

Tetyana Kalna-Dubinyuk

Doctor of Science (Economics), Professor,
National University of Life and
Environmental Sciences of Ukraine,
Head of Extension and Tourism Department
Ukraine, Kyiv
tatiankd@yahoo.com

Olena Shapoval

PhD (Economics),
National University of Food Technologies,
Associate Professor at Marketing Department
Ukraine, Kyiv
olenafshapoval@gmail.com

Iryna Bolotina

PhD (Economics),
National University of Food Technologies,
Associate Professor at Marketing Department
Ukraine, Kyiv

WORLD TRENDS AND NATIONAL PRIORITIES FOR THE USE OF INFORMATION AND CONSULTING TECHNOLOGIES

Abstract. The article presents the results of the study of the trends of globalization of the world economic system and the state of globalization of the Ukrainian economy from the standpoint of prospects for the further development of information and consulting technologies. Modern approaches to the use of information and consulting technologies in Ukraine are substantiated. The main trends of the development of information and consulting technologies on electronic digital platforms: the Internet, mobile applications, cloud technologies, etc. are analyzed. The use of information and consulting technologies for the formation of target audiences, expansion of the consumers' products, as well as acceleration of the promotion of brands in the conditions of functioning of the market system is shown.

Key words: globalization, information and consulting technologies, communications, Internet technologies

Formulas: 0; fig.: 1; tabl.: 0; bibl.: 31

Introduction. The modern world market system is characterized by the integration of national economies of individual countries, due to the expansion of international exchange in the markets of goods, services and capital movements. The current phase of development of the world economy is based on knowledge, production of high-tech products, advanced information systems and information and consulting technologies.

The mechanisms and institutional foundations for the development of information and consulting technologies developed in highly developed countries in the framework of national production systems provide for the growth of the economy, the easy entry of enterprises into international projects, as well as their free access to international markets.

The effective activity of Ukrainian enterprises in world markets depends on their level of adaptability to the conditions of globalization and European integration, the achievement and maintenance of leadership positions in the competitive struggle. A successful lever of such activity is the use of information and consulting technologies.

Information and consulting technologies (ICTs) are based on computer network resources, databases and knowledge, software, and also on the qualified personnel. ICTs have their mission of promptly providing information and knowledge during the advisory process and communication between a specialist and a client.

The use of information and consulting technologies at enterprises is a particularly valuable resource and a guarantee of rapid adaptation of companies to the dynamic requirements of world and national markets. Consequently, the globalization processes of the world economic space necessitate the further development and use of effective information and consulting technologies.

Analysis of research and problem statement. The problems of global globalization in the aspect of the development and use of computer information technologies are devoted to the study of foreign scholars such as Bradley, Stephen P., Jerry A. Hausmann, and Richard L. Nolan [Bradley, Stephen, Hausmann & Nolan 1993]. Further developments concerning the introduction of the Ukrainian economy into the global processes of globalization, taking into account its information and technology component, were studied in the writings of Ukrainian scientists: Savelko T., Chervinsky A., Shutis M. [Savelko 2004; Chervinsky, Shutis 2013].

The results of scientific and practical research on the use of information and consulting technologies by companies on the basis of advanced computer platforms are highlighted in the scientific works of such foreign scientists as O'Brien J., Callon J. and Carrol M. [O'Brien, James 1999; Callon 1996; Carrol 1996], Baden-Fuller Ch., Haefliger S. [Baden-Fuller, Haefliger 2013], Bruhn M., Karlan D., Schoar A. [Bruhn, Karlan, Schoar 2018], Christensen Ch. [Christensen 2005], Druckman D. [Druckman 2000], Jacobson N., Butterill D., Goering P. [Jacobson, Butterill, Goering 2005], Lee Y. H., Seo Y. W. [Lee, Seo 2018], Loebbecke C. [Loebbecke 2007], Malaquias R. F., Albertin A. L. [Malaquias, Albertin 2018], Mathiassen L., Pries-Heje J. [Mathiassen, Pries-Heje 2006], Mohe M. [Mohe 2005], Momani B. [Momani 2013], Sohn Y. Y., Yang HW. [Sohn, Yang 2006], Srinivasan R. [Srinivasan 2014], Yeh C.-H., Lee G.-G., Pai J.-C. [Yeh, Lee, Pai 2015], Zawislak P., Gamarra J., Alves A., Barbieux D., Reichert F. [Zawislak, Gamarra, Alves, Barbieux, Reichert 2014]. Also in the writings of these scientists, the main concept and principles of using digital channels and the Internet companies in a highly competitive market environment are determined. Scientists' scholars Schaffer D. and Grunert K. [Schaffer, Schroder, Earle 1998; Grunert 1996] are devoted to global trends in the development of information-consulting and communication activities of companies in the market system.

