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Innovations in the Business Processes Management as a Significant Component of the Rapid Recovery of the Industry of Ukraine

Abstract. The article provides a comparative analysis of the paradigms of classical management theory and that corresponding to modern reality. Particular attention is paid to the features of rapid growth in large organizations using the example of the transition to digitalization as a growth strategy. The main stages of the digital transition are identified, as well as three main techniques for an enterprise or organization to overcome crises and adapt to rapid changes, such as business model innovation, strategy innovation, and management innovation. The necessity of managing business processes (a part of management innovations) as a reaction to inevitable changes in internal communication, the evolution of the company's strategy and culture, chaos, and adaptation to constant changes in emphasis and priorities is substantiated. The influence of the war in Ukraine as a strong factor of uncertainty on the industrial sector of the economy of the regions of Ukraine is analyzed. Based on the analysis of the experience of digital transformations of the world's giant companies, an attempt was made to highlight the key points of such transformations in Ukraine. The need for state support for developing innovations and digital transformation of the Ukrainian industry was emphasized.

Keywords: management, innovation, digitalization, innovation in management, rapid growth

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1. Introduction

Innovations in management have been a key driver of success in the industrial sector, with technology playing an increasingly important role in streamlining operations, reducing costs, and improving productivity. The need for rapid inno-

vation is paramount in Ukraine, as the country faces a multitude of challenges, including political instability, economic struggles, and technological gaps. It is also consequential for Ukraine's growth and development, allowing the country to remain globally competitive and attract foreign investment. Failure to innovate quickly could lead to further economic decline, a brain drain of talented professionals, and a lost opportunity for Ukraine to take advantage of its strategic location and natural resources. Having the right policies, investments, and partnerships, the country can achieve sustainable growth and prosperity, and the focus on speed of management innovations can also help Ukraine address issues such as energy efficiency, environmental sustainability, and social inequality.

2. Analysis of Research and Publications

Current business conditions require enterprises to have adequate mechanisms for responding to dynamic changes in the external environment, growing customer demands, and severe market challenges. Mandatory conditions for the survival of enterprises are the production of competitive products, ensuring flexibility and efficiency of management. Adaptive abilities, organizational flexibility, and maneuverability of production systems provide the enterprise with innovative development.

The relevance of the problem of innovative development of enterprises is confirmed by a significant number of studies by western scientists, such as P. Drucker (2020), S. Gupta (2020), M. Hammer and J. Champi, R.S. Kaplan and D.P. Norton and others.

Thus, scientists and researchers of the National Academy of Sciences of Ukraine are engaged in studies of the industrial development of Ukraine considering the trends of Industry 4.0, the features of the digital transformation of industrial sector, and its role in the modernization of the industrial potential of the Ukrainian economy and innovations in management. Research work of O.I. Amosha is related to the study of organizational and economic mechanisms for the activation of innovative activity in Ukraine, which emphasize the importance of promoting the formation of large structures in the corporate sector of the economy, the need to improve the quality of corporate governance and strengthen state intervention in the innovative activities of enterprises (Amosha, 2005). Also, the team of authors of the Institute of Regional Research of the National Academy of Sciences of Ukraine investigates the problems of the development of mechanical engineering as a strategic segment of the global and national economy and ways to solve them, specifically considering the indicators of innovative activity

in the industry (Ishchuk, 2022). In particular, the research work of S. Ishchuk and L. Sozansky is related to the search for ways to ensure the competitiveness of the industrial sector of the regional economy and the development of methods for evaluating the effectiveness of its functioning (Ishchuk & Sozanskyi, 2022). Gaets V.M. substantiates the fundamental components of innovative development of Ukraine's economy and social sphere in terms of its further integration into the world economic, scientific, and technological space based on a study of the state of the innovative sphere and analysis of global trends (Gaets, 2015). T.G. Vasyltsiv assessed the state and dynamics of key parameters of knowledge, intellectual and digital development of the regions of Ukraine as one of the prerequisites for the implementation of smart specialization (Vasyltsiv & Levytska, 2020).

