

**Жегус Олена Валентинівна**, доктор екон. наук, проф., кафедра маркетингу, управління репутацією та клієнтським досвідом, Державний біотехнологічний університет. Адреса; e-mail: [elena.gegus@gmail.com](mailto:elena.gegus@gmail.com).

**Zhehus Olena**, Doctor of Economic Science, Professor, Department of Marketing, Reputation and Customer Experience Management, State Biotechnological University; e-mail: [elena.gegus@gmail.com](mailto:elena.gegus@gmail.com).

**Савицька Наталія Леонідівна**, доктор екон. наук, проф., кафедра маркетингу, управління репутацією та клієнтським досвідом, Державний біотехнологічний університет; e-mail: [natalisavitska2010@gmail.com](mailto:natalisavitska2010@gmail.com).

**Savytska Nataliia**, Doctor Science (Economics), Professor, Department of Marketing, Reputation and Customer Experience Management, State Biotechnological University; e-mail: [natalisavitska2010@gmail.com](mailto:natalisavitska2010@gmail.com).

**Пахомова Ірина Олександрівна**, здобувач першого рівня вищої освіти «бакалавр», спеціальності «Маркетинг», Державний біотехнологічний університет.

**Pakhomova Iryna**, winner of the first level of higher education "Bachelor", specialty "Marketing", State Biotechnological University.

УДК 658.512

## **USING THE METHOD OF RE-ENGINEERING BUSINESS PROCESSES AT THE ENTERPRISE IN THE IMPLEMENTATION OF INNOVATIVE TECHNOLOGIES**

**V. Kralia, Y. Sahachko, O. Podolska**

*In today's global economic environment, the method of reengineering business processes becomes critically important for enterprises. The advantages of using the business process reengineering method have been studied. An analysis of the effectiveness and the possibility of its application in order to increase the productivity and competitiveness of the enterprise, considering its various types, was carried out. It has been established that when implementing innovative technologies at enterprises, there is a need to update business processes for their optimal use. Step-by-step measures for the use of business process reengineering at the enterprise during the implementation of innovative technologies have been developed.*

**Key words:** *reengineering, business process, enterprise, innovation, competitiveness, productivity.*

## ВИКОРИСТАННЯ МЕТОДУ РЕІНЖИНІРИНГУ БІЗНЕС-ПРОЦЕСІВ НА ПІДПРИЄМСТВІ ПРИ ВПРОВАДЖЕННІ ІННОВАЦІЙНИХ ТЕХНОЛОГІЙ

В.Г. Краля, Ю.М. Сагачко, О.В. Подольська

*В сучасному глобальному економічному середовищі, де швидкі зміни та технологічні інновації визначають конкурентну перевагу, метод реінжинірингу бізнес-процесів стає критично важливим для підприємств. Інноваційні технології надають можливість підприємствам не лише адаптуватися до змін, але й активно впливати на них, створюючи пружні та ефективні бізнес-структури. Такий підхід дозволяє підприємствам зберігати конкурентоспроможність та прискорювати інноваційний розвиток. Досліджено переваги використання методу реінжинірингу бізнес-процесів, які дозволяють підвищувати продуктивність і конкурентоспроможність підприємств. Реінжиніринг бізнес-процесів дозволяє підприємствам адаптуватися до нових технологій і максимізувати свій потенціал для зростання й успіху. Проведено аналіз ефективності та можливості його застосування з метою підвищення продуктивності та конкурентоспроможності підприємства, розглядаючи різні його види. Можливе виявлення та усунення недоліків у функціонуванні підприємства шляхом аналізу та вдосконалення кожного виду діяльності через розгляд системи бізнес-процесів. Встановлено, що при впровадженні інноваційних технологій на підприємствах, виникає необхідність у відповідному оновленні бізнес-процесів для їх оптимального використання. Розроблені покрокові заходи по використанню реінжинірингу бізнес-процесів на підприємстві при впровадженні інноваційних технологій, які включають у себе аналіз поточної ситуації, а саме детальний аналіз поточних бізнес-процесів, їх ефективності та слабких сторін інновацій; після аналізу необхідно застосувати ключові цілі реінжинірингу - які саме аспекти процесів необхідно оптимізувати та покращити; на основі поставлених цілей розробляються нові бізнес-процеси, які враховують інноваційні можливості, а після цього здійснювати постійний контроль за їх ефективністю.*

