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POSSIBILITIES FOR DATA COLLECTION AND EXAMPLES OF VISUALISATION OF ENVIRONMENTAL ACTIVITIES OF BUSINESSES IN THE SOLOMO ENVIRONMENT

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Abstract

The presented paper clarifies the current state of environmental activities of business entities in context of data visualization within the SoLoMo environment. The main goal of this paper is to clarify the state of the domestic environment in the implementation of specific environmental activities and then evaluate the possibilities of visualization using mobile applications in the SoLoMo environment. Data are collected from 129 representatives of business entities and analyzed through descriptive statistics and the significance of the relationship using Cramer's V. Conclusions are formed through analysis and evaluation of individual responses to quantitative research. The conclusions suggest that the philosophy of sustainability is implemented in the domestic environment within business entities. This is followed by a significant relationship with the implementation of environmental activities externally, which is also implemented by business entities predominantly and defining the possibilities of data

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visualization of environmental activities in accordance with the SoLoMo environment. The limitation is the sample, which, despite being made by available selection, meets the broad spectrum focus and identification of a diverse number of subjects. The presented paper emphasizes the need to apply visualization in data that result from the environmental activities of business entities. In the previous period, there was no extensive research within the domestic environment, so it is very important to continue researching the issue.

Keywords*:* *Data from Environmental Activities, Visualisation of Environmental Data, Displaying Data in SoLoMo Environment, Marketing Data.*

1. INTRODUCTION

The presented work deals with a research topic in the form of the implementation of environmental activities of companies. The current trend, which is used within the business sphere, is precisely in the implementation of environmental activities and sustainability. The author Masko also dealt with this topic, who developed accounting and analytical support for the environmental activities of business entities. (Mask, 2020) Based on the presented analysis, it is possible to obtain information about the environmental activities of organizations. On the other hand, there is a law that addresses and regulates part of the environmental self-control of business entities (Sharaievska and Slepchenko, 2019). In the Czech Republic, the authors Kunz and Hronova (Kunz and Hronova, 2017) investigated the implementation of environmental activities of a wide range of business activities. On the other hand, there are customers, this broader analysis was performed by Jotanovic et al. (Jotanovic et al., 2017). The conclusions led to differences in the perception of environmental activities by customers across countries. As confirmed by Palacios-Florencio and colleagues, there is a link between environmental activities and some part of corporate responsibility (Palacios-Florencio et al., 2016). Another important element that is currently mentioned is SoLoMo, which was first created by the author John Doer in 2010. Doer as an investor and an entrepreneur believed in the future and the potential of three elements (Kurtovic, 2012). One year later, this term was described by Loïc Le Meur at the LeWeb conference 2011. His conference speech was dedicated to this concept. It led other theoreticians and authors to further development of this concept (Domenget, 2012). Data collection and visualisation was dealt with by many authors. Let's have a closer look at this topic. Evolution of IT technologies in the 90s initiated the creation of databases and large data processing (Parsaye and Chignell, 1993). Another milestone was reported in 2001 when Shaw et al. defined the data mining process in the form of analysis, collection and visualisation of data (Shaw et al., 2001). Data visualisation was mainly defined by the authors Patel and Lisoa in 2004 (Lisboa and Patel, 2004) as well as by Bouquin and Epstein in 2015 (Bouquin and Epstein, 2015). Data visualisation has also been discussed by Zhang and Shu (Zhang and Shu, 2019) as well as by Ha, Hana and Lee who specialised in artificial intelligence and visualisation (Ha et al., 2020). We will base our study of SoLoMo and data visualisation on the above authors. Zaušková and Rezníčková dealt with the connection of SoLoMo and environmental activities in the home environment, where it was a direct connection of SoLoMo and environmental activities (Rezníčková and Zaušková, 2019; Zaušková and Rezníčková,

2020) and also Čábyová (2018). Within the presented topic we define a research problem in the form of the share of companies engaged in environmental activities of business entities, specifically environmental activities performed by business entities in our territory in connection with SoLoMo environment, which is currently a major topic and completes the data display, by which evaluation is facilitated. The following research questions emerged through the research questions, which are further addressed in the research implementation.

