright colour with its 36% of saturation. It is a more muted colour and these shades can be very pleasing to the eye and have a calming, healing effect. We can say it is a colour of medium brightness with 55%. Overall, this image suits its purpose to convey

environmental message and symbolism of used colours and its meanings, but it may appear dull and boring in marketing advertisements because there is no significant contrast in the image itself, therefore it is not eye-catching and might be passed by. In this photo, the colours are chosen by its symbolism of nature and wisdom and correspond to the mission of Unicef.

Now, let us consider two warm shades of focal colours – red and yellow.

Red. In the Dictionary of symbolism by Protas (1997 [2002]), red is considered to be an emotionally charged colour associated with the sun and gods of war, anger, blood-lust, vengeance, fire, and the masculine. It can also mean love, passion, health, and/or sexual arousal. This colour has either positive, or negative meanings. Its positive meanings are confidence, friendliness, creativity, emotional strength, love, passion, strength, optimism; whereas among negative meanings we can mention such, as blood, wounds, fear, depression, suicide, anxiety, and irrationality.

Red, like any colour, has many shades. Pastel shades of red (hex code: #FF6961) are used in romance, joyful, sensitive, and loving situations. True shade (hex code: #FF0000) is used for representing intense emotions, energy, danger, sacrifice, passion, and sexuality. Dark shades (hex code: #8B0000) symbolise power, intensity, sophistication, seriousness, and responsibility.

Using various system of codes we can visualize different shades of this colour like this (see Figure 9).

Figure 9. Visualization of the shades of red
(after Panasenko, 2020)

Various shades of red are widely used in Unicef fundraising campaigns (see Figure 10).

Figure 10. Source: own processing of photos and pictures from Unicef official sites on Instagram and Facebook

Different symbolic meanings of red are seen in the collage of various photos and posters. Unicef initiated the campaign of vaccination children against COVID-19. In this case, "red" means danger; in the poster against bulling, red symbolizes aggression; in the poster, which encourages the girls to act we can interpret such meanings of red, as creativity, emotional strength, strength, and optimism; the girl in red top left was chosen as a symbol of World polio day. Culture specific aspect (colour of national costumes) is also taken into account.

For a detailed analysis we have chosen a photo of two Syrian sisters who in the camp of refugees in Jordan were supplied with warm things (see Figure 11).

Figure 11. Syrian Sisters in Jordan.
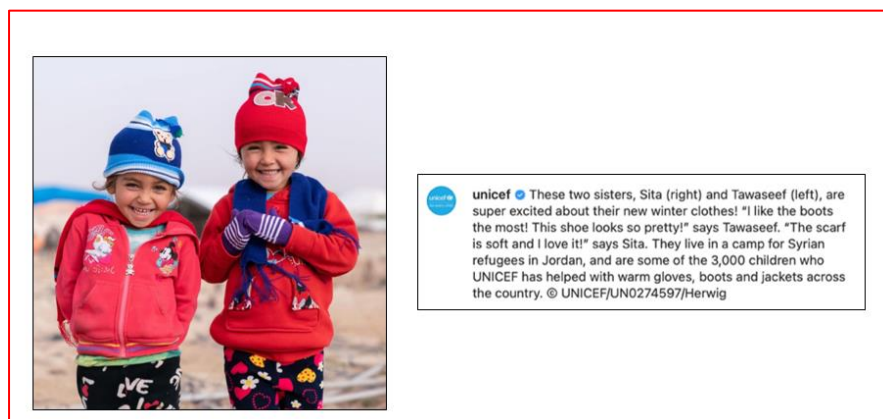
Source: Unicef. https://www.instagram.com/unicef/

The first thing to capture our attention in this photo was red colour enhanced by children's

face expressions. We can see two sisters smiling and being excited dressed in winter clothes. The post reflects warm clothes being donated by Unicef to children in Jordan. The background has subtle colouring, leaving room for contrast. In this case, red is used to represent energy, excitement and helping people (symbol of Red Cross).

Analysing the photo along with the generated palette, we can see that the hues have two different shades of red, of neutral tones, which is mainly used in the background to create an aim where eyes should look first. Along with red tones, we can also see used shades of blue on their clothing. Because of red colour's aggressive nature, blue brings calmness into the picture and balances it. Digital attributes of this photo are presented in Figure 12.

Figure 12. Digital attributes of the first shade of red.

