

# USE OF MEDIA TO RAISE AWARENESS OF ECO-INNOVATIONS

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## ABSTRACT:

The study deals with the use of media to raise awareness of eco-innovations. Its aim is to identify public interest in environmental issues and the extent of use of mobile geolocation-enabled applications. Building on these research areas, statistical dependence is explored, between age, interest in environmental issues, and the use of mobile applications. The text further examines and analyses what media are used by respondents when obtaining information on environmental issues, whether they have encountered promotions for eco-innovations in the media, and which media are considered by them to be the most suitable for sharing information on eco-innovations. Attention is also paid to the concept of SoLoMo as a current trend in marketing communication. From the theoretical point of view, the study provides an overview of current bases and definitions of eco-innovations, the influence of media and the selection of suitable media for communication from domestic and foreign scholarly sources.

## KEY WORDS:

eco-innovations, geolocation, marketing communication, media, SoLoMo

## Introduction

The issue of sustainable development has become increasingly prominent in recent years. It concerns not only the protection of natural resources but also their effective use in the production process. Moreover, consumers' behaviour and consumer preferences in relation to products that are least burdensome for the environment are also changing under the influence of the effort to reduce the adverse effects of consumerism. This is also reflected in an increasing interest in environmental issues and an ecological way of life.

In the production process, these aspects are reflected by the introduction of new technologies, more efficient technological processes, the use of renewable resources and the enhancement of eco-friendly business approaches. The result is a number of innovations which can be described as ecological. The abbreviated term "eco-innovations" can be used, too. Despite consumers' interest in such products, their market uptake depends on several factors. The key factors are related to the issue of effective marketing communication, including the selection of suitable media that will reach the selected target group as effectively as possible.

Media are often the decisive factor in determining the effectiveness of marketing communications. The choice of suitable media depends mainly on the target group, but it is also influenced by other factors. In practice, it is primarily the price of advertising space in the case of marketing communications, but also the actual interest of the media in the topics that are related to environmental issues (or lack of it).<sup>1</sup> Last but not least, it is also the interest and preferences of the audience in the context with the media and their individual



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<sup>1</sup> KRAJČOVIČ, P.: Strategies in Media Planning. In *Communication Today*, 2015, Vol. 6, No. 2, p. 24.

types.<sup>2</sup> While the current young generation almost no longer uses traditional media, they are still an important source of information and part of life for the older generations. The young generation, on the contrary, prefers digital media, including social networks and social media.

Today, however, we are increasingly confronted with a wealth of misinformation that digital media produce and disseminate, and therefore the question of their credibility is also raised, not only by traditional media users, but also by the audience of the current generation.

In any case, the impact of the media on society and individual thinking is fundamental. Today, when the demand and the need to disseminate and promote awareness of eco-innovations are increasing, the question of choosing the right media is very important.

## Theoretical Background of the Problem

There are several definitions of eco-innovations in both domestic and foreign literature. Despite the differing views of authors on this relatively broad issue, almost all of them are based on the same principle of ensuring sustainable development, not only of business but also of society. The principle of producing more from fewer inputs with less waste and emissions can be seen as an essence of this philosophy. Individual authors then divide eco-innovations into several categories or subgroups, such as technical, organisational, social, institutional, or technological, product, green system or complementary, etc.

The issue of sustainable development and the promotion of eco-innovations are being intensively addressed in the strategic and framework documents of the European Union as well as those of the Organisation for Economic Cooperation and Development or the United Nations. The European Commission defines eco-innovation as “any form of innovation that aims to make significant and demonstrable progress towards sustainable development by reducing the environmental impact or leading to a more efficient and responsible use of natural resources, including energy.”<sup>3</sup> OECD defines “eco-innovation” as “implementation of new or significantly improved products (goods or services), processes, marketing methods, organizational structures or institutional arrangements that deliberately or as a side effect lead to environmental improvements.”<sup>4</sup>

The term “eco-innovation” began to emerge in the economy in the 1990s. The first definition of this term was introduced by James, who defines eco-innovations as “new products and processes that provide customer and business value, while significantly reducing environmental impact.”<sup>5</sup> Arundel and Kemp broaden the definition of eco-innovations, stating that it is “production, application or the use of goods, services, production processes, and organizational structures, managerial or business models that are new to the company or users and whose results are aimed at reducing environmental risks, pollution and negative impacts of resource use compared to existing alternatives.”<sup>6</sup>

