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STRATEGIES OF BUSINESS PROCESS DIGITALIZATION IN LOCAL **GOVERNMENT INSTITUTIONS**

The article is devoted to the development of strategies of business process digitalization in local government institutions.

The author proves that the model of business based on the network of interaction, the domain of the digital platform, is absolutely efficient in the digital economy and provides its companies with an inapplicable competitive advantage. Progressive companies of traditional business, whose business model cannot be transformed, seeking to maintain their business and acquire competitive advantages in the digital environment, found an outlet in a hybrid approach that suggests the unification of several types of business models.

Digital technologies have a significant impact on the possible kinds of digital business models. New business models define new operating models, so prioritizing the latest inhibits the digital transformation of the company: the integration of digital

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technologies into existing operating models can increase the efficiency of business, but will not lead to a breakthrough increase in income.

New business models based on digital technologies and, among other things, on digital platforms provide companies with unique competitive advantages in the transforming economy and have only limited success in traditional business.

Keywords: local government institutions, business process digitalization, business models, digital transformation.

Formulation of the problem. As it has been shown above, digital transformation is the next digitalization stage of digital economy development, on which the transformation of the organization's business and operating model is based on the changing innovative technologies that allow not only optimizations that reduce efficiency and increase the productivity of companies, but create fundamentally new technologies. According the income of the company and investment attractiveness erase. Today, the intensity of the development of any social and economic system is caught by increasing of integration, increasing of efficiency and introducing innovative digital technologies.

Analysis of recent research and publications. Theoretical and applied aspects of the digitalization in local government institutions have repeatedly been of interest to domestic and foreign authors, in particular: J. Mendling, B. Pentland, J. Recker, S. Singh, S. Rathore, J. Park etc. Digital transformation is not just automation (i.e. the introduction of technologies into existing production), as we have already repeatedly noted. It examines the change in business structure, strategy for business development, corporate culture, sales system, management of the team and processes in the whole, as well as even more radical changes when completely new products, services and even whole industries are created.

Presenting main material. In the entrepreneurial circles of our country, due to the low level of information and awareness of management, businessman often think that it is enough to hire programmers - developers of sites, mobile applications, electronic

shelves and chat-bots in addition to what is already there. And after that, the company is "automatically" transformed into digital one.

There are the following three areas of digital transformation: customer experience; operating processes; business models. As a rule, companies do not direct their efforts on digital transformation to all three areas at once. Each company chooses its own path of digital transformation of its activities and management messages. One chooses a growth strategy by better understanding the customer and increasing the points of contact with them (digital transformation of customer experience). Others are due to digitalization and re-engineering of internal processes and increasing the productivity of workers (digital transformation of operating processes). Third - changing the boundaries of business models, creating digital products and service additions and lighting up new markets or creating them (digital transformation of business models) [2; 7].

The most promising options for digital transformation are the direction of changing the business model and the operating model. However, and there are nuances. Business models of companies focus on how the organization conducts its business, creates and provides value for the market. Operating models are also focused on the efficiency of internal business processes. It is important to note that the transformational path due to the change in the operating model of activity is quite risky for companies are seeking growth in the digital economy. A much more targeted and rational way of building a digital business model, they are not affected by assets, rely on data from direct interaction with customers and use digital platforms to develop direct innovative and investment interactions with partners. The development of companies that make the transition to digital business models is carried out iteratively, with the maximum use of the effect of synergy, scale and development of the network.

While companies resolve issues of increasing the efficiency of their internal business processes in operating models, they do not spend enough attention and resources on the transformation of business models.

Being orientated on external environment, the organization understands how efficiently the organization carries out the introduction of innovations, as with the help of

digital technologies provides value for customers and so on. From, as a result, too much development of operating models, prevents the development of companies in the digital environment [4; 5].

Understanding the difference of digital transformation based on operating and business models is fundamental to the acquisition and growth of competitive advantages in the evolving digital economy. While operating models are aimed at success and increasing the efficiency of current activities, business models are focused on the long term. Accordingly, the company's commitment to the transformation of the operating model comes from the current conditions of competition and existing markets, while not considering the fundamental changes that every industry experiences in the epic of total digitalization.