**Ключові слова:** реінжиніринг, бізнес-процес, підприємство, інновації, конкурентоспроможність, продуктивність.

**General problem statement.** In today's rapidly developing business environment, as well as military operations on the territory of Ukraine, it is necessary, firstly, to maintain competitiveness, and secondly, it requires innovative thinking and constant improvement. The term business process is used as an object of optimization and improvement to increase efficiency when considering production and managerial activities. It is possible to identify and eliminate deficiencies in the functioning of the enterprise by analyzing and improving each type of activity through the consideration of the business process system. Problematic situations at the enterprise arise

quite often due to the instability of the external environment, contributing to the need for analysis and monitoring of all spheres to identify problems. Using the business process reengineering method at the enterprise will help to respond in a timely manner, further increase and maintain a significant level of competitiveness and efficiency. The innovative activity of the enterprise, in turn, will influence the degree of improvement and support at a significant level of efficiency and competitiveness of business processes.

**Analysis of recent research and publications.** The main directions of the issue of business process reengineering, innovations and innovative activities became the subject of many studies of contemporary domestic and foreign scientists in different scientific areas, including M. Hammer, D. Ciampi, M. Robson, F. Wallach, T. Davenport, D. Harington, S. Zigiariis, D.S. Appleton, M.S. Yeomans, D.L. Beckett, D. Zak, T.R. Farey, D.L. Harlitz, E.M. Porter, R. Blake, D. Mouton, R. Waterman, et al.

At present, state support promotes the penetration of innovative activities into enterprises. But as practice for the enterprise shows, this is not a guarantee of increased efficiency in the sphere of the economic and social environment, despite the fact that innovative projects that are implemented have high potential. This is often due to the fact that business process reengineering is not carried out or is ineffectively carried out when introducing innovations. Innovations are superimposed on an unadapted and unprepared system of business processes, resulting in a negative result.

**The purpose of the article** is to study the benefits, analysis and effectiveness of implementing business process reengineering at the enterprise level for the successful integration of innovative technologies aimed at increasing productivity and competitiveness.

**The presentation of the basic material of the research.** In practical management, there are various management approaches that allow to increase the performance indicators of the enterprise. As a rule, modern management tools are used, such as the technologies of "Total Quality Management", "Just in Time Management", the concept of Lean Production, Kaizen Strategy, Kanban System, and a number of others.

However, in a highly competitive environment, achieving high performance is best achieved through the use of Business Process Reengineering (BPR), which is based on the principles of a process approach to management [1; 2]. Using it in practical activities allow to significantly increase the level of transparency, manageability of business and improve its performance indicators (cost, time, quality, level of customer satisfaction, costs, etc.). In most cases, when the organization needs serious radical changes, it is necessary to develop a business process reengineering program [3].

BRP can be caused by the need to increase competitiveness, adapt to changes in market conditions or respond to other strategic challenges facing the organization.

This approach involves not only optimizing existing processes, but also radically transforming the way they function:

1. Revision of the business model - the organization may change its strategy, goals, market position or ways of generating profit.

2. Reallocation of business functions - certain functions can be combined, separated or completely transformed to ensure optimal functioning.

3. Development of knowledge and values - the organization can actively work on changing culture and values in accordance with new strategies and tasks.

4. Changes in organizational structure - it may be necessary to change the chain of command, departments or teams to optimize communication and decision-making.

5. Adaptation to new technologies - the introduction of new information systems and technologies can play a key role in improving business processes.

6. Continuous improvement and control - reengineering does not end after the implementation of changes. The organization must constantly improve its processes and ensure their compliance with strategic goals.

