



Communication Through Innovative Technologies to Increase Awareness of the Company's Brand

Annamária Behúnová¹  and Lucia Knapčíková² 

¹ Faculty of Mining, Ecology, Process Control and Geotechnologies, Institute of Earth Resources, Technical University of Košice, Letná 9, 042 00 Košice, Slovak Republic
annamaria.behunova@tuke.sk

² Faculty of Manufacturing Technologies With a Seat in Prešov, Department of Industrial Engineering and Informatics, The Technical University of Košice, Bayerova 1, 080 01 Prešov, Slovak Republic
lucia.knappcikova@tuke.sk

Abstract. A business that wants to succeed in today's rapidly changing market must realize the importance of its customers and adapt its business activities to them. The customer must feel that he is an important part of the company and that his requirements, opinions and attitudes matter. Only in this way can the company gain its consumers' favour, trust and loyalty. Innovative technologies represent the future within the company's marketing strategy, in which entrepreneurs focus not only on the needs of the company but also on the demands of the consumer and try to interact with their customers. Through information technology, which the company implements in its company, it can get closer to its customers and thereby satisfy their subjective and objective needs. The main goal of the submitted paper is to research the possibility of developing a business entity through innovative technologies, to examine and define the relationships between the past and current state of the business and the slow development of a new marketing strategy related to the implementation of information technologies in the business environment. Deciding to introduce modern information technologies into the company's strategy means improving communication with customers, adapting business activities and final services provided to consumer requirements and specifications.

Keywords: Communication · Innovative Technologies · Brand Awareness · Market Locator

1 Introduction

In recent years, there has been enormous technological progress, which consequently had to be reflected in the economy, marketing and marketing strategies. These changes occur primarily in the external marketing environment [1]. Thus, the sociocultural, economic, political-management, technological, and competitive environment is changing [2, 3].

All these changes caused by development and progress have forced the managers of many companies to consider whether classic forms of marketing and marketing strategies are still sufficient for the competitiveness of their companies [4, 5].

With gradual development and changes, there was also the development of the economy itself, in which Kotler identified five mechanisms that drive the economy [6, 7]:

- convergence of trade unions,
- elimination and reintroduction,
- new capabilities of society and consumers,
- customization of production,
- digitization and connectivity.

Nowadays, almost every marketing strategy focuses on the customer's existing or potential needs. The customer thus becomes the most important element of the modern economy. These needs are prioritized from the beginning, and companies place more and more emphasis on these facts, basically from the production planning itself. Most of today's companies, especially the smaller ones, believe that if there are "hard times" in the company (crisis, financial uncertainty, etc.), there is a need to radically reduce costs. That's fine, as long as you don't start saving on the business's marketing. If marketing is restricted, the company leaves room for competition, which will take full advantage of this opportunity and thus dominate part of the market. During every financial or economic crisis, the customer loses reasons to buy. If the company cannot deliver these reasons to the customer, it cannot expect growth or profit [8–11].

Current technological and marketing developments also impacted the thinking of managers who were guided by these new trends when creating new marketing strategies. The most important changes in thinking include [12–14]:

- companies do not try to manufacture every part of their product and therefore enter into agreements with suppliers and subcontractors,
- companies are not divided according to production but according to customers,
- not only management but the entire company focuses on the customer,
- focus of companies on marketing (in the past, they mainly focused on financial indicators),
- companies and managers try to keep these suppliers (longer cooperation = excellent relationship and also lower costs),
- narrow area of interest (target market),
- companies are trying to expand into global markets,
- building good relations with the customer (in the long term).

Currently, we consider text advertising and the related market locator among the basic forms of communication between sellers and consumers.

1.1 Text, Picture and Video Advertising

It is a demand-oriented, and at the same time, a demand-displayed advertising campaign in search engines google.sk, google.com, google.co.uk and others. The principle of text advertising is the display of advertising texts based on searchable words or phrases. The

price of individual campaigns is determined based on a pre-set monthly budget model or for a day. The payment model is Pay Per Click (PPC). The price of a click is determined based on an auction in which all competitors who target the same target group enter. By the same target group, we mean a keyword or phrase, time (days and hours of the week), location (states, counties, cities), gender, age, interest group, etc. [15–17].

