

Chapter 2

INNOVATIVELY ADAPTIVE STRATEGIC PERFORMANCE MEASUREMENT

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INTRODUCTION

Globalization of activity, the instability of the economic environment and the changing paradigms of enterprise development have created completely new conditions and significantly complicated the achievement of high performance results. Rethinking and searching for innovative approaches to enterprise management require the use of modern tools for measuring performance, focused on substantiating mechanisms to ensure the level of strategic effectiveness necessary for the enterprise and the stable existence of business structures. According to the traditions of modern economic scientific schools, strategic performance is considered on the basis of a synergy approach¹ through a system of values that meet the needs of social development, and is interpreted as the ability of an enterprise to ensure the maximum level of consistency of its results with their targets for the key success factors of strategy implementation. In this context, the measurement of performance should act as an analytical tool for its assessment, present specific results of economic activity², provide an opportunity to develop and use a system that leads to continuous improvement, organizational training, change process management and strategic management of operational activities.

Measuring performance requires differentiated approaches and is a multidisciplinary topic³. Over the past three decades, a lot of domestic and foreign publications have been devoted to this issue both in specialized scientific literature in management theory and organization

¹ Yanhol, H. V. (2013). Teoretichni pidhodi do viznachennya ta klasifikaciya rezul'tativnosti diyal'nosti pidpriemstva [Theoretical approaches to the definition and classification of companies performance]. *Bulletin of the Khmelnytsky National University. Economic sciences*, 2, T. 2, 231-234. [in Ukrainian]

² Perchuk, O. V. (2013). Suchasni pidhodi shchodo ocinki rezul'tativnosti diyal'nosti pidpriemstva [Successful approaches to evaluating the companies performance]. *Bulletin of Kamenetz-Podolsk National University named after Ivan Ogienko. Economic sciences*, 8, 244-246. [in Ukrainian]

³ Yanhol, H. V. (2013). Metodichni pidhodi do vimiryuvannya rezul'tativnosti diyal'nosti pidpriemstva [Methodical approaches to the companies performance measurement]. *Strategy of economic development of Ukraine*, 32, 225-231. [in Ukrainian]

theory (P. Drucker, G. Cokins, V. Pareto, S. Sink, D. Norton, A. Neely, F. Hadow, P. Almstrom, S. Okwir, U. Bititci, M. Smith, S. Pokropivniy, A. Oleksyuk, V. Lavrenenko, H. Yanhol and others), and among expert practitioners at the level of development of information systems and business process management (G. Kanji, D. Heckl, P. Richard, T. Devinney, G. Yip, G. Johnson and others)^{4,5,6}. Despite significant interest in this issue, there is a significant lag in the degree of development and resolution of issues of measuring the strategic performance of enterprises at both the theoretical and applied levels from the needs of the modern economy. This situation has led to a shift in the emphasis of the measurement process from the mechanisms of its provision to the actual assessment, which significantly complicates the preventive effect on the level of achievement of results. From the foregoing, the need for a critical rethinking of the applied aspects of the formation and development of methodological approaches to measuring the strategic performance of an enterprise follows.

2.1. Theoretical basis for the development of performance measurement

In its historical development, the measurement of performance has transformed from the practice of preparing financial statements to the use of multiple criteria for achieving value for owners, which form a certain system of performance indicators. Historically, their appearance was facilitated by the development of targeted management methods and the need to create a specific mechanism that would justify the establishment of organizational goals and track progress over time. The need for such a mechanism has been justified since the introduction of full quality management (TQM) in the 1980s: when groups of people whose functional duty was previously only an assessment of performance, became responsible for decision-making⁷. From that moment, in fact, enterprises began to adapt structures naturally

⁴ Yanhol, H. V. Vikoristannya pokaznika ekonomichnoi dodanoi vartosti dlya ocinyuvannya strategichnoi rezul'tativnosti metalurgijnih pidpriemstv [Use of the economic value added indicator to evaluate the strategic performance of metallurgical companies]. *Bulletin of Lviv Polytechnic National University. Management and entrepreneurship in Ukraine: stages of formation and development problems*, 875, 231-234. [in Ukrainian]

⁵ Heckl, D., Moormann, J. (2010). Process performance management. Handbook on business process management / ed. by Rosemann M, vom Brocke J. Berlin: Springer, 115–135.

⁶ Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring organizational performance: towards methodological best practice. *J Manag*, 35(3), 718–804.

⁷ Almström P. etc. (2017). Sustainable and resource efficient business performance measurement systems. The handbook. Mölndal, Sweden: Billes Tryckeri, 45 p.

distributed on the basis of hierarchical information exchange in the transverse direction. This distribution contradicted the flow of strictly hierarchical management structures that already existed in the enterprise, which led to the transformation of performance measurement systems. From that moment, the strategic goals and their values, multidimensional performance indicators, and the corresponding support infrastructure become components of the measurement system.