Despite the presence of a large number of scientific works in the field of development and use of information and consulting and communication technologies remains a topical issue of further research.

The purpose of the study is to substantiate the theoretical and methodological provisions regarding the use of information and consulting technologies in the context of world trends and national patterns of their development.

To achieve the goal you need to solve the following:

- To identify the peculiarities of the development and use of information and consulting technologies in the system of global economic processes.
- Specify national priorities for the use of information and consulting technologies.

- To substantiate recommendations on the use of information and consulting technologies on new platforms.

Research results. The processes of convergence of national economies intensify their influence on the activities of enterprises of various sectors of the economy of Ukraine. This causes the optimization of their work in the markets through the use of the latest methods and technologies, including information and consulting. The analysis of the globalization of the world economy suggests that the main features and trends of this process are:

- Interpenetration and interdependence between national economies.
- Internationalization of the global economy, which leads to deepening of cooperation between countries.
- The formation of a unified communications system and a new global configuration economies and individual countries.

The level of globalization of the country is characterized by an index of globalization, reflecting the development of political, economic, technological and socio-cultural components. According to a rating survey conducted in 2017 covering 193 countries of the world, Ukraine ranked 45th in the Globalization Index (KOF Index Globalization) [KOF - Index of Globalization 2017]. The low globalization index of Ukraine is due to slowing down of reforms and political instability in the country.

Among the main parameters that form the level of the index of globalization of the country (economic integration, investments, volumes of international trade), indicators of technologization and personal communication contacts are important. It should be noted that the technology involves the widespread use of modern information systems and technologies, as well as information and consulting technologies. Thus, the reserve for increasing the globalization index of Ukraine is largely due to the further development and use of the latest information systems and information and consulting technologies. The global trends of globalization make it possible to distinguish the main areas of activity in the area of further development and use of ICT. These include:

- Reducing the timing and reducing the period of time to market new technologies.
- Growth of diffusion of new knowledge.
- Deepening technological rationalization of production on global level.
- Internationalization of production, raising the level of education of clients (consumers) and the development of communication technologies.

ICTs are under the influence of manifestations of global globalization processes, and at the same time, determine the level of globalization of a specific economy of the country in the world economy. In this regard, for companies operating at the national level, it is necessary to assess the state of the macro environment in terms of its impact on the development and use of ICT. Political, economic, technological and social components of the macro-environment were investigated on the basis of PEST analysis (Fig. 1). The results of the study made it possible to determine the following priority directions of the development of ICTs of national companies.

These include:

- Dissemination of the latest ICTs on the basis of digital channels and on the basis of continuous introduction of innovations.
- Focusing on the use of ICTs for development communication links with consumers of information products.
- Dissemination of the use of knowledge on the basis of ICT in conditions of increased attention to the knowledge of individual individuals.

Policy	Economy
<ul style="list-style-type: none"> • Legislative support of information and communication activities by the state. • Grants. • Standards. • Legislative base. 	<ul style="list-style-type: none"> • Economic status and development trends; • Inflation rate. • Dynamics of the exchange rate. • Level of market competition. • Solvency of the population.
Social	Technology
<ul style="list-style-type: none"> • Demographic status of the population. • Consumer needs. • Revenue and expenditure structure. • Qualification of personnel. 	<ul style="list-style-type: none"> • Innovative technologie. • Information resources. • The potential of information systems. • Infrastructure of information systems and technologies.

Figure 1 - PEST analysis of the macro environment.

