

VÝZKUM

RESEARCH INTO ONLINE MARKETING ACTIVITIES AND TOOLS FOR MEASURING THEIR EFFICIENCY BY ENTREPRENEURS IN THE CZECH REPUBLIC

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ABSTRACT

The 21st century has brought dramatic changes to the work and personal lives of people regarding the existing traditional forms of how to manufacture, how to provide services to customers, how to communicate with customers, business partners, and with each other. The Central Bohemian Association of Managers and Entrepreneurs (STAMP), established in 2002 as an organization for women entrepreneurs from Prague and the Central Bohemian Region, as well as other regions, has identified differences in the use of online marketing of its members operating in small and medium-sized enterprises, especially among self-employed entrepreneurs. In this way, STAMP tries to map out the reality and determine the level of readiness in the segment of small and medium-sized enterprises and self-employed persons (freelancers) for the emerging sector of Industry 4.0 in the area of awareness of its existence, real knowledge, and the use of online marketing activities to communicate with customers and business partners. The study also suggests that being aware of the possibilities of measuring effectiveness and the real use of the information obtained will lead to an increase in the effectiveness of marketing itself and to a greater competitiveness in the market. STAMP implemented a pilot project with the support of the authors of this article between August and October 2019, and from January to March 2020 using AMBIS, Ltd. and Skoda Auto University's own marketing research. This paper proves that a relationship exists between the use of marketing online tools and the size of companies. The study provides evidence that ICT tools are an essential part of online marketing activities as an important part of the entrepreneurs' e-commerce endeavors.

Keywords: Marketing research; e-commerce; Online marketing; ICT

JEL Classification: M30, M31

ABSTRAKT

21. století přineslo do pracovního a osobního života lidí dramatické změny ve stávajících tradičních formách výroby, poskytování služeb zákazníkům, komunikace se zákazníky, obchodními partnery a mezi sebou navzájem. Střeďočeská asociace manažerů a podnikatelů (STAMP), která od roku 2002 sdružuje podnikatelky z Prahy a Střeďočeského kraje i dalších regionů, zjistila rozdíly ve využívání online marketingu svých členů působících ve velkých a malých společnostech, zejména mezi podnikateli samostatně výdělečně činnými. Proto se STAMP snaží zmapovat realitu a zjistit, jaká je připravenost v segmentu malého a středního podnikání a OSVČ pro rozvíjející se sektor Průmyslu 4.0 v oblasti povědomí o existenci, reálných znalostech a využívání online marketingových aktivit ke komunikaci se zákazníky a obchodními partnery. Studie rovněž naznačuje, že znalost možností měření efektivity a skutečného využití získaných informací povede ke zvýšení efektivity samotného marketingu a větší konkurenceschopnosti na trhu. STAMP realizoval pilotní projekt s podporou autorů tohoto článku mezi srpnem a říjnem 2019 a v období od ledna do března 2020 s vlastní marketingovou studií AM-BIS, Ltd. a Škoda Auto University. Tento dokument dokazuje, že existuje vztah mezi využitím marketingových online nástrojů a velikostí společností. Studie poskytuje důkazy o tom, že nástroje ICT jsou podstatnou součástí jejich online marketingových aktivit jako důležitá součást jejich snah v oblasti e-commerce.

Klíčová slova: Marketing research; e-commerce; Online marketing; ICT

JEL klasifikace: M30, M31

INTRODUCTION

Marketing has undergone a dynamic transformation as a theory and practice in all its forms of communication with the customers, suppliers, partners, and the general public. At the same time, marketing has experienced big changes especially in one of its most important tools of the traditional marketing mix – marketing communication. From the end of the 1980s through to the 1990s, all traditional tools of the communication mix were gradually modified in connection with the growing saturation of the market in all developed countries, but also with the development of many new technologies. These technologies were created based on the Internet, but also on other principles. Their use has always been to find new approaches to get customer's attention and persuade them to buy products and services. Concurrently, a new infrastructure was created that was needed for signal and data transmissions using optical cable networks and operation of various types of data transmissions not only via the Internet but also using 5G networks, etc. (Bocconcelli, R. et al., 2018).

