

Digital Strategies of Service Sector Enterprises: Promising B2B Decisions

O. Omelianenko*, V. Omelyanenko*,**,***,, O. Kudrina*, I. Zihunova*, D. Kostyrko*, S. Lytvynenko****

* Sumy State Pedagogical University, Sumy, Ukraine

** Estonian Entrepreneurship University of Applied Sciences, Tallinn, Estonia

*** Institute of Industrial Economics of National Academy of Sciences of Ukraine, Kyiv, Ukraine

**** Sumy State University, Sumy, Ukraine

omvitaliy@gmail.com

Abstract – The study is devoted to digital strategies of enterprises in the service sector. The key trends of digitalization of business processes of enterprises in the service sector have been determined. The results of a pilot survey of enterprises in Sumy region of Ukraine are presented. Prospective innovative strategies of enterprises in the service sector are proposed. As part of the process approach, we propose to consider a digital agency within the system of business processes management, the ultimate goal of which is the production or supply of software, or the provision of applied IT services.

Keywords – service sector, digitalization, business model, strategy

I. INTRODUCTION

Digital transformation is the introduction of modern technologies in the formation and maintenance of the enterprise's business model. From the strategic point of view of creating a business model, it is necessary to understand that digital transformation involves not only the installation of modern equipment or software, but also fundamental changes in management approaches, corporate culture and communications. As a result, productivity and customer satisfaction levels increase, and the company gains a reputation for being progressive and modern.

Digital transformation as a result of the application of information and communication technologies (ICT) is expressed in the creation of unique business models, a qualitative change in the perception of a product or service by customers, a fundamental acceleration and simplification of the operational activities of the participants of the innovation network. It should be taken into account that in modern conditions, the company's success is determined not only by the use of unique technologies, but also by the digitalization strategy. Companies that apply ICT without a previously formed strategy solve only tactical tasks. It is important to remember that ICT is only a means, not an end. In the case of an innovation system, the goal is always a unique product (service) created using such technologies.

Digitization of business processes is relevant not only at the level of individual enterprises. In modern conditions, certain industries choose this path of development as the only opportunity to meet dynamic market conditions. Thanks to this, the digital

transformation of the service sector is already changing the life of every person and every company.

Therefore, the article is devoted to the practical issues of development of digital strategies of service sector enterprises based on B2B business model, especially within the cooperation with digital agencies.

II. LITERATURE REVIEW

Authors [1] have identified four types of sources of value creation: increasing efficiency due to reduction of transaction costs, reducing asymmetry of information, increasing the speed of transactions; complementarity: interdependence between products and services for customers (both vertically and horizontally), between online and offline business, between applied technologies and activity strategies; "binding" customers: in the conditions of e-business, the level of competition between enterprises increases, and strategies for creating various loyalty programs for customers, deepening customization, creating a unique offer for the customer as a sales driver are necessary; innovativeness: to achieve leadership, constant (daily) innovations are necessary: in services, content, etc. This idea can be confirmed empirically. As part of the study, e-business models were selected according to the economic logic of business [2]. Research [3] examines the theory of digital transformations and the theory of elements of ecosystems on the example of the development problems of the fintech sector, which is radically changing as a result of digital transformation.

The report [4] notes that digitalization has given rise to a new wave of innovation that will have profound consequences for humanity, changing the relationship between society, the state and business, and will also lead to the transformation of the structure of society and the economy. The pace of economic growth, labor productivity and the development of human potential will be increasingly determined by the level of integration into the digital economy. Indeed, digitalization not only creates new business opportunities, but also create a number of problems and risks. The study [5] examines the case of the Chinese software and services industry. It is shown that it has become a driving factor of economic growth and leading innovations. The study of the structure of an intercity network based on patent cooperation between cities helped to understand the positioning of cities from the point of view of innovations related to service

software (software service-related innovation).

The issue of the development of innovation platforms is very relevant in the framework of the ever-increasing cooperation in the creation of innovation value (innovation value co-creation), which makes it possible to introduce new products (services), increasing the efficiency of business processes and creating new value for customers [6], [7], [8], [9].