Source: own processing

The main shade of red can be considered almost true red, with red tone being very high in value, while red and green are low. Blue value of 50 and the colour being at the end of this scale indicates that the shade is on a cooler side. It is a very saturated colour with 91% of saturation. 46% of brightness means that the shade is darker red, rather than very bright.

This combination shows great usage of colours in the advertisement overall, making it eye-catching and cheerful. Considering the message of the text as about help and clothing, we consider these colours to be chosen wisely, because the attention is taken to clothes. Without reading the text, and taking into consideration the organisation, we can assume that it is about donation as well, although without text it is not completely clear.

Yellow. Because this colour stimulates mental activity, it is used in marketing to highlight communication (Snapchat) or speed (DHL, Ferrari). With its attention drawing effect it is used in traffic lights as warning signs, taxis, buses, and road maintenance equipment; it's the colour of buses and taxis in many countires. It is also broadly used in leisure, children's products, and food industries (Mc Donald's, Pringles). Men usually perceive this colour as childish, therefore

it is not good to use it in marketing targeted on men (Becker, n.d.).

Pastel tones (hex code: #FFFFE0) are usually connected to new ideas, joy, lack of confidence, while bright yellow (hex code: #FFFF00) with happiness, superiority, life, and cheerfulness. Golden tones (hex code: #FFDF00) are linked to wealth, luxury, success, and achievement. It is the only colour that does not combine well with black, yet in that case (hex code: #808000) it is creating olive tones, associated with caution, jealousy, sickness, decay (ibid.).
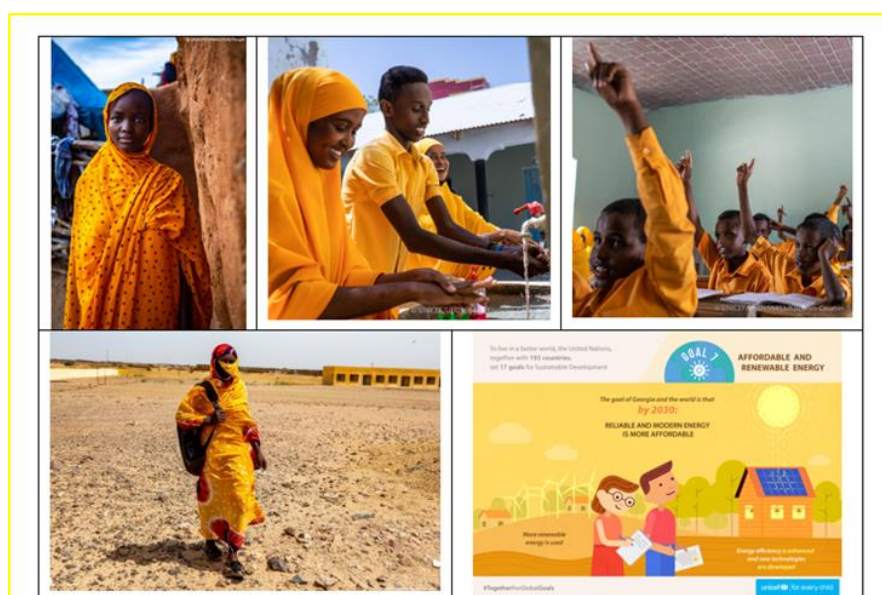
Using various system of codes we can visualize different shades of this colour like this (see)

Figure 13. Visualization of the shades of yellow (after Panasenko, 2020).

Yellow colour is also widely used by Unicef (see Figure 14).

Figure 14. Source: own processing of photos and pictures from Unicef official sites on Instagram and Facebook

In the collage of photos and a poster presented above we see different shades of yellow, though bright shade (happiness and cheerfulness) and golden tones (success, and achievement) prevail. It is mainly the colour of people's dress and school uniform. It is the colour of the sand, very familiar to children who live in the deserts. Yellow in all shades is the colour of the sun and in the poster propagating affordable and renewable energy and solar batteries this colour prevails.

For a detailed analysis we have chosen a photo of a little girl from Mali who due to the campaign organized my Unicef was able to come back to school (see Figure 15).