Historically, the first look at the role of measuring performance defined by Teige and Eilon (1973)⁸ has three main goals: to ensure the achievement of organizational goals and objectives; evaluate, monitor and improve procedures and processes; Compare and evaluate the performance of various enterprises, groups and individuals. Chiesa et al. (2009)⁹ complements PM's goals with diagnostic activities to support decision making, staff motivation, strengthen communication and coordination; learning; risk reduction and uncertainty. Thus, the study of the issue of measuring performance should be devoted to the formation of a certain system of indicators that would allow the implementation of the optional functions assigned to it. Moreover, under the performance measurement system (PMS), we should consider a monitoring, regulation and control tool with a quantitative assessment of indicators to support managerial decisions and assess the general condition of the enterprise.

The traditional monetary indicator systems began to apply the first, which should be divided into logical-deductive and empirical-inductive ones. The most widely used are the logical-deductive indicator systems (DuPont, Pyramid Structure of Ratios, ZVEI, RL), which are based on the decomposition of a certain top-level indicator into low-level indicators, inextricably linked with a key indicator. In the practice of financial management, systems of interrelated indicators were included in the management of the first large Western corporations, such as DuPont and General Motors. DuPont, recognized as the founder of a system for measuring financial performance, introduced the pyramid of financial indicators back in 1903¹⁰. An example of modern logical and

⁸ Carneiro-da-Cunha J. A., & Hourneaux F. J. (2016). Evolution and chronology of the organisational performance measurement field. *Int. J. Business Performance Management*, 17, P. 223–240.

⁹ Chiesa F., Frattini V., Lazzarotti V., & Manzini R. (2009). Performance measurement of research and development activities. *European Journal of Innovation Management*, 12, 25.

¹⁰ Sapri, M., Kaka, A., & Alias, B. (2005). Performance measurement in the service business: the facilities management function. *Research gate: web-site*. URL: <https://www.researchgate.net/publication/253832560>

deductive scorecards is the methodology for assessing the value of an enterprise, based on the concept of Value-Based Management (VBM), which are aimed at measuring indicators of value added (EVA, MVA, SVA, CVA) and cash profitability (CFROI).

Strictly determinate traditional measurement systems, using rigid causal relationships between goals and indicators, remain widely used in modern business practice. According to these methods, an enterprise is assessed as successful when it reaches its planned financial performance. According to the CIMA (Institute of Chartered Management Accountants)¹¹, financial indicators should be divided into three groups, namely, performance indicators that focus on measuring financial results (profit, profitability, working capital); indicators that assess the financial structure and solvency of enterprises; and a group of investment indicators that measure the attractiveness of enterprises to investors.

Over the past decades, the criticism of traditional systems of indicators has been quite often in the economic literature, which is mainly aimed at their retrospective (historical) nature, which significantly reduces their value for making managerial decisions¹². In fact, traditional approaches to measuring business performance are becoming inadequate and incomplete in the new, turbulent conditions due to their short-term orientation. Changes in the environment, which are accompanied by internal business transformations (decrease in profitability, increase in stock prices, change of strategies, reorganization of business processes, the emergence of new technologies, new competencies, the need to attract and retain employees¹³) require redesign and adoption of new approaches to eliminate the shortcomings of existing measurement mechanisms based on the use of both financial (“hard variables” that can be measured and quantified) and non-financial indicators (“soft variables” such as creativity, motivation, flexibility and control, and so on. n., which can not be expressed in terms of classical performance), that is, those which would be based on a more balanced measurement perspectives.

During the 70-90s last century, a number of researchers (Kerr, Kaplan, Norton and others), summing up the activities of many

¹¹ Chartered Institute of Management Accountants: web-site. URL: <http://www.cimaglobal.com/>

¹² Marwah, A. K., Thakar, G., Gupta, R. K., & Shukla, A. C. (2013). Supply Chain Performance Approaches for Indian Manufacturing Organizations. *International Journal of Engineering Research & Technology*, 1510–1519.