The concept of business process reengineering, proposed by Hammer and Champy [4], is a rather radical approach to enterprise transformation. The basic principles of this concept are key to understanding its essence. They indicate the need to completely revise the approach to enterprise management and focus on improving key performance indicators such as cost, quality, service and speed:

– Basic: The transformation comes from the base, not just cosmetic changes. This means that the introduction of new methods and processes should affect the very essence of the enterprise.

– Radical: All existing procedures and structures need to be reviewed, not just improved existing practices.

– Shocking: the changes must be fundamental and it is necessary to abandon the existing norms and standards.

– Operational: in the center of reengineering, the business processes themselves are rebuilt, and not just the organizational structure or technical means [5].

Reengineering promotes the development of entrepreneurial activity with the help of innovative management and innovative process, in connection with this, new products and services appear on the market. Based

on this, it can be concluded that reengineering in its own way is reengineering of innovations (innovations). The result of business process reengineering is a quantitative improvement of innovative indicators.

Reengineering is divided into two types: evolutionary and revolutionary. Evolutionary reengineering does not involve redesigning the business process, but rather optimizes the current business process. The revolutionary business process involves a complete redesign and reorientation of the business.

Consider two types of reengineering. Reengineering, which involves a complete reorientation of the business process, is called crisis. This type is used in a state of total crisis of the company, for example, a sharp decrease in competitiveness, consumer dissatisfaction with goods or services, etc. Reengineering, which optimizes the business process, is called development reengineering. This type is used for undesirable trends in the development of the enterprise in order to improve the situation.

Innovative activity within enterprises typically involves several stages: innovation development, creation, implementation, and diffusion. If we view innovation as a process, the outcome may be either an innovation or innovative solutions. Among these stages, the implementation and diffusion of innovation are particularly crucial for an enterprise. The success of these stages directly impacts the level of improvement in the efficiency of the enterprise's activities.

The most critical stage in innovation activity is the implementation of innovations. This involves bringing the innovation process to fruition and obtaining a positive effect from it within the enterprise. Thus, it can be said that innovations play a pivotal role in determining the competitiveness, efficiency, and effectiveness of business processes in a market economy.

The life cycle of innovations underscores the necessity of innovative activities for the enterprise. Reengineering and innovation share a common purpose in the business process - to increase productivity and efficiency. Reengineering of business processes serves as a preparatory step, ensuring the maximum possible utilization of the innovation potential within the business process.

The reengineering of business processes at the enterprise involves expenses, the use of various resources and input objects, the filling of which does not happen by itself. There is a need for resource sources. Solving this issue is carried out with the help of investments. It follows from this that investment activities are a guarantee of the successful development of business processes. To attract investments and conduct investment activities at the enterprise, a motive is required, which is given by a guaranteed positive effect from investing. Determination of the possibility of obtaining a positive

effect is carried out by means of an economic assessment of investments in business process reengineering at the level of the "as it should be" modeling stage of the business process.