The main factor activating the growth and development of the digital economy, infallibly, are innovations, however, worth noting that the most successful innovative breakthrough over the past decade in the global economy was not technological, but related to the transformation of business models. The brightest example is Uber, the revolution that the company has made in the taxi transport services market, is not based on the platform, but on the company's new business model. The brighter term "absorption" does not mean the introduction of innovative digital technologies and platforms, including the root transformation of business, economy and society as a whole. Today, the term "absorption" is also used as a digital threat designation for traditional business.

Digital technologies have a significant impact on the possible kinds of digital business models. New business models define new operating models, so prioritizing the latest inhibits the digital transformation of the company: the integration of digital technologies into existing operating models can increase the efficiency of business, but will not lead to a breakthrough increase in income [1; 6].

New business models based on digital technologies and, among other things, on digital platforms provide companies with unique competitive advantages in the transforming economy and have only limited success in traditional business. It is therefore extremely important to understand the difference between the transformation of operating

models and the transformation of business models, as well as the role that business models play in digitizing the economy.

The change in the business model does not have to be radical or associated with increased risk, there are opportunities for an evolutionary path of digital transformation that increases value and changes relationships with customers. Let's consider further major types of business models that are possible in the modern conditions of digital transformation and how with their help the company achieves sustainable growth in the era of digitalization.

- 1. Product creators are companies that produce and implement material products or have access to them. Production companies, retail sellers and providers of telecom services belong to this group, which today covers about 64% of companies.
- 2. Service creators are companies that hire and train qualified employees, develop their professional competencies and provide them with services. Companies with such a business model include banking, insurance, consulting and engineering companies, whose share is about 24%.
- 3. Technology creators are companies engaged in the development of intellectual resources and the protection of intellectual capital these are usually intangible products with incredibly low marginal growth costs, such as, for example, software. By its ("virtual") nature, a business based on intangible assets provides greater synergy and economy at scale. This group includes software suppliers, developers on-site and biotechnologies, this business model has about 11% of companies.
- 4. Creators of network interaction of "clean" companies engaged in one direction (type) of economic activity are the companies that create and provide network interaction of companies, things and information, significantly facilitating and eliminating the connection and transactions between them (as the joint economy is called); as a rule, such companies are developers of digital platforms, on the basis of which they are developed to date; according to such a business model, less than 1% of companies conduct business.

Let us note that the models "technology creators" and "network interaction creators" in their economic essence are close to the model of "service creators," although they differ

from it in many significant aspects, since the transfer of technologies and network interaction stimulate the formation of an effective system of service exchange. The creators of technology and models of network interaction are focused on a digital business platform that acts as a market for their (and their partners') services. They transformed the traditional, fixed and linear chain of creating a mainland "end product/service," into a multi-pronged and inter-stratified value chain providing a "customer outcome" that exists in the form of a comprehensive service.

For a platform-based network interaction business model, the characters of two key principles are the service format of the product and the flexible form of payment, which provide a high speed of output of innovative products in the markets and guarantee the avoidable possibility of improving the needs of customers.

The emergence of temporary (initially rapid growth of capitalization, then arrival) digital platforms dramatically changes the entire sector of the economy, "tearing up" the markets. The long-lasting time of a traditional business company loses customers in a previously common scheme for selling goods or services. The consumer moves massively and quickly enough to new models of behavior that are most beneficial to him. New "digital" businesses not only capture fate in the market, they dramatically reduce the price, which causes most cases of explosive growth of the demand. However, with a similar expansion of market objects, companies remaining in the usual format practically do not achieve anything. Moreover, for a certain moment, they are striving to lose efficiency and forced to leave the market or transform into businesses dependent on new players [3; 4].

Gradually comes the understanding of the importance of digital platforms not only as efficient technological solutions, but also as a powerful factor shaping economic space, encouraging the growth of gross product and increasing labor productivity. Economic activities on the basis of digital platforms, which facilitate transactions, when users are given temporary access to the provider of services (property) or, otherwise, owners have underused assets, services or skills, that is, in fact, the loss, often called "joint economy".

Such operations will not affect changes in goods or services, but will change the way they are created, needed and represented. Unlike traditional industry or the service

sector, companies of the joint economy are characterized by network business models that receive a small commission for a digital transaction. The primary means of these collaborative digital platforms is to use software and data to manage customer experience related to any asset. But, being a new and more efficient way, it begins to spread very widely to other areas of human activity, because "information is the oil of the 21st century".