Therefore, if several competitors are focusing on the same target group, then the relevance of the texting of the advertising campaign, the relevance of the landing page (for example, if I am looking for an iPhone, the landing page that refers me to already filtered phones is more relevant than the page that refers me only to the entry page – the homepage of their e-shop), the traffic of the given website. The uniqueness of the website compared to all the websites in the world and the very important price we are willing to pay for one click [15–17].

A company with a more relevant and better-processed website with more traffic, and a better quality set advertising campaign, will invest fewer funds for a better-positioned advertising campaign within the search [18].

A picture ad, available in more than 20 different dimensions, can be displayed on more than 2 million websites worldwide. The entire Internet network can capture over 98% of the global population [19].

Different pre-defined groups can display image advertising. We can also target the target group through remarketing - targeted advertising displayed to users with which we have stored cookies that we have defined in advance. For example, it can be a website visitor who was last two weeks ago on the hillside, but at the same time, it only visited a certain subpage for us [20, 21].

Another possibility of using picture advertising is to build awareness of the so-called branding, which is “subliminal” and affects potential customers.

The principle of pricing of picture campaigns works on the model payment for 1000 views - Pay Per Mille (PPM) or the price per click - Pay Per Click (PPC).

Video advertising on the Internet is becoming increasingly popular among “small players” and discovered advertising on television. The price of such campaigns is incomparably lower compared to TV advertising [22, 23].

As far as possible, we can display video and picture ads. Video advertising can be either “unconventional” 6-s or arbitrarily long “, skipping” after 5 s. The model of campaigns for skipping advertising is paid for the number of views and clicks. In the case of non-skipping advertising, it is determined based on the booked number of advertising video views [24, 25].

1.2 Market Locator

A market locator is a direct advertising message. Personal advertising is where the company informs potential customers about its existence and new products or services provided through SMS messages [26].

Among the basic advantages of this form of advertising, we recommend [26]:

- that it is personal, i.e. this advertising message will be located among private messages, which means that it will not “fight” for space with other brands, as is the case with online advertising,

- people read SMS messages, so we can conclude that the number of readings is almost the same as the number of sendings. At the same time, we do not bother the recipient in any way, as he will receive an advertisement no more than once every two weeks,
- it is an ethical form of advertising, which means it can be quickly deleted if the user is not interested in the content of the SMS message and children do not receive it (we can optimize the target group in the next campaign),
- the possibility to share a URL link to a website or discount coupons, based on which Market Locator will measure the click-through rate.

Market locator is currently the only company in Slovakia that cooperates with three operators and allows sending advertising SMS to almost all private individuals in Slovakia, except for company numbers.

SMS can be sent for 0.07 € per SMS, while choosing the gender, age, and location is possible. However, it is also possible to target user behavior, such as travelling abroad, the client's creditworthiness, the type of device and operating system, the use of mobile data, or even the client's movement during the day. It is also possible to send an SMS at a certain time of the day, on selected days, or at a time when he is at work or, conversely, at home [26].

The advertisement follows Slovak legal standards and the GDPR (General Data Protection Regulation), as most people also consent to send advertising messages when signing contracts. Since these messages are sent directly by operators and the submitter only chooses the "type" of the user or customer to whom he wants to send the message, he does not come into contact with any personal data [26–28].

2 Work Methodology

To increase brand awareness of the investigated company, two forms of campaigns were used - image and video advertising, where the company's new logo was presented, as well as the most modern procedures and technologies available to the company [29, 30].

Specifically, the video campaign was implemented through the YouTube social network from December 2016 to February 2017. In the monitored period, the campaign's viewership reached 517,000 views, and up to 134,000 views were longer than 5 s (Fig. 1), representing 25.90% of total views. The average cost per view was €0.02/view of 1 video.

In a more detailed analysis of video views longer than 5 s, based on audience retention statistics, it was shown that less than 40% of site visitors watched 25% of the total video length, almost 30% of the audience watched 50% of the total video length, and 20% of visitors website watched the entire video (Fig. 2), which represents 26,800 views in three months.