Source: own development

The use of ICT in companies is closely linked to the communication processes of their marketing activities. Successful communication activity in the marketing sector is based on the organization of communication processes according to certain models. In this context, the classical model of marketing communication consists of a certain "chain": from the stage of the marketing message (referral) by the marketer to the individual consumers and target audiences, to the stage of reaching the communication effect and the formation of the feedback of consumers with the marketer. During the implementation of the communication process, its core components are ICTs, through which information messages are disseminated through defined channels of communication and communication with consumers [Shapoval 2016].

In today's environment, companies use ICTs based on digital channels, the Internet, a large number of communication networks (such as gps, gsm, Bluetooth, WiFi), as well as digital TV, radio and other digital communications. In terms of ICT use, digital communication channels are global in nature, as consumers of information products can use information anywhere and anytime [Shapoval 2013]. The development of ICT based on the Internet strengthens the potential of business activities of the company. So, using the official website, the company operatively organizes communications with consumers and target audiences. The website provides effective communication with counterparts and business partners. Optimizing a Web site under social networking based on technology (SMO) (social media optimization) helps to create thematic groups of consumers, attracting new ones and expanding the existing consumer audience. Communications on the basis of the Web site guarantee an increase in sales of goods of the company, a significant expansion of consumers, the maintenance of certain categories of consumers, as well as the strengthening of market competitive positions of the company in the market [Kalna-Dubinyuk 2016; 2017].

Social networking sites are a popular communication medium, where the promotion of information content is sufficiently effective and is aimed at large audiences of consumers of company products. Thus, the application of social media technology (SMM) (social media marketing) creates conditions for additional attraction of visitors to the company's website and the formation of target audiences for targeting. Targeting, as an Internet communications tool, allows you to form target audiences of consumers based on various features (geographic, consumer interests) and make communication based on personalized offers.

Competitive market environment pushes the company to increase the cost of marketing in general and advertising on the Internet in particular. The most common Internet technologies of advertising communications in companies are technologies of contextual (search) advertis-

ing, banner, video and background advertising. It should be noted that if the displays of the Internet advertising are limited to only one platform, then the same digital advertising can now be viewed by consumers on mobile devices, laptops, tablets and television. Advertising video content on the Internet displaces TV-content, both in foreign countries and in Ukraine. The popularity of YouTube is growing and there are 360-degree live streaming platforms.

According to our analytical studies, the use of video content in advertising on corporate websites significantly increases (up to 90%) the number of Web site visits by consumers and their referrals. It should be noted that today in Ukraine, in the social and cultural sphere, Internet branding is actively developing as a tool for promoting the brand and forming the company's image. At the same time, the company's web site becomes the main place and means of communication technology implementation of the bonding. In the system of communications, Internet branding is characterized by the convenience and efficiency of the resource, information content of the Web site, as well as personalization of messages to the consumer, depending on its territorial location and social status [Bolotina, Shapoval, Savkova 2017].

The modern approach to using ICTs involves the use of cloud technologies. Cloud technologies in the process of their application are based on cloud algorithms for processing large arrays of non-systematic information, systematizing it. Efficient information retrieval with such processing technology facilitates the adoption by professionals of sound management decisions. In this regard, you can note the global trend of rising costs for the introduction of cloud services. The development of cloud technologies improves the quality, form and content of analytical work in the business activities of companies. In this regard, national programs for the further development of cloud technologies and services are grounded in the United States and the European Union.

The use of mobile communication technologies in the ICT system increases their value for consumers. This is precisely what causes the expansion of the consumer audience by informing the owners of mobile communication devices with the simultaneous provision of targeting and personification of such influence. The use of ICT on the basis of digital channels allows the company's specialists to conduct a permanent two-way personalized dialogue with consumers, to receive information about the behavior of consumers and to create their socio-psychological portraits.

