



Digitalization of Business Development Marketing Tools in the B2C Market

Nataliia Savytska 

Department of Marketing, Reputation Management and Customer Experience, State Biotechnological University, Kharkiv, Ukraine. E-Mail: n.savytska@btu.kharkov.ua

Vitalina Babenko* 

*Corresponding Author, Department of Banking Business and Financial Technologies, V. N. Karazin Kharkiv National University, Kharkiv, Ukraine. E-Mail: vitalinababenko@karazin.ua

Hanna Chmil 

Department of Marketing, Reputation Management and Customer Experience, State Biotechnological University, Kharkiv, Ukraine. E-Mail: hannachmil@gmail.com

Olha Priadko 

Department of Marketing, Reputation Management and Customer Experience, State Biotechnological University, Kharkiv, Ukraine. E-Mail: oliaprydko9598@gmail.com

Iryna Bubenets 

Department of Marketing, Reputation Management and Customer Experience, State Biotechnological University, Kharkiv, Ukraine. E-Mail: bubirag8@gmail.com

Abstract

With the development of a new stage of the industrial revolution, the importance of digitalization of business development tools is growing. The purpose of this article is to study the applied aspects of digital marketing tools usage for business development in the B2C market. To achieve the purpose and objectives of the study general and special methods are used: comparative analysis of the results of economic and statistical surveys; method of expert assessments by questionnaires using a 5-point Likert scale. The concordance coefficient was used to determine the consistency of the experts' opinions taking into account the related ranks in method of expert assessments. According to the results of the research, it is established that the Ukrainian business of the B2C sector was actively mastering digital marketing tools. The analysis of penetration level of digital technologies in the development of trade business showed the emergence of basic conditions for updating marketing tools to influence the B2C market. There is a rapid coverage rate of multi-purpose use of the Internet among consumers and businesses; gradual growth of digital skills among practitioners;

positive dynamics of development of interactive services in the trade sphere. However, the level of use of the retail businesses websites remains low in many spheres of customer service. An important trend of the current development stage of the consumer market is the usage of business Internet platforms designed for mass dissemination of information. Effective marketing channels of interaction with consumers include social media (social networks, blogs or microblogs, websites with multimedia content, knowledge sharing tools), websites, e-shops, and sales via mobile devices. According to the results of expert evaluation, foreground digital technologies, which are able to bring business to a qualitatively new level of interaction with consumers and the provision of trade services have been identified. These are artificial intelligence and cognitive technologies, BigData, Internet of Things (IoT), and cloud computing. The structural and logical scheme of research of digital marketing tools is used for business development which includes two stages is offered. In the first stage, trendwatching, benchmarking and evaluation of internal opportunities for the use of digital marketing tools are performed. In the second stage, three components of digital readiness of business are defined: technological; competence; institutional. The obtained results form the basis of further research to determine the priorities of adaptive digital business behavior for the productive use of existing digital opportunities.

Keywords: Digitalization; Marketing; Business; Retail; B2C Market; Social Media.

Journal of Information Technology Management, 2023, Vol. 15, Issue 1, pp. 124-134

Published by University of Tehran, Faculty of Management

doi: <https://doi.org/10.22059/jitm.2023.90740>

Article Type: Research Paper

© Authors

Received: September 19, 2021

Received in revised form: October 02, 2022

Accepted: December 23, 2022

Published online: January 21, 2023



Introduction

External challenges of digital transformation have updated the theoretical and applied search for management solutions that will provide an opportunity to maintain the competitiveness of business in a "new normality" (Blommaert T., et al., 2017), challenges of the new digital revolution (Blommaert T., et al., 2017; Schwab K., 2016) and the associated transformation of business and the economy (Unctad, 2019; MIT, 2011; MIT, 2017). The issue of business digitalization has become significantly relevant and is considered in the works of Natorina A., 2020; Bilovodska O., et al., 2021; Babenko V., 2020; Schwab K., 2016; Blommaert T., et al., 2017; Alagoa H., 2016; Meyer M., et al., 2018, etc.