A scientific article [10], [11], [12], [13] illustrates the fact that increasing economic attention to knowledge concerns the development of so-called knowledge-intensive business services (KIBS). The researches are aimed to further understand the evolution and growth of KIBS and the nature of networks and markets. It is also argued that changing conditions of competitiveness increase the demand of enterprises in most sectors to innovate and use their core competencies and knowledge. The article [14] investigated the essence of the ICT category, its relationship with such concepts as the Internet of Things, the Industrial Internet of Things, cyber-physical systems, identified and analyzed the factors that determine the implementation of information and digital technologies within the framework of the concept smart manufacturing. Digitization enables the creation of administrative solutions, data protection systems, storage of research data and educational resources, as well as opportunities for better collaboration [15], [16], [17].

The studies [18], [19], [20] analyzed the impact of digitalization on the formation of advantages of new technologies and access to them, as well as determined their impact on organizational transformations in terms of cooperation and competitive advantages. In this context, for a better understanding of "agent-agent" interactions (actor-to-actor interactions), elements of systems thinking, determining the degree of openness of systems and the concept of managing communication flows are used [21], [22], [23].

Research results [24], [25] empirically support the hypothesis that ICT acts as a catalyst for innovation. However, the impact of digitalization on innovation activity depends on the type of ICT innovations, as well as the scale of their application. In particular, a strong positive relationship was found between ICT integrating administrative and industry software and innovative productivity. The identified pattern does not apply to market-oriented ICT, such as e-commerce or customer relationship management software. The results of the study also show that not every combination of ICT is advantageous from the point of view of the innovation process: firms that demonstrate basic use of ICT are not associated with a higher probability of innovation, while firms characterized by active use of ICT are those that who are more likely to innovate.

In the conditions of relying on fundamentally new knowledge and managing it during R&D, virtual formats of interaction can become the most common form of performing promising research and development. At the same time, it is natural to obtain the greatest scientific, technical and commercial effect by integrating these aspects into a single system with a single information and technological support.

III. FOODTECH CASE

The sphere of the restaurant business is not inferior to the sectors mentioned above, the integration of digital technologies in which a whole segment is already forming – Foodtech. The following main areas of Foodtech can be distinguished:

- delivery of food from restaurants and cafes through online ordering;
- food delivery through online ordering;
- the possibility of pre-ordering dishes by a certain time / ordering take-out food;
- availability of a large number of services with a wide database of restaurants and the possibility of ordering meals online.



Fig. 1. Foodtech areas (CBINSIGHTS approach)

As a result, the digitalization of the business model of the restaurant business occurs in two directions: communication with the client goes online, and due to the large-scale introduction of automation, the number of personnel involved in service and management is reduced.

According to the research, one of the stable trends in recent years remains the growth in popularity of loyalty programs. Almost all restaurants now have special offers and marketing campaigns, and customers at least look at the restaurant's website, social media posts and read reviews before visiting. In addition, in conditions of growing competition, classic bonus programs are being replaced by more advanced promotions, programs with elements of gamification, etc. Loyalty programs are also moving to a digital format. Instead of plastic cards, mobile applications are appearing that combine a bonus system, the possibility of reservations, an information system, special offers, personal recommendations, food diaries and feedback tools.

Experts of the international IT project on pre-ordering in restaurants and cafes, Foodle, have identified the top 5 problems that inhibit the catering industry:

1. Low rates of development of the Foodtech market and digitalization of the restaurant environment;
2. Deterioration of the quality of food outside the home due to saving time;
3. Lack of effective analytical platforms that provide a wide range of guest behavioral analytics data that allow improving the quality of interaction;
4. The need to save time and increase the speed of serving guests in catering establishments;
5. The need for quick and convenient division of the bill between several guests when visiting the restaurant.

In contrast to the foreign restaurant market, where digitization has currently reached a high level (the share of online service penetration in the food segment in the USA is 3%, in the UK 7%), Foodtech in Ukraine is just beginning to be implemented - the share of online services is no more a few percent.