In the context of the implementation of eco-innovations in the business environment, the definition of eco-innovations can be extended to include also the introduction of new processes, marketing methods, or organisational units, which lead to the support of sustainable development. In the extended context of the definition of eco-innovations, products, processes or organisational innovations can be considered, which reduce environmental costs, increase corporate acceptance and contribute to sustainable development. This concept is often used in conjunction with such terms as “eco-efficiency” and “eco-design”. According to Burchart-Korol, Czaplicka and Kruczek, it also covers related ideas ranging from environmentally friendly technological advances to socially acceptable, innovative ways towards sustainable development.<sup>7</sup>

2 KRAJČOVIČ, P.: *Mediálne plánovanie*. Trnava: FMK UCM, 2017, p. 6-7.

3 *Decision No 1639/2006/EC of the European Parliament and of the Council*. [online]. [2019-08-09]. Available at: <<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006D1639&from=EN>>.

4 *Green Growth and Developing Countries a Summary for Policy Makers*. [online]. [2019-08-09]. Available at: <[search.oecd.org/dac/50526354.pdf](https://search.oecd.org/dac/50526354.pdf)>.

5 JAMES, P.: The Sustainability Circle: A New Tool for Product Development and Design. In *Journal of Sustainable Product Design*, 1997, Vol. 2, No. 7, p. 52.

6 ARUNDEL, A., KEMP, R.: *Measuring Eco-innovation*. Maastricht: United Nations University, 2017, p. 5.

7 BURCHART-KOROL, D., CZAPLICKA, K., KRUCZEK, M.: Eco-efficiency and Eco-effectiveness Concepts in Supply Chain Management. In *CLC 2012: Carpathian Logistics Congress. Congress Proceedings*. Ostrava: Technická univerzita, 2012, p. 223.

As Zaušková and Madleňák further emphasise, the way to sustainable development is closely related to the need of introduction of innovative processes into the business models of organisations. At the same time, however, the ever-increasing volume of information, especially with regard to competition, reduces the efficiency and impact of the communicated message. Achieving success in decoding and storing the information transmitted is therefore the result of the synergy of several tools. The type of communication medium chosen plays an important role, the most important effect resulting from the interaction of elements that are targeting the same market segment.<sup>8</sup> This is also characteristic for implementation of SoLoMo marketing elements into the communication strategy of companies, which belongs to current marketing trends. It combines the use of social media, geolocation services and mobile devices to address a message to a selected audience. Ondrušová adds that the implementation of a successful SoLoMo strategy is beneficial for companies not only in improving the business environment but also in the transformation of consumer behaviour.<sup>9</sup> For companies, the concept of SoLoMo or SoLoMoCo (Social – Local – Mobile – Commerce) is an opportunity for so-called micro-targeting (narrow or very specific targeting) of their activities to customers anywhere, anytime, always with up-to-date and relevant content and information that is tailored to be shared via social media. It enables building relationships with customers (CRM), conducting dialogues and thus creating and maintaining values.<sup>10</sup> This is an ideal opportunity to share information and promote eco-innovations towards the target audience.

In this respect, an irreplaceable role is played by media. As Gáliková Tolnaiová states, it is generally accepted that content communicated through media supports our understanding of the meaning of everyday life.<sup>11</sup> We expect the media to bring us relevant and timely information that is important to our lives. In addition, we can say that the media also play an important role in the marketing communication process and share the information that underlies commercial communication.<sup>12</sup> The importance and role of the media in raising awareness of eco-innovations can therefore be perceived both in terms of information (news) and advertising (promotion).

Including newspapers, radio and television, the so-called traditional media still play an important role. However, digital media are nowadays gaining increasing importance and use. In addition, we also know non-traditional and specialised media, which can be described as a combination of traditional and digital media that are focused on specific areas.<sup>13</sup>

The choice of the media reflects a number of factors, including lifestyle, interests, as well as personal preferences. They may reflect cultural, social or other aspects, and last but not least, the influence of family, friends and acquaintances.<sup>14</sup> According to Sissors and Rogger, one of the basic determinants of media selection is the relationship between readers, viewers or listeners and media.<sup>15</sup> Višňovský et al. state that despite the dominance of computer and mobile technologies, television has managed to preserve its audiences' favour.<sup>16</sup> This is also confirmed by Greguš and Mináriková<sup>17</sup> and numerous current studies.<sup>18</sup> Advantages of print media include the ability to reach the target audience (e.g. through specialised magazines), but also relatively low

8 ZAUŠKOVÁ, A., MADLEŇÁK, M.: *Communication for Open Innovation: Towards Technology Transfer and Knowledge Diffusion*. Łódź: Księży Młyn Dom Wydawniczy Michał Koliński, 2014, p. 6-9.