The works of famous scientists are devoted to the study of the online trade organization, theoretical and practical approaches to the modern development of the B2C market: Kestenbaum R., 2017; Natorina A., 2018; Natorina A., 2019. Attention was paid to the study

of modern formats of trade and omnichannel sales by these scientists: E. Brynjolfsson, et al., 2013; Kietzmann J., et al., 2018.

Particular scientific and applied principles of digital marketing have been the subject of research by scientists such as Gibson C., 2018; Owen D., 2017; López García J., et al., 2019; Oklander M., et al., 2018; Rust R., et al., 2014; Ramos T., 2018. Practical issues of modern marketing tools application are covered in the works of Koshkaldal I., et al., 2020; Rowland J., 2017; Sadchenko O., et al., 2019.

Despite the large number of scientific works, a number of important issues remain unresolved in the use of digital marketing tools for business development, which determined the purpose of this study.

Methodology

The use of digital marketing tools for business development is investigated by logic from identifying current trends in updating marketing tools to digital business readiness. This logic involves the use of a general and special methods set. Comparative analysis of the economic and statistical surveys results was used to establish the level of penetration of digital technologies in the practice of trade business. In order to determine relevant and significant digital marketing tools for the development of trade business, the method of expert evaluations was used. The implementation of this method was carried out by questionnaire, using a 5-point Likert scale. To determine the consistency of experts' opinions, a concordance coefficient was used, taking into account the related ranks.

Results

Paying attention to the background of the gradual transition to the introduction of Industry 4.0 technologies, global trends in the digitalization of operational processes and new business models have been developed (Babenko V., 2020). However, the emerging digital economy has an uneven nature of development, which determines the need to identify tools that create the digital maturity of enterprises in various sectors of the B2C market (Savytska N. et al., 2022). Industries, regional and national economies differ significantly in the level of digitalization and the depth of the digital gap in all aspects of its manifestation: geographical, technological, social, cognitive, and so on.

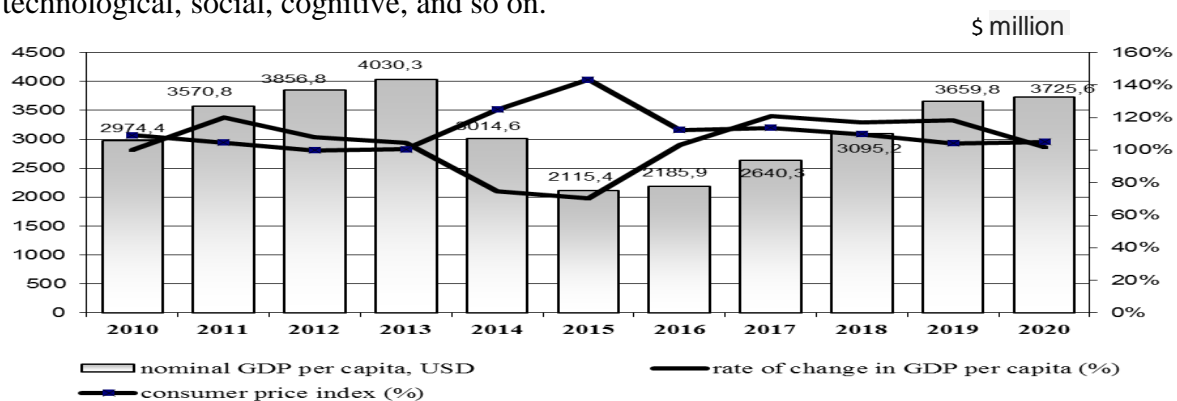


Fig. 1. Dynamics of the main indicators of gross domestic product in Ukraine
Source: formed by the (Ukrstat, 2020; Ukrstat, 2021)

Empirical prerequisites for digital transformation are created both by the macroeconomic conditions of the national economy and the level of digital tools penetration into business practice. According to official data shown in fig. 1 (Ukrstat, 2020), in the period of 2010-2020 there is an instability of the dynamics of national production in Ukraine, it is expressed by such indicators as GDP per capita and the consumer price index.