¹³ Hirst, E. D., & McAnally, M. L. (2013). Cases in Financial Reporting: An Integrated Approach with an Emphasis on Earnings and Persistence, Fourth Edition. London: Prentice Hall, p.32 (320 p.)

companies, tried to solve the problem of creating a more comprehensive and adequate dynamic operating system for measuring performance. The research results led to the emergence in 1992 of the most popular and currently¹⁴ multidimensional measurement model – a balanced system of business indicators (Balanced Scorecard – BSC) R.S. Kaplan and D.P. Norton, whose philosophy is based on the relationship between the parameters of the target results and the processes that lead to these results. Scientists and practitioners have developed BSC ideas further and consider this method as the cornerstone of the new strategic management system. A wide variety of options has blurred the boundaries between traditional planning and the BSC methodology, resulting in the development of BSC standards by R. Kaplan and D. Norton¹⁵. In modern conditions, BSC-systems are an integrated analytical solution.

Since the development of BSC, new approaches to assessing the performance of the enterprise and the formation of PMS have begun to appear, taking into account the interests of all interested parties. In the future, these approaches are generalized, as a result of which an innovative universal concept is formed, which is called the performance measurement concept (here in after PMCo)¹⁶. Measurement systems oriented to the strategic line of the enterprise come first, thereby confirming the point of view of P. Drucker on the priority of forming and evaluating the implementation of the strategy at the enterprise “The most important thing is to do the right thing, than to do the right thing”¹⁷. While traditional measurement systems are linked by forecasts, designing the future of companies, PMCo measurement systems are developing under the influence of accounting technologies (based on information systems) in the direction of managing processes to achieve the prospects of enterprises, that is, on the processes of realizing their potential today¹⁸, focusing instead operational on strategic performance.

¹⁴ Management tools and trends. *Bain Company*: web-site. URL: <http://www.bain.com/publications/articles/management-tools-and-trends-2015.aspx>

¹⁵ Oleksyuk, O. I. (2008). *Ekonomika rezul'tativnosti diyal'nosti pidpriemstva* : monografiya [Economics of enterprise performance: a monograph]. Kiev: KNEU, 262 p. [in Ukrainian]

¹⁶ Sheshukova, T. G., & Gulyaeva E. L. *Teoriya i praktika kontrollinga: ucheb. posobie* [Theory and practice of controlling: a training manual]. M.: Finance and statistics; INFRA-M, 176 p. [in Russian]

¹⁷ Stewart, G. (2005). Supply chain performance benchmarking study reveals keys to supply chain excellence. *Logistics Information Management*, 8 (2), 38–44.

¹⁸ Lobaj, R. R. (2013). Teoretichni pidhodi do viznachennya effektivnosti ekonomichnoï diyal'nosti [Theoretical approaches to determining the effectiveness of economic activity]. *The effectiveness of public administration*, 36, 353-361.[in Ukrainian].

PMCo's received theoretical development on the basis of systems theory, management theory or financial analysis tools¹⁹ in the works of German authors: R. Gleichen, R. Hauber, T. Wetstein, M. Grüning, A. Baum and others. Almost all of them agreed that PMCo's measurement systems are a specific structure (model), which is based on conditional indicators or goals²⁰. Within the framework of these approaches, the effectiveness of the implementation of the strategy is integrally assessed by monetary and non-monetary indicators, it covers the strategic and operational levels of management, past and future results, as well as internal and external aspects of organizations. A common characteristic of all modern, integrated, multidimensional models of measuring performance is their complexity or desire for comprehensiveness. Thus, gradually PMCo grows from an analytical tool into a universal philosophy of human activity in the economic environment. Supporting the opinion of Niili²¹, it should be noted that the concepts, processes and methods proposed in the XXI century. contradict the actual application and do not provide specific tools, pointing to the need to develop systems that are more adaptive to modern conditions of functioning. Many scientists have understood the relevance of this topic, thereby creating a substantial database that has developed over the past decade.

In the 21st century, process-oriented management or business process management (BPM), which consists in “managing entire chains of events, activities and decisions that ultimately add value to the organization and its customers,” has become especially common for measuring organizational performance. At its core, BPM is both a PMS and a management concept, representing the unity of integrated cyclic management and analysis processes for the selection of technology for the financial and operational activities of the company; focus on determining the strategic goals of the enterprise with a subsequent assessment of the effectiveness of their achievement, as well as

¹⁹ Lavrenenko, V. V., & Yanhol, H. V. (2012). Vimiryuvannya rezul'tativnosti diyal'nosti pidpriemstva: suchasnij instrumentarij [Measurement of the companies performance: modern tools]. *Strategic development of the national economy, regions and enterprises*. T.4. Models and methods of effective strategic planning of socio-economic development: materials All-Ukrainian. scientific and practical. Conf., 15-17 leaf. 2012 Donetsk: DonSUU, 107-112. [in Ukrainian]

²⁰ Ivanov, A. A., & Shevchenko, S.Y. (2014). Mnogokriterial'naya ocenka koncepcij izmereniya rezul'tativnosti v upravlenii predpriyatiem [Multi-criteria evaluation of performance measurement concepts in enterprise management]. *Vestnik SUSU*, T. 8, 3, 66-74. [in Russian]

²¹ Neely, A. D., Gregory, M. J., & Platts, K. W. (2005). Performance measurement system design: a literature review and research agenda. *International Journal of Operations and Production Management*, 25, 1228-1263.

managing the process of achieving strategic goals; compilation of consolidated reporting, modeling, analysis and monitoring of key indicators. Thus, at the heart of BPM is the idea of a continuous management cycle, from setting goals, modeling future development, planning activities to preparing financial and management reporting.