9 ONDRUŠOVÁ, M.: SoLoMo marketing: Jeho podstata, význam a trendy. In MADLEŇÁK, A. (ed.): *Integrácia sociálnych médií, geolokačných služieb a mobilných zariadení v záujme podpory environmentálnych inovácií*. Trnava: FMK UCM, 2018, p. 8.

10 KRAJČOVIČ, P.: Využitie koncepcie SoLoMo v mediálnom marketingu. In MADLEŇÁK, A. (ed.): *Integrácia sociálnych médií, geolokačných služieb a mobilných zariadení v záujme podpory environmentálnych inovácií*. Trnava: FMK UCM, 2018, p. 20.

11 GÁLIKOVÁ TOLNAIOVÁ, S.: Media and Truth in the Perspective of the Practice and Life Form of the Modern “Homo Media-lis”. In *Communication Today*, 2019, Vol. 10, No. 1, p. 5.

12 Compare to: KOROCHENSKY, A. P., SRYBNYY, D. S., TYAZHLOV, Y. I.: Civil Media Criticism and Political Processes in Mediatized Society. In *Media Education (Mediaobrazovanie)*, 2019, Vol. 59, No. 3, p. 393.

13 KRAJČOVIČ, P., ČÁBYOVÁ, L.: *Mediálny trh a možnosti jeho inovácií*. Trnava: FMK UCM, 2016, p. 17-19.

14 Compare to: PEVNEVA, M. V., MAXIMETS, S. V., TOUPCHI, N. V.: Media as a Means of Developing a Sports Culture of Adolescents. In *Media Education (Mediaobrazovanie)*, 2019, Vol. 59, No. 3, p. 425.

15 SISSORS, J., ROGGER, B.: *Advertising Media Planning*. Boston: McGraw-Hill Publisher, 2010, p. 214.

16 VIŠŇOVSKÝ, J., GREGUŠ, L., MINÁRIKOVÁ, J., KUBÍKOVÁ, K.: Television News as an Information Source and Its Perception in Slovakia. In *Communication Today*, 2019, Vol. 10, No. 1, p. 42.

17 GREGUŠ, L., MINÁRIKOVÁ, J.: News Values in Slovak Television News. In *Communication Today*, 2016, Vol. 7, No. 2, p. 78-89.

18 RADOŠINSKÁ, J.: Cultural Aspects of the Post-television Era: Television in Terms of Today's Media Culture. In *SCGM: International Multidisciplinary Scientific Conference on Social Sciences and Arts: Volume 1. Conference Proceedings*. Sofia: STEF 92 Technology, 2017, p. 141-148.

advertising costs, e.g. compared to television. According to Višňovský, the basic problems of the periodical press in Slovakia and abroad include: decrease of readers; reduction of the circulation of newspapers and magazines; decrease of income from advertising; influence of digital media; increase of information offer in the form of news; or changing information needs of the readers.<sup>19</sup>

Advantages of radio broadcasting include, above all, the following ones: operability and up-to-datedness, as well as the possibility of listening while performing other activities. Nonetheless, radio advertising is one of the least used traditional means of mass communication. Traditional radio stations are currently trying to cope with the advent of digital media. Internet radio is a constantly developing format, whose offer has also been arranged by various media agencies.<sup>20</sup>

So-called social media are a special category among the media outlets. They enable sharing of common ideas and opinions, download contents, and establish new contacts. Readers, viewers, listeners, and/or visitors of websites are becoming authors of media contents and their recipients at the same time.

