

BENCHMARKING AS AN INNOVATIVE METHOD OF FORMING COMPETITIVE ADVANTAGES OF THE IT ENTERPRISE

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Abstract. *The article develops theoretical and practical provisions for the use of benchmarking as an innovative method of forming competitive advantages of the IT-enterprise. Different types of benchmarking and their classification depending on the classification parameters are given. The sequence of benchmarking in the PDCA process is determined. The continuity of the benchmarking process is visualized in the benchmarking wheel diagram. A study of sources and the main methods of assessing the competitiveness of the IT-enterprise is provided on the basis of benchmarking. The essence of competitive-synergetic benchmarking is considered and the scheme of occurrence of competitive-synergetic benchmarking effect is developed.*

Keywords: *benchmarking, competitive advantage, benchmark, PDCA cycle, benchmarking wheel, competitiveness assessment methods, synergetic benchmarking effect.*

Problem statement. The most dynamic segment of Ukraine's economy, whose growth rate has not slowed down even during the global crisis, is the information technology sector. Innovative information technologies (IT) are increasingly influencing the socio-economic development of Ukraine. It is the domestic IT sector that is a potential driver of economic growth, as products and services generated by enterprises in this sector are widely demanded by foreign customers, and their use by domestic enterprises helps to improve the efficiency of the economy as a whole. In conditions of increasing competition in the global and domestic markets of IT products, the problem of creating and using competitive advantages is one of the most pressing. The need to identify and implement competitive advantages in the activities of IT companies highlights the need to use an effective benchmarking tool that can improve the financial condition of the company, increase productivity and improve the quality of enterprise services.

Analysis of recent research and publications. Benchmarking has been studied in the works of many foreign researchers, including B. Ashford [8], T. Bendell [9], D. Bloomberg [10], R. Kemp [11], M. Hinton [12], J. Moses [13], J. Rosengard [14], G. Watson [15]. In the domestic scientific literature, research on the implementation of methods and principles of

benchmarking is revealed in the works of such scientists as D. Bobrovnik [1], M. Vargatyuk [2], L. Gerasimchuk [3], V. Negodenko [5] and I. Yatsiv [7].

Setting objectives. The aim of the article is to consider the theoretical foundations, methodological approaches to the formation and evaluation of competitive advantages of IT companies on the basis of benchmarking, as well as to identify sources of synergistic benchmarking effect.

Presentation of the basic material of the research. Analysis of the understanding of benchmarking shows that benchmarking is usually seen as a formalized application to find better performance through operational improvement. It aims to allow the company to close the gap between its actual activities and the best indicators on the market (benchmarks). In the classical definition, benchmarking is interpreted as a way to assess the strategies and goals of the organization compared to first-class business organizations to determine their place in a particular market. The results of benchmarking analysis can be used not only for corrective action, but also to assist in tactical and strategic decision-making by the enterprise. The most common are different types of benchmarking, which can be classified in relation to the enterprise, the object and the subject of research (Figure 1).