Regarding the demographic indicators - gender and age- we also observed when analyzing the advertising campaign and the number of clicks on it. When analyzing the number of views, we concluded that, in this case, the video campaign was seen equally by men and women. The difference was only in the age composition of the followers, where the largest group consisted of men in the age group of 35–44 years and women in the age group of 25–34 years (Fig. 3).

The research was carried out on a sample where up to 71% of the respondents' gender and age were known.

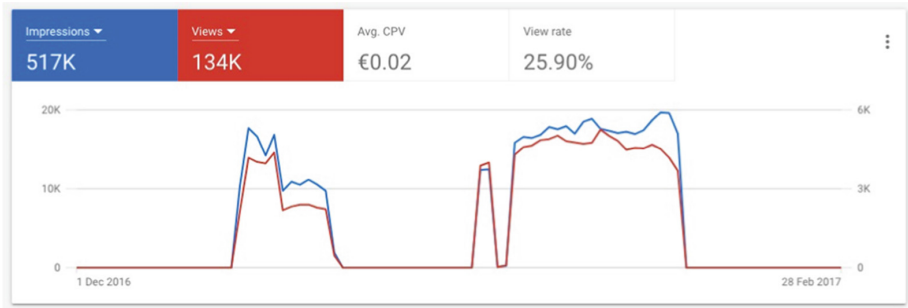


Fig. 1. Number of video views in the period December 2016 - February 2017 [Authors own processing]

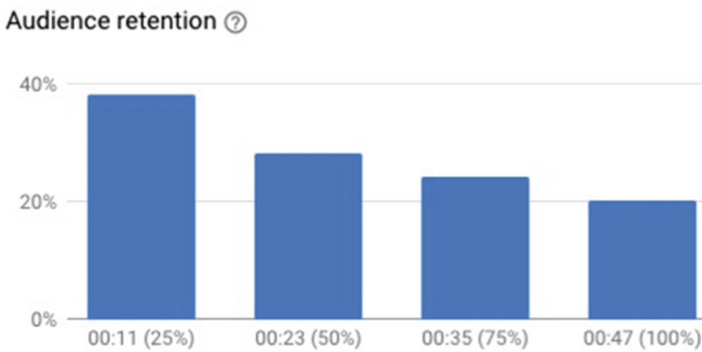
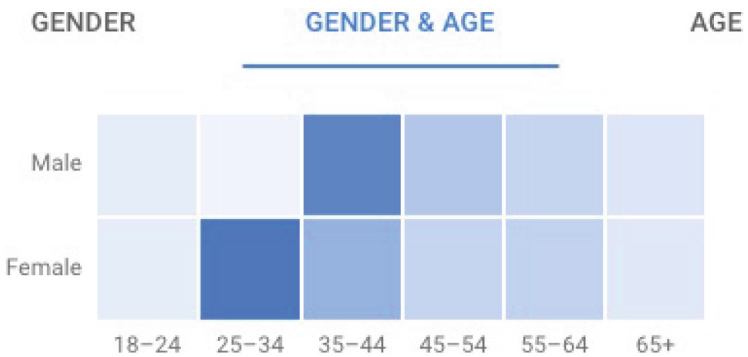


Fig. 2. Follower retention rate [Authors own processing]



Based on the 71% of your video views with known gender and age. ?

Fig. 3. Age group and gender of followers [Authors own processing]

To increase awareness of the brand, online interviews with the head of the clinic were also carried out, and a flyer campaign was supplemented with a PR article. Still, the latest

marketing strategy of the company, which sought to increase awareness of the brand - of the company, was an advertising campaign through Market Locator, which took place in January 2019. The campaign's goal was to inform the target market - potential customers about the possibility of a free professional examination and thus increase their interest in the company through sent SMS messages. The text of the sent SMS messages can be seen in Fig. 4.