## Objective and Methods

The study aims to identify interest of the respondents in environmental topics and to find out which media they use to obtain information on these topics. The survey also examined whether respondents encountered promotion of eco-innovations and which media are considered by them to be the most appropriate for sharing information on organic products. Particular attention was paid to the promotion of mobile applications that enable geolocation and of their usage rates. The survey was carried out in the form of electronic and written inquiries in the period between 1<sup>st</sup> April 1 and 1<sup>st</sup> August 2019. The recipients consisted of the Slovak population, i.e. of people living anywhere in Slovakia. The sample consisted of 493 respondents aged 15 – 65. The method of selecting respondents was random. The limiting criterion for the evaluation of the answers was the respondents' interest in environmental issues. The responses of research participants, who stated that they had not been interested in such topics, were not further evaluated. The obtained data was processed using MS Excel. Individual values of any quantitative feature were arranged according to their frequency and by simple sorting they were entered into tables, where the symbol  $f_i$  denotes the frequency of  $x_i$  ( $i = 1, 2, \dots, k$ ). The relation  $f_1 + f_2 + \dots + f_k = n$  applies. From the recorded data we calculated the cumulative frequency, relative frequency, cumulative relative frequency and relative frequency expressed as percentage. Dependence between selected qualitative attributes that move on more levels was investigated through their analysis. Two qualities A, B were always observed on the elements of the sample, which are moving on more levels (A1, A2, ... Ak; B1, B2, ... Bk). The condition was the validity of relation  $k > 2$  or  $m > 2$ . The results of the observation were entered in the pivot table. The statistic  $\chi^2$  was used as the test criterion, which is given by the following relation:

$$\chi^2 = \sum_{i=1}^3 \sum_{j=1}^3 \frac{(f_{ij} - o_{ij})^2}{o_{ij}}$$

The degree of dependence between the selected qualitative indicators was evaluated using the contingency coefficient, which is defined by the following relation:

$$C = \sqrt{\frac{\chi^2}{n + \chi^2}}, \text{ where } \chi^2 = \sum_{i=1}^k \sum_{j=1}^m \left( \frac{f_{ij} - \frac{f_i^A \cdot f_j^B}{n}}{\frac{f_i^A \cdot f_j^B}{n}} \right)^2$$

19 VIŠŇOVSKÝ, J.: *Problematika štruktúry a kompozície v novinárstve*. Trnava: FMK UCM, 2010, p. 21-22.

20 GRIB, L., KRAJČOVIC, P.: *Mediálna prezentácia environmentálnych produktov slovenských podnikateľských subjektov*. Trnava: FMK UCM, 2017, p. 41-47.

## Hypotheses

The interest of the respondents in environmental issues was primarily examined in our research. The aim was also to find out whether the respondents were using mobile applications enabling geolocation and whether they would use such applications if they were promoted in an interesting way. We examined whether there was a statistically significant correlation between these characteristics and the age of the respondents. While the indicators whose interdependence was investigated move on more levels, it is a contingency. The results of the observations were entered in a pivot table showing the empirical frequencies obtained in the research, as well as expected frequencies that had been calculated according to the following formula:

$$o_{ij} = \frac{f_i^A \cdot f_j^B}{n}$$

The following null and alternative hypotheses were established for each research area:

$H_0$ : Indicators A and B are independent. There is no statistical dependence between the respondents' age and the surveyed area in the given files.

$H_1$ : There is dependence between the indicators A and B. There is a statistical dependence between the respondents' age and the surveyed area in the given files.

## Results

The impact of media on consumer behaviour has been demonstrated by several studies. The media play an important role not only in the process of marketing communication, but also in influencing public opinion. Given the increasing trend of eco-innovations and the need to implement them in practice, we believe the same potential of the media can be assumed.

The results of our research and the analyses performed showed that almost 90% of the respondents are interested in environmental issues. The highest level of interest was found in respondents in the age group 55+ and 46 – 55. See Figure 1 for the results.

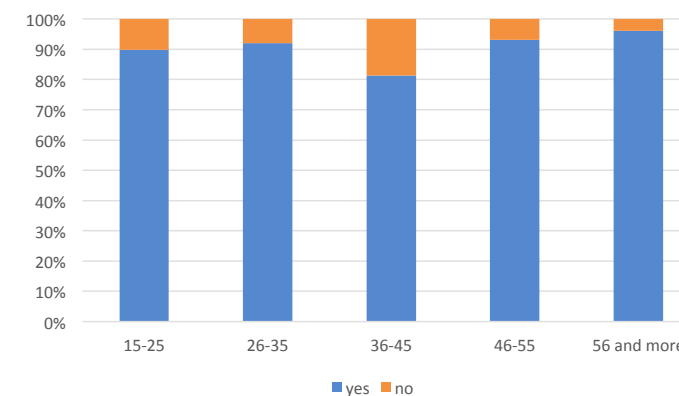


Figure 1: Respondents' interest in environmental issues

(N = 493 respondents,  $N_{15-25} = 147$  respondents,  $N_{26-35} = 126$  respondents,  $N_{36-45} = 96$  respondents,  $N_{46-55} = 73$  respondents,  $N_{55 \text{ and more}} = 51$  respondents)

Source: Own processing

In the next part, we investigated which media are used by the respondents to gather information on environmental issues. The results showed that social media and posts on social networks were used the most, although the results were largely influenced by the age of the respondents. We assume that this fact is related to general trends in media use. While the young generation generally favours digital media, the middle-aged and older people, on the contrary, favour traditional ones. This trend was also reflected in the use or following of the media in the case of obtaining information on environmental issues. See Figure 2 for the results.