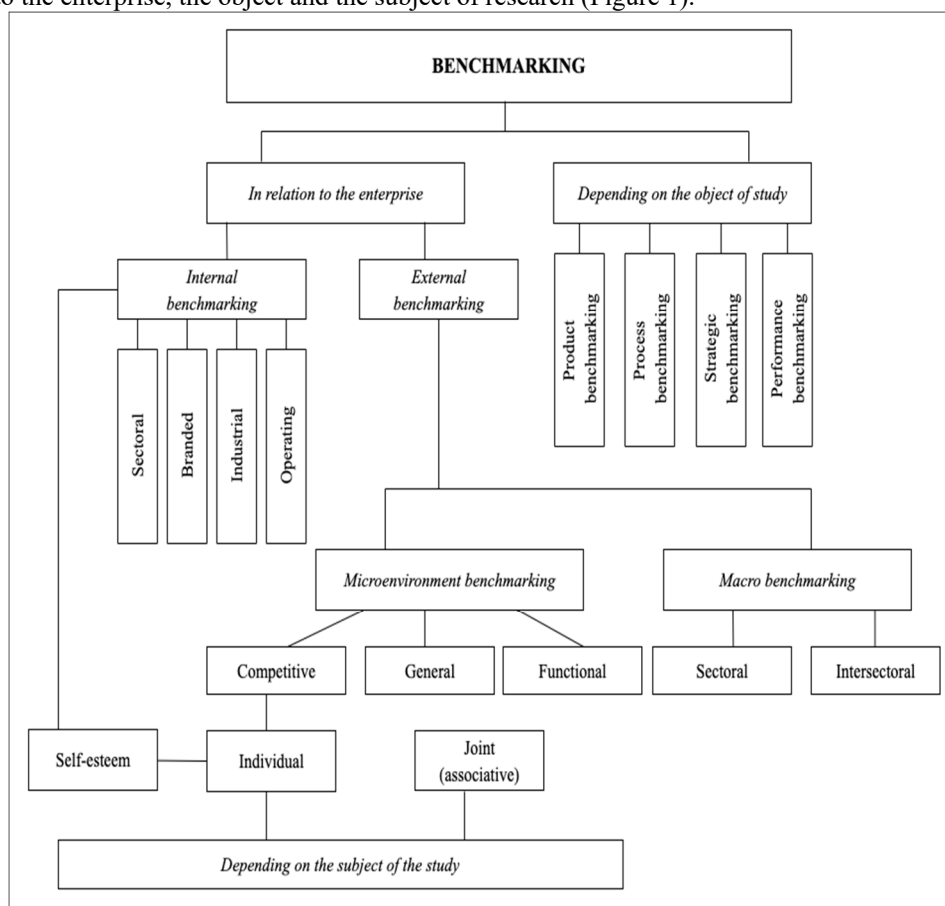


Figure 1. Classification of types of benchmarking in relation to the enterprise, the object and the subject of the study

* Compiled by the author

Internal benchmarking is carried out within the corporation and is to compare the characteristics of business units, similar in analogous processes. External benchmarking is carried out by several companies that enter into an agreement to conduct joint comparative studies of each of the participants in order to assist each other for further successful development. Competitive benchmarking uses a comparison of a company's products, processes, or performance with competitors or leading firms. Functional benchmarking compares similar functions or processes of two or more organizations in the same sector. General benchmarking is the benchmarking process that compares the defined function of two or more companies regardless of business activity. Associative benchmarking is conducted by organizations that are in a narrow benchmarking alliance.

Process benchmarking changes the main indications and functionality for the current establishment with enterprises, the characteristics of which are adequate in similar processes. Performance benchmarking compares the results of the company's activities with other companies. Benchmarking of the product is based on the practice of reverse engineering, if the products are selected to identify new technologies or materials. Strategic benchmarking reflects the strategic decisions of the enterprise, which are worth the resources, investments, and the market.

We see benchmarking under the PDCA cycle (plan, do, check, act), which characterizes the continuity of the competitive matching process based on the benchmarking approach:

1. The 'plan' phase focuses on the various upfront decisions, such as the selection of functions/processes to benchmark and the type of benchmarking study to embark on.
2. In the 'do' phase, one delves into a self-study to characterize the selected processes using metrics and documenting business practices. Furthermore, data (metrics and business practices) are collected on the company that is the benchmarking partner.
3. 'Check' refers to the comparison of findings via a gap analysis to observe whether negative or positive gaps exist between the benchmarking company and the benchmarking partner.
4. 'Act' refers to the launching of projects either to close negative gaps or maintain positive gaps [11].

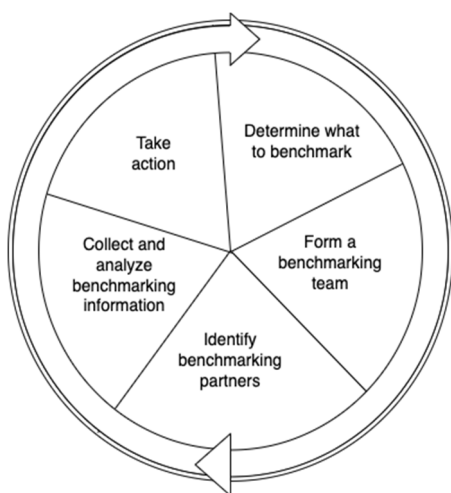


Figure 2. Benchmarking wheel

* Compiled by the author on the basis of [11]

Fundamental analysis of scientific sources identifies five main components of the benchmarking process, which are interrelated, hence the name benchmarking wheel (Figure 2).

Determine what to benchmark. Corporate management teams typically decide which processes will be benchmarked, although some companies invite benchmarking research teams. The organization must conduct a control analysis of processes that correspond to the strategic direction of the company.