According to pilot survey of Sumy region of Ukraine, the restaurant business in 2021 has shown some growth, and the field of electronic commerce is also actively developing. Main survey results:

- 82% of surveyed businesses see the future opportunities in the digital technologies application;
- 42% are already using different digital promotion tools;
- 37% are not ready for the expanded use of foodtech technologies due to a number of reasons (lack of financial resources, lack of specialists);
- only 7% use the services of specialized agencies.

These factors indicate the need for active implementation and development of Foodtech, because in the near future the catering market is expected to change. In terms of practical aspects of implementing Foodtech, the main challenge facing the restaurant business will be to make ordering as easy as possible and to innovate to make ordering possible in one or two clicks.

To solve this task, it is necessary to analyze the market and the requests of the target audience. Current trends in the development of the e-commerce market and online orders dictate the need to use advanced analytics about the target audience. As a rule, restaurants do not have such statistics at their disposal and, accordingly, do not have flexible and convenient tools for proactive management of the business model, and therefore sales volumes, sales promotion and revenue growth.

To build a business model and provide quality service, it is necessary to have the most complete information about the target consumer and to personalize data about him as much as possible. This will make it possible to effectively use advertising channels and adjust work processes in the right direction.

In these conditions, the implementation of the B2B model allows obtaining advanced analytics on users in any field, which opens up wide opportunities for business owners. The possibility of personalization, improvement of the quality of services, changes and expansion of the assortment make it possible to significantly improve the quality of the service. With the development of e-commerce and the Foodtech market, advanced analytics will be increasingly necessary in business. In other words, the automation of analytics allows the most effective management of the enterprise. You can accumulate all data on one platform and make decisions based on the real situation in real time. From this point of view, the main task of the restaurant management system is the management of information flows, and business intelligence systems allow storing and processing large amounts of data. Profitability of data-based business model occurs with the beginning of a systematic analysis of the enterprise's business processes for the purpose of

strategic improvement. Thus, the preliminary analysis of business processes during the implementation of digital technologies in the Foodtech, in addition to potential conveniences for customers, opens up many new opportunities for the business. Among them, we can note the optimization of work and the possibility of scheduling loading, revenue growth due to reaching a new audience. In these conditions, the services and platforms of specialized business analytics allow to bring work with clients to a new progressive level, as well as to carry out effective marketing management.

IV. B2B-SERVICES BUSINESS MODEL

Gartner experts believe that the success of digitization depends not so much on modern technologies, but on the availability of established production processes and systems. Skills, initiatives and business models are 15 times more important for success in digitalization than discretely implemented technologies.

It should be noted that in the past, in order to successfully enter the online market, it was enough for an entrepreneur to order a typical website, create several pages (landing pages) using one of the online services, purchase a subscription base (in the best case - collect), post several advertising posts on social media networks and understand the basics of SEO promotion. This ensured a sufficient level of profit. But in modern conditions, everything is changing, and Internet technologies are no longer enough for business, traditional advertising only wastes the budget, people's interest quickly fades, one wrong decision – and the subscriber base is no longer effective. At the same time, new digital communication channels are emerging with a wide range of opportunities for promotion, which leads to a change in the business model and shapes the field of digital marketing.

According to survey, the primary task of digital marketing is to identify and attract both traffic and potential customers. Below we have shown the most significant directions of digital marketing for increasing the economic efficiency of the service sector based on B2B business model, especially within the cooperation with digital agencies:

1. Influence Marketing: Companies or people capable of influencing consumer behavior are called opinion leaders. They formed the basis of the concept of digital marketing. It became possible to influence opinion leaders with the help of paid advertising, such as Facebook Advertising, Google Adwords, through complex sCRM systems (social CRM).

The main idea of the approach is that it is easier to deliver advertising content to the consumer who is actively looking for it than to the one to whom the content comes by chance. Analysis of the behavior of Internet users (Online Behavioral Advertising, OBA) consists in collecting information about the online activity of users on various devices and sites in order to deliver advertising messages in accordance with the interests, preferences and needs of recipients.