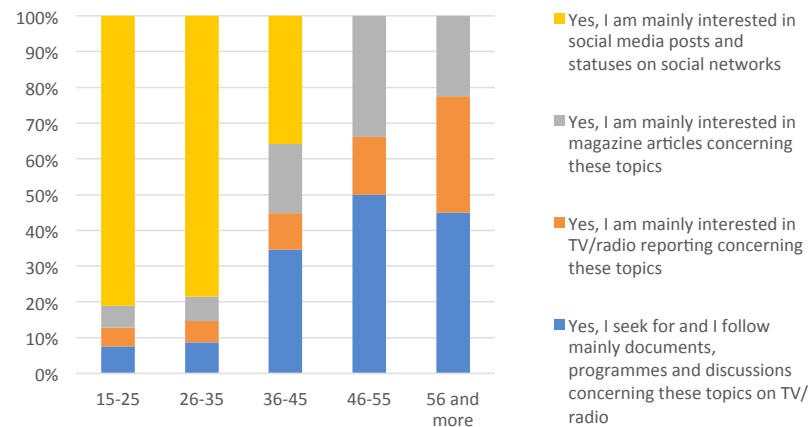


Figure 2: Media followed by respondents to obtain information on environmental issues

(N = 443 respondents, N<sub>15-25</sub> = 132 respondents, N<sub>26-35</sub> = 116 respondents, N<sub>36-45</sub> = 78 respondents, N<sub>46-55</sub> = 68 respondents, N<sub>55 and more</sub> = 49 respondents)

Source: Own processing

Similar results were also found for the media in which respondents encountered the promotion of eco-innovations. The findings follow the overall communication trends and preferred media use (as well as current trends in media monitoring in general). See Figure 3 for the results.

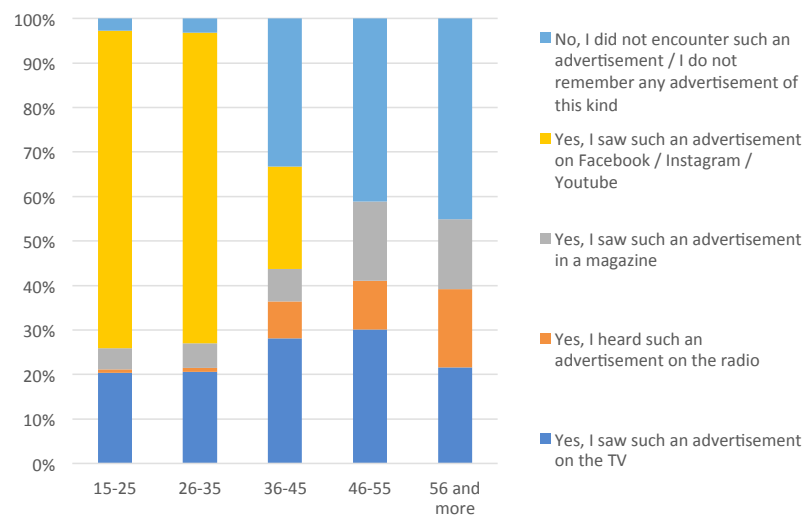


Figure 3: Media in which respondents encountered the promotion of eco-innovations

(N = 493 respondents, N<sub>15-25</sub> = 147 respondents, N<sub>26-35</sub> = 126 respondents, N<sub>36-45</sub> = 96 respondents, N<sub>46-55</sub> = 73 respondents, N<sub>55 and more</sub> = 51 respondents)

Source: Own processing

In the next part, we investigated the use of mobile applications that allow geolocation, i.e. whether respondents encountered the promotion of such applications in the media and whether they would use the opportunity to download such an application if it was promoted in an interesting form.

The results showed that up to 67% of the respondents did not use any mobile applications enabling geolocation, while the trend of their use decreased with the age of the respondents. See Figure 4 for the results.