In recent years, there are stable global trends in the annual expansion of companies spending on Internet advertising in the face of growing Internet consumer audiences. Thus, an increase in the audience of Internet users in Ukraine, which at the beginning of 2017 amounted to 65%, had a positive effect on the intensity of the use of digital communication channels [KOF - Index of Globalization 2017]. Consequently, the current trends in the development of digital communication channels determine the direction of further improvement of ICT in Ukraine. Namely: by way of development of interactive consulting systems based on interactive technologies that can be implemented both in the direct contact of the client-consultant and in the form of web services and provide mobile access to information resources "consultation - recommendation - decision-making - training" [Kalna-Dubinyuk 2017]. Thus, users receive convenient, prompt, useful, reliable and efficient access in the "question-answer" mode with the elements of training and tips with the use of appropriate arsenal of computing quantitative and qualitative methods for consultation.

Conclusions. The current trends in the world economy show that globalization has an impact on the formation of new configurations of the economies of the countries. This influence is felt by virtually all countries, including Ukraine, which purposefully moves in the direction

of integration into the world economy. The processes of convergence of national economies intensify their influence on the activities of enterprises of various industries. This causes the use of the latest methods and technologies, including information and consulting for the adoption of scientifically sound solutions. The conducted studies have shown the expediency of further development and use of information and consulting technologies, the development of interactive consulting systems.

References

- Baden-Fuller, Ch., & Haefliger, S. (2013). Business Models and Technological Innovation. *Long Range Planning*, 46(6), 419-426
- Bolotina, I. M., Shapoval, O. F., & Savkova, K. G. (2017). Branding: Peculiarities of Using Internet Technologies and Information Systems of the Enterprise. *Formation of Market Relations in Ukraine: Collection of Scientific Works*. Whip No. 1 (188). - K.: DNEYEIME ChervInskiy, A., & Shutish, M. (2013). Globalizatsiya: Ukrayina zalishaetsya naplividkritoyu ta napivprozoroyu. *Ukrayina Business*, 16, 4-6.
- Bradley, Stephen, P., Jerry, A., Hausmann, & Richard, L. Nolan, eds. (1993). *Globalization, Technology, and Competition: The Fusion of Computers and Telecommunications in 1990s*. Boston: Harvard Business School Press
- Bruhn, M., Karlan, D., & Schoar, A. (2018). The impact of consulting services on small and medium enterprises: Evidence from a randomized trial in Mexico. *Journal of Political Economy*, 126(2), 635-687. <https://doi.org/10.1086/696154>
- Callon, Jack. (1996). *Competitive Advantage through Information Technology*. New York: McGraw-Hill.
- Carrol, M. (1996). *Cyberstrategies*. New York: Van Nostrand Reinhold.
- ChervInskiy, A. & Shutish, M. (2013). Globalizatsiya: Ukrayina zalishaetsya naplividkritoyu ta napivprozoroyu // *Ukrayina Business* №16 - S. 4-6
- Christensen, Ch. (2005). The 'third hand': Private sector consultants in public sector accounting change. *European Accounting Review*, 14(3), 447-474. <https://doi.org/10.1080/0963818042000306217>
- Druckman, D. (2000). The social scientist as consultant. *American Behavioral Scientist*, 43(10), 1565-1577. <https://doi.org/10.1177/00027640021957917>
- Grunert, K. G. (1996). *Market Orientation in Food and Agriculture*. Norwell, MA: Kluwer Academic Publishers.
- Jacobson, N., Butterill, D., & Goering, P. (2005). Consulting as a Strategy for Knowledge Transfer. *The Milbank Quarterly*, 83, 299-321. <https://doi.org/10.1111/j.1468-0009.2005.00348.x>
- Kalna-Dubinyuk, T., Shapoval, O., Hnidan, M., & Bass, O. (2015). Information technologies in extension services consulting activities. *European Cooperation*, 1(8), 62-70. Retrieved from <http://we.cdmconsulting.pl/index.php/we/article/view/100>
- Kalna-Dublnyuk, T. P., Rogoza, K. G., Samsonova, V. V., KudInova, I. P., Beschastna, M. V., GnlDan, M. M., Dublnyuk, Yu. V., Danilyuk, S. I. & Bas, O.I. (2017). *Modern Information and Consulting Technologies in the Advisory* // Monograph. - Nlzhin: PP Lisenko M.M., 216 s.
- Kalna-Dubinyuk, T., Bolotina, I., & Shapoval, O. (2017). Communication and Consulting Technologies of Digital Marketing: Formation of Competitive Advantages of The Company. *Research Revolution*, 5(7), 7-11.
- Kalna-Dubinyuk, T., Shapoval, O., Bozhuk, T., & Konnova, L. (2017). Psychological Aspects of Case Study with Interactive Approach. *Research Revolution*, 5(12), 1-12.