Data, presented in fig. 1 show the peak gaps between the growth rate of nominal GDP per capita and the consumer price index.

Crisis periods are illustrated in 2013-2016, as well as the decline in production in 2020 due to restrictions related to the fight against the COVID-19 pandemic. The result of the chain reaction was a drop in sales and a decrease in consumer demand. One of the ways to overcome the crisis of business is the potential of digitalization. Digital technologies become drivers of product, organizational, marketing innovations, on the basis of which interaction with clients is restored, which is very important for the B2C market.

In order to characterize the brightest trends in the B2C market, we have chosen changes in marketing tools for the development of retail business. This is due to two factors. The first one is about the significant role of trade in the development of the economy of any country, its impact on human development (Savytska N. et al., 2021). For the Ukrainian economy, the average share of trade business in the creation of real value added is almost 22%; number of employees - 17% (Ukrstat, 2021). Wholesale and retail trade are the largest taxpayers among small and medium-sized businesses (Kmu, 2020). Secondly, the fact that trade has traditionally been an indicator of the development of the entire consumer market.

The analysis of the level of penetration of digital technologies for the development of trade business showed the emergence of basic conditions for updating marketing tools to influence the B2C market. According to data given (Ukrstat, 2019), the provision of basic digital infrastructure and basic digital skills of staff is shown in fig. 2.

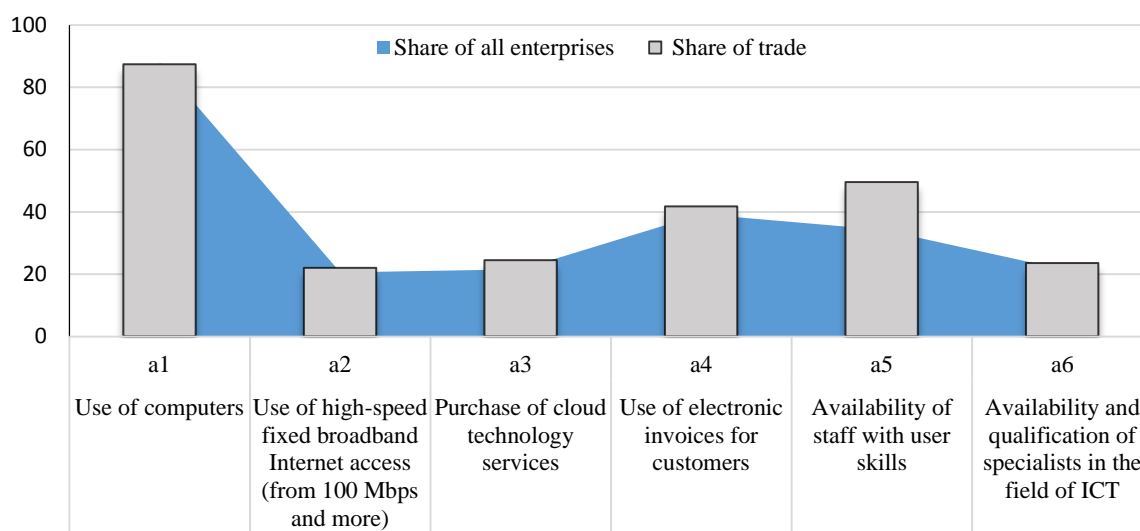


Fig. 2. Provision of Ukrainian enterprises with basic digital infrastructure and digital staff skills
Source: formed by the (Ukrstat, 2019)

According to indicators of computer use (a1); high-speed fixed broadband Internet access (from 100 Mbps and more) (a2); purchase of cloud technology services (a3); electronic invoices for customers (a4); qualified personnel in the field of ICT (a6) trade enterprises are slightly better equipped than in the economy as a whole. In terms of available staff with basic user skills (a5), trade is significantly ahead of traditional industries and second only to the information and communication sphere (Guryanova et al., 2020; Mavlutova et al., 2021).