Q1: How many companies are taking the path of environmental responsibility?

Q2: How many companies externally carry out these environmental activities?

Q3: What specific activities are they?

The paper presents a qualitative and quantitative examination. The research of theoretical background was used mainly to examine professional sources in the form of articles in leading journals. In the part for finding out the research essence of the mentioned questions focused on the implementation of environmental activities, a quantitative questionnaire survey was used, in which 129 business entities across the domestic environment participated. The research sample was carried out by available selection and evaluated by descriptive analysis. The presented paper clarified that the vast majority of companies in the domestic environment follow the path of social responsibility and also implement environmental activities. Specific activities are most often wastesorting, energysaving, compliance with standards, use of eco-packaging, introduction of eco-innovation. The following lines are intended to summarize the research so far. Specifically, it is a SoLoMo principle, as well as the individual components Social, Local and Mobile are defined. Subsequently, the present article contains links with data collection, which in the end result in visualization techniques that help users or data in a better perception on the part of recipients.

2. LITERATURE REVIEW

The following sectionswill define theoretical bases for the given matter while clarifying the SoLoMo concept, data within the segment that can be collected, analysed and visualised. Particular emphasis will be placed on the final theoretical part of data visualisation. Before introducing the given topic, let’s define the SoLoMo concept itself.

2.1. Conceptualizing SoLoMo

SoLoMo concept consists of three aspects - So, Lo and Mo. These aspects are interlinked and co-create a harmonic composition. One of the above aspects is So (Social) referring to social media. Follows Lo (Local) as a local aspect involving local marketing often referred to as location technologies. Another concept is Mo (Mobile) covering mobile applications (Papakonstantinidis, 2017). Based on the research of many scholars (Papakonstantinidis, 2017), SoLoMo concept represents a driving force of today's marketing because a high percentage of people have a smartphone, are permanently online or browse a web or a social media application. Location services have become part of this philosophy. Upon interaction of these elements, we may obtain a solid combination providing relevant results for a user anytime and anywhere (SoLoMo je buzzem roku, 2012). There are three questions defined by Heinemann and Gaiser in their paper Social, Local, Mobile that are noteworthy. The first question relates to Mobile. What can mobile marketing offer to us and how can we improve interaction with our online consumers or potential customers? The second question is linked to location technologies of Local, notably how can they help local sellers and brick and mortar stores to localise their customers? The last element Social asks about platforms where consumers and prospective customers are located and what expectations they have in relation to retailers (Heinemann and Gaiser, 2015). SoLoMo concept has a considerable impact on consumer behaviour because it is always present when a user needs it (Yang and Lin, 2017). SoLoMo concept overrides traditional business goals and interferes with the environmental practice. Within this area, SoLoMo concept enables us to solve environmental issues (Zaušková and Rezníčková, 2020). The aspect Social covers social media. According to Scott, social media are defined as a specific place for sharing ideas, thoughts, contents and creating online relationships. The platform is a certain online location centre where people are able to meet virtually (Scott, 2015). Last year, people globally spent 2 hours and 23 minutes online a day. When comparing it to a year before, there is only a one-minute increase. According to statistics by Hutchinson, the main driving force for users is being informed of up-to-date news and events (Hutchinson, 2019). This is also supported by the research into the FOMO syndrome (fear of missing out) referring to a brand new trend spreading among the young generation. The young may feel worried of missing any particular content or a piece of information shared through social media (Hunt et al., 2018). Facebook with its 2.6 billion active users is the most popular social medium of today, followed by YouTube with 2 billion active user and WhatsApp with 2 billion active users occupying the