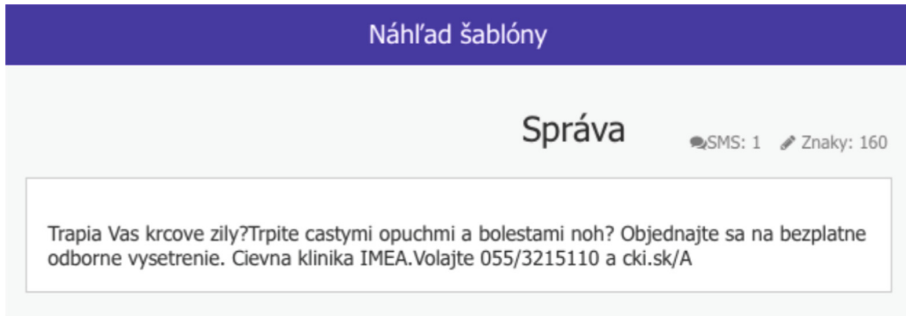


Fig. 4. Text of SMS messages sent via Market Locator [Authors own processing]

When creating this advertising campaign, the customer can choose a specific market to which he wants to send messages. Two regions were chosen for the company's needs - the Košice and Prešov regions. Another specific condition of the market was the age structure of the addressed population, where a group of residents between the ages of 35 and 65 was chosen. For the type of mobile device, they focused on Android, iPhone and Blackberry and for the use of mobile data of more than 100 MB (Fig. 5). A total of over 200,000 SMS messages were sent as part of this campaign.

3 Results and Discussion

For the most accurate and up-to-date comparison of the impact of innovative technologies on website traffic, the period January-April 2020 (users, blue curves) and 2019 (users, orange curves) were analyzed. Within this period, at its end, namely from March, the whole world was affected by the Coronavirus (COVID-19) pandemic, which had and still hurts all market segments. As it is a pandemic, the kind of humanity has not experienced for many years and was not even prepared for, the whole world "stopped". As part of the declared state of emergency in the territory of the Slovak Republic and the related restrictions, most businesses were forced to close their operations. The exception was hospitals, pharmacies, drugstores, and food and gas stations. The investigated company was closed during this period, and promotional events and all company activities were limited. This was also reflected in the research results and even more pointed out the power of the influence of innovative technologies and marketing of the company.

The website traffic curves clearly show this situation in Fig. 6, where we can see how the site's traffic dropped rapidly from March to April 2020. For comparison - in March 2019, the site's traffic reached the highest values, while in March 2020 reached

Podmienka #1

Vek - Základná Socio-Demografická SK

Označiť / odznačiť všetko
 Nedostupné
 Pod 18
 18 - 26
 26 - 35

35 - 45
 45 - 55
 55 - 65
 Nad 65

Okres, kraj - Spacia lokalita - Typická lokalita

Slovenská republika

Typ mobilného telefónu - Využívanie mobilu

Označiť / odznačiť všetko
 Nedostupné
 Klasický bez OS
 Android
 iPhone

Blackberry
 Symbian
 Windows
 MacOS

Pohlavie - Základná Socio-Demografická SK

Označiť / odznačiť všetko
 Nedostupné
 Ženy
 Muži

Využívanie mobilných dát - Využívanie mobilu

Označiť / odznačiť všetko
 Nevyužitá
 1 MB
 100 MB
 100 MB - 1 GB

Fig. 5. Specification of target market conditions [Authors own processing]

only half the traffic, and in the second half of the month, it fell to the lowest values of the analyzed periods. April 2020 continuously reached very low traffic values. On average, there were only 20 visits per day, which compared to April 2019, where the average daily visits were at the level of 180-page visits per day, represents a decrease in website traffic by 89%.

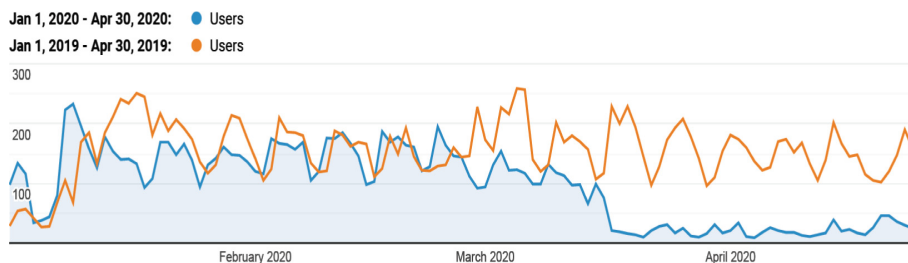


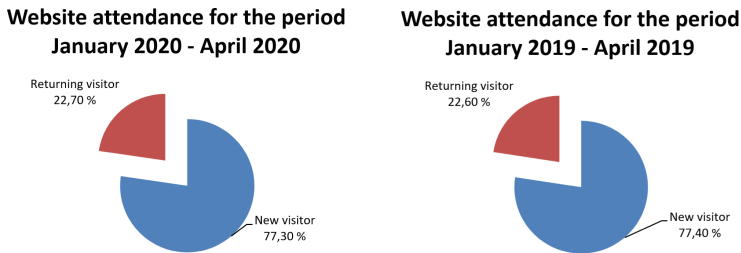
Fig. 6. Website traffic during the COVID-19 pandemic [Authors own processing]