In fig. 3. a section of digital marketing activities which are used for business development in general in the economy and in trade enterprises is shown.

According to the data presented in fig. 3, it is established that the level of penetration of digital technologies into business practice still remains low. Use of CRM-systems; blogging and online sales are provided by only one in ten businesses. Only one in five businesses uses the website to publish multimedia content, consumer services and the potential of Big Data.

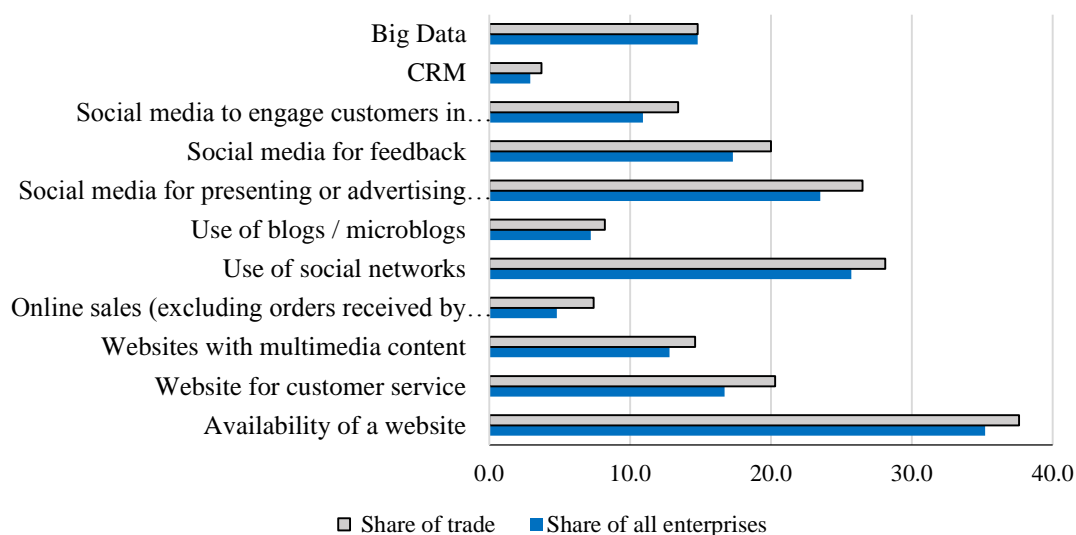


Fig. 3. Section of digital marketing activities which are used by business entities in Ukraine
Source: formed by the (Ukrstat, 2019)

The priority goals of trade enterprises in the process of using social media at the present stage of their development are: presentation of the enterprise or advertising of its work (goods, services) - 24.8% of content; receiving customer feedback or providing answers to their questions (18.7%); cooperation with business partners or other organizations (17.6%), hiring employees (14.0%); involvement of clients in the development or innovation of goods and services (12.5%); exchange of views, opinions or knowledge within the enterprise (12.3% of content) (Ukrstat, 2019).

In order to identify relevant and significant digital technologies for the development of trade business, a survey of marketing specialists working in the B2C market was conducted. The survey was conducted by questionnaire on a 5-point Likert scale. To determine the consistency of experts' opinions, a concordance coefficient was used, taking into account the related ranks, as the marks were repeated.

The obtained concordance coefficient $W = 0.65$, indicates a fairly high degree of experts' agreement. To assess the significance of the concordance coefficient, the Pearson consistency criterion is determined (χ^2). At a given level of significance $\alpha = 0.05$, the calculated one is $\chi^2=136.3$, which is much higher than the tabular value (23,68479). That is, the consistency of the experts' opinions - the value is not accidental, and the results which are given in table 1, make sense and can be used in further research.

According to the results of the calculated significance coefficients, the ranks of 15 types of digital activities are established. The profile of digital technologies significance for development of trade business is constructed in fig.4.

According to expert estimates and visualization of the results in fig. 4 the TOP-5 most important for the trading business at this stage were identified as the site, e-commerce, e-logistics, sales via mobile phones and social networks as channels of interaction with consumers. Social media and platforms are also becoming increasingly important due to the development of the Marketing 5.0 concept, according to which mobile devices and the Internet at any place will provide interaction and communication with consumers at any time.

