THE TWO-PRISM MODEL OF ENTERPRISE PERFORMANCE MANAGEMENT

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The Two-Prism Model of Enterprise Performance Management

The article is aimed to develop an authorial performance management model, taking into account the range of problems of Ukrainian enterprises. Based on the analysis and systematization of the existing systems, models and methodologies for enterprise performance management, has been determined that none of them covers the entire range of problems of enterprise or appears perfect when applying. According to the author, the most suitable for use in the Ukrainian business environment is the performance management model, known as «Performance Prism». However, it does not define some aspects that are important in the functioning of Ukrainian enterprises. Thus, on the basis of the indicated model an authorial two-prism model of performance management has been developed.

The idea of the model is based on adding two more perspectives to the Performance Prism, namely the internal environment of the enterprise and the external environment of enterprise. The proposed approach will increase the efficiency of enterprise and provide for implementation of its socio-economic development. Perspective direction for further development of the research topic will be development of logic-information procedure for determining the calculation-analytical indicators and criteria of socio-economic development of enterprise in conditions of dynamically developed environment.

Keywords: enterprise performance management, model, system, conception, performance measurement


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Виниченко О. Н. Двупризменная модель управления эффективностью предприятия

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Цель статьи – разработать авторскую модель управления эффективностью, которая учитывает спектр проблем украинских предприятий. На основе анализа и систематизации существующих систем, моделей и методик управления эффективностью предприятия определено, что ни одна из них не охватывает весь спектр проблем предприятия и не является идеальной в применении. По мнению автора, наиболее приемлемой для использования в украинской бизнес-среде является модель управления эффективностью «Призма эффективности». Однако она не определяет некоторые аспекты, которые важны при функционировании украинских предприятий. Таким образом, на базе указанной модели разработана авторская модель – «Двупризменная модель управления эффективностью предприятия». Идея модели построена на дополнении «Призмы эффективности» такими двумя ракурсами, как: внутренняя среда предприятия и внешняя среда предприятия. Зарождённый подход позволяет повысить эффективность предприятия и осуществить его социально-экономическое развитие. Перспективным направлением развития темы исследования является разработка логико-информационной процедуры определения расчетно-аналитических контрольных показателей и критериев социально-экономического развития предприятия в условиях динамично развитой среды.

Ключевые слова: управление эффективностью предприятия, модель, система, концепция, измерение эффективности

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**Introduction.** In the contemporary management, there are many systems for administering the efficiency of enterprise. Though, positively, none of the models or systems, which are known in the world practice, can be perfect in the practical implementation. However, each of these systems allows, with varying degrees of accuracy, to predict and improve the efficiency of enterprise’s activity. The globalization processes have forced companies to look for ways to simplify operational processes and reduce their cost, enhance the effectiveness of managerial decisions. After all, development and improvement of the existing or establishing the new systems is an inevitable process that is interconnected with development of enterprises. The introduction of performance management system at the enterprise contributes to solving major challenges related to the management of any given enterprise. Thus, enterprise efficiency management and establishing suitable systems remains a topical issue for the present.

**Review of the latest research and publications.** Among the existing systems, wide recognition and spread has obtained the conception based on the Balanced Scorecard System (BSC). Next to the BSC currently there are several major well-established performance management systems: the Six Sigma «SS», the Economic Value Add, the Excellence Model of the European Foundation for Quality Management (EFQM), Malcolm Baldrige National Quality Award, the Total Quality Model, Peter Drucker’s Management by Objectives (MBO), the authorial system by A. Litiagin or «GOAL – technology», and the «Stakeholder» Model.

All above mentioned models and systems have their drawbacks and advantages, nevertheless, they also have given good account of themselves, especially at the time when they were developed and proposed for use. Meanwhile, there is neither a single model nor any single system that would remain effective throughout its life cycle and would not require to be changed or improved. A great importance in the application of performance management systems also belongs to business environments of the enterprises, which would take advantages of using or creating these systems. So, there is a need for development of an enterprise performance management model, which will be suitable for Ukrainian companies in the current conditions of operation.

**Objectives of the article.** By means of analyzing the existing approaches to enterprise performance management there is a need to develop an authorial model on the basis of the «Performance Prism».

**Presentation of the research material.**

The main existing performance management systems can conditionally be divided into six groups according to the basic concept of management on the basis of which they have been developed:

- Financially-oriented management concept (table 1);
- Tableau de bord (table 2);
- Management by objectives (table 3);
- Concept of global quality management (table 4);
- Balanced scorecard system (table 5);
- Concept of satisfying the concerned parties (table 6).

Let us present the most famous performance management systems and models, in relation to their involvement in the concept of management. Generalizing the idea of specialists in the sphere of management, we will focus on the essence as well as the disadvantages of these systems and models.

The first enterprise performance management model was developed in the 1920's in accordance with the financially-oriented management concept. This and other models, which are founded on the financially-oriented management concept, assume as a basis the financial indicators (table 1) [2; 3; 5; 6; 14; 20].

French companies from 1932 use Tableau de bord as a management tool that provides the information needs of the senior administration of enterprise. For decades this system evolved depending on management needs (table 2) [11; 12; 14; 20].

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**Table 1**

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