2. Collaboration: can be established between organizations, technical service providers, digital agencies

to optimize efforts and share resources. In today's conditions, an important factor in creating a marketing strategy is the personalization of advertising space with the help of digital tools.

3. Remarketing: plays a major role in digital marketing. This tactic allows marketers to publish targeted advertising, that is, to show an advertising message to a specific audience, whose representatives are constantly searching for some information on the network, in particular, information about products and services, or visit sites with other specific goals.

Thus, a digital agency is an enterprise capable of providing a restaurant (client) with an expert assessment and ensuring the implementation of ideas in the field of website creation, creativity, strategy, advertising and customer service. Digital agencies are not limited to creating websites. They work comprehensively on creating and strengthening the company's name on the market (and not only on the Ukrainian market), "promoting" it in the media: on forums, partner sites, portals, social networks, Instagram and even on radio and television, using effective viral advertising.

From the point of view of building a business model, it is important that, unlike a regular web studio, the agency's work does not stop when the project promotion ends. Representatives of such an enterprise can continue to develop the project for years, promote it in the media, striving to improve its image and customer loyalty as much as possible. In the competitive restaurant business, it is very important to meet the demands of the modern consumer. According to a number of studies, more than 80% of the restaurant's target audience checks the restaurant's website on a smartphone. Most users in big cities are just looking for a place nearby to grab a bite to eat using their phone.

Thus, one of the components of the success of restaurants is the effective use of marketing opportunities in the Internet space. We consider such practical aspects of building a business model for increasing the economic efficiency of restaurants:

1. Attracting customers with the help of unique Internet positioning. In modern conditions, there are practically no restrictions on creating one's own position, because the Internet provides practically unlimited opportunities for creating the image of the institution, for example, photos of interiors and employees at work or an open kitchen will form a clear image of the institution. It is also possible to make an institution of a certain orientation and collect visitors according to interests.

For example, one of the coffee shops in USA doubled sales by announcing that the establishment has now become a gadget-free zone. Visitors must turn off their devices before ordering. Thanks to this, the coffee shop received not only PR in the network and new visitors. And as practice has shown, turnover accelerated due to the fact that visitors, without being distracted by photos of food or being online, quickly had lunch and went on with their business, freeing up seats for new visitors.

2. Promotion of restaurants and cafes on Instagram. When promoting a cafe on Instagram, there are many

opportunities to write about, from the timing of posts to their content, from tags to comments, working with reviews and inviting celebrities.

3. Promotion of the restaurant in Google maps. Promotion in Google maps is a rather voluminous task, and therefore it should be entrusted to specialists.

4. Advertising using geotargeting. After the channels are determined, it is necessary to consider the possibility of advertising the restaurant with geotargeting. It is possible to show advertising of a cafe or restaurant to those who are within a radius of 5 kilometers, for example, this way of advertising is much more effective than advertising for the whole city.

5. Lead generation, discounts and offers for setting up the site, applications and the public in social networks.

6. Positive reviews and crowd technologies. Crowd is a well-thought-out work with feedback covering different platforms. Probably, every city has aggregators and specialized sites where you can get reviews. It is also worth conducting work in Google Local Business, Facebook, posting reviews on your own website, in particular within the framework of the discount system.

Thus, these directions of digital marketing in Foodtech can be most effectively implemented through B2B interaction with specialized digital agencies.

V. CONCLUSIONS

From the point of view of increasing the economic efficiency of the business model, process approach allows:

- to understand the processes, increase their quality and the quality of used resources;
- improve coordination of work between employees, reduce actions duplication;
- impose targeted responsibility for the performance of not just functional duties, but for the implementation of a specific process;
- measure process results through KPIs and stimulate their improvement;
- create an effective employee motivation system.

In a digital agency working to promote a restaurant, a business process can be considered as a set of operations that create a software and information service that has value for the restaurant and its customer. The consumer of the result of the business process can also be another business process of the system. All business processes of an IT company form a network of works performed by structural elements located at different levels of the enterprise's organizational structure.