A more detailed treatment of the decline in website traffic according to several monitored indicators can be seen in Table 1. When comparing traffic-site users for 2019 and 2020, there was a decrease of up to 5,772 users, representing a decrease of up to 37.93% compared to 2019. When analyzing new users and visitors to the site, there was a decrease of 5,700 users, representing a decrease of up to 38.98%.

Table 1. Website traffic indicators

Pointer	2019	2020	% change
User	15,217	9,445	-37.93%
New user	14,624	8,924	-38.98%
Sessions	23,926	14,199	-40.65%
Number of sessions per user	1,570	1,500	-4.39%
View page	52,429	30,120	-42.55%
Site / Session	2,190	2,120	-3.20%
Average session duration	3:45 min	3:16 min	-12.96%
Bounce rate	15.67%	16.92%	7.96%

This situation had the biggest impact on meeting metrics and page views. In meetings, we can note a decrease of 9,727 users, i.e. up to 40.65%. Page views, which achieved the largest decrease for the analyzed period up to 42.55%, are 22,309 fewer page views in 2020 than 2019. On the contrary, the average session duration indicator is a positive factor, based on a decrease of 12.96%, representing only 29 s for the average duration of a one-page view. Despite the pandemic and slight declines in some of the analyzed areas of website traffic, based on a comprehensive summary analysis of the number of visits to the company's website for the period 2016–2020, we can conclude that website traffic has an upward trend, which can be seen in Fig. 7.

**Fig. 7.** New vs regular visitors [Authors own processing]

When analyzing the traffic of the website in terms of new and returning visitors, we concluded that in 2020 the website had more “returning” visitors than in 2019, which means that despite the bad impact of the crisis on all business spheres, the company managed to keep its regular customers. We can consider this as a very positive factor in the evaluation of brand building and customer relations, that despite the difficult situation that occurred in the market, the company managed to increase the ratio of regular visitors compared to 2019 (Fig. 8).