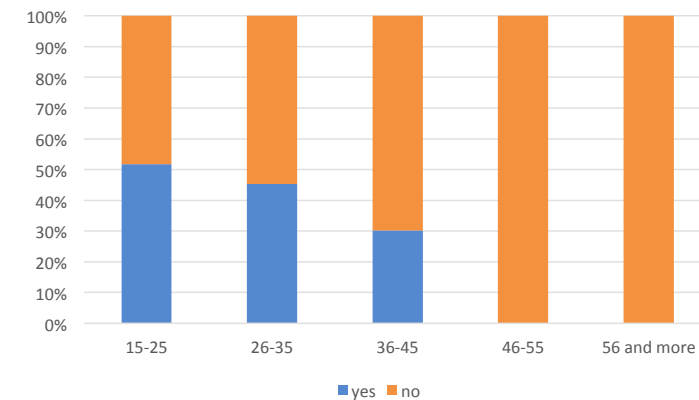


Figure 4: Use of mobile applications enabling geolocation

(N = 493 respondents, N<sub>15-25</sub> = 147 respondents, N<sub>26-35</sub> = 126 respondents, N<sub>36-45</sub> = 96 respondents, N<sub>46-55</sub> = 73 respondents, N<sub>55 and more</sub> = 51 respondents)

Source: Own processing

Only 35% of the respondents met with the promotion of mobile applications enabling geolocation. Most often it was advertising on social networks (*Facebook*, *Instagram*, and *YouTube*). It is interesting to point out that the respondents noticed promotion of such applications neither in radio nor in print media. See Figure 5 for the results.

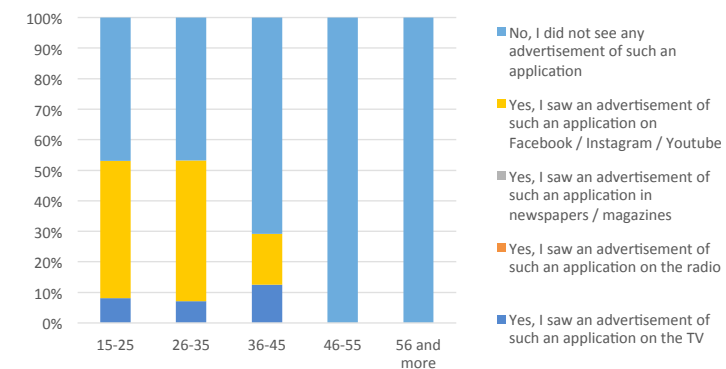


Figure 5: Media in which respondents met with the promotion of mobile applications enabling geolocation

(N = 493 respondents, N<sub>15-25</sub> = 147 respondents, N<sub>26-35</sub> = 126 respondents, N<sub>36-45</sub> = 96 respondents, N<sub>46-55</sub> = 73 respondents, N<sub>55 and more</sub> = 51 respondents)

Source: Own processing

Interesting findings were yielded by the results of examining the utilisation rate of such applications, if they were promoted in an interesting form. The assumption was expressed by 73% of the respondents. However, the utilisation rate decreased again with the age of respondents. See Figure 6 for the results.

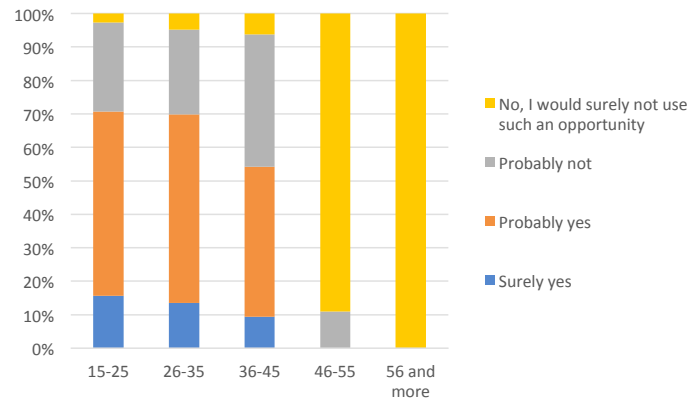


Figure 6: Utilization rate of mobile applications enabling geolocation in the case of their interesting promotion

(N = 493 respondents, N<sub>15-25</sub> = 147 respondents, N<sub>26-35</sub> = 126 respondents, N<sub>36-45</sub> = 96 respondents, N<sub>46-55</sub> = 73 respondents, N<sub>55 and more</sub> = 51 respondents)

Source: Own processing

In this context, we asked which media are considered by the respondents the most suitable for promoting organic products. The five-degree Likert scale was used, through which respondents expressed the degree of suitability of individual traditional and online media. See Figure 7 for the results.