As part of the process approach, we propose to consider a digital agency as an IT enterprise as a system of business processes, the ultimate goal of which is the production or supply of software, or the provision of IT services. At the same time, one of the key aspects of this approach is to ensure visibility of the management object (IT organization or system) with the help of its accurate, sufficient, concise, convenient for perception and analysis description. Accordingly, we can formulate the following areas of using the process approach to building the digital services business model based on B2B interaction:

1. Features of the organization of the work of a digital agency: increasing the efficiency of work on projects and avoiding problems with overdue deadlines; organization of an effective team; increasing sales in crisis conditions.

2. Possibilities of digital agency IT services: organization of the customer base in CRM and distribution among managers; establishing communication between employees: managers, copywriters, Internet marketers; establishing work with remote specialists; organization of joint work with the client on projects.

In the conditions of relying on fundamentally new knowledge and managing it during R&D, virtual formats of interaction can become the most common form of performing promising research and development. At the same time, it is natural to obtain the greatest scientific, technical and commercial effect by integrating these aspects into a single system with a single information and technological support.

ACKNOWLEDGMENT

Research was funded by Ministry of Education and Science of Ukraine within the projects «Organizational and economic support of the post-war sustainable development of territories based on the infrastructure and service methodology of innovation communities' development», LET EDU, «Territory of innovations: best practices for sustainable development at the local level» and Estonian National scholarship program for foreign students, researchers and lecturers in Estonian Entrepreneurship University of Applied Sciences.