third position. Further growth is forecast in the years to come (Clement, 2020a). Social media are undergoing a continuous update of functionalities and environment in order to stay optimised and effective for the benefit of their users (Hutchinson, 2020). Mobile devices and the Internet have lately become a part of people's everyday life. Mobile devices had undergone major modifications, they used to be completely different yet nowadays they may even involve certain location modules (Han and Cho, 2016). There are 3.5 billion active smartphone users worldwide with this number growing each single year. Last year we saw an increase by 300 million users with the forecasts speaking about another 300 million users next year (O'Dea, 2020a). From this point of view, SoLoMo concept has occupied a rather stable position in marketing as well as other segments. Mobile devices keep their position across the globe and generations (O'Dea, 2020b). Another fact that is worth noting is that a user spends the majority of his day online. According to the latest statistics from 2020, it is exactly 143 minutes on a mobile device connected to the Internet. Compared to last year, this is an 11-minute increase with further growth by 12 minutes to be forecast for the next year. In contrast to a computer, this is four times more. Yet back in 2013 people used to be more active on a computer (Clement, 2020b). The indices predict a growing potential of mobile devices, which predefines the future evolution in this field. At the same time, SoLoMo concept occupies a dominant position within this area. Mobile devices offer various mobile applications via an app store built in the devices. People are also able to browse websites. Leading authors categorise mobile applications into mobile web applications, hybrid web applications and native web applications (Kaufman et al., 2015). They differ in their technological production process and use of mobile applications. The local aspect refers to geolocation services. This mainly speaks about reception and transmission of user's location (Hsieh, 2018). A user needs to activate and have access to certain modules in his device to be able to use these services. As stated by Križo et al., these technologies include IP address, Beacon, Bluetooth, RFID or GPS (Križo et al., 2018). The local aspect is significant for those companies operating on a local market. However, this is not only the advantage for retailers, but also for brick and mortar stores and large corporations. Social media and web browsers defined the basis for the functionality concept dominated by a geolocation element. Functionality of these tools is fully automated. Ruiz points out that a high number of users of mobile devices use modules connected to geolocation (Ruiz, 2012). This element has a great potential when it comes to targeting a user by a personalised advertisement, solving a problem or meeting user's needs.

2.2. Possibilities for Data Collection within The SoLoMo Concept

As stated before, SoLoMo concept consists of the aspects Social and Mobile. A great deal of data are created through this process. The aspect Social involves data collection often referred to as social data mining. We know various techniques available for data analysis, processing and visualisation, e.g. keyword extraction, sentiment analysis, market and trend analysis (Hengtee, 2020). Social media can be an important source of information. For instance, if we look at the discussions on social channels, we see customers communicate with a company and post various comments, reactions and sharing. Segal (2017) speaks about clicks. In videos, pictures and posts, we observe opening/playing after a click. These data can tell us a lot about what a visitor as a prospective customer or consumer requires. We can refer to specific sharing, conversions, reactions through emoticons - graphic visualisation of our emotions, comments, notes and impressions (Segal, 2017). A large amount of data can also be collected on mobile platforms through the Mobile aspect. On websites, we can analyse their traffic in the form of the number of sessions. Specific setting may measure particular clicks on the website button (Chlebus and Brazier, 2007). Furthermore, we may observe the share of new and returning website users or specific channels they came from. This metric is crucial for launching specific campaigns. Other possibilities include Bounce Rate which serves for measuring the instant leaving of users from our website (Plaza, 2009). A conversion rate is based upon predetermined goals. Engagement, i.e. the more the content is shared and commented, the higher is the chance to be seen by a higher number of users (Svátek, 2019). The web content or the most frequently visited websites, except for other metrics than Bounce Rate, say what content we should or should not create. Eventually we are able to find flaws and errors on specific webpages. Dividing users into mobile, desktop and tablet users is another significant metric (Plaza, 2009). The preferred device can consequently be optimised. As far as SoLoMo is concerned, we notably follow the Mobile aspect. Follows the landing page or the initial webpage where we should adjust transfer from search engines and follow functionality of marketing campaigns (Johnson and Seeling, 2015). Finally, there is an exit page the users left, i.e. thank you page in case of e-commerce. Measuring metrics and optimising either campaigns or websites is of the utmost importance and may save funds or increase revenues (Top 10 Website Analytics You Should Be Measuring and Learning From, 2020). Mobile also includes other mobile applications. Data collection from mobile applications is a bit different from websites. Downloading and installations play a key role. At the same time, we can follow the uninstall

