

ICEST 2022**III International Conference on Economic and Social Trends for Sustainability of Modern Society****INDUSTRIAL COMPANY'S INNOVATION STRATEGY BASED
ON BENCHMARKING RESULTS**

Konstantin Sokolov (a)*, Natalya Paseshnik (b), Marina Sokolova (c), Pavel Drachuk (d),
Natalya Goryainova (e), Elena Guzova (f)

*Corresponding author

(a) South Ural University of Technology, ul. Kozhzavodskaya, 1, Chelyabinsk, Russia, sokolov_k@mail.ru

(b) South Ural University of Technology, ul. Kozhzavodskaya, 1, Chelyabinsk, Russia, paseshniknp@inueco.ru

(c) South Ural State University, Lenin prospect, 76, Chelyabinsk, Russia, somaig@mail.ru

(d) South Ural State Medical University, ul. Vorovskogo, 64, Chelyabinsk, Russia, ehvd@yandex.ru

(e) South Ural University of Technology, ul. Kozhzavodskaya, 1, Chelyabinsk, Russia, goryaynovanm@inueco.ru

(f) South Ural University of Technology, ul. Kozhzavodskaya, 1, Chelyabinsk, Russia, guzovaeiu@inueco.ru

Abstract

This article represents the process of forming a sustainable development strategy of an industrial company based on the market environment research and benchmarking. This strategy is focused on the production of high technology products. We defined the conditions for a successful development of a company's strategy of innovative development. We proposed a scheme for converting the results of benchmarking into a company's strategy of innovative development. The article points out four stages of benchmarking, considers the main types of benchmarking (internal benchmarking, competitive benchmarking, functional benchmarking, process benchmarking). In this case, the studied companies can be competitors, but economic practice shows that it is also possible to obtain successful borrowings from those firms that operate in completely different industries, regions, markets, even in other countries, etc. The effectiveness of the technique under consideration depends on the correct organization of the data collection system in various fields of the open press, in the analysis of manufactured products, at exhibitions, in the position of a competing firm on the market, in the use of former employees of these firms, etc.

2357-1330 © 2022 Published by European Publisher.

Keywords: Benchmarking, industrial company, innovation activity, innovation strategy

1. Introduction

The Japanese are considered to be the founders of benchmarking, who have perfectly learned how to copy other people's achievements. They carefully had researched European and American goods and services to identify their strengths and weaknesses, and then released something similar at a lower price (Bloxham, 2009). At the same time, the Japanese successfully transferred technology and know-how from one business area to another. The term «benchmarking» is close within the meaning to the Japanese term «dantotsu», which means «effort, concern, concern of the best (leader) to become even better (leader)» (Ellibee & Mason, 1997).

In the West, benchmarking began to be actively used in the late 1970s. In 1972 a consulting company PIMS, that studied the impact of marketing strategies on profits, determined that in order to develop effective behavior in a competitive environment, it is necessary to know the experience of the best companies that have succeeded in similar conditions (Epper, 1999).

During this time, the Japanese company Xerox began to look for the reasons for the sharp loss of its market share in copy machines. The company studied in details the experience of the Japanese company Fuji. The use of this experience allowed Xerox to reduce costs and increase labor productivity (Dunn et al., 2007). Since then, benchmarking has become part of Xerox's development strategy.

2. Problem Statement

At the present stage, the use of benchmarking due to the basic principle «from best to best» leads to many companies' prosperity and success in the USA, Japan, and Western Europe (Amin & Amin, 2003). In the United States, Japan and other countries, benchmarking programs are being developed with government support. It is strongly believed that due to this exchange of experience, the country's economy as a whole wins (Henderson-Smart et al., 2006).

In Russia, the use of benchmarking is still not widespread. This is explained by Russian companies' high degree of closeness, a small number of public companies, fear of takeovers and other attacks on property, as well as reluctance to open the “seamy side” of your business to anyone. However, many companies still try to monitor financial results of competitors and use them for management purposes.

3. Research Questions

The main problems of the current economic situation in Russia are achieving global competitiveness and ensuring sustainable development of high-tech industries. Their solution is associated with the development and implementation of a strategy of active innovative development for industrial companies. In this respect, an important role should be given to benchmarking, with the imperative of learning and applying advanced experience.