Paying tribute to the existing scientific developments, it is worth noting that the system of management of innovations, including the business process management, in the industrial sector of the region should be focused on the speed of introduction of new technologies in order to achieve a successful competitive position on the way to European integration. Therefore, the purpose of the article is to justify and emphasize the need for the rapid implementation of an innovative model of the development of Ukraine's industry for its faster recovery and further dynamic growth given the current state due to the consequences of the current military aggression by the Russian Federation, taking into account the experience of global companies in the use of breakthrough techniques of rapid growth.

3. Results of the Research

Today's challenges of deep transition are sharp because the changes are more radical than those that occurred due to the Second Industrial Revolution, the Great Depression, or World War II. The peculiarity of these changes is that they are *different* and even contradict what is still considered successful. The emergence of new challenges is caused by various social, demographic, and economic realities (like population decline in Europe, global competition, the war in Ukraine that impacts almost all world, etc.). The changes are so complex that they cannot be solved by the government, politicians, or the free market. Conversely, their solution will first require managers equipped with the concept of management theory that complies with the current reality.

As for the theory of management itself, the concept of reality in this field of knowledge is much more critical than for the natural sciences because the science of management theory is based on it, but as a system of concepts accepted in the natural sciences, does not influence the objective physical world. Today, we face

the problem that reality is changing very rapidly, becoming less and less similar to the ideas that have formed the management theory we are used to operating. Accordingly, there is a need to revise such ideas, change the paradigm and innovate in management.

A well-known researcher of management theory and the author of the concept of "management by objectives" (Drucker, 1954) and an adept of decentralization — Peter Drucker, in his work „Challenges for Management in the 21st Century," examines the classical theory of management from the beginning of the 1930s to today and concludes that modern management theory requires revision of the main paradigms based on modern challenges (Drucker, 2020, p. 10), since in the social sciences the most important should be considered the system of general ideas and changes in it following the essentials of the time. Most scientists, researchers, and practitioners of management theory adhered to the following two systems of ideas about the realities of the theory and management practices that are rapidly losing relevance. We summarize these findings in a table that formulates the basis for further research on the importance of rapid innovation in management.

So, we see that the foundation of modern society, economy, and human relations is a managed organization as a social institution with the goal of achieving a result. And management in such a paradigm act as a tool that enables the organization to attain its goals (Drucker, 2020, p. 52). One feature distinguishing giant global companies from others is the ability to develop and optimize management practices at each growth stage. Implementing change in a large organization with a solid corporate culture and established processes is particularly challenging but essential. After all, on the one hand, companies are forced to adapt to the conditions of fluctuations in the external environment, uncertainty, rapid transformation of technologies, and the emergence of new business models, and on the other hand, to take into account the interests of shareholders and successfully manage existing assets. Accordingly, a large organization must strengthen its core and, simultaneously, lay the foundation for future changes, such as the transition to digital technologies.

Digital transition involves simultaneously managing the existing business and building the future. Despite the fact that in the future, the profitability of the digitization of enterprises will be high due to the reduction of production and sales costs, during the transition period, the volume of costs will increase since it will be necessary to work both in the old and new ways at the same time. Even though businesses may find themselves in danger and need of change, they usually remain profitable in the short term and find it challenging to give up profits for an uncertain future.

Table 1. Comparison of ideas about the realities of management science in the period from the 1930s to the present.

System	Area	Before (1930–1980)	Present (after 1980)
Theory Aspect	Purpose of management	Management — is a management of ***business*** organization.	Management is a specific and defining structure of ***every*** organization.
	Organizational structure	*One*: There is one correct organizational structure.	*Many*: The aim of organizational structure is to identify, build and verify in practice organizational structures that meet the set goals. Every independent enterprise needs several types of organizational structures existing in parallel.
	People management	One correct way to ***manage*** personnel.	Management is oriented on ***productivity***. Different types of employees should be ***directed*** (not managed) differently.
Practical Aspect	Perceptions of technology and end use of goods and services	One industry — one technology.	In theory, all technologies can be relevant and impact any industry. Management is no longer focus on the product or service, but on the ***value*** perceived by the consumer and the ***consumer's decision*** regarding the distribution of his income.
	Legacy	Management is based on coercion and control.	Management must be operational and focus on results and efficiency at all stages of the value chain, that also combine cross-industrial partnership. (Ex., a pharmaceutical company, and a biological university)
	Focus	Management is focused inside the organization.	Management exists for the sake of ***results***, defines them, and serves to ensure that every organization can achieve results in the external environment outside the organization.
	Globalization	The country's economy (as a field of business management) is limited by state borders.	Management boarders is not equal to state boarders. The role of government is still important; however, the practice of management will be defined by interests of companies, but not political.