rate of a mobile app or the data collection metric, e.g. App Acquisition. The metric can suggest what channel a user came from during the installation process. When analysing the current position of a mobile application, we can measure the number of active users. This metric is calculated since the opening of a mobile application and its active use. It mostly applies two key metrics and these are Daily Active Users (DAU) and Monthly Active Users (MAU) (Olteanu et al., 2013). Stickiness describes the rate of recurring users of a mobile application. This is the proportion of daily active users and monthly active users which is multiplied by 100. The results are expressed in percentage and are compared in time. Follows the average daily number of relations, i.e. use of an application per a daily active user (Per/DAU). Session refers to an average length of traffic. It is often calculated how much time a specific user spends in one opening of an application until its closing. We can also measure so-called Screen Flow, which refers to the sequence of particular screens - where a user started, what screens he went through and what screen he left (Chi et al., 2018). Another type of information we may collect is called Retention Rate. This is the value portraying how many users return to a mobil app after a certain time. This is a very important metric as it dictates whether users repetitively visit a mobile app. We can easily observe whether new updates are fully functioning because users are enabled to reuse an app. The Churn Rate specifies the opposite. It says how many users did not return and stopped using a mobile app. The above possibilities for data collection mainly describe consumer behaviour (Perro, 2018). Certain marketing data may also be used to measure profitability. The first metric is Average Revenue Per User (ARPU) defining the average revenue per user. It refers to the subscription form, purchases within an application, paid clicks, advertising clicks or any other ways how an app may be used (Liao et al., 2015). It is calculated as the proportion of the total revenue from an app in time and the number of user at that time. Follows the metric called cost per acquisition (CPA). This refers to the share of costs for the campaign and the total acquisition or conversion, e.g. the number of installations. This is an important metric when it comes to measuring costs per user and campaign effectivity. Return on investments (ROI) represents one of the key business formulas. It refers to the profit share from the investment minus investment costs and all divided by investment costs. Return on investment is expressed in percentage and is multiplied by 100 (Cutts, 2013). Lifetime Value (LTV) describes application vitality, i.e. the value of an application presented by each customer. A specific target group is regarded as a variable (Khloyan, 2020). It is calculated from the average value of conversion multiplied by the average number of conversions and the

customer's average life expectancy. Customer's life expectancy can be limited by 18 to 24 years old, for instance. When the age of the target group rises, the new target group arrives or a mobile application automatically adjusts. Finally comes the most important metric in terms of evaluation and comments in an app store. It says what customers like or not (Oragui, 2018). Google Analytics is the most successful tool for measuring websites as well as mobile phones - Google Analytics for Mobile (Russell, 2017). In addition, thereto, as specified by Krum, other data that can be collected, analysed and visualised include budgets for future periods, business data and profitability data. Various processes within a company may create data. They can enable us to measure and improve processes as well as company effectivity and strategies, e.g company strategic planning (Krum, 2014).

2.3. Data Visualisation within The SoLoMo Concept

The proces of data collection, analysis and interpretation should include proper visualisation since data processing can show the signs of complex perception. After thorough processing, data can show the signs of complex perception. That might be the reason why the capacity of data mining could not be attained. These days our decisions should be based upon data because the resultants of data may lead to better or more effective decision making. Across the whole spectrum, data might be rather difficult to be extracted and properly analysed in order to provide answers to questions we would like to find out. In this respect, we may be assisted by artificial intelligence and automation (Casey, 2020). Mobile devices as well as digital devices in general produce enormous amounts of data which are often referred to as big data. Analysing and interpreting such data might appear to be rather complex. As stated by two acclaimed authors, we might use various visual elements such as graphs, infographic, etc. (Koponen and Hildén, 2019). Börner et al. declares the same. They say that various data as variables require specific graphic visualisation for various devices. A smaller, more compact and minimalistic view is more suitable for mobile phones. On the other hand, large presentations or banners ask for more information (Börner et al., 2019). Highly acclaimed authors agree on heterogeneity of graphic elements which enable encrypting of information for its recipient. Data are then transformed into easily comprehensible messages. These examples include a bar chart, a pie chart, a cone chart and a tree map. Computerised programme solutions offer various possibilities, yet such visualisation appears to be a bit complex and clumsy (P'ng et al., 2019). Kirk dealt with visualisation of a rich data spectrum for various devices. Eventually he assumes proper visual presentation makes understanding much easier. Therefore a recipient