4. Purpose of the Study

Goal of research: to reveal the possibilities of benchmarking when developing a company's strategy of innovative development.

5. Research Methods

The research is based on general systems theory and systems analysis, modern methodology of project management, theoretical foundations of general and innovative management.

Today, the innovation strategy is associated with long-term planning of innovation activities carried out by the company's top management. Consequently, the formulation of the innovation strategy is a kind of analytical process of defining long-term goals and creating mechanisms for achieving them. Innovation strategy precedes strategy implementation. The innovation strategy is understood as a part of the company's economic strategy, which is designed to ensure the achievement and implementation of the goals of innovative development based on the effective distribution and redistribution of resources between the areas of innovation activities.

The development of innovative strategy is caused by the increased need for making strategic decisions and, therefore, for implementing strategic management. The need for strategic management arises when business entity' activities are influenced by environmental factors with an increased level of uncertainty. The meaning of strategic management is to help a company how to find, develop, and use resources in the most efficient way to achieve its goals.

A company's innovative strategy is developed on the basis of strategic goals of the company's creation and operation. To do this, it is necessary to clearly set a common goal and ways to achieve it; strictly limit private goals in time and determine the timing of their achievement; evaluate the reality and consistency of goals to one another.

For developing its own innovation strategy, each industrial company must clearly define (Sokolov, 2019):

- Areas of innovative activity.
- Ranges of this activity.
- The ratio of own and borrowed funds.
- Profit distribution for reinvestment in production, dividend payment and other purposes.
- Areas of investment.
- Sources of innovation (own developments or attracted from the outside, including benchmarking using).
- Rational proportions between innovative projects.
- Growth rate, timing of product change and technology of its production.

The conditions for the development of a company's successful strategy of innovative development have been determined. A scheme for converting the results of benchmarking into a strategy for the innovative development of a company is proposed. The success of an innovation strategy depends on the company's ability to successfully carry out different areas of innovation activity, rationally combining

and connecting them with each other. If there is no good compatibility between different areas of innovation activity, then the company has neither a clear innovation strategy nor a sustainable advantage. In this case, management is reduced only to control verification over independent functions, whereas operational efficiency determines the relative indicators of industrial company.

6. Findings

The planning process innovation activity development, which identifies company's strategic directions of innovative development, is one of the most important areas, where benchmarking is crucial. Goals and guidelines of company's innovation activity are largely determined by the results of benchmarking. In fact, benchmarking is one of the alternative methods of strategic planning of innovation activities, in which tasks are determined basing on the analysis of competitors' activities. Benchmarking is a way of studying the activities of business entities, primarily competitors, in order to use their positive experience in their work (Hacker & Kleiner, 2000).

Benchmarking can be represented in four stages:

- i. Analyzing company's own business processes. Ideally, it is assumed that they are already thoroughly known, however, an operational analysis of production and economic activities will allow in due time to elicit so-called «bottlenecks» and propose measures to eliminate them.
- ii. Studying other companies' business processes. This task is much more difficult due to the existence of trade secret law, the patent system, etc. However, it is reasonably possible to analyze the available economic indicators and their dynamics using various information channels.
- iii. Comparing your own results with the results of the studied companies. It is the simplest stage which realization is possible on the company's own resources.
- iv. Determining the necessary changes, both quantitative and qualitative, to improve your own business processes. This stage is the most difficult, as it requires financial investments.

Benchmarking is aimed at a detailed study of internal organization, structure and activities of another company, from which you can learn effective techniques and methods for solving specific problems and making management decisions. Benchmarking is a comparative evaluation of effectiveness of etalon and under test system, the correct functioning of which is beyond all questions. Financial figures of another company proof it. An efficiency comparing of two systems allows companies to check the correct functioning of the system under test. Benchmarking is, in fact, the development of the analogy method, which, in turn, consists in the use of organizational forms and management mechanisms that have proven themselves in companies with similar organizational characteristics (goals, type of technology, specifics of the organizational environment, size, etc.) in relation to the analyzed organization.