Gradually, companies incorporated e-marketing activities into their communication with customers in the first and second decades of the 21st century (Eid & El-Gohary, 2013). The application of a wide range of different online marketing activities is currently considered the standard of marketing communication strategies. Also, the e-commerce tools became significantly cheaper compared to the traditional communication mix tools such as advertising (billboards, print advertising in newspapers and magazines, advertising on TV, radio) as well as traditional forms of public relations, which gradually began to reduce their cost (exhibitions, fairs, PR articles in newspapers and magazines, publishing various publications, sponsorship), sales support (sampling, tastings, demonstrations), and personal sales and classical direct marketing (leaflets to the mailbox, sending letters). Online marketing has gradually become a professional environment combining marketing strategic thinking with the effort to find unique solutions associated with the application of technology (Kingsnorth, 2019). Specialized companies are usually used to carry out activities, which require technical solutions. All these applications allow not only to implement marketing activities anew, i.e. with new communication tools, but also more cheaply and in a way that is measurable for online marketing campaigns. Possibilities of measuring individual types of online marketing activities are offered by specialized IT companies and online service providers themselves, often by advertising and communication agencies. Nowadays companies across different business sectors focus on evaluating the effectiveness of websites, their optimization, communication tools such as e-mailing and social networks. Large companies often include these specialists in their marketing teams on a full-time basis. This approach also applies to the business environment in the Czech Republic.

1 ONLINE MARKETING TECHNOLOGY FOR COMMUNICATION IN THE 21ST CENTURY

The Internet and other technologies developed at the end of the 20th century were gradually influenced by the emergence of several fields such as ICT (information and communication technologies), including e-commerce (Heeks, 2017). There are numerous definitions of e-business that are evolving and being refined over time, as well as marketing theories, so new explanations of this term can be

found in publications various authors. According to Pertyl (2017), e-business is a collective name for e-commerce, which uses the Internet and other technologies in business. It includes the electronic exchange of information within the company or between the company and customers and the use of various electronic platforms (intranet, extranet, and internet), on which various corporate business activities are implemented, including digital online communication, online research, and also online marketing (Vilaseca-Requena et al., 2007). The application of e-business in firms improves business processes, administration, sales, financial management, human resources, service quality, and also the exchange of communications between companies, customers, suppliers, banks, and public administration (Cetlová and Velinov, 2019). The term e-commerce includes sales and purchasing processes using the Internet as a means of electronic communication. One example are electronic marketplaces (e-markets) – virtual platforms for sellers and buyers where payments are made electronically. E-commerce also includes e-marketing (electronic marketing) and e-purchasing, as well as e-procurement (electronic purchasing). E-marketing represents the “sales” part of e-commerce. It consists of communication, sales promotion, and sales of goods and services through the Internet (Kotler et Armstrong, 2004, pp. 132, 133). The criterion for classifying new technologies in the form of hardware, media, and software applications in the ICT category is that they “perform or enable the processing and communication of information using electronic media, including the transmission and display of information” (OECD, 2010, p.13). In the first decade of the 21st century, Czech legislation also sought to define terms associated with information and communication technologies. According to the Ministry of Industry and Trade (2011 a, p. 3 and 4), the term information and communication technology (ICT) is understood as “hardware and software means for data collection, transmission, storage, processing, distribution, and security. The hardware (technical) means include mainly servers, stationary and portable personal computers, printers, communication and network devices (especially transmitters, routers, switches) and specialized end devices (mouse, tablet, scanner, camera, PDA, mobile phone, etc.)” Under software tools, i.e. programs and applications, the MIT included “basic software (operating system, database system, communication system), application software and software for modeling

and development of information systems.” (MIT, 2011). The basic areas on which ICT has an impact are business, state administration and mutual communication of people with each other and with companies and state administration (Gaur, Sharma, & Pandya, 2019). The basic feature of ICT is its ubiquity and expansion to all sectors of the economy, continuous improvement and refinement, which results in a reduction in acquisition costs and costs of using ICT. According to Pertyl (2017), another feature is the facilitation of research, development, and implementation of new products, services, or processes supported by EU programs, at the level of ministries, regions, and private companies as supporters of these projects.

Online marketing is also currently one of the fastest growing areas in the world of technology and digitization. Online marketing currently takes many forms and can affect a wide range of people and influence their daily behavior and decisions (Plotnikova, M., Romero, I., & Martínez-Román, J. A., 2016).