Table 1. The results of expert assessment of the digital activities importance in business development

	Digital activities	Significance coefficient	Ranks
X ₁	Mobile	0,089	4
X ₂	Big Data	0,08	7
X ₃	CRM	0,061	10
X ₄	e-logistics	0,091	3
X ₅	e-commerce	0,093	2
X ₆	3D	0,024	14
X ₇	AR, VR	0,064	9
X ₈	Cloud computing	0,074	8
X ₉	Drones	0,02	15
X ₁₀	Social media	0,088	5
X ₁₁	Chat-bots	0,086	6
X ₁₂	Site	0,102	1
X ₁₃	Blockchain	0,052	11
X ₁₄	AI	0,036	13
X ₁₅	IoT	0,04	12

Source: formed by the authors

The TOP-10 also includes chatbots, Big Data and cloud computing, augmented reality (AR, VR), CRM systems. Big Data progressive tools allow you to analyze consumer actions, track trends in terms of sales and inventories. They also facilitate the collection and storage, data generation, which gives an idea of buyers, their behavior, sales and stocks. On the basis of such analytics, both strategic, tactical and operational decisions are made, which allow to quickly increase sales revenue. It should be noted that modern digital technology analytics provide opportunities for analyzing customer histories, tracking shopping experiences, contact points based on data collected using PoS and CRM applications and aggregated in the database.

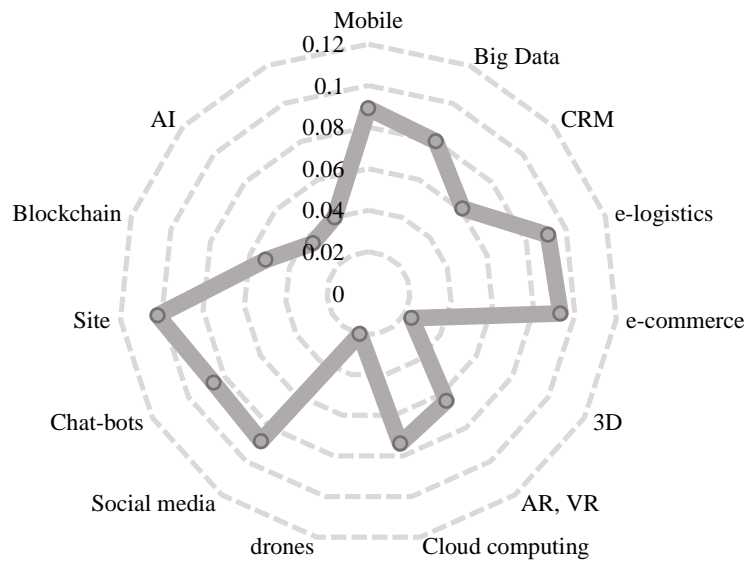


Fig. 4. The profile of digital technologies significance for the development of trade business
Source: developed by the authors

Using them, marketers get more accurate information about the behavioral patterns of customers, their preferences and habits. Big Data tools allow to perform detailed and step-by-step analysis of sales funnels, using the information obtained and decisions made to improve interaction with customers.

Promising branches are artificial intelligence and cognitive technologies, which are rapidly changing, evolving and providing increasing opportunities for trade enterprises. In addition to CRM, portable scanners and mobile applications, we should also highlight digital price tags, smart shelves, digital information platforms (panels), merchandiser robots, Ibeacons, Face First.

In generalized form, the above logic of the study of the digital marketing tools impact on business development is presented in fig 5.