Source: Built by the author considering Drucker (2020)

When thinking about the speed of digitalization, given the uncertainty of the future and the U-shaped profit curve, executives choose between two approaches:

- Quick transition, i.e., a risk strategy that aims to reduce the period of decline in profits.

- Slow transition, a conservative strategy that allows you to win the time and focuses on minimizing risk from an uncertain future.

Each of these approaches has its advantages and disadvantages. However, in general, the speed of digitalization will depend on three main factors: trends in consumer behavior, competitors' strategies and skills, capabilities, and the organizational structure of the company making the transition (Gupta, 2020, p. 252–253).

Based on the study of digital transformations of giant global companies, three main stages of the digital transition can be distinguished (Gupta, 2020, p. 254–256):

- Stage 1: Using technology to reduce costs and improve the efficiency of existing business processes. This stage requires the destruction of established business relationships.
- Stage 2: Companies opening their own technological platforms for customers.
- Stage 3: Platform strategy. At this stage, companies are moving towards opening up their systems to third parties, even competitors.

As digitalization leads to significant changes in internal operations, companies must first be internally prepared for such changes to ensure a successful transition. Moreover, all such changes must be supported by an appropriate organizational structure that leverages the firm's assets and synergies instead of creating conflict between old and new. After all, changes in organizational culture motivate employees to regularly identify the causes of inefficient process execution and independently search for ways to solve them, as well as to ensure monitoring and a high level of satisfaction with customer needs (Buchwald, 2010).

In the context of this study, interesting is the disruptive idea of academics-practitioners Reid Hoffman and Chris Yeh, which consists in prioritizing speed over productivity, which allows companies to grow incredibly quickly in conditions of uncertainty. The idea is described in the context of "blitzscaling," which means a method of action and specific methods that help companies expand extremely quickly (Hoffman & Chris, 2021, p. 25). Although hypergrowth through blitzscaling is a characteristic of startups, large companies using a balanced approach can benefit significantly from the proposed management innovation to overcome their inherent speed and risk-taking weaknesses. Furthermore, under some external conditions, such as the influence of new technologies on the emergence of new markets or the collapse of old ones, the use of the techniques of this strategy can become justified since a careful and balanced approach to accepting risks can cost companies their very existence.

Given the above, it is possible to highlight three main techniques that allow companies to overcome significant global crises: innovation of business model, where technological innovation plays a key role in maintaining profits after updating the business model; innovation of strategy; innovation of management (Hoffman & Chris, 2021, p. 44–53). Accordingly, the strategy of rapid growth in large organizations involves several significant changes in business process management, taking into account the inevitable changes in internal communication, the evolution of the strategy and culture of the company, the acceptance of chaos as a condition of existence, and therefore the use of measures to manage it, adaptation to the constant changing emphases and constantly revising priorities. Scientific and practical, and world experience prove that large corporations can carry out extended reproduction on an innovative basis and ensure the stability and competitiveness of national enterprises on the world and domestic markets (Amosha, 2005). Unlike startups, large enterprises have several undeniable advantages, such as scale (i.e., more considerable amount of finance; reputation; well-known brand), the ability to repeat attempts at rapid scaling many times due to significant resource capabilities (intellectual and material), and can spend more time on attempts, as well as the ability to use the merge and acquisition tool.

In continuation, let us consider the impact of the war in Ukraine as an influential factor of uncertainty on the industrial sector of the regional economy. Developing one's own industrial sector is one of the strategic directions of the state's socio-economic development and its regions in the conditions of European integration processes and in the post-war period. It is required to use such modern methods of planning the activity of an industrial enterprise, which will increase the efficiency of industrial production management and, on this basis, increase the competitiveness of industrial products.