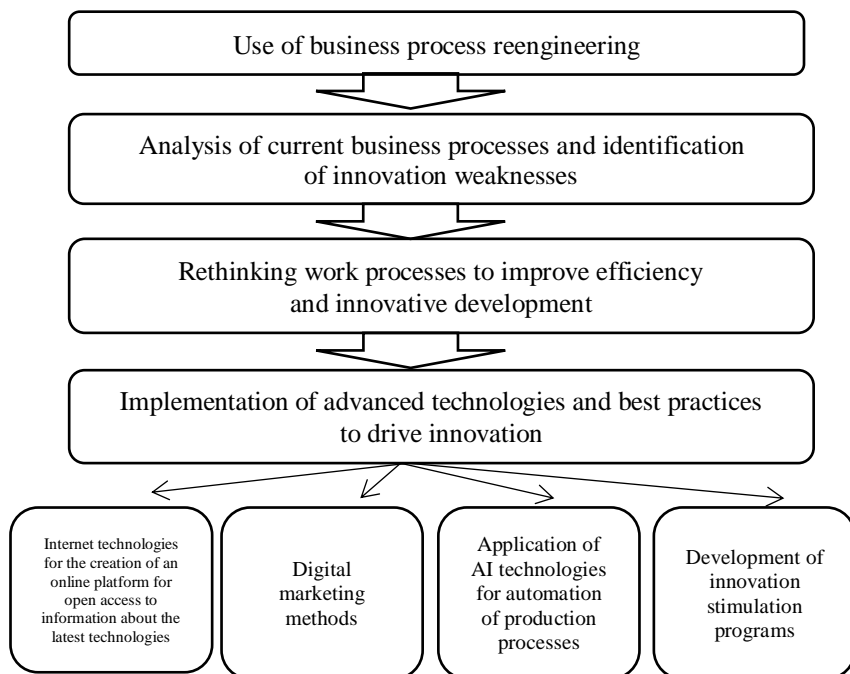
Most of the authors in their works devoted to the reengineering of business processes emphasize the input and output parameters (input object and the result of the transformation function) of each of the stages of the entire business process, without considering what happens at each of the stages that make up the business -process. This question is relevant when introducing innovative technology into the existing business process. Because to the extent that the sub-processes that represent the business process will be adapted to the innovation being implemented and will correspond to its needs and parameters, so will the effect of the implementation. Therefore, for the introduction of innovative technologies at the enterprise, it is important to take into account not only the input and output parameters, but also to carefully analyze the very stages of the business process and their interaction. Using the method of business process reengineering (BPR) can help create an effective scheme of adaptation of sub-processes to innovations, which will ensure the optimal result of the implementation of innovative solutions (Fig. 1).

The steps include analyzing current processes, rethinking them for improvement, and implementing new technologies and practices to drive innovation. The highly effective innovative technology declared by the developer will work effectively in the enterprise if the business processes interacting with this technology work on the "same wave".

Often prudent and diligent management will do their best to optimize every aspect of the operation, but still fail to eradicate inefficiencies. This is a case where something fundamental to the operations is not working. No improvement will fix this dysfunction until the relevant systems are repaired or redesigned. Business process reengineering is an alternative to business process management, and their relationship is similar to that between political revolution and simple reform. Reform is great when it's possible, but some systems reach such a state of dysfunction that they need to be rebuilt from the ground up.

When implementing an innovative technology, it's essential to reengineer the business processes that can impact the efficiency of the innovation. These business processes can be managerial, main, or auxiliary.

The first step is to reengineer the business processes into which the innovation is introduced. Once these processes are optimized for the new technology, it's necessary to identify any other business processes that could affect the effective implementation and ongoing operation of the innovation. If such processes exist, they also need to be reengineered.



**Fig. 1. Scheme for using the method of business process reengineering (BPR) for the introduction of innovative technologies at the enterprise, developed by the authors based on [6]**

This approach ensures that the entire system is optimized to support the innovative technology, maximizing its efficiency and effectiveness within the organization.

Existing reengineering approaches have a narrow subject and problem orientation and have disadvantages.

1. Regulate business process reengineering only at the level of common sense.

2. There is no system of indicators and criteria describing the business process as a dynamic system of elements, the change of which is necessary when implementing innovative technologies.

3. There are no clear methods of analysis, evaluation and reengineering of business processes during the implementation of innovative technology.

Research and analysis of the theoretical and methodological basis of business processes, business process reengineering, innovations and innovative activities characteristic of enterprises allow us to draw conclusions.

1. Global spread in scientific activity of the doctrine of the process approach to management and its improvement; the mass spread of innovations and innovative activity gave rise to a large number of definitions of key concepts, in connection with which confusion in key concepts arose in production activity. Based on this, different views of scientists were studied and comprehensive definitions of key concepts were given, their role in the enterprise's activities was shown.

2. In the market economy, due to the increase in the level of competition, innovative activity has become more active, which contributes to the increase in the efficiency of enterprises. In this regard, it becomes necessary to reengineer business processes when introducing innovations in order to maximize their potential during the further implementation of business processes.

3. The existence of the life cycle of innovations shows that over time the effectiveness of innovation "fades out", and there is a need for another innovative activity. Thus, the need to reengineer business processes during the implementation of innovation will arise repeatedly, and as a result, the question of how to conduct and evaluate the measures will arise.