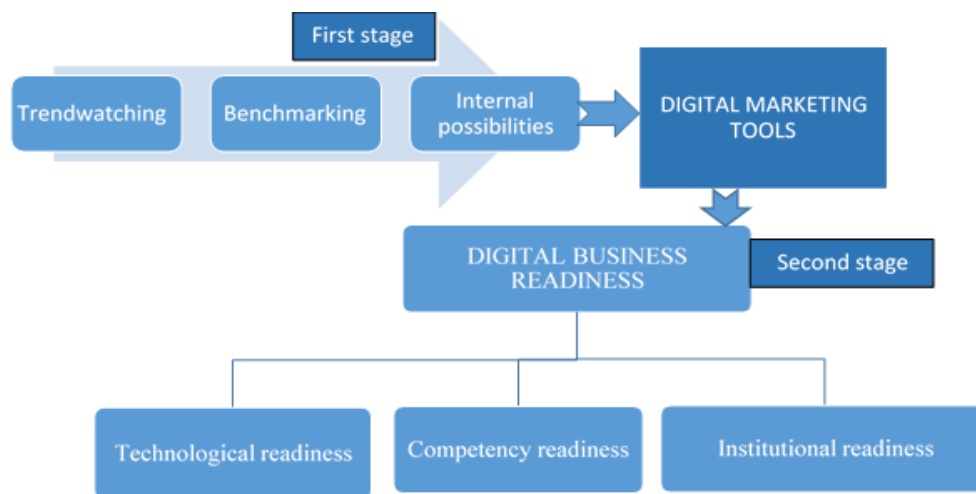


Fig. 5. The logic of the study of the digital marketing tools impact on business development
Source: developed by the authors

The presented in fig. 5 logic of the study has two stages. At the first stage the sequence is realized: trend analysis (trendwatching); comparison of best practices in the application of identified priority digital marketing tools (benchmarking); assessment of internal possibilities of digital marketing tools application for business development. At the second stage, three components of digital business readiness are determined: technological (availability of technologies); competence (availability of qualified staff); institutional (the presence of organizational readiness for change). The implementation of the offered scheme requires further research, which is the subject of another study.

Conclusion

According to the results of the research, it was established that the Ukrainian business of the B2C sector for the period of 2017-2020 actively mastered digital marketing tools. There is a rapid rate of coverage of multi-purpose use of the Internet among consumers and businesses; gradual growth of digital skills among practitioners; positive dynamics of development of interactive services in the trade sphere. However, the level of the websites use of retail businesses in many areas of customer service remains low. An important trend of the current stage of development of the consumer market is the use of various social media and Internet services designed for mass dissemination of information. Among the effective marketing channels of interaction with consumers, experts identify social media (social networks, blogs or microblogs, websites with multimedia content, knowledge sharing tools), website, e-shop, sales via mobile devices. According to the results of expert evaluation, advanced digital technologies have been identified that can bring business to a qualitatively new level of interaction with consumers and the provision of trade services: artificial intelligence and cognitive technologies, Big Data, Internet of Things (IoT), cloud computing.

The obtained results form the basis for further research, determination of priorities of adaptive digital behavior of business for productive use of available digital opportunities.

Conflict of interest

The authors declare no potential conflict of interest regarding the publication of this work. In addition, the ethical issues including plagiarism, informed consent, misconduct, data fabrication and, or falsification, double publication and, or submission, and redundancy have been completely witnessed by the authors.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