The central place among modern process-oriented models that have been developed in the BPM concept is the Performance Measurement Life Cycle Model proposed by Bourne and Bourne in 2011, which consisted of four stages: design, implementation, use and revision of PMS, and which was supplemented by Landstrom et al.²² in 2018, the fifth stage is a double training cycle, which consists of the steps of comparing performance with strategic goals and assessing the compliance of strategic goals based on information about the company's performance (Figure 1). According to the model, the main element in the design of PMS adapted to a specific enterprise is the selection of adequate performance indicators for specific prospects for the implementation of the strategy.

With the development of BPM, there is an absolutely different new type of PMS within the framework of PMCo – a model of business excellence. To increase the efficiency and effectiveness of activities in such models, it is recommended to use the principles of Total Quality Management (TQM).

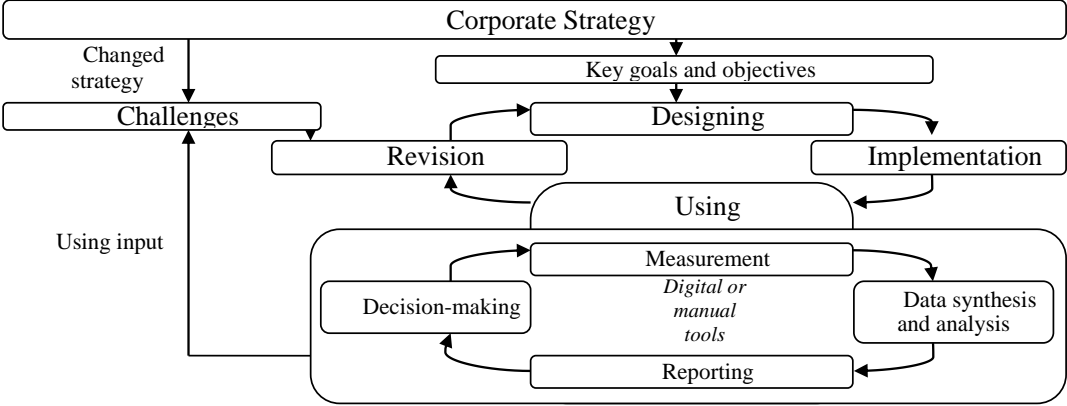


Figure 1. The BPMS life cycle

Source: M. Bourne, P. Bourne (2011)²³, Landström A. etc. (2018)²⁴

²² Landström, A. etc. (2018) A life cycle approach to business performance measurement systems. *Procedia Manufacturing*, 25, 126–133.

²³ Bourne, M., & Bourne, P. (2011). *Handbook of Corporate Performance Management*, first ed., John Wiley & Sons, Chichester, 280 p.

²⁴ Landström, A. etc. (2018) A life cycle approach to business performance measurement systems. *Procedia Manufacturing*, 25, 126–133.

The application of the concept of management and measurement based on business success was especially noticeable during the tough globalization, when companies used it to create, maintain and strengthen their competitive advantages. The most famous of these models is the Kanji Business Excellence Model (KBEM) combined with the Kanji BSC (KBS), developed by Kanji in 2002²⁵ and the Business Excellence Model of the European Foundation for Quality Management (EFQM-system, 2015). Both models define an organization as excellent that focuses on improving various aspects of activities in order to satisfy all interested parties and achieve a balance of interests. Achieving the best results in business, according to the models of business excellence, is ensured through the establishment of a relationship between different areas of activity, when improvement in one contributes to progress in the next, thereby ensuring continuous improvement. Thus, these models directly coordinate the PMS of the enterprise with their strategic goals, focusing on its components as a process. In fact, the search for new ways to increase the efficiency and effectiveness of activities becomes a necessary condition for long survival and development.