The application of advanced methods, in particular, a process-oriented approach, involves identifying the main business processes in the activity of an industrial enterprise, which are the centers of the formation and obtaining of profit. These processes create the initial results of the company's activity and influence the satisfaction of consumer requirements. Therefore, they are directly related to the creation of products and their implementation, as well as to aftersales service.

The functioning of the main business processes is impossible without a certain set of supporting processes and management processes, which consist in creating the necessary conditions for implementing the main processes and whose purpose is to solve specific tasks following the main goal of the enterprise.

The modern development of business processes in the industry of Ukraine takes place in the conditions of war, which leaves its negative imprint. Thus, ac-

cording to experts' estimates, the country ended 2022 with a 30% drop in real GDP, which was not recorded even during the Second World War (Bank, 2023). At the same time, the industry is the third sector after infrastructure and housing, and communal services in the total cost of damages and lost assets, which is 7.5% of the total damages as of September 1, 2023. (KSE, 2023).

According to the assessment conducted by the Institute of the Kyiv School of Economics as part of the project to develop independent methodologies for the analytical evaluation of infrastructure damage and economic losses resulting from Russia's aggression, as of September 1, 2023, the total cost of direct industrial losses is estimated at $11.4 billion. This figure represents nearly 3.1% of the country's GDP in 2022 (World Economic, 2023). The losses within the industrial sector encompass a minimum of 426 large and medium-sized private enterprises as well as state-owned companies that suffered damage or were destroyed as a consequence of the conflict. Simultaneously, the sum of indirect losses within the industry, associated with income loss and additional expenses related to the war, stands at $51.5 billion or 23% of the total losses. A majority of these enterprises are completely annihilated and necessitate reconstruction, with a particular emphasis on those within the metallurgical industry (Damage Assessment, 2023).

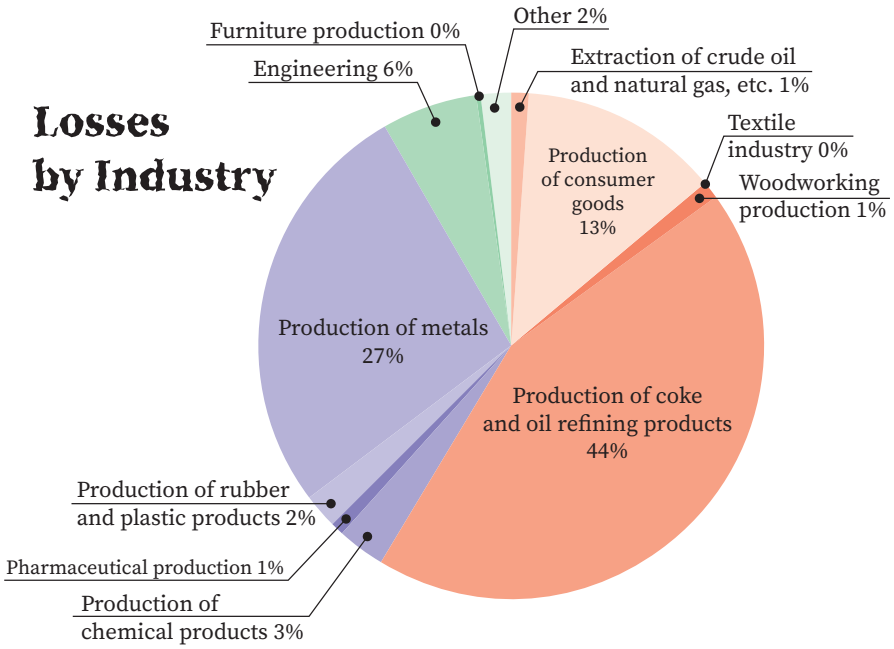

Fig. 1. The amount of losses by industry in billion USD (Share of total industry losses, %).
Source: Built by the author considering Evaluation of KSE Institute (2022)

In a sectoral breakdown, the greatest damage was caused to the processing industry (Fig. 1). At the same time, among the most affected regions of Ukraine: the Donetsk region — 4.2 billion US dollars (51.7%); Kharkiv region — 0.9 billion US dollars (11.2%); Kyiv and Kyiv region — 0.6 billion US dollars (6.9%). Since 2014, the mining industry accounted for 12.1–16.1% of the total industrial production in Ukraine, which on average was about 4.4% of GDP. Due to military actions in the Donetsk and Kharkiv regions in 2022, salt and non-ore mines and one oil and gas production company suffered losses totaling USD 99.7 million, which is 1.2% of the total industry losses.