- Alagoa, H. (2016). *Organizational Digital Transformation Anticipating and Planning for the Paradigm Shift*. <http://dx.doi.org/10.2139/ssrn.2588347>
- Babenko, V. (2020). *Enterprise Innovation Management in Industry 4.0: Modeling Aspects. Emerging Extended Reality Technologies for Industry 4.0: Early Experiences with Conception, Design, Implementation, Evaluation and Deployment*: Collective monograph. Ed. by Jolanda G. Tromp A John Wiley & Sons, Inc., Publication, 1–24. <https://doi.org/10.1002/9781119654674.ch9>
- Bilovodska, O., Melnyk, Y., Alenin, Y. & Arkusha, L. (2020). Implementation of marketing and legal tools in the process of commercialization for innovative products in strategic management and entrepreneurship. *International Journal for Quality Research*, 14, 4, 1261–1278. DOI: 10.24874/IJQR14.04-18
- Bilovodska, O., Mykhalchyshyn, N., Komarynets, S., Seniv, L., Humeniuk, V. & Kantsir I. (2021). Globalization Impacts on the Structure of Ukraine's Economy: Innovations Challenges for Management in Digitalization, Social and Economic Transformations. *Journal of Information Technology Management*, Special Issue, 20–34.
- Blommaert, T. & Van den Broek, S. (2017). *Management in Singularity: From linear to exponential management*. URL: <https://www.amazon.com/Management-Singularity-linear-exponential-management/dp/9462761647>.
- Brynjolfsson, E., Hu, Y.J. & Rahman, M.S. (2013). *Competing in the age of omnichannel retailing*, Cambridge, MA: MIT. URL: https://courses.helsinki.fi/sites/default/files/course-material/4482615/17.3_MIT%20Brynjolfsson
- Gibson, C. (2018). The Most Effective Digital Marketing Strategies & Approaches: A Review of Literature. *International Journal of Scientific and Research Publications*, 8, 2, 12–16.
- Guryanova, L., Yatsenko, R., Dubrovina, N. & Babenko, V. (2020). Machine learning methods and models, predictive analytics and applications. CEUR Workshop Proceedings, 2020, 2649, 1-5. URL: <http://ceur-ws.org/Vol-2649/>
- Kestenbaum, R. (2017). What Are Online Marketplaces And What Is Their Future? URL: <https://www.forbes.com/sites/richardkestenbaum/2017/04/26/what-are-online-marketplaces-and-what-is-their-future/?sh=d4489d73284b> (Accessed 27.06.2022).
- Kietzmann, J., Paschen, J. & Treen, E.Rae. (2018). Artificial intelligence in advertising: How marketers can leverage artificial intelligence along the consumer journey. *Journal of Advertising Research*, 58, 3, 263–267. DOI:10.2501/JAR-2018-035.
- Kmu. (2020). Information and analytical materials for the Economic Stimulus Program to overcome the consequences of the epidemic COVID-19.
- Koshkalda, I., Bezuhla, L., Nihatova, O. & Ilchenko, T. (2020). Brand as a marketing tool for growth in organic sales: Evidence from Ukraine. *International Journal of Technology Management and Sustainable Development*, 19, 3, 297–316.
- López García, J.J., Lizcano, D., Ramos, C. MQ. & Matos N. (2019). Digital marketing actions that achieve a better attraction and loyalty of users: An analytical study. *Future Internet*, 11, 6, 130. <https://doi.org/10.3390/fi11060130>
- Mavlutova, I., Babenko, V., Dykan, V., Prokopenko, N., Kalinichenko, S. & Tokmakova, I. (2021). Business Restructuring as a Method of Strengthening Company's Financial Position. *Journal of Optimization in Industrial Engineering*, 14(1), 129-139. <http://dx.doi.org/10.22094/JOIE.2020.677839>