Formation of benchmarking team. Team members are provided with appropriate training in the field of benchmarking. The team develops a plan that includes defining the roles and responsibilities of team members, project milestones, and setting a realistic completion date for the study.

Identification of benchmarking partners. Candidate companies are invited to participate in the study, as a result of which an agreement

is reached on the distribution of information to be disseminated and how it will be used. It is necessary to determine what will be the benchmarking - external or internal, to formulate criteria for evaluation and analysis.

Collection and analysis of information. Data is not only collected, but also analyzed and converted into input information for comparison with its own indicators. The received information is classified, systematized. Understanding the variability in the processes of different companies and the factors that contribute to increased productivity, the team can identify strategies to improve the competitive gap.

Taking action. The last stage of benchmarking involves adapting the best practices of other companies and implementing specific improvements. Adapting benchmarks should not be confused with copying best practices. The best experience gained from others should be adapted to the culture, technology and hr-processes of the organization.

The use of performance indicators and benchmarking to improve enterprise management is growing, but it is clear that there are many and varied methods and indicators used by companies to assess the competitiveness of the enterprise in terms of competitive advantage (Table 1).

Table 1

Basic methods of assessing the competitiveness of the enterprise on the basis of benchmarking

Class of methods	List of methods
Methods based on the analysis of comparative advantages	<ul style="list-style-type: none"> – theories of the international division of labor; – M. Porter's theory of comparative advantages; – methods of comparative analysis.
Methods based on the theory of equilibrium of the firm and the industry	<ul style="list-style-type: none"> – A. Marshall's theory of equilibrium of the firm and industry; – theory of factors of production.
Methods based on the theory of effective competition	<ul style="list-style-type: none"> – theory of effective competition; – index and integral methods; – method of assessing the competitiveness of products (based on the rating of goods; sales; differentiated method; based on the usefulness of products); – method of self-assessment.
Methods based on the theory of product quality	<ul style="list-style-type: none"> – theory of product quality; – method of expert assessments; – radar method.
Graphic methods	<ul style="list-style-type: none"> – polygon (cyclogram) and competitiveness radar; – method of "profiles"; – method based on life cycle theory; – map of strategic groups; – method of building a competitive space; – radial diagram; – semantic differential method; – method of analysis based on desirability functions.
Matrix methods	<ul style="list-style-type: none"> – ADL matrix; BCG matrix; McKinsey matrix; – methods of analysis of competitive advantages: GAP, LOTS, PIMS, SWOT; – I. Ansoff matrix; – matrix of competitive strategies of M. Porter; – Thompson-Strickland matrix;

	<ul style="list-style-type: none"> - Hofer / Schendel model; - Shell / DPM matrix; - SPACE analysis; STEP analysis; STEEPV analysis.
Analytical methods	<ul style="list-style-type: none"> - Herfindahl-Hirschman index and Rosenblud index; - method of differences / ranks / points; - models with an ideal point.
Complex methods	<ul style="list-style-type: none"> - taxonomic method; - benchmarking method; - method of expert assessments; - situational analysis.

* Compiled by the author on the basis of [4]

Using the methods of assessing competitiveness on the basis of comparative analysis, the effect of competitive synergetic benchmarking is achieved [6], which provides opportunities to form new or strengthen existing competitive advantages of the enterprise (Figure 3).