The last decade has been characterized by the spread of the ideology of sustainable development with the simultaneous digitalization of the economy, designing new systems and measurement models and indicators for companies, defining it as a key area of improvement. PMS within the framework of sustainable development is called Sustainable and Resource Efficient Business Performance Measurement systems (SuRE BPMS). The basis for the development of modern Sure BPMS is the concept of global sustainability performance “Triple Bottom Line”, Sekara (2006)²⁶, which is used to assess the implementation of sustainable development strategies, including a combination of economic, social and environmental indicators. This concept maintains a balance between maximizing economic performance (primarily performance for shareholders) and maximizing social performance (maximum performance for all participants in the economic life from workers to the community, from suppliers to consumers, from investors and creditors to the state, from leaders and corporate governance to support the attention of the shareholder); increased environmental efficiency (activities that do not affect the environment) (Figure 2).

²⁵ Janjić, V., Todorović, M., & Jovanović, D. (2015). A comparative analysis of modern performance measurement and management models of companies. *Economic themes*, 53, 298–313.

²⁶ Fauzi, H., Svensson, G., & Rahman, A. A. (2010). “Triple Bottom Line” as “Sustainable Corporate Performance”: A Proposition for the Future. *Sustainability*, 2, 1345-1360.

Improving the views of Triple Bottom Line and The BPMS life cycle is reflected in Almström SuRE BPMS (2017)²⁷. The authors note that the use and improvement of performance measurement systems is closely linked with management systems, for example, environmental protection, quality and occupational health and safety, as well as operational development programs (OD) (for example, initiatives for continuous improvement).

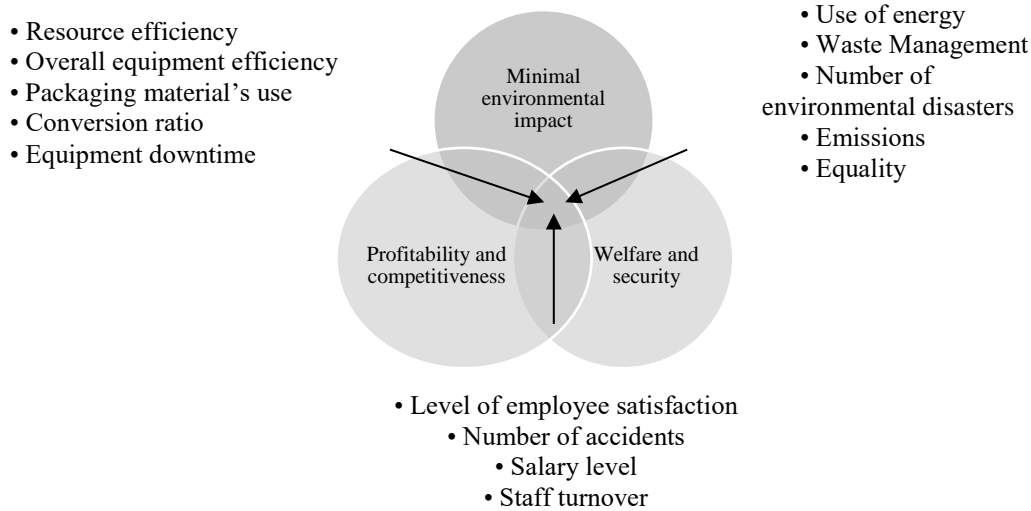


Figure 2. Sustainability Global Performance Concept “Triple Bottom Line”

Source: Pinteá M. O. (2010).²⁸

In addition, to achieve success with the coordination of PMS in operating systems, it is necessary to: focus on the improvement cycle (Plan-Do-Check-Act), implement management systems according to production development, standardize measurement, ensure integration with operational development methods and tools, use internal audit In Figure 3 shows an integrated management and performance measurement system by Almstrom.

Modern SURE models reflect the last stage of PMS development, forming the modern philosophy of innovative PMCo, which combines the elements of BSC, process-oriented life cycle models and business excellence models, subordinating PMS to a single strategic management

²⁷ Almström, P. etc. (2017). Sustainable and resource efficient business performance measurement systems. The handbook. Mölndal, Sweden: Billes Tryckeri, 45 p.

²⁸ Pinteá, M. O. (2010). Performance – an evolving concept. University Babes-Bolyai of Cluj-Napoca: web-site. URL: http://feaa.central.ucv.ro/annals/v2_2010/0038v2-008.pdf

system, which together creates a worthy basis for creating a modern integrated system measuring strategic performance.