Globalization processes and the emergence of many global companies operating alongside small and medium-sized enterprises in local markets and their limited ability to compete with global companies and their massive and costly marketing communication was one of the reasons why marketing in the 2000s came to a crossroads and why small and medium-sized enterprises were forced to abandon traditional marketing communication. The use of online marketing tools (digital marketing) has become a way for small and medium-sized enterprises to communicate cheaply and effectively with customers (Cetlová and Velinov, 2019).

Since the 1990s, other technologies have been developed that started using the Internet and its entry into marketing communication of companies, such as audio-video technology and social media – Facebook, Twitter, Instagram, other social media sites which are used to meet people, and also the use of YouTube. Companies began to use Internet advertising in various types (Pay per Click). They began converting their websites from static to dynamic for easy updates and began optimizing them. Search Engine Optimization (SEO) to improve search engine rankings can be measured according to Google Analytics data, but also by specialized tools. The importance of the theory of marketing communication and its application in corporate practice has been transformed into managed integrated marketing communication, which is supposed to fulfill many other tasks,

such as creating product value for customers and building strong brands and including internal marketing, but also to business partners, including suppliers. At the same time, marketing communication is applied with the help of tools for measuring its effectiveness (Kotler & Keller, 2013. pp. 58, 279, 296, 470).

For example, the American Marketing Association (AMA) defines marketing responsibility for results as “the systematic management of marketing resources and processes to achieve measurable returns on marketing investment (ROI) and increase marketing efficiency, while maintaining quality and increasing company value”. The individual activities falling into online marketing have different goals, and therefore different forms of measuring them (Kuchar, 2018). The basic methods and tools of measurement (metrics) for individual communication channels that the company uses are traffic, usually in the form of the number of visits or as “clicks” in the advertising systems AdWords, Sklik, Analytics, e-mailing systems, etc., which measures how many customers came to the site and from where (search engines, web interface, etc.). Another basic metric is the quality of traffic using the bounce rate, the rate of immediate exit from the site. They measure how many conversions a particular visitor’s marketing channel has brought in. Conversion takes the form of macro conversion – purchases, sign-ups, real demand; or micro-conversion – newsletter subscriptions. Paid online channels track costs, i.e. how much a channel costs in terms of total cost and cost per action, as well as the share of costs in total turnover. There are additional metrics separately for each marketing channel. In the Google Search Console, there are additional metrics – the number of impressions, the number of times a click occurred, and the average position. Position measurement is done via external tools Collabim, Marketing Miner, or SEMOR, and the shift in the number of keywords is measured (Meriläinen, K., 2017). The company’s e-mailing tools are used for mass and at the same time customized email communication with customers, but also other business associates and partners and for evaluating the effectiveness of this form of communication; this tool can be used for information campaigns as well as research, etc. (Krutis, 2018).

Some of the new marketing trends are not related to the Internet and their application depends on the field of business, target group, financial and technical demands, place and time of their implementation – guerrilla marketing, event marketing, buzz marketing, word-of-mouth (WOM) marketing, Product Place-

ment, behavioral marketing, database marketing, and many others. The use of all these technological advanced marketing communication tools brings companies added value and thus a competitive advantage on the market. Given the many years of history since their inception and their use by companies, which means acquiring certain IT basic knowledge and skills and especially their importance for effective business, it should be the standard.

2 HYPOTHESES

It is believed that most Czech businesses have included online marketing among other tools in their communication mix and that various companies use database tools to store, sort, and evaluate the information obtained and that they use it proactively, whether they are database CRM systems, emailing, or social media. This general opinion became the hypothesis of the pilot research carried out by the authors of this paper and STAMP in 2019. The results of this pilot survey showed that it is, in fact, a presumption that probably became a reality only in the segment of large companies. According to pilot research in the segment of small businesses and self-employed persons, the situation was relatively unsatisfactory, not in terms of using basic types of online marketing activities, but especially in measuring and evaluating their effectiveness, and primarily in using results for further setting up of online marketing activities. The hypotheses of the research carried out this year are based on the results of the 2019 pilot project.