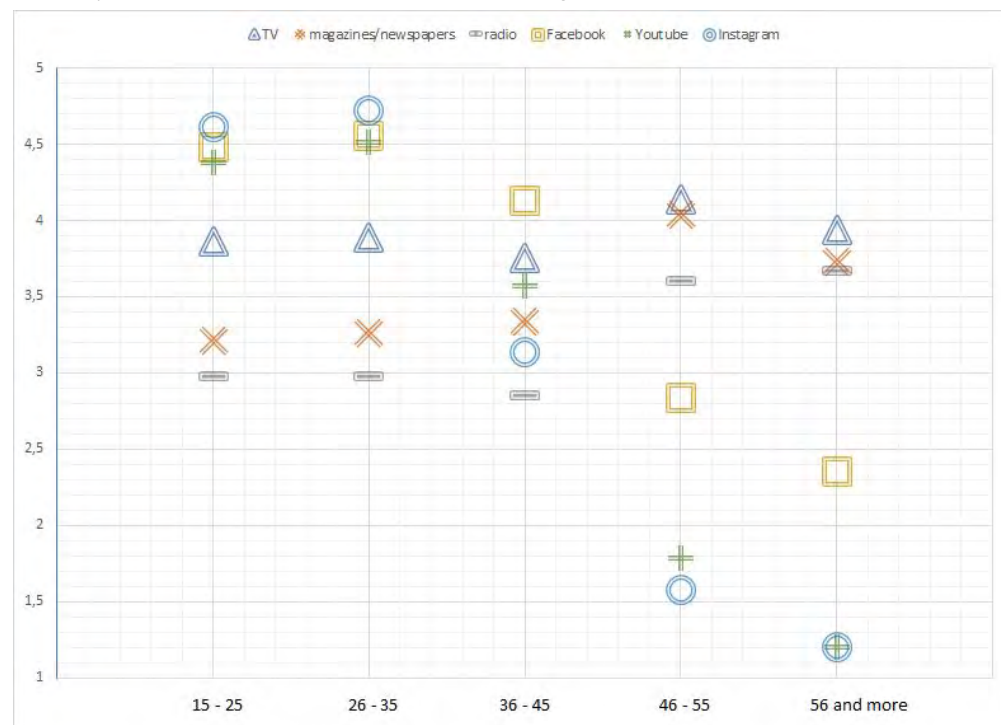


Figure 7: Evaluation of suitability of individual media for promotion of organic products

(N = 493 respondents, N<sub>15-25</sub> = 147 respondents, N<sub>26-35</sub> = 126 respondents, N<sub>36-45</sub> = 96 respondents, N<sub>46-55</sub> = 73 respondents, N<sub>55 and more</sub> = 51 respondents)

Source: Own processing

The results show that the perception of suitability of individual media varies considerably depending on the age of the respondents. While younger respondents perceive mainly online (or social) media as the most appropriate, the older generation prefers traditional media.

## Evaluation of Hypotheses

Two hypotheses have been formulated according to the defined objectives of the inquiry, as the basis of our research on statistical dependence between the observed indicators, namely the age of respondents and interest in environmental topics and the use of mobile applications with geolocation.

The hypothesis of dependence between respondents' age and their interest in environmental issues was not verified. The statistical testing confirms that age does not affect general interest in environmental issues. See Table 1 for the results.

Table 1: Real and expected frequencies (age of respondents and interest in environmental issues)

Age / interest in environmental issues	YES	NO	Σ
15-25	132 (132.1)	15 (14.9)	147
26-35	116 (113.22)	10 (12.78)	126
36-45	78 (86.26)	18 (9.74)	96
46-55	68 (65.6)	5 (7.4)	73
56-65	49 (45.83)	2 (5.17)	51
Σ	443	40	493

Source: Own processing

The tested hypothesis is rejected at the significance level  $\alpha$  if the test criterion value exceeds the critical value. Test Criterion Value = 16.750. Calculated test criterion value = 11.49872. See Table 2 for the calculation.