There are several types of benchmarking depending on the management decision making sphere:

- i. Internal benchmarking. It is carried out within the organization. It compares the characteristics of production processes that are similar to analogous processes.
- ii. Competitive benchmarking. It measures the company's characteristics and its comparison with competitors' characteristics. It conducts the research of specific products, process capabilities or administrative methods of competing companies.
- iii. Functional benchmarking. It compares a specific function of two or more organizations in the same sector.
- iv. Process benchmarking. It is an activity about changing certain indicators and functional features for their comparison with companies, the characteristics of which are perfect in similar processes.

Benchmarking includes a set of tools that allow companies to systematically find, evaluate all the advantages of someone else's experience and organize their use in your work. Benchmarking is aimed at studying business. Speaking about innovation, it means studying the business of other companies or entrepreneurs in order to identify the fundamental characteristics for developing your own innovation strategy. Figure 1 shows a diagram of the company's strategy of innovative development based on the results of benchmarking.

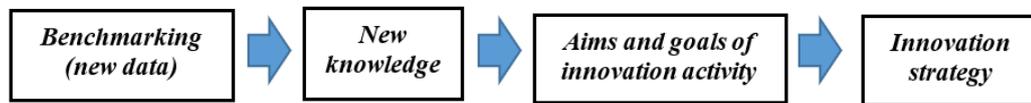


Figure 1. Scheme of converting the results of benchmarking into the company's strategy of innovative development

Benchmarking results allow employees of an industrial company to gain new knowledge about market trends, customer needs, recent developments of suppliers, directions of competitors' innovation activities, etc., which initiate aims and goals revision of innovation. A company's reasonable strategy of innovative development is worked out on this basis.

7. Conclusion

The reasons for the sharp popularity rise of benchmarking in recent decades are based on the fact that economic competition has become global, and most companies are beginning to realize the need for a comprehensive detailed study and subsequent use of effective management decisions of other companies for their own future success in the innovation field. In order not to be left behind their competitors, all companies, regardless of size and field of activity, need to constantly study and apply world best practices in all spheres of business activity and use them in developing an innovation strategy.

The knowledge about the best firms' working methods and the needs of buyers, collected in the process of benchmarking, is important information necessary for the company's innovative development

and ensuring its competitiveness. Thus, benchmarking allows companies to transform their activities in accordance with market's requirements.

Acknowledgments

The work was supported by Act 211 Government of the Russian Federation, contract № 02.A03.21.

References

- Amin, M. R., & Amin, N. A. (2003). Benchmarking learning outcomes of undergraduate business education. *Benchmarking: An International Journal*, 10(6), 538-558. <https://doi.org/10.1108/14635770310505175>
- Bloxham, S. (2009). Marking and moderation in the UK: False assumptions and wasted resources. *Assessment and Evaluation in Higher Education*, 34(2), 209-220. <https://doi.org/10.1080/02602930801955978>
- Dunn, D. S., McCarthy, M. A., Baker, S., Halonen, J. S., & Hill, G. W. (2007). Quality benchmarks in undergraduate psychology programs. *American Psychologist*, 62(7), 650-670. <https://doi.org/10.1037/0003-066X.62.7.650>
- Ellibee, M. A., & Mason, S. A. (1997). Benchmarking for quality curriculum: The heart of school-to-work. *New Directions for Community Colleges*, 97, 15-21. <https://doi.org/10.1002/cc.9702>
- Epper, R. M. (1999). Applying benchmarking to higher education: Some lessons from experience. *Change*, 31(6), 24-31. <https://doi.org/10.1080/00091389909604230>
- Hacker, M. E., & Kleiner, B. M. (2000). 12 steps to better benchmarking. *Industrial Management*, 42(2), 20-23. https://www.researchgate.net/publication/285885970_12_steps_to_better_benchmarking
- Henderson-Smart, C., Winning, T., Gerzina, T., King, S., & Hyde, S. (2006). Benchmarking learning and teaching: Developing a method. *Quality Assurance in Education*, 14(2), 143-155. <https://doi.org/10.1108/09684880610662024>
- Sokolov, K. O. (2019). Organizational forms of innovation activities of enterprises of the food and processing industry. *Encyclopedia*. <https://www.elibrary.ru/item.asp?id=37401968>