finds a message much clearer and concise. Data can be visualised in a number of ways: a point map, a polar graph, an alignment chart, an instance graph, an accord diagram, a line graph, a surface graph, a matrix graph, a symbol map, a dot map, a development map, a histogram, a waffle chart, a dendrogram and many others (Kirk, 2019). Data visualisation may be applied to specific examples. For the purpose of this paper, it is important to clarify that visual heterogeneity and similar orientation to data groups are the most typical for a group bar chart, a pie chart, a cone chart and a tree map. From the visual point of view, these elements vary whereas the base for their subtraction remains the same. A pie chart is the most comprehensible from all, which can also be confirmed by the acclaimed author Krum. In his opinion, a pie chart is an ideal way for selection or collection of specific data. A cone chart is created in a similar method as a pie chart, but tends to be centre-oriented with the values to the side, thus changing its structure. The less frequent variables take the largest line. A tree map can take different forms changing in their size or colour. The base remains the same. They are hierarchically grouped by colours and sizes into particular folders. Each partial variable represents a rectangle. All rectangles form one single large rectangle (Krum, 2014).

3. RESEARCH METHOD

Research methods consist of observing primary as well as secondary sources. The introduction is formed by description of the subject matter. Consequently, the theoretical part includes a carefully selected basis of experts from the scientific databases. Follows the analysis of knowledge by experts from the practice. The main goal of this paper is to clarify the state of the domestic environment in the implementation of specific environmental activities. And then evaluate the possibilities of visualization using mobile applications in the SoLoMo environment. The resultant is also emphasised by the outcome from the expert literature. It is especially comparison and deduction that appear quite often. The authors of the paper have carefully selected the data on the basis of key words and requests within the above subject matter. Based upon the parameters, we declare the subject matter duly examined in respect of research timeliness. The other part contains our own quantitative research into the primary sources. It is derived from the research questionnaire having been converted into a print form. The questionnaire provides us information about the current state of the subject matter by giving answers to the research questions. As introduction, the printed questionnaire asked the respondents to provide basic information followed with 36 questions. As a result, we selected three specific questions to reach the given objective. The target group consisted of companies

or entrepreneurs represented by authorised employees and managers with discretionary powers to process and evaluate data. As for the geography, these businesses operate in Slovakia, in the Western, Central and Eastern Slovakia, covering all of its regions. When analysing respondents demographically, the age gap ranged from 20 to 67 years, the majority represented by men accounting for 69.76% (90 respondents) in contrast to women with 30.23% (39 respondents). The total time allocation was accomplished within three months, i.e. from March 9, 2020 to June 9, 2020. 129 entrepreneurs were studied in total. The given sample group was randomly selected. Selection of entrepreneurs by their size from the smallest to the largest ones was the main asset of the paper with the emphasis on environmental activities and SoLoMo marketing. The following will be the main hypothesis, which reflects the confirmation of the relationship between the two variables.

H: The fact that companies that follow the philosophy of environmental responsibility carry out environmental activities is related to the fact that they practice environmental activities externally.

As part of the questionnaire appeared three questions that have been redesigned to variables. The first change was to indicate whether business entities have environmental responsibility in their philosophy. The given variable was of nominal type with a positive or negative result. The following variable clarified whether environmental activities are carried out externally within the company. The result was also of a nominal nature with a positive or negative result. And the last question was additional in the previous, what specific activities do you carry out. The question was open-ended. The result was analyzed qualitatively.

The above questionnaire is evaluated by means of a statistical description. The point it to specify description of variable objects created by results containing the resultant of a given piece of information. The resultant is attained by using a final frequency with nominal variables as well as by a qualitative analysis with a higher frequency of a certain result. The summary is derived from the studied sample group. The resultant of value frequency is expressed in a frequency chart. Afterwards, the analysis is done by means of a univariate frequency analysis defining specific variables which serve for visualising the incidence of nominal variables. As a matter of conclusion, frequency is presented as a percentage of one numeral from the other one:

$$(1)\ p\% = A/B.100\%$$

Two numerals defined as A and B are reciprocally divided and multiplied by 100. The test is suitable for evaluating nominal variables.