- Meyer, M., Helmholz, P. & Robra-Bissantz, S. (2018). *Digital Transformation in Retail: Can Customer Value Services enhance the Experience?*, *Bled eConference*, 23, 291–300.
- MIT (2011). *Digital transformation: a roadmap for billion-dollar organizations* MIT Center for Digital Business and Capgemini Consulting. MIT Sloan Management. URL: https://www.capgemini.com/wp-content/uploads/2017/07/Digital_Transformation__A_Road-Map_for_Billion-Dollar_Organizations.pdf
- MIT (2017). *The Digital Advantage: How Digital Leaders Outperform Their Peers in Every Industry*. Capgemini Consulting, MIT Sloan Management. URL: <https://www.capgemini.com/wp-content/uploads/2017/07>
- Natorina, A. (2018). Online retailers' management system of marketing commodity policy. *Economic Annals-XXI*, 174, (11-12), 69–72. <https://doi.org/10.21003/ea.v174-11>
- Natorina, A. (2019). Online retailers' innovation activity: digital age. *Espacios*, 25–32, 5, 35. URL: <https://www.revistaespacios.com/a19v40n35/a19v40n35p25.pdf> (Accessed 28.06.2022).
- Natorina, A. (2020). Business optimization in the digital age: Insights and recommendations. *Economic Annals-XXI*, 181 (1-2), 83–91. <https://doi.org/10.21003/ea.V181-07>
- Oklander, M., Oklander, T., Yashkina, O., Pedko, I. & Chaikovska, M. (2018). Analysis of technological innovations in digital marketing. *Eastern-European Journal of Enterprise Technologies*, 5, 3 (95), 80–91. <https://doi.org/10.15587/1729-4061.2018.143956>
- Owen, D. (2017). Analysing the use of Multimedia in Marketing for Small Medium Enterprises, *Cardiff Metropolitan University*. URL: <https://repository.cardiffmet.ac.uk/handle/10369/8532>
- Ramos, T. (2018). *Marketing 4.0: All About New Mindsets and New Approaches*. URL: <https://blog.runrun.it/en/marketing-4-0/>
- Rowland, J. (2017). Developing a Social Media Strategy. URL: <https://www.digitalmarketer.com/digital-marketing/social-media-marketing-strategy/>
- Rust, R. & Huang, M.-H. (2014). The Service Revolution and the Transformation of Marketing Science. *Marketing Science*, 33, 2, 206–221.
- Sadchenko, O., Yakymyshyn, L., Kovalchuk, S., Chernenko, D., Zaitseva, A. & Dudnyk, A. (2019). Business scaling using the latest marketing tools. *International Journal of Recent Technology and Engineering*, 8, 4, 3889–3894. DOI:10.35940/ijrte.D8298.118419
- Savytska, N., Zhehus, O., Chmil, H., Uchakova, N., Androsova, T. & Priadko, O. (2022). Applied Research of Digital Readiness of Retailers. *WSEAS Transactions on Environment and Development*, 18, 798-809. DOI:10.37394/232015.2022.18.75
- Savytska, N., Kashchena, N., Chmil, H., Muda, I. & Olinichenko, K. (2021). Entrepreneurial characteristics as factors of human development. *International Journal of Entrepreneurship*, 25, 6, 1-9. URL: <https://www.abacademies.org/articles/entrepreneurial-characteristics-as-factors-of-human-development.pdf>
- Schwab, K. (2016). *The Fourth Industrial Revolution*, 171. URL: https://law.unimelb.edu.au/__data/assets/pdf_file/0005/3385454/Schwab-The_Fourth_Industrial_Revolution_Klaus_S.pdf
- Ukrstat. (2019). Ukrstat. Use of information and communication technologies at the enterprises of Ukraine in 2018–2019. Statistical information of the State Statistics Service of Ukraine. URL: http://www.ukrstat.gov.ua/operativ/operativ2019/zv/ikt/arh_ikt_u.html (Accessed 28.06.2022).
- Ukrstat. (2020). Ukraine in figures 2020 State Statistics Service of Ukraine. URL: http://ukrstat.gov.ua/druk/publicat/kat_u/2021/zb/07/zb_Ukraine%20in%20figures_20

Ukrstat. (2021). Statistical Yearbook of Ukraine 2020 State Statistics Service of Ukraine. URL: http://ukrstat.gov.ua/druk/publicat/kat_u/2021/zb/11/Yearbook_2020_e.pdf

Unctad (2019). Digital Economy Report 2019. Value Creation and Benefits: Implications for Developing Countries. UNCTAD. 2019. URL: https://unctad.org/system/files/official-document/der2019_overview_ru.pdf

Bibliographic information of this paper for citing:

Savytska, N., Babenko, V., Chmil, H., Priadko, O. & Bubenets, I. (2023). Digitalization of Business Development Marketing Tools in the B2C Market. *Journal of Information Technology Management*, 15 (1), 124-134. <https://doi.org/10.22059/jitm.2023.90740>

Copyright © 2023, Nataliia Savytska, Vitalina Babenko, Hanna Chmil, Olha Priadko and Iryna Bubenets