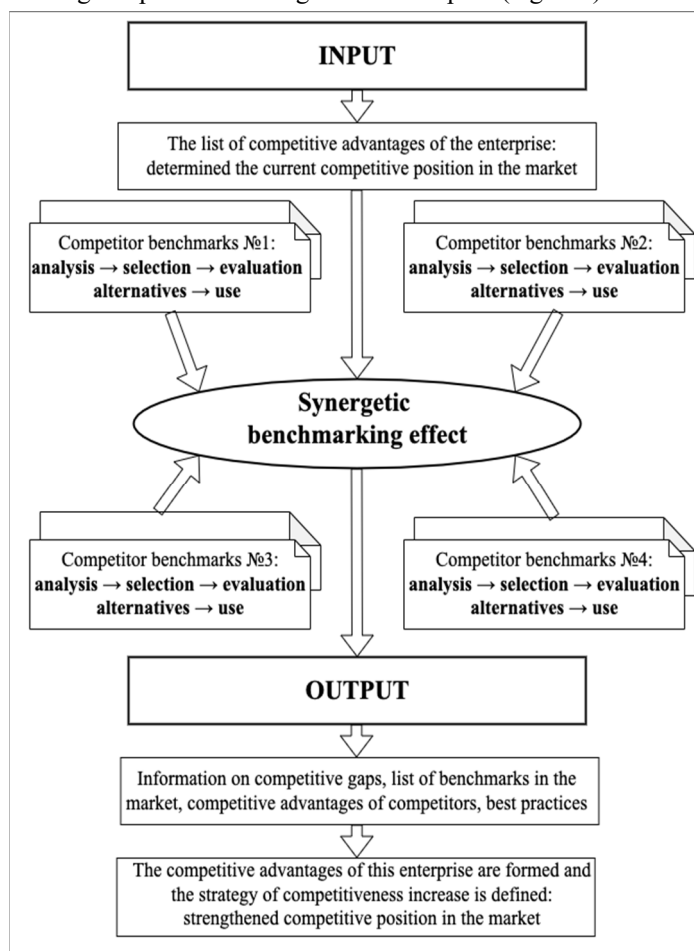


Figure 3. Scheme of competitive-synergetic benchmarking effect

* Compiled by the author on the basis of [6]

The synergetic effect is the most important benchmarking concept and is analytically reproduced by the calculation efficiency system of development and practical use of the results created by competitive synergetic benchmarking. The concept of competitive synergetic benchmarking is a natural response to the challenge of "nonlinearity" in the economy, the presence of which, gives opportunities for IT companies to significantly increase their investment efficiency, and a nonlinear (disproportionate) increase in competitiveness in IT management developing sector [6].

Conclusions. Benchmarking in Ukraine has significant prospects, as at the present stage of development of the world economy it is one of the most effective tools that helps to overcome the gap with competitors by comparing and analyzing their activities with the most successful benchmarks in the market. The use of benchmarking techniques makes it much more effective to form competitive advantages for IT companies that need innovative methods to form a strategy of competitive advantages. The process of benchmarking implementation obeys to the PDCA cycle and the continuity of the benchmarking approach is visualized in the benchmarking wheel scheme. With the application of competitiveness assessment methods on the basis of comparative analysis, the effect of competitive synergetic benchmarking is achieved, which is an effective marketing tool for obtaining exclusive positions in national and global markets.

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БЕНЧМАРКІНГ ЯК ІННОВАЦІЙНИЙ МЕТОД ФОРМУВАННЯ КОНКУРЕНТНИХ ПЕРЕВАГ ІТ-ПІДПРИЄМСТВА

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Анотація. У статті розвинуто теоретичні та практичні положення застосування бенчмаркінгу як інноваційного методу формування конкурентних переваг ІТ-підприємства. Наведено різні види бенчмаркінгу та їх класифікацію залежно від параметрів класифікації. Визначено послідовність проведення бенчмаркінгу в процесі PDCA. Безперервність бенчмаркінгового процесу візуалізована у схемі benchmarking wheel. Здійснено дослідження джерел та подано основні методи оцінювання конкурентоспроможності ІТ- підприємства на засадах бенчмаркінгу. Розглянуто сутність конкурентно-синергетичного бенчмаркінгу та розроблено схему виникнення конкурентно-синергетичного бенчмаркінгового ефекту.

Бенчмаркінг в Україні має значні перспективи, оскільки на сучасному етапі розвитку світової економіки є одним із найефективніших інструментів, що допомагає подолати відставання від конкурентів шляхом порівняння та аналізу їх діяльності з найуспішнішими бенчмарками на ринку. Використання методів бенчмаркінгу робить значно ефективнішим формування конкурентних переваг для ІТ-компаній, які потребують інноваційних методів для формування стратегії конкурентних переваг. Процес впровадження бенчмаркінгу підкоряється циклу PDCA, а безперервність підходу бенчмаркінгу візуалізується на схемі колеса порівняльного аналізу. При застосуванні методів оцінки конкурентоспроможності на основі порівняльного аналізу досягається ефект конкурентного синергетичного бенчмаркінгу, який є ефективним маркетинговим інструментом для отримання ексклюзивних позицій на національному та світовому ринках.

Ключові слова: бенчмаркінг, конкурентна перевага, бенчмарк, цикл PDCA, колесо бенчмаркінгу, методи оцінювання конкурентоспроможності, синергетичний бенчмаркінговий ефект.

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