We used Cramer's V to verify the association between the qualitative variables of the normal character. The higher the tightness value, the tighter is the relationship. The essence of the calculation is based on a crosstab and the difference between real and expected frequencies.

$$\Phi c = \sqrt{\frac{x^2}{N(k-1)}}$$

Φc = Cramer's V,

x^2 = Pearson chi-square statistic from the aforementioned test,

N = sample size involved in the test and,

k = lesser number of categories of either variable.

Afterwards, we carried out the research into mobile applications market where we extracted the possibilities of use of mobile applications in connection with the SoLoMo concept. We eventually obtained the summary of successful applications within the given segment.

4. ANALYSIS

The following part is dedicated to interpretation of specific research questions and description of particular outcomes from which the final conclusion has been drawn. Interpretation of results from a univariate frequency analysis is complemented by text description. In total, we obtained 129 valid results (100%).

Table 1. Frequencies for "Is your company taking the path of environmental responsibility?"

Is your company taking the path of environmental responsibility?					
		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Yes	119	92.2	92.2	92.2
	No	10	7.8	7.8	100.0
	Total	129	100.0	100.0	

Source: Own Research

The results of the frequency analysis of variable answers in Table 1 are as follows: 129 respondents answered the question (100%), the full sample size. From all the valid answers, "Yes" was the most common with 119 answers (92.2%). The second answer "No" was represented by 10 respondents (7.8%). As a result, we have shown that a large number of researched business entities in the domestic environment hold an environmentally responsible way of doing business.

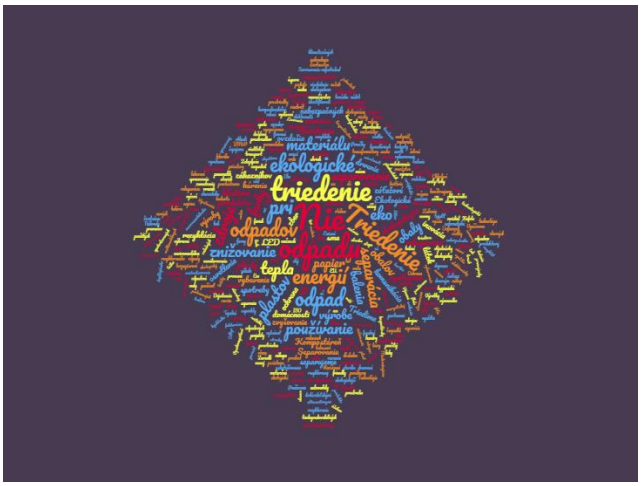
Table 2. Frequencies for "Is your company carrying out environmental actives on the outside? "

Is your company carrying out environmental activities on the outside?					
		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Yes	95	73.6	73.6	73.6
	No	34	26.4	26.4	100.0
	Total	129	100.0	100.0	

Source: Own Research

The results of the frequency analysis of variable answers in Table 2 define variables as nominals taking the form of "Yes" answers and "No" answers. 129 respondents answered the question (100%), which is the full sample size. Out of these valid answers, "Yes" was the most common one with the frequency of 95 answers (73.6%) followed by "No" answer represented by 34 respondents (26.4%). As a result, we have shown that a large number of researched business entities in the domestic environment perform environmental activities.

Picture 1. Frequencies for "If so, do you implement specifically within the company?"



Source: Own Research

Results of the question "If so, do you implement specifically within the company?" were verbal. The question was open to respondents. The most common response was "waste sorting, energy saving, compliance with standards, use of eco-packaging, introduction of eco-innovation". Only respondents who answered in the affirmative in the previous questions could answer the question.

Table 3. Cramer's V between the variables on the implementation of environmental activities outside and the environmental responsibility of business companies

		Value	Approx. Sig.
Nominal by Nominal	Phi	,323	,001
	Cramer's V	,323	,001
N of ValidCases		129	

Source: Own Research

The hypothesis was verified by calculating the Cramer V coefficient with a result of V = 0.323; Sig. <0.001, based on which we interpret the relationship as significant. There is a significant relationship of medium tightness between the variable environmental responsibility of business entities and the variable implementation of environmental activities externally. We accept the hypothesis.