- KOF - *Index of Globalization 2017*. Retrieved from <https://www.kof.ethz.ch/en/news-and-events/media/press-releases/2017/04/kof-globalization-index-2017.html>
- Lee, Y. H., & Seo, Y. W. (2018). Strategies for Sustainable Business Development: Utilizing Consulting and Innovation Activities. *Sustainability*, 10(4122). <https://doi.org/10.3390/su10114122>
- Loebbecke, C. (2007). Use of innovative content integration information technology at the point of sale. *European Journal of Information Systems*, 16(3), 228-236. <https://doi.org/10.1057/palgrave.ejis.3000670>
- Malaquias, R. F., & Albertin, A. L. (2018). The Value of Being Innovative in Information Technology. *Journal of Technology Management & Innovation*, 13(1), 3-10. Retrieved from <https://www.jotmi.org/index.php/GT/article/view/2297>
- Mathiassen, L., & Pries-Heje, J. (2006). Business agility and diffusion of information technology. *European Journal of Information Systems*, 15(2), 116-119. <https://doi.org/10.1057/palgrave.ejis.3000610>
- Mohe, M. (2005). Generic strategies for managing consultants: Insights from clients' companies in Germany. *Journal of Change Management*, 5(3), 357-365. <https://doi.org/10.1080/14697010500258031>
- Momani, B. (2013). Management consultants and the United States' public sector. *Business and Politics*, 15(3), 381-399. <https://doi.org/10.1515/bap-2013-0001>
- O'Brien, D., & James, A. (1999). *Management Information Systems: managing information technology in the internetworked enterprise*. - 4th. ed. Boston: Irwin Mc. Grow - Hill.
- Savelko, T. V. (2004). Utochnennia ekonomichnogo zmistu i osoblivostei globalizatsii. *Flnansy Ukrainy*, 7, 20-26
- Schaffer, D., Schroder, W., & Earle, M. (1998) *Food Marketing An International Perspective*. Boston: McGraw-Hill.
- Shapoval, O. F. (2013). Formuvannya Informatsynogo potentslalu pldpriemstva. Naukoviy vlsnik NUBIP Ukraini. Seriya "Ekonomika, agrarniy menedzhment, biznes". Vip.181.Chastina 4. K.: VTs NUBIP UkraYini
- Shapoval, O. F. (2016). Komunlkatsiyni protsesi v konsaltingovy dialnosti. *Formuvannya rinkovih vidnosin v Ukraini*. Zbirnik naukovih prats. Vip. 1 (176). K.:NDEI
- Sohn, Y. Y., & Yang, HW. (2006). Information Technology, Corporate Performance and Firm Size. In: Cooper R., Madden G., Lloyd A., Schipp M. (eds). *The Economics of Online Markets and ICT Networks. Contributions to Economics*. Physica-Verlag HD. https://doi.org/10.1007/3-7908-1707-4_14
- Srinivasan R. (2014). The management consulting industry: Growth of consulting services in India: Panel discussion. *IIMB Management Review*, 26(4), 257-270. <https://doi.org/10.1016/j.iimb.2014.09.001>
- Yeh, C.-H., Lee, G.-G., & Pai, J.-C. (2015). Using a technology-organization-environment framework to investigate the factors influencing e-business information technology capabilities. *Information Development*, 31(5), 435-450. <https://doi.org/10.1177/0266666913516027>
- Zawislak, P., Gamarra, J., Alves, A., Barbieux, D., & Reichert, F. (2014). The different innovation capabilities of the firm: further remarks upon the Brazilian experience. *Journal of Innovation Economics & Management*, 13(1), 129-150. <https://doi.org/10.3917/jie.013.0129>

Received: 14.08.2018

Accepted: 18.08.2018

Published: 30.09.2018