Leading world companies are preparing to invest in knowledge. The world economy is going with the forces for another improvement and in this it should help the new infrastructure - the ecosystem of digital platforms. Platform technologies in the transformation of business models of companies provide: the implementation of one or several critical functions, in a particular economic sphere; certain standards and order of the general architecture of solutions/products; open or semi-closed entrance for other companies, for the possibility of development on the basis of network interaction and partnership; admission to participate in the development of the platform both complementary companies (suppliers of additional goods and services) and competitors [2; 7].

Some foreign specialists note that "the global community is strikingly entering the epoch of the digital platform economy, in which the tools and mechanisms used on the basis of the Internet and online platforms form the foundation of economic and social life". Traditional business models include asset creators and service creators, the digital era predisposed the creation of two other types of business models - these are technology creators and network interaction companies. World studies lead to data that companies developing a network interaction model based on platform technologies mark the growth of market value by 2-4 times and the growth of market capitalization by about 200%.

Like much in the digital economy, the joint economy has become a household name. According to the PricewaterhouseCooper report, today's five key sectors of the joint economy (travel, joint car use, finance, work with staff and music/video streaming) have the potential to increase global revenues in the economy from \$15 billion in 2014 to \$335

billion in 2022. The dynamics of the development of the digital joint economy and in the "difficult" industries should be expected.

There are already popular examples of this potential development: Airbnb in the hospitality industry and Uber in transport services. Both companies have shown that online platforms can be used to organize access to the use of assets on a global scale. Companies have already exceeded their \$1 billion revenue estimate less than a decade from their founding and reached market estimates of \$30 billion and \$66 billion respectively, without having rooms, apartments or vehicles.

The success of the companies led to the fact that the attraction of new participants from other industries to participate in the joint economy. Uber, for example, is already being used to deliver cargo to airlines at the right time and place, leading to changes in airport planning, as premises previously predicted to do so prove unnecessary. This way of delivery turned out to be sought both by logistics companies and for delivery of purchases in stores. Its application also leads to design and construction changes in stores and warehousing [1; 4].

The model of business based on the network of interaction, the domain of the digital platform, is absolutely efficient in the digital economy and provides its companies with an inapplicable competitive advantage. Progressive companies of traditional business, whose business model cannot be transformed, seeking to maintain their business and acquire competitive advantages in the digital environment, found an outlet in a hybrid approach that suggests the unification of several types of business models, in particular:

- 1) a number of pharmaceutical companies are developing new medicines (made by technology creators) and producing these medicines (product creators);
- 2) most car companies produce cars (the main business model product creators), at the same time, providing financial and insurance services (service creators), and still providing new digital services (innovation creators).

As an example of the successful practice of hybrid approach to the transformation of the business model, you can bring such five well-known world companies as Apple, Alphabet, Microsoft, Amazon and Facebook, one of the components of today's success of

which is the combination of the main business model with the model of business network interaction. This allowed these companies to achieve a synergy effect within their model, differentiate key service elements according to growth, arrival and market value parameters, and become "digital super companies".

In order for the digital economy to succeed in creating a successful business model of the company, corresponding to the realities of enhancing its development of the digital environment, it is necessary not only to connect to some digital platform, but to effectively manage the channels and power of their ecosystems and use them in a multi-pronged system model of business.

In every economic departure, the most progressive companies on the path of digital transformation are creating new business models of direct network interaction on the basis of digital platforms, for the best and fastest improvement of growing consumer requests, increasing the effect of synergy of systemic business interaction.

The growth of a digital-based business is a prerequisite for an evolving digital economy. In order to introduce new business models based on digital platforms and in order to ensure competitiveness in the digital economy, companies need to perform the following activities.

- 1. To develop Team Leaders and personnel competencies in the field of digital management: to change views on an emerging digital economy as an inevitable nearfuture function of all social and economic systems, as well as the role of network interaction in business development in the digital economy, Big Data, the Internet of things and other digital technologies. To shape representation and understanding, the growth of some companies exponentially, and how new digital business models can be integrated into existing operating business processes to increase revenue. To understand the consequences and benefits for shareholders, both in terms of risk and reward, and strange policies.
- 2. To adopt and actively leverage the "business model portfolio" approach to your own growth strategy: to bring a new way to dynamically redefine capital and digital resources and new market opportunities, invoke digital technology and create network

interactions in a way that will boost demand for digital innovation. To assess adequately the results of the introduction of digital technologies into business processes.