REFERENCES

- [1] R. Amit, and C. Zott, "Value Creation in e-Business," *Strategic Management Journal*, Vol. 22, № 6–7, pp. 493–520, 2001.
- [2] L. M. Applegate, "E-Business Models: Making Sense of the Internet Business Landscape," *The Academy of Management Journal*, Vol. 39, Iss. 1, pp. 216–234, 2006.
- [3] K. Boratyńska, "Impact of Digital Transformation on Value Creation in Fintech Services: An Innovative Approach," *Journal of Promotion Management*, 25:5, pp. 631–639, 2019.
- [4] UNCTAD, "Information Economy Report 2017: Digitalization, Trade and Development," United Nations publication. Sales No. E.17.II.D.8. New York, Geneva, 2017.
- [5] L. Zhang, Zh. Cao, G. Chen, and Zh. Wang, "A study of China's inter-city networks for innovation cooperation within software and service firms," *Eurasian Geography and Economics*, Vol. 60, Iss. 5, pp. 582–615, 2019.
- [6] A. Aine, T. Björkroth, and A. Koponen, "Horizontal information exchange and innovation in the platform economy – a need to rethink?" *European Competition Journal*, Vol. 15, Iss. 2-3, pp. 347–371, 2019.
- [7] B. Hansen, "The digital revolution – digital entrepreneurship and transformation in Beijing," *Small Enterprise Research*, 26:1, pp. 36–54, 2019.
- [8] L. Melnyk, O. Kubatko, I. Dehtyarova, O. Matsenko, and O. Rozhko, "The effect of industrial revolutions on the transformation of social and economic systems," *Problems and Perspectives in Management*, Vol. 17 (4), pp. 381–391, 2019.
- [9] L. Melnyk, O. Kubatko, V. Piven, K. Klymenko, and L. Rybina, "Digital and economic transformations for sustainable development promotion: A case of OECD countries," *Environmental Economics*, 12(1), pp. 140–148, 2022.
- [10] T. Tirtto, Y. Ossik, and V. Omelyanenko, "ICT support for Industry 4.0 innovation networks: education and technology transfer issues," *Lecture Notes in Mechanical Engineering*, Springer, Cham, 2020.
- [11] V. Omelyanenko, "Preconditions analysis of using of technological package concept for development strategy of space metallurgy," *Metallurgical and Mining Industry*, No. 8, pp. 508–511, 2015.
- [12] V. Omelyanenko, "Analysis of strategical aspects of technology transfer in metallurgy," *Metallurgical and Mining Industry*, № 12, pp. 394–397, 2015.
- [13] Y. Robul, I. Lytovchenko, L. Tchon, O. Khanova, and O. Omelianenko, "Digital marketing tools in the value chain of an innovative product," *International Journal of Scientific and Technology Research*, 9(4), pp. 158–165, 2020.
- [14] M. Ghobakhloo, "Determinants of information and digital technology implementation for smart manufacturing," *International Journal of Production Research*, 2019.
- [15] J. Khalid, B.R. Ram, M. Soliman, A.J. Ali, M. Khaleel, and M.S. Islam, "Promising digital university: a pivotal need for higher education transformation," *International Journal of Management in Education*, Vol. 12, № 3, pp. 264–275, 2018.
- [16] V. Omelyanenko, O. Prokopenko, O. Kudrina, M. Biloshkurskiy, and O. Omelyanenko, "Digital Component of Innovation Landscapes: Con of Sustainable Development at the Local Level," 2021 44th International Convention on Information, Communication and Electronic Technology, MIPRO 2021 – Proceedings, pp. 1324–1328, 2021.
- [17] S. Muegge, "Platforms, communities and business ecosystems: lessons learned about technology entrepreneurship in an interconnected world," *Technology Innovation Management Review*, February, pp. 5–15, 2013.
- [18] B. Quattrociocchi, M. Calabrese, X. Hysa, and E. Wankowicz, "Technology and innovation for networks," *Journal of Organisational Transformation & Social Change*, Vol. 14, Iss. 1, pp. 4–20, 2017.
- [19] V. Omelyanenko, O. Prokopenko, O. Kudrina, M. Biloshkurskiy, and O. Omelyanenko, "Digital Component of Innovation Landscapes: Con of Sustainable Development at the Local Level," 2021 44th International Convention on Information, Communication and Electronic Technology, MIPRO 2021 – Proceedings, pp. 1324–1328, 2021.
- [20] T. Eisenmann, "Opening platforms: how, when and why?" Boston: Harvard Business School, 2008.
- [21] T. Hughes, and M. Vafeas, "Marketing Agency/Client Service-For-Service Provision in an Age of Digital Transformation," *Journal of Business-to-Business Marketing*, 26:3-4, pp. 265–280, 2019.
- [22] V. Omelyanenko, and D. Volodin, "Nanoinformatics application framework for R&D and industrial analysis," 2017 IEEE 7th International Conference Nanomaterials: Application & Properties (NAP), Odessa, Ukraine, pp. 01NNPT03-1-01NNPT03-4, 2017.
- [23] O. Prokopenko, and V. Omelyanenko, "Marketing aspect of the innovation communications development," *Innovative Marketing*, № 14 (2), pp. 41–49, 2018.
- [24] P. Santoleri, "Diversity and intensity of information and communication technologies use and product innovation: evidence from Chilean micro-data," *Economics of Innovation and New Technology*, Vol. 24, Iss. 6, pp. 550–568, 2015.
- [25] R. Geissbauer, E. Lubben, S. Schrauf, and S. Pillsbury, "Digital Champions. How industry leaders build integrated operations ecosystems to deliver end-to-end customer solutions," *Pricewaterhouse Coopers*, 2018.
- [26] J. Calof, G. Richards, and J. Smith, "Foresight, Competitive Intelligence and Business Analytics – Tools for Making Industrial Programmes More Efficient," *Foresight*, vol. 9, no 1, pp. 68–81, 2015.
- [27] S. Galloway, and S. Dunlop, "A Critique of Definitions of the Cultural and Creative Industries in Public Policy," *International Journal of Cultural Policy*, Vol 13, no 1, pp. 17–31, 2007.
- [28] R. Hill, and L. W. Johnson, "Understanding creative service: a qualitative study of the advertising problem delineation, communication and response (APDCR) process," *International Journal of Advertising*, № 23:3, pp. 285–307, 2004.
- [29] S. Nambisan, "Why Service Business are not Product Businesses," *MIT Sloan Management Review*, Vol. 42, № 4, pp. 72–80, 2001.