Figure 15. Back to school
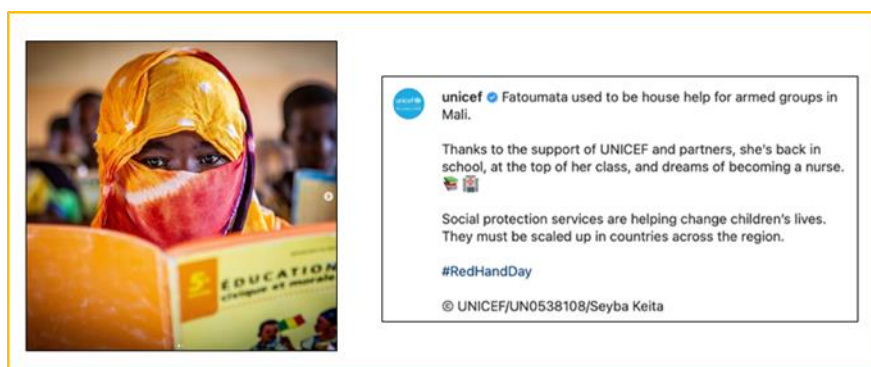
This post is related to the campaign, Red Hand Day, which helps stop the use of children as soldiers and also child abuse. Though the photo contains mostly yellow colour; we can also see shades of red in the fabric around her face. The hue of yellow chosen for this post is of a golden tone. Yellow is associated with gold, sun, curiosity, creativity, joy, cheerfulness, enthusiasm, and children. Because golden yellow is linked to success, it may be the reason why it is used in the image – for the girl to be back to school and perceive her dreams. Dark skin plays important role as contrast.

At first glance, it may seem the picture is orange, but after evaluating and analysing the palette, we can see that there are two yellow colours included in this generated palette. There is also the red hue from the fabric and brown shade for the skin tones. The second hue in this palette is controversial, but after having a deeper look into technical data, we do consider this shade as orange. Digital attributes of this photo are presented in Figure 16.

Figure 16. Digital attributes of the first shade of yellow
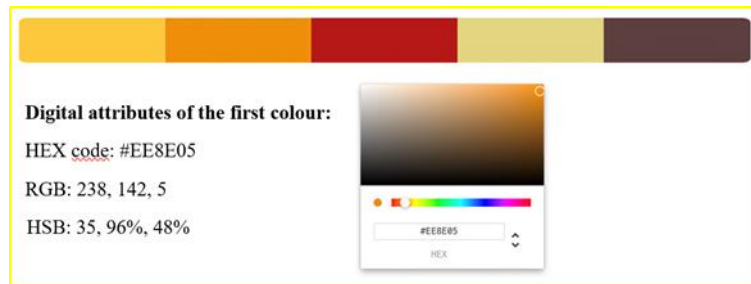
Source: own processing

With 99% of saturation, we can easily say it is a highly saturated colour. Such tones capture attention and are great to use in combination with dark shades to create contrast. It is also quite bright shade, because of its 62% of brightness. We may say the colours used in the photo are well chosen, there is a good amount of contrast and because of its golden tones, it is pleasant to look at. The only thing we would want to address is that it is part of a campaign Red Hand Day, and for this we would imagine more of red being used.

5. DISCUSSION AND CONCLUSION

While making analysis of Unicef fundraising campaigns, we focused on the colour and symbolism as well as colour and psychology, because psychology and marketing are closely tied together and improve the sales. Colours play an important role in marketing, especially when it concerns choosing a correct colour scheme of each brand identity. They have strong culture-specific component and designers should keep in mind that some colours are sacred: orange in India or green for Celts or Muslims. We have analysed most of focal colours described by Berlin and Kay focusing on two warm and two cold colours, because such colours, as orange, purple, black, white, grey, and brown (the rest of focal colours) are not used broadly in the marketing material of Unicef. We should also state that colours combinations are very often found in Unicef's advertisements.

Psychological approach appeared to be very interesting, perspective and subjective at a time. To avoid this subjectivity and to receive objective results, we used a special Internet software, imagecolorpicker.com. We used the system of codes and hex codes, which helps identify such important colour properties, as hue, light and contrast, and saturation.

The detailed analysis of every post confirms that colours are in fact intertwined with the symbolism and intended message. Colour palettes are heavily inspired by symbolism, taking

into consideration the message and the culture as well.

From our results, we can see that the most popular colours in the specified sector and organisation are warm tones. This is because the organisation frequently discusses the issues and poverty of the Third World countries (Africa, Asia, Latin America, Oceania) and the usage of Pan-African colour scheme is commonly used. Blue tones are also often used in advertisements, considering the fact that blue is the most popular colour as well as the corporate colour of the organisation.