Hypothesis 1: Larger companies with more employees and a legal entities such as limited companies mostly have mastered modern technologies for communication with customers and use them successfully.

Hypothesis 2: Entrepreneurs with the legal form of self-employed persons tend not to use modern communication technologies in communication with their customers.

Hypothesis 3: Hypotheses 1 and 2 are valid regardless of whether the business is run by a woman or a man.

They mostly operate in the local market, where demand is greater than the supply, and they are not yet forced by the market to get acquainted with and use these technologies.

3 RESEARCH INTO ONLINE MARKETING IN THE SEGMENT OF SMES

For this study, we have distributed an online survey questionnaire among Czech entrepreneurs, self-employed persons, and employees with business licenses. The survey was designed based on previous applied research by (Ahmad et al., 2018), who has explored how small and medium-sized enterprises adopted social media marketing tools in their business activities in the United Arab Emirates. Similarly, we have designed an extended model, which applies not only to small and medium-sized enterprises but also among individual entrepreneurs in the Czech Republic.

Tab. 1» Descriptive statistics

	Women				Men				Total	
	n	% (1)	% (2)	% (3)	n	% (1)	% (2)	% (3)	n	% (3)
Freelancer with no employees	6	8.22	28.57	3.66	15	16.48	71.43	9.15	21	12.80
Owner /Co-owner of firm	9	12.33	34.62	5.49	17	18.68	65.38	10.37	26	15.85
Self-employed	25	34.25	39.68	15.24	38	41.76	60.32	23.17	63	38.41
Owner /Co-owner of firm of other legal form	0	0	0	0	0	0	0	0	0	0
Employee	23	31.51	65.71	14.02	12	13.19	34.29	7.32	35	21.34
Middle or bottom line management employee	10	13.70	52.63	6.10	9	9.89	47.37	5.49	19	11.59
Total	73	100	44.51	44.51	91	100	55.49	55.49	164	100

Notes: % (1) = percentage of the total number of respondents in the given column n; % (2) = percentage of the total number of respondents in the row; % (3) percent of the total number of respondents in the whole sample
 Source: own elaboration in SPSS

Tab. 2» Testing of the Hypothesis 1 results

	N	Web		CRM		SEO	
		n	%	n	%	n	%
Entrepreneur with no employees	21	13	61.91	0	0	3	14.29
Owner/Co-owner	26	24	92.31	4	15.38	15	57.69
Freelancer	63	24	38.1	4	6.35	13	20.63
Owner of other legal form firm	0	0	0	0	0	0	0
Employee	36	27	75	9	25	13	36.11
Middle or low level employee	19	19	100	8	42.11	4	21.05

Source: own elaboration in SPSS

Based on the paper's statistical results, entrepreneurs with the legal form of self-employed persons do not use modern communication technologies to communicate with their customers. They mostly operate in the local market, where demand is greater than the supply, and they are not yet forced by the market to get acquainted with and use these technologies (see Table 2).

Table 3 shows how freelancers who are self-employed use their mobile web pages, Google Analytics, and Pay Per Click.

Tab. 3» Descriptive statistics of the use of web, Google Analytics, and PPC

	N	Web		Google Analytics		Pay per Click	
		n	%	n	%	n	%
Freelancers with no employees	63	24	28,1	15	23,81	6	9,52

Source: own elaboration in SPSS

Tab. 4» Gender vs. CRM

	N	CRM	
		n	%
Men	92	12	13.04
Women	74	14	18.92

Source: own elaboration in SPSS

Hypotheses 1 and 2 are confirmed regardless of whether the business is run by a woman or a man in the data sample.

CONCLUSION

The paper shows that the ability to manage online marketing activities in the Czech business environment has not yet been fully mastered even though there is an opinion by the experts that this is not the case. The advantage of this research is also that it specified business entities in terms of their size given by the number of employees and the legal form of business. Especially in the segment of self-employed entrepreneurs without employees, the use of online marketing activities is minimal, usually limited to static websites. Another added value of the research is that it identifies the main areas of activity of these business entities. It shows interdisciplinary differences, The lack of online marketing activities was confirmed predominantly in the case of entrepreneurs in traditional craft professions, such as plumbers, masons, upholsterers, hairdressers, etc., but not in the case of new professions such as IT specialists, regardless of whether the business entities are men or women.