- 3. To define the vision of growth and development prospects harmoniously combining new and old business models: to formulate the mission, vision and goals of the company in such a way as to attract new promising and competent employees; to retain customers and interest investors. To change the thinking from linear product cost creation cores to multi-sided models, providing better results for customers thanks to differentiated partner ecosystems.
- 4. To enhance the operating model based on the dynamic portfolio of business models: it is necessary to transform the organization, to rebuild its organizational, commercial and technical architectures in order to create breakthrough digital technologies in the process of enhancing the digital transformation of the company.
- 5. To update the indicators: to develop parameters and rules for interaction with customers and partners that correspond to digital space, orienting corporate thinking to experimental growth opportunities that have become possible thanks to "network effects".

With the above, it can be noted that Ukrainian enterprises need to recognize the possibility and need for innovative changes in their business models in accordance with the challenges of the digital economy. Innovative digital technologies, at the expense of applications of which a number of companies have won leadership positions in the modern economy can be introduced and used in companies of any size and industry to enhance the process of digital transformation. According to experts, the transition to the digital economy of leading countries in the world can be completed in the next five years and lead to doubling their GDP.

Conclusions. Introductions of the research can serve as the following conclusions. The study of the features of the digital transformation of social and economic systems testifies to the lack of university mechanics and the algorithm for the implementation of transformational transformations. As key provisions that make up the conscience of digital transformation individuals, it is important to bring the following.

- 1. The need for an initial digital transformation of the public administration system as the main institution of activating, regulating and supporting the process of digitalization and digital transformation of society, for which the use of positive experience of digital transformation of state regulation in other countries with the knowledge of Ukrainian specificity and application of technology is integral.
- 2. The fundamental formation and continuous development of the competent potential of the enterprise personnel involved in the process of digital transformation is a mandatory condition and an integral necessity for the success of the digital transformations carried out, which allows not only to quickly adapt in the digital space, but also to ensure the normal functioning of the company.
- 3. The revolutionary transformation of the company's business model, based on the implementation of the network interaction model, due to the digital platform, is an absolutely effective solution in the digital economy, providing the companies using it with a competitive advantage.

Further integral is the study of the main service operators of digital transformation processes, providing development and functioning of platform digital transformation services in the context of today's digitalization of the Ukrainian economy.

References:

- 1. Mendling J., Pentland B., Recker, J. (2020), "Building a Complementary Agenda for Business Process Management and Digital Innovation", Eur. J. Inf. Syst., vol. 29, pp. 15–27.
- 2. Rosemann M., de Bruin T. (2005), "Towards a business process management maturity model", The 13th European Conference on Information Systems (ECIS 2005), Regensburg, Germany, 26–28 May, 2005, The London School of Economics: London, UK.
- 3. Singh S. K., Rathore S., Park J.H. (2019), "BlockIoTIntelligence: A Blockchain-enabled Intelligent IoT Architecture with Artificial Intelligence", Future Gener. Comput. Syst., vol. 110, pp. 721–743.

- 4. Spiess J., T'Joens Y., Dragnea R., Spencer P., Philippart, L. (2014), "Using big data to improve customer experience and business performance", Bell Labs Tech. J., vol. 18, pp. 54–67.
- 5. Tarhan A., Turetken O., Reijers H. A. (2016), "Business process maturity models: A systematic literature review", Inf. Softw. Technol., vol. 75, pp. 122–134.
- 6. Van Looy A., Poels G. A. (2019), "Practitioners' Point of View on How Digital Innovation Will Shape the Future of Business Process Management: Towards a Research Agenda", The 52nd Hawaii International Conference on System Sciences, Grand Wailea, HI, USA, 8–11, volume 6.
- 7. Veale T., Feyaerts K., Forceville C. (2013), "Creativity and the Agile Mind: A Multi-Disciplinary Study of a Multi-Faceted Phenomenon", Walter de Gruyter, Berlin.