Our research demonstrates the significance of colour selection in advertisements. In reality, it is a critical phase and precise planning that cannot be overlooked in the marketing process. This study generated new research ideas as well as new information about online advertisements of non-profit organizations. This research can be used to further analysis of the marketing material variety, as well as future brand development or planning of marketing materials.

By this article we intend to express our admiration and great respect to Unicef for their assistance to the children all over the world. Let us consider our results as a modest contribution into their activity.

Abbreviations

RGB – additive colour model consisting of red, green, and blue

REFERENCES

About Unicef (n.d.). https://www.unicef.org/about-unicef

Adams, S. (2017). *The designer's dictionary of color.* New York: ABRAMS.

Becker, J. (n.d.). *The psychology of design: the color yellow in branding and marketing.* https://www.impactplus.com/ blog/psychology-of-the-color-yellow-in-branding-design

Berlin, B. & Kay, P. (1969). *Basic color terms: their universality and evolution.* Stanford: Leland Stanford Junior University.

Bleicher, S. (2012). *Contemporary color, theory and use.* New York: Delmar.

Cerrato, H. (n.d.). How colors impact our daily life in business, art, work and love. The meaning of colors. https://blocs.xtec.cat/gemmasalvia1617/files/2017/02/the-meaning-of-colors-book.pdf

Cirlot, J. E. (2001). *Dictionary of symbols.* London: Routledge.

Color wheel (n.d.). https://www. canva.com/colors/color-wheel/

Dictionary of symbolism (2001) originally constructed by Allison Protas. Augmented and refined by Geoff Brown and Jamie Smith in 1997 and by Eric Jaffe in 2001. http://www.umich.edu/~umfandsf/symbolismproject/symbolism.html/S/

Elliot, A. & Maier, M. (2014). Color psychology: effects of perceiving color on psychological functioning in humans. *Annual review of psychology, 65*(1), 95-120.

Haller, K. (2019). *The little book of colour: how to use the psychology of colour to transform your life.* London: Penguin Books.

Keller, K. L. & Kotler, P. (2012). *Marketing management.* New Jersey: Pearson.

Khattak, R. et al. (2018). Color psychology in marketing. *Journal of Business and Tourism, 4*(1), 185-190.

Kotler, P. & Keller, K.L. (2011). *A framework for marketing management* (5th ed.). Hoboken, NJ: Prentice Hall.

Krajčovič, P. & Čábyová, Ľ. (2017). Influence of selected factors on the effectiveness of print media advertising. *European journal of science and theology, 13*(6), 133-144.

Li, F. (n.d.). *The application of color semantics in modern graphic advertising design.* https://www.clausiuspress.com/conferences/LNEMSS/ICEMSS%202020/20ICEMSS011.pdf

Lister, J. (n.d.). *How does color affect advertising?*

https://smallbusiness.chron. com /color-affect-advertising-30998.html

List of colors by name. Retrieved from https://www.colorhexa.com/color-names

Meaning of the color blue: symbolism, common uses, & more. https://www.colorsexplained. com/color-blue-meaning-of-the-color-blue/

Meaning of the color green: symbolism, common uses, & more. https://www.colorsexplained.com/color-green-meaning-of-the-color-green/

Moroika, A. & Stone, T. (2006). *Color design, workbook. A real-world guide to using color in graphic design.* Massachusetts: Rockport Publishers.

Panasenko, N. (2020). Colourful mosaic of images and characters in the works of Iris Murdoch. Lege artis. *Language yesterday, today, tomorrow, V*(1), 185-227.

Panasenko, N., Greguš, Ľ. (2022). *Media text in the mirror of linguistics* (1st ed.). Prague: Wolters Kluwer ČR.

Panasenko N. & Korcová, Z. (2011). Different approaches to colour terms analysis. *Typology of language meanings in diachronical and comparative aspects, 23*, 124-134.

Panasenko N. & Mudrochová R. (2021). Advertisement text as semiotic construal. Megatrends and media 2021: Home officetainment. Conference Proceedings. *Trnava: Faculty of Mass Media Communication,* 421-438.

Templar, R. (2013). *The rules of management.* London: Pearson.

Wheeler, A. (2009). *Designing brand identity.* New Jersey: John Wiley & Sons.

Wyler, S. (1992). *Colour and language: colour terms in English.* Tübingen: Gunter Narr Verlag.