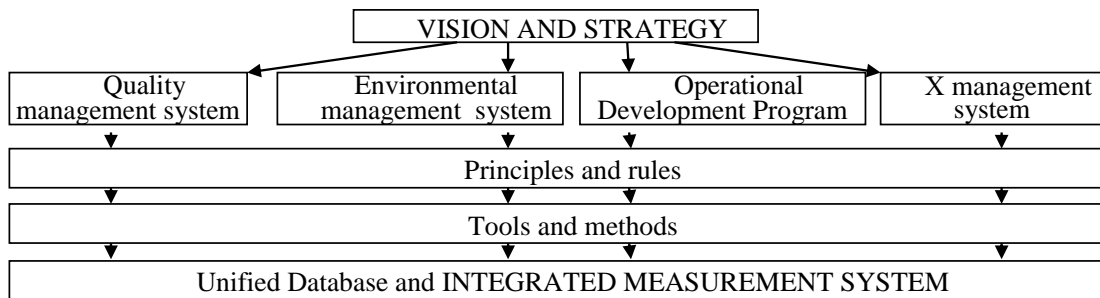


Figure 3. Almström SuRE BPMS

Source: Almström P. etc. (2017) ²⁹

The genesis of performance measurement systems makes it possible to highlight the main trends inherent in the modern stage of their development, including:

- focus on the system for measuring the prospects for implementing the strategy: a key element of strategic management, which determines decision making in the management and monitoring process;
- multidimensionality of models: an attempt to include the uncertainty of entrepreneurial reality;
- inclusion of external aspects and stakeholders: a broad understanding that the purpose of an enterprise is to provide services to interested parties, which may be not only shareholders, but also customers, auditors, investors, employees, suppliers, etc.;
- measuring performance as a form of internal governance and external communication, as well as institutional³⁰ legitimacy, reflecting a change in the nature of governance from transactional to relational.

An analysis of the works revealing certain elements of the methodological apparatus for measuring the strategic performance of an enterprise shows that the problem is developed only in certain areas. Most theoretical and scientific-applied measurement issues, due to their versatility and multi-levelness, do not take into account the characteristics of individual industries, the characteristics of products, and do not determine the overall level of strategy implementation, which is the basis for the strategic content richness. Consequently, the question

²⁹ Almström, P. etc. (2017). Sustainable and resource efficient business performance measurement systems. The handbook. Mölndal, Sweden: Billes Tryckeri, 45 p.

³⁰ Carneiro-da-Cunha, J. A., & Hourneaux, F. J. (2016). Evolution and chronology of the organisational performance measurement field. *Int. J. Business Performance Management*, Vol. 17, 2, 223–240.

arises of the need to develop an adequate methodology for determining the level of strategic performance of an enterprise, and its solution must be approached comprehensively, taking into account the degree of satisfaction of various groups interested in the stable operation of the enterprise³¹.

2.2. An integrated approach to innovative and adaptive measurement of strategic performance

The study of the strategic performance of the enterprise from the standpoint of the synergy approach determines the concretization and logical and methodological expression of the mechanisms of its measurement based on the principles of the General Systems Theory, which develops within the framework of organization theory (mainly in the context of the theory of situational determinism and strategic choice (R. Dunkin, L. Donaldson, J. Child et al.)), management theory (in the direction of the development of the concepts of “change management” (J. Freeman, E. Van de Ven, S. Carraher et al.)) and Complex system theory – mainstream research the phenomenon of integration and interaction of measurement and performance management business in foreign scientific space in the XXI century (Bititci, Neely, Okwir, Nudurupati, Elzinga, Micheli, Cedergren, Smith, etc.).

From this point of view, the formation of approaches to measuring strategic performance should be considered on the basis of systems engineering, which encompasses efforts to develop and verify a variety of management decisions that are integrated and balanced in the life cycle of an enterprise, related to personnel, products, the strategic management process, and aimed at ensuring highly effective activities³². In this context, an enterprise should be considered as a complex and non-linear socio-economic system, which consists of a large number and variety of components, systems and people along the entire value chain³³, whose interaction with the performance measurement system determines their current and future behavior using a self-organized set

³¹ Yanhol', H. V. (2013). Metodichni pidhodi do vimiryuvannya rezul'tativnosti diyal'nosti pidpriemstva [Methodical approaches to the companies performance measurement]. *Strategy of economic development of Ukraine*, 32, 225-231. [in Ukrainian]

³² Levenchuk, A. I. (2018). Sistemnoe myshlenie: uchebnik [System thinking: textbook]. Publishing Solutions, 398p. [in Russian].

³³ The Complex Enterprise. *Cincom In-depth Analysis and Review*: web-site. URL: <https://www.cincom.com/pdf/CMUS1202016.pdf>

rules for the formation of the order (rules for making managerial decisions³⁴), which together ensure the achievement of target results.

An effective attempt to combine the reference characteristics of all existing measurement systems based on system engineering into an integrated methodological approach, which in the process of use could both evaluate the level of implementation of the strategy, its prospects and key indicators, and justify specific areas for improving the business and maximize the use of all the opportunities created the internal and external environment of the enterprise, is an approach to measuring strategic performance H. Yanhol (2019)³⁵.