The following part introduces the examples of successful applications combining the SoLoMo concept and the environment and existing in both the domestic as well as foreign background.

5. ELWIS

Elwis is an innovative solution for waste management in a complex home environment. It is a transparent system bringing an order into waste management. The SoLoMo application can be used within a town, a village, a waste collection company or any other businesses. It provides information about real amounts of the waste that is produced as well as disposed by households and entrepreneurs within a municipality.

6. TRASHOUT

A mobile application that has been developed as a charitable environmental project mapping illegal landfills across the globe for the purpose of boosting recycling. Thanks to this application, users can tag a landfill or help with its removal. All mechanics and conception of

this application comply with the SoLoMo concept. It has been designed for the large spectrum of target audience.

7. WATERPRINT

A mobile application designed for calculating a user's water footprint. It enables the target group, users or businesses, to understand how much water can be saved. The application indicates how much water has been spent on various activities. Therefore, users are able to reduce their water footprint and save water and eventually help the environmental sphere.

8. IRECYCLE

This is a mobile application complying with the SoLoMo concept helping its users find recycling opportunities within their proximity for anything that can be currently recycled, such as batteries, old electronics, glass, chemicals, paper, metal, etc. Recycling is an important step in the environmental education. The application motivates its users to take up this activity.

There are many applications containing the SoLoMo concept. We have only selected those that are worth noting as they are likely to change users' behaviour. As a matter of fact, we might also get a chance to inspire businesses to develop new mobile applications dealing with the given subject matter.

9. DISCUSSION

The theoretical basis leads to conclusions in the form of a precise definition of the SoLoMo concept, which describes each part separately. It is an element of social, local and mobile. As we know, the SoLoMo concept is currently a trend (Zaušková and Rezníčková, 2020). Defining a concept talks about the possibility of preparing a concept mix at your discretion. As this is currently a very widespread concept, it is important to follow the rules for other possibilities of implementing mobile applications across different segments. An important criterion in data collection, analysis and visualization is the decision to collect specific data. (P'ng et al., 2019) Environmental activities are in the interest of businesses, mainly because society requires it. Entities must be oriented prosocially. (Trivellas et al., 2019) Complementing this part is the primary survey, which clarifies the environmental activities suitable for measurement, as they are carried out by business entities. It is important to look at measurement options when developing systems that analyze and visualize data, as these often involve different types of data according to the examples examined. The results clearly show that

businesses are moving towards environmental activities, which is complemented by factual secondary sources. Through discussion and results, we clarified the research questions. The authors Kunz and Hronova (Kunz and Hronova, 2017) in the Czech Republic dealt with a similar topic where the results are relatively similar. The forecast remains not only a deeper orientation towards environmental activities, but also a more numerous increased use of the SoLoMo concept, mainly in the form of spending time on mobile devices. Therefore, the future should be focused on the preparation of systems and applications within the SoLoMo concept for research and visualization of data in the internal and external environment of the company. Measurability is very important in this regard so that businesses can make the right decisions and have the right information.

10. CONCLUSION

Our examination has helped us to clarify the subject matter in the domestic environment. The resultants will serve as a fundamental basis for further research in the field of environmental data visualisation from the part of businesses. Secondary sources have provided us information on the significance of data visualisation and what is more, they were a driving force engaging us into the practical part of the paper. The theoretical part has concluded that businesses in the domestic environment were mostly environmentally orientated with over two-thirds of them demonstrating it on the outside. The most common answers involved waste sorting, energy saving, compliance with standards, use of eco-packaging, introduction of eco-innovation. The above results will serve as a basis for proposing theoretical as well as practical outcomes in data measurement and visualisation. The final part of the analysis consists of describing specific applications within the SoLoMo concept and environmental data visualisation. As part of the verification of the hypothesis, we came to the conclusion that companies' responsibility for responsible behaviour is related to the implementation of environmental activities externally. Therefore, research objectives are declared accomplished. Any other research is requested in order to attain proper visualisation and data collection across all environmental activities. The research might only be limited by a smaller sample and representation of randomly selected businesses as well as the choice of applications within the SoLoMo environment. The results could have been affected by those respondents who were likely to show off and wanted to be portrayed in a good light.

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