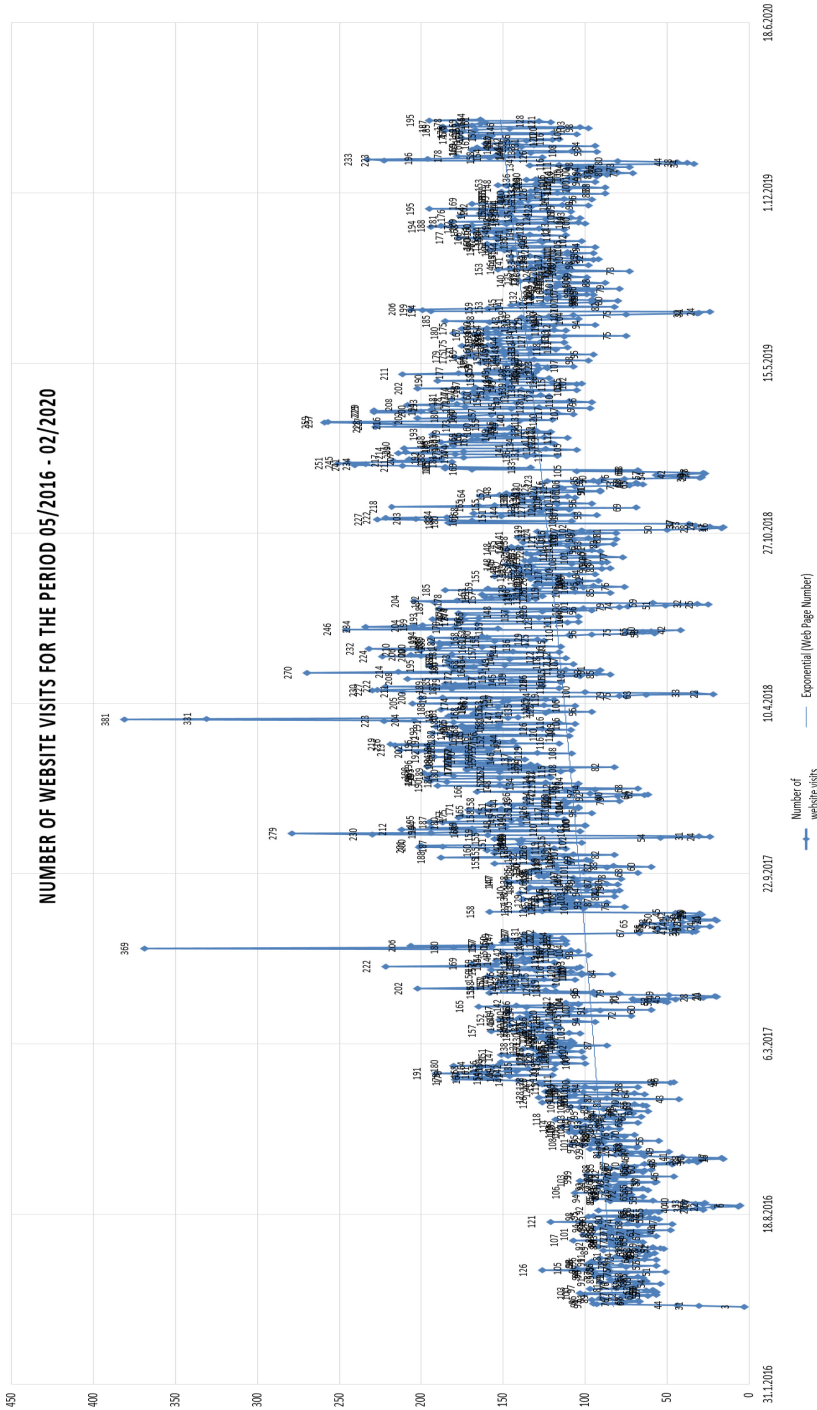


Fig. 8. Number of visits for the period 05/2016–02/2020 [Authors own processing]

4 Conclusion

Innovative technologies and campaigns are a common and irreplaceable part of any well-prosperous business's marketing strategy in today's turbulent market. Application of technology brings more interest to consumers not only about the goods and service itself but also information about the company, and its history, which creates a reputation for the company and offers of shopping and parcel services.

By applying modern marketing strategies through various innovative marketing campaigns (online interview, leaflet campaign, PR articles, market locator) and implementing the innovative technologies implemented by the investigated company, it fulfilled the essence of a modern interactive business to approach its customers, potential clients, potential clients, and satisfy their requirements. Increased interest in clinic services is demonstrable, as evidenced by outputs - statistics of attendance on the company website, which declare a gradual increase in traffic.

Data Availability Statement. Not applicable.

Ethics Declarations. The authors declare no conflicts of interest.

References

1. Karlíček, M., et al.: Základy marketingu, p. 288. GRADA Publishing, Praha (2018). ISBN 978-80-271-0954-8
2. Horáková, I.: Marketing v současné světové praxi, p. 365. Grada, Praha (1992). ISBN 80-85424-83-5
3. Horáková, H.: Strategický Marketing. 2nd edn. GRADA Publishing, Praha (2003). ISBN 80-247-0447-1
4. Basil, J.: Podnikovéinformační systémy, p. 142. Grada Publishing, Praha (2002). ISBN 80-247-0214-2
5. Keller, L.K.: Strategickéřízení značky, p. 800. Grada, Publishing, Praha (2007). ISBN 978-80-247-1545-2
6. Kotler, P.: Moderní Marketing, p. 1048. Grada, Praha (2007). ISBN: 978-80-247-1545-2
7. Kotler, P.: Marketing Management, 11th edn. Prentice-Hall, New Jersey (2003)
8. Gerber, M.E.: The E-Myth Revisited: Why Most Small Businesses Don't Work and What to Do About It (2004). ISBN 978-0887307287
9. Mandíček, T., Mésároš, P., Spišáková, M.: Impact of information and communication technology on sustainable supply chain and cost reducing of waste management in Slovak construction. *Sustain. Bazilej Švajčiarsko.* (2021). <https://doi.org/10.3390/su13147966>
10. Blažková, M.: Marketingové řízení a plánování pro malé a střední firmy, p. 280. Grada, Praha (2007). ISBN 978-80-247-1535-3
11. Jedlička, M.: Marketingová strategie podniku, p. 371. Magna Trnava (1998). ISBN 80-85722-06-2
12. Johnson, G., Scholes, K.: Cesty k úspěšnému podniku. Computer Press, Praha (2000). ISBN 80-7226-220-3
13. Kotler, P., Caslione, J.A.: Chaotika, p. 214. Computer Press, Brno (2009). ISBN 978-80-251-2599-1
14. Blažková, M.: Jak využít internet v marketingu: Krok za krokem k vyšší konkurenceschopnosti. 1. vyd., p. 156. Grada Publishing, Praha (2005). ISBN 80-247-1095-1