4. It is necessary to start the reengineering of the business process to which the innovation is introduced, and along the chain and other business processes that can negatively affect the effectiveness of the implementation and the work of the innovation

**Conclusions.** BRP requires significant changes in organizational structure and work style. This approach involves not only optimizing existing processes, but also radically transforming the way they function. Business process reengineering promotes continuous systematic analysis and reconstruction of existing processes, helping enterprises to improve efficiency and significantly reduce costs.

#### Список джерел інформації / References

1. Bhaskar, L.H. (2018). Business process reengineering: A process based management tool. *Serbian Journal of Management*, 13, 1, 63-87. Retrieved from <https://doi.org/10.5937/sjm13-13188>.

2. Davenport, T.H. (1993). Process innovation: reengineering work through information technology. *Harvard Business Review*, 2, 45-48.

3. Виноградова О. В. Реінжиніринг бізнес-процесів у сучасному менеджменті: монографія. Донецьк, 2005. 195 с.



Vynogradova, O. (2005). *Reinzhyrnyh biznes-protsesiv u suchasnomu menedzhmenti: monohrafiia* [Reengineering of business processes in modern management]. Donetsk [in Ukrainian].

4. Hammer, M., Champy, J. (1993). *Reengineering the corporation*. N.Y.

5. Dr. Bandy, Howard (2011). *Modeling Trading System Performance*, Blue Owl Press.

6. Business Process Reengineering: The Modern Way to Boost Efficiency and Profits [Guide of 2024]. Retrieved from <https://kissflow.com/workflow/bpm/business-process-reengineering-bpr/>.

**Кралья Вікторія Григорівна** – к.е.н., доцент кафедри менеджменту, бізнесу та адміністрування ДБТУ, [VKralya2905@gmail.com](mailto:VKralya2905@gmail.com).

**Kralia Viktoriia**– Candidate of Economic Sciences, Associate Professor, Department of Management, Business and Administration of the State Biotechnological University, [VKralya2905@gmail.com](mailto:VKralya2905@gmail.com).

**Сагачко Юлія Миколаївна** – к.е.н., доцент, завідувач кафедри менеджменту, бізнесу і адміністрування ДБТУ, [sahachkojulia@btu.kharkiv.ua](mailto:sahachkojulia@btu.kharkiv.ua).

**Sahachko Yuliia**– Candidate of Economic Sciences, Associate Professor, Head of Department of Management, Business and Administration of the State Biotechnological University, [sahachkojulia@btu.kharkiv.ua](mailto:sahachkojulia@btu.kharkiv.ua).

**Подольська Ольга Василівна** – к.е.н., доцент, доцент кафедри менеджменту та бізнесу ХНЕУ ім. С. Кузнеця, [olha.podolska@hneu.net](mailto:olha.podolska@hneu.net)

**Podolska Olha**– Candidate of Economic Sciences, Associate Professor, the associate professor of the Department Management and Business of the Simon Kuznets Kharkiv National University of Economics, [olha.podolska@hneu.net](mailto:olha.podolska@hneu.net).

УДК 658.821:355.4

## **МАРКЕТИНГОВІ ІНСТРУМЕНТИ ФОРМУВАННЯ КОНКУРЕНТНИХ ПЕРЕВАГ ПІДПРИЄМСТВА В УМОВАХ ВОЄННОГО СТАНУ**

**О.П. Афанасьєва, І.Г. Бубенець, К.Р. Грідіна**

*У статті обґрунтовано актуальність використання маркетингових інструментів для забезпечення конкурентних переваг підприємства в умовах воєнного стану. Визначено основні маркетингові інструменти, які впливають на формування конкурентних переваг суб'єкта господарювання. Запропоновано ключові маркетингові інструменти, які дозволять підприємствам не тільки виживати на ринку, але й зберігати та покращувати свої конкурентні переваги у складних умовах.*

***Ключові слова:** маркетинг, маркетингова політика, маркетингові інструменти, конкурентні переваги, воєнний стан.*