The largest specific weight in the total amount of industry losses is the losses caused to the processing industry, estimated at 7.9 billion US dollars or 96.9%. Thus, the largest industrial enterprises in Ukraine were affected — the Avdiiv Coke Plant and the Kremenchug Oil Refinery. Half of the losses in the production of basic metals, finished metal products, except for machines and equipment is caused by the destruction of "Azovstal".

Concerning the production of food, beverages, and tobacco products, only the Kyiv region lost a fifth of the warehouse space with significant food stocks due to the war, amounting to about 364 thousand m², including office premises and other buildings on the territory of the complexes. Damages caused to other branches of industry, partially damaged and located in the Kharkiv region, amounted to USD 156.4 million or 1.9% of the total industrial losses. Regarding asset types, intangible assets such as equipment and buildings were the most affected, accounting for 25.6% and 21.3% of total assets, respectively.

4. Conclusions

External uncontrollable and hard-to-predict factors, particularly military aggression, influence uncertainty and harm the modern development of business processes and their management in the Ukrainian industry. In a broader context, the times of profound transition provoke significant changes in the paradigm of traditional management in response to the speed of these changes and overcome global crises at both the macro and micro levels. Given the need for response, adaptation, and in the future, rapid recovery of Ukraine's industry in the post-war period, we emphasize the importance of rapid innovation in business process management as an essential component of the Ukraine's industry quick recovery. Therefore, to ensure the profitability of operational activity in the industrial sector of Ukraine, which reflects the efficiency of industrial enterprises, the profit-

ability of their operational activity, the level of cost recovery, etc., it is necessary to develop an effective investment and innovation strategy at the state level. Such a strategy, especially for the post-war recuperation of industrial activity, should be aimed at recovering certain assets or developing labor-intensive service areas. The need to modify the parameters of the current state economic policy to ensure a more optimal impact on the economy at all management levels is also being brought up to date. In particular, an effective government policy of digitization and an effective mechanism for its implementation will contribute to improving business process management, primarily in the industrial sector.

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Innowacje w zarządzaniu procesami biznesowymi jako istotny składnik szybkiego ożywienia przemysłu Ukrainy

Streszczenie. Artykuł przedstawia analizę porównawczą paradygmatów klasycznej teorii zarządzania i tego, który odpowiada współczesnej rzeczywistości. Szczególną uwagę zwraca na cechy szybkiego wzrostu w dużych organizacjach, na przykładzie przejścia do digitalizacji jako strategii wzrostu. Identyfikuje główne etapy cyfrowego przejścia, a także trzy podstawowe techniki, które przedsiębiorstwo lub organizacja może wykorzystać do przezwyciężania kryzysów i adaptacji do szybkich zmian, takie jak innowacje modelu biznesowego, innowacje strategiczne i innowacje zarządzania. Artykuł uzasadnia również konieczność zarządzania procesami biznesowymi (część innowacji zarządzania) jako reakcję na nieuniknione zmiany w komunikacji wewnętrznej, ewolucję strategii i kultury firmy, chaos oraz adaptację do stałych zmian akcentów i priorytetów. Analizuje wpływ wojny na Ukrainie jako silnego czynnika niepewności w sektorze przemysłowym gospodarki regionalnej Ukrainy. Na podstawie analizy doświadczeń cyfrowych transformacji światowych gigantów podejmuje próbę podkreślenia kluczowych punktów takich transformacji na Ukrainie. Podkreśla konieczność wsparcia państwowego dla rozwoju innowacji i cyfrowej transformacji ukraińskiego przemysłu.

Słowa kluczowe: zarządzanie, innowacje, digitalizacja, innowacje w zarządzaniu, szybki wzrost