The author offers a five-level methodological approach to measuring the level of strategic effectiveness, which provides for: determining the overall level of strategic effectiveness; its structural decomposition into three perspectives of measurement (financial performance, realization of entrepreneurial potential and socially oriented management); identification of relevant success factors and determination of the parameters of group Key Strategic Performance Indicators (KSPI). The outlined prospects reflect the achievement of the necessary success factors as conditions for ensuring high results, namely: profitability, innovation, competitiveness, investment attractiveness, following the principles of sustainable development and corporate social responsibility. For each strategic performance perspective, the KSPI team has identified an appropriate system of performance indicators.

The primary thing in developing a methodology for measuring strategic performance should be an understanding of what should be influenced and how to do it. The initial phase of developing a strategic performance measurement methodology should cover four levels: the architecture of the measurement system (PMS), the key measurement perspectives, a specific set of measurement perspective parameters (group KSPI) and KSPI in each perspective, the individual definition of KSPI, and the target value of KSPI. This requires the formation of certain methodological principles for the selection of indicators. According to the approach, the methodological principles of innovative

³⁴ Brown, S. L., & Eisenhardt, K. M. (1997). The art of continuous change: linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly*, 42, 1–34.

³⁵ Yangol', A. (2019). The assessment methodology of the level of integrated strategic performance of metallurgical enterprises based on worldwide experience in management of innovation development. Organizational-economic mechanism of management innovative development of economic entities: collective monograph / ed. by M. Bezpatochnyi, in 3 Vol. / Higher School of Social and Economic. Przeworsk: WSSG, Vol. 2. P. 383-395.

and adaptive measurement of the level of strategic effectiveness should be: its synchronization with the strategic management of the enterprise; the formation of the architecture for measuring strategic performance through hierarchical cascading (decomposition) of indicators; digitalization of the method of data collection and processing; use of advanced benchmarking research tools.

The use of benchmarking is aimed at designing the optimal architecture for measuring the level of strategic effectiveness, identifying key measurement prospects and their parameters – group KSPIs. Individual KSPIs are proposed to be selected by structural decomposition, taking into account the requirements of SMART-tasks. The definition of the KSI system for the formation of a methodology for measuring strategic performance is a fairly creative process that requires an instant response to the situation both within the enterprise itself and in its relationship with the external environment. The measurement perspectives should reflect certain areas of strategy implementation (corporate or key functional) that combine corporate and market goals with enterprise resources, in order to make adequate strategic decisions and establish appropriate goals in the future. The way that the company plans to achieve its goals at a strategic corporate level is a carrier of competitive advantages that are able to withstand macro and meso factors of influence on business performance and ensure the achievement of high strategic effectiveness, the maximum possible in modern realities. Such competitive advantages should be value guidelines for the development of the enterprise, and their number should correspond to the number of group KSPIs. The basis for building single KSPIs should be elements that are the lowest level of the hierarchical structure that complex (group) and / or high-level KPIs (proxy variables) create.

So, for each prospect of analysis, it is necessary to determine the group KSPI – conditions for ensuring results based on key strategic values, actually KSPI – calculated indicators for determining the satisfactory conditions for such conditions, as well as proxy variables based on correlation and regression relationships that determine the KPI necessary to model optimal decisions of national companies in view of “the best global business practices”.

The next step in developing a methodology for measuring strategic performance is the selection and implementation of tools for collecting and processing the necessary data. This step involves setting up work procedures for data collection, visualization, and aggregation. Based on

the definition of KSPI and the elements included in the mathematical formulation, it is necessary to identify the data source for each element. The conversion of data into information and its further understanding is crucial for deciding on actions to be taken if goals are not met. The support infrastructure necessary for the implementation of the measurement should include: measuring equipment, databases for storing information, analytical tools for converting data into information, the selected collection procedure for measuring indicators. Effective implementation and benchmarking research within the framework of the approach is possible only with the use of digital tools that will allow you to track strategic transformations of global leaders as quickly as possible, collect the necessary information, adaptively adjust the measurement prospects, and therefore the goals of enterprises. An element of the implementation of data collection and processing tools is generalization and analysis – a prerequisite for establishing information and understanding how to act for improvement; and reporting – creating a scheme for presenting information to relevant stakeholders at the right time, which should optimize the decision-making process, provide information about the possibility of improvement and determine priorities between actions.