Table 2: Test statistics and test criteria values  $\chi^2$

0.01	0.01	7.7284	7.7284	68.2276	68.2276	5.76	5.76	10.0489	10.0489	SUM
132.1	14.9	113.22	12.78	86.26	9.74	65.6	7.4	45.83	5.17	
7.57002E-05	0.0006711	0.06826	0.6047261	0.79095293	7.0048871	0.08780488	0.77837838	0.2192647	1.9436944	11.4987153

Source: Own processing

The hypothesis of dependence between the age of the respondents and the use of mobile applications enabling geolocation was verified. The test showed that age affects the use of mobile applications with geolocation. See Table 3 for the results.

Table 3: Real and expected frequencies (age of respondents and use of mobile applications with geolocation)

Age / interest in environmental issues	YES	NO	Σ
15-25	76 (48.3)	71 (98.7)	147
26-35	57 (41.4)	69 (84.6)	126
36-45	29 (31.55)	67 (64.45)	96
46-55	0 (23.99)	73 (49.01)	73

56-65	0 (16.76)	51 (34.24)	51
Σ	162	331	493

Source: Own processing

The tested hypothesis is rejected at the significance level  $\alpha$  if the test criterion value exceeds the critical value. Test criterion value = 16.750. Calculated test criterion value = 93.41843. See Table 4 for the calculation.

Table 4: Test statistics and test criteria values  $\chi^2$

767.29	767.29	243.36	243.36	6.5025	6.5025	575.5201	575.5201	280.8976	280.8976	SUM
48.3	98.7	41.4	84.6	31.55	64.45	23.99	49.01	16.76	34.24	
15.88592133	7.7739615	5.8782609	2.8765957	0.20610143	0.1008922	23.99	11.7429117	16.76	8.203785	93.4184297

Source: Own processing

The degree of statistical dependence was calculated using the contingency coefficient ( $C = 0.3999$ ). The calculated value of the contingency coefficient indicates that there is a slight degree of linkage between the age of the respondents and the use of mobile applications with geolocation.

## Conclusion

Interest of the general public in environmental issues is increasing – this was also confirmed by the results of our survey. We investigated what media are used by respondents when searching for information on these topics, whether they have encountered advertising for environmental products, and which media they consider the best suited to promote eco-innovations. Following the implementation of the SoLoMo concept, we also investigated whether respondents were using mobile applications with geolocation and whether they would use the possibility to download such an application if it was promoted in an interesting way.

These indicators were monitored in different age groups of respondents. We wanted to find out whether there was a statistical dependence between the observed characteristics.

The results showed that almost 90% of the respondents were interested in environmental issues. Social media and posts on social networks are the most widely used to gather information on these topics. A similar trend was also found in terms of the media in which respondents encountered the promotion of eco-innovations. However, the results were largely related to the age of respondents. While the younger generation prefers online communication and/or social media, the middle-aged and older generations, on the contrary, favour traditional media. This applies both to the use of the media in obtaining information on environmental products, as well as to the perception of which media are most suitable for promoting eco-innovation.

The results also showed that the majority of respondents did not use any mobile application enabling geolocation, while the trend of use decreased again with their age. Only 35% of the respondents met with the promotion of mobile applications enabling geolocation. Most often it was advertising on social networks. However, 73% of the respondents expressed expected use in the case of interesting promotions.

The results of the survey thus show that respondents are interested in environmental topics and look for information on these topics in the media that are generally the most watched in their respective age groups. Similarly, these media are considered by the given age group of respondents to be the most suitable for the promotion of eco-innovations and they expressed expected use in the case of interesting promotions. This demonstrates the important role of the media in the marketing communication of environmental products and the need to target all age groups of the public in accordance with their common media preferences. For effective communication, it is necessary to use not only the right tools of marketing communication, but also the right media, to make the intervention as effective as possible.

At the same time, it was shown that, despite the existence of a statistically significant dependence between the age of the respondents and the use of mobile applications, there is a slight degree of linkage between these qualities. This means that although mobile applications allowing geolocation are more widely used by the younger generation, their use by the middle-aged and older generations of consumers is not excluded either. We can therefore assume the penetration of eco-innovations into all age groups of consumers. However, it is necessary to choose a suitable marketing approach and to know other specifics of the consumer behaviour of seniors and older consumers.

*Acknowledgement: The research study is a part of the national project supported by the Slovak Ministry of Education and the Slovak Academy of Sciences (VEGA) No. 1/0708/18 "Aspects of Using the SoLoMo Marketing Concept to Raise Awareness of Eco-Innovations".*

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