15. Blecker, T.: Information and Management Systems for Product Customization, p. 266. Springer, New York (2005). ISBN 0-387-23347-4, <https://doi.org/10.1007/b101300>
16. Google Marketingová platforma. <https://analytics.google.com/analytics/web/provision/#/provision>. Accessed 10 Oct 2022
17. Hesková, M., Štarchoň, P.: Marketingová komunikace a moderní trendy v marketingu, p. 180. Oeconomica, Praha (2009). ISBN 9788024515205
18. Burns, T., Stalker, G.M.: The Management of Innovation. Tavistock Publications, London (1961). ISBN 0-198-28878-6
19. Dodson, I.: The Art of Digital Marketing. Wiley, Hoboken (2016). ISBN 978-1119265702
20. Didner, P.: Global Content Marketing: How to Create Great Content, Reach More Customers, and Build a Worldwide Marketing Strategy that Works (2014). ISBN 978-0071840972
21. Dietrich, G.: Spin Sucks: Communication and Reputation Management in the Digital Age (Que Biz-Tech) (2014). ISBN 978-0789748867
22. Kingsnorth, S.: Digital Marketing Strategy: An Integrated Approach to Online Marketing, 1st edn (2016). ISBN 978-0749474706
23. Karlíček, M., Král, P.: Marketingová komunikace: Jak komunikovat na našem trhu. 1st edn. Grada Publishing, Praha (2011). ISBN 978-80-247-3541-2
24. Fox, V.: Marketing věžku společnosti Google (2011). ISBN 978-80-251-3357-6
25. Kauffman, S.A.: The Origins of Order: Self-Organization and Selection in Evolution. Oxford University Press, New York (1993). ISBN 0-195-07951-5
26. Marketlocator – Esemeska dostane Vašu reklamu do vrecka 1,8 milióna Slovákov, <https://www.marketlocator.sk/>. Accessed 10 Oct 2022
27. Periša, M., Cvitić, I., Peraković, D., Husnjak, S.: Beacon technology for real-time informing the traffic network users about the environment. *Transport* **34**, 373–382 (2019). <https://doi.org/10.3846/transport.2019.10402>
28. Matulić, I., Msa, M., Peraković, D.: Information and communication infrastructure for the organisation of railway passenger transport. In: Čokorilo, O. (ed.) Proceedings of the Second International Conference on Traffic and Transport Engineering ICTTE. City Net Scientific Research Center Ltd. Belgrade, Belgrade, Serbia, pp. 410–419 (2014)
29. Straka, M., Khouri, S., Rosova, A., Caganova, D., Čulkova, K.: Utilization of computer simulation for waste separation design as a logistics system. *Int. J. Simul. Model. Rakúsko* **17**(4), 583–596 (2018). [https://doi.org/10.2507/IJSIMM17\(4\)444](https://doi.org/10.2507/IJSIMM17(4)444)
30. Periša, M., Kuljanić, T.M., Cvitić, I., Kolarovszki, P.: Conceptual model for informing user with innovative smart wearable device in industry 4.0. *Wirel. Netw.* **27**(3), 1615–1626 (2019). <https://doi.org/10.1007/s11276-019-02057-9>