Further, it is necessary to establish target values for each of the KSPIs, which should be a compromise between the goals and interests of various stakeholders³⁶. In the context of the critical influence of global trends on the development of business entities, the target values of enterprises using benchmarking studies are proposed to be established with subsequent empirical modeling of their flexibility by analyzing the correlation and regression relationships between the key indicators of strategic performance of industry leaders, their group values and proxy variables. Empirical models of such results should be interpreted not only as targeted, but also as maximum possible in the existing business environment.

After the approach to measuring strategic effectiveness is formed, it is necessary to proceed directly to its use, which involves measuring and evaluating the range of improvement of strategic effectiveness. Using the methodology is the most informative step and involves measuring performance with the goal of monitoring and transmitting information

³⁶ Meekings, A., Briault, S., & Neely, A. (2011). How to avoid the problems of target-setting. *Measuring Business Excellence*, 15, 86–98.

within the enterprise to determine priorities and initiate actions to achieve corporate strategic goals.

Based on the measurement of the level of simple and group KSI, a comprehensive indicator of the actual level of strategic performance of the enterprise should be measured. The actual level of strategic performance should be considered as a consequence of certain measures to ensure them. The second step of use involves comparing the target values with the actual level. Evaluation of the range of improvement of strategic performance as the difference between the modeled and the actual value, indicates how effectively the enterprise's potential is used to achieve (ensure the maximum level in the current conditions) strategic effectiveness, and whether it is possible to achieve its maximum level without applying transformational / adaptation changes.

The interpretation of the actual level of strategic performance and the presence / absence of a range of improvement justifies decisions that should be made as a result of measuring strategic performance. The adoption of managerial decisions regarding the necessary changes to ensure effectiveness at a strategic level, aims to justify the need to adjust the mechanism for ensuring strategic effectiveness based on adaptation to changes in both the internal and external environment of the enterprise by evaluating the effectiveness, that is, comparing the effectiveness with strategic goals and identifying sources discrepancies between the target (simulated) and actual strategic performance, followed by Selecting the direction of change. It is proposed to make decisions on choosing the direction of changes and the need to form a new mechanism for ensuring strategic effectiveness based on an analysis of the sources of mismatch between the target (simulated) and actual strategic effectiveness according to the following algorithm:

A) if strategic results have not been achieved, but there is a range of improvement – due to the transition to the formation of a new mechanism to ensure the highest possible level;

B) if the strategic results are not achieved or significantly exceed the 100% level of achievement of the target values for group KSPI and there is no improvement range, the inconsistency of the support mechanism or measurement approach is recognized and systemic changes in corporate strategic management are justified;

C) if the strategic results are sufficient, but there is no improvement range, there is a reasonable recognition of the need to redesign the

measurement system to form a new mechanism for ensuring strategic effectiveness;

D) if the strategic results are sufficient, the range is also present – it is reasonable to return to the stage of measuring the actual level and the range of improvement until the discrepancy appears (this is a signal of the need for changes).

Thus, the formation of a new mechanism to ensure the highest possible level of strategic effectiveness should be highly conditioned, which will eliminate the risk of “wrong decisions”. At this stage, managers must form (simulate, design) a mechanism for ensuring the highest possible strategic effectiveness in order to determine the strategic decisions necessary for 100% use of the improvement range (in all perspectives). From the author’s point of view, modeling is optimal by tracking correlation interdependencies between the top level of strategic performance, group KSPIs and simple KSPIs based on regression analysis using a filter to achieve exceptionally high strategic results. The proposed mechanism justifies the formation of hierarchical sequences of strategic goals for each of the group KSPI.

Thus, the innovative and adaptive measurement of strategic performance should be implemented within the framework of strategic management and focus on a generalized assessment of the level of strategic performance, which provides a comprehensive set of modeling, support and measurement of a comprehensive indicator of such performance, starting with the identification of global factors of industry influence and their coordination with key directions (prospects) of the implementation of the strategy, which should be defined as wear and key benefits.

SUMMARY

Based on a scientific study of the evolution of performance measurement systems, it was determined that the optimal approach to measuring strategic performance should be adaptive to the challenges of a functioning environment. The development of an innovative approach to measurement should be based on the synergistic use of continuous improvement systems through tools of integrated life cycle models and an intensified management model based on corporate social responsibility principles. The introduction of such a system contributes to the continuous measurement of the level of strategic performance, and provides a comprehensive set of modeling, support and measurement of

a comprehensive indicator of such performance, starting with the definition of key prospects that should be identified as carriers of key benefits. To optimally identify such advantages, the use of benchmarking tools has been proposed, which opens up a circle of potential opportunities for the strategic development of industry enterprises. Identification of key success factors for global industry leaders will allow us to implement best company management practices and achieve results, as well as achieve specific strategic goals of the company and develop a strategy based on ensuring long-term business sustainability.

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