The coronavirus pandemic has had dramatic consequences for small and medium-sized enterprises on a historically unique scale, reflected in the decline of their economic activity (Donthu & Gustafsson, 2020). It is assumed that despite some government measures to stabilize some companies, they will most likely not resume their business activities after the end of the quarantine measures. On the other hand, during the coronavirus quarantine, many companies, business and non-business entities began to use new online activities to communicate with their business partners, customers, and within companies, to use various com-

munication applications based on video conferencing, etc., and some progress has been made in this direction with the assumption that these new forms of online communication will become a new standard of communication in the future.

The impact of the CoVID-19 pandemic on the global economy is being studied around the world by several major consulting firms and research institutions trying to analyze the current situation, but also to find ways and guidelines for entrepreneurs to survive the crisis and become competitive again. Renowned consulting firm McKinsey (2020, online) announced on 7 October 2020 that the decline in the global economy due to COVID-19 has already overcome the Great Recession of 2009. Compared to the then situation, the decline occurred much faster and affected all industries and many of the world's largest employers. In the wake of the pandemic, McKinsey conducted targeted research from spring to mid-October 2020, showing that only businesses that use new technologies to address the changing work environment and stay competitive have been able to adapt. Their next global survey found that organizations that are responding successfully to the crisis have deployed more advanced technologies, digital products, and technological talent to accelerate innovation – and executives expect most of these changes to ensure that they survive the pandemic. McKinsey has begun publishing *The Next Normal: The Recovery Will Be Digital*, which contains a vision of a new future and examples of good practice in multimedia (McKinsey, 2020, online). Another new survey reveals the extent of disruption to companies' work practices and behavior in the context of the COVID-19 crisis. As a result, a third of companies surveyed accelerated the digitization of their supply chains, half accelerated the digitization of their customer channels, and two-thirds accelerated the adoption of artificial intelligence and automation (McKinsey, 2020, online). The abovementioned research results only confirm that the way out of the global economic crisis caused by the coronavirus pandemic is to accelerate the use of new technologies, including online communication. It can be assumed that even for the business environment of the Czech Republic, the accelerated use of online communication will lead to competitiveness and prosperity.

The authors expect the implementation of the new research to be carried out during September 2020 and will try to find out how the coronavirus quarantine has affected the use of online marketing tools in the Czech Republic and whether

there have been some changes in the segment of self-employed persons in the segment of traditional crafts.

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Link to the research: <https://asideintproject.blogspot.com/>

REFERENCES

- AHMAD, S. Z., AHMAD, N., & BAKAR, A. R. A. (2018). Reflections of entrepreneurs of small and medium-sized enterprises concerning the adoption of social media and its impact on performance outcomes: Evidence from the UAE. *Telematics and Informatics*, 35(1), 6–17.
- BOCCONCELLI, R., CIOPPI, M., FORTEZZA, F., FRANCONI, B., PAGANO, A., SAVELLI, E., & SPLENDIANI, S. (2018). SMEs and marketing: a systematic literature review. *International Journal of Management Reviews*, 20(2), 227–254.
- CETLOVÁ, H., & E.VELINOV (2019). Online marketing activities and marketing communication tools in Czech small and medium-sized enterprises. *MARKETING IDENTITY Offline Is the New Online International Scientific Conference*, 5th – 6th November 2019 Faculty of Mass Media Communication, University of SS. Cyril and Methodius in Trnava, Slovakia, pp. 803–815 ISBN 978-80-572-0038-3 ISSN 1339-5726 [online]. [cit. 2020-06-03]. Available at: https://fmk.sk/download/MI2019_AJ_final-1.pdf
- DONTHU, N., & GUSTAFSSON, A. (2020). Effects of COVID-19 on business and research. *Journal of business research*, 117, 284.
- EID, R., & EL-GOHARY, H. (2013). The impact of E-marketing used on small business enterprises' marketing success. *The Service Industries Journal*, 33(1), 31–50.
- GAUR, S., SHARMA, L., & PANDYA, D. D. (2019). A perception of ICT for social media marketing in India. In *Computing and Network Sustainability* (pp. 485–495). Springer, Singapore.
- HEEKS, R. (2017). *Information and communication technology for development (ICT4D)*. Routledge.
- KINGSNORTH, S. (2019). *Digital marketing strategy: an integrated approach to online marketing*. Kogan Page Publishers.

KOTLER, P., & G. ARMSTRONG (2003). *Marketing*. [6th edition]. Praha: Grada. ISBN 978-80-247-0513-2.

KOTLER, P., & K. L. KELLER (2013). *Marketing management*. [14th edition]. Praha: Grada, 2013. ISBN 978-80-247-4150-5.

KUCHAR, V.: *Jak a proč měřit efektivitu marketingu*. [online]. [cit. 2020-06-06]. Available at: <https://www.marketingova-kancelar.cz/jak-proc-merit-efektivitu-marketingu>

KRUTIS, M. *Ucelený přístup k online marketingu*. [online]. [cit. 2020-03-05]. Available at: <https://www.krutis.com/strategie/>

MCKINSEY COVID-19: Implications for business. October 7 2020. Executive Briefing. [online]. [cit. 2020-10-10]. Available at: <https://www.mckinsey.com/business-functions/risk/our-insights/covid-19-implications-for-business#>

MCKINSEY: The Next Normal. How companies and leaders can reset for the growth beyond coronavirus, Available at: <https://www.mckinsey.com/featured-insights/coronavirus-leading-through-the-crisis>

MERILÄINEN, K. (2017). From Floating to Leading: The Transformation of Digital Marketing Capabilities Through ICT Uptake in Tourism SMEs. In *Information and Communication Technologies in Tourism 2017* (pp. 89–100). Springer, Cham.

MPO ČR (2011) Státní politika v elektronických komunikacích – Digitální Česko [online]. Ministerstvo průmyslu a obchodu České republiky. 25. ledna 2011 *Strategické dokumenty informační politiky ČR*. [online]. [cit. 2020-06-03]. Available at: <http://download.mpo.cz/get/43273/48548/573486/priloha001.pdf>

OECD (2010). *Information Technology Outlook 2010*. Paris: OECD Publishing. ISBN: 978-92-64-08466-6. [online]. [cit. 2020-08-04]. Available at: <https://www.oecd.org/sti/inno/oecdsciencetechnologyandindustryoutlook2008.htm>

OECD (2010). *News in the Internet Age – New Trends in News Publishing*. Paris: OECD Publishing ISBN: 978-264088696. <https://www.oecd.org/internet/economy/newsintheinternetagenewtrendsinnewspublishing.htm>

OECD (2010). *Information Technology Outlook 2010*. Paris: OECD Publishing. ISBN: 978-92-64-08466-6. [online]. [cit. 2020-06-03]. Available at: <https://www.oecd.org/sti/inno/oecdsciencetechnologyandindustryoutlook2008.htm>

OECD (2010). *News in the Internet Age – New Trends in News Publishing*. Paris:

- OECD Publishing ISBN: 978-264088696. OECD (2010). *News in the Internet Age – New Trends in News Publishing*. Paris: OECD Publishing ISBN: 978-264088696. [online]. [cit. 2020-08-03]. [online]. a t: <https://www.oecd.org/internet/ieconomy/newsintheinternetagenewtrendsinnewspublishing.htm>
- PERTYL, J. (2017) *E-Business*. [online]. [cit. 2020-06-06]. Available at: <https://managementmania.com/cs/e-business>
- PERTYL, J.: *Využití E-business pro dosažení konkurenční výhody podniků*. Disertační práce 2013. [online]. [cit. 2020-06-06]. Available at: <https://www.marketingmind.cz/wp-content/uploads/2017/04/Jan-Petrtyl-Vyuziti-e-business-pro-dosazeni-konkurencni-vyhody-podniku.pdf>
- PLOTNIKOVA, M., ROMERO, I., & MARTÍNEZ-ROMÁN, J. A. (2016). Process innovation in small businesses: the self-employed as entrepreneurs. *Small Business Economics*, 47(4), 939–954.
- VILASECA-REQUENA, J., TORRENT-SELLENS, J., & JIMÉNEZ-ZARCO, A. I. (2007). ICT use in marketing as innovation success factor. *European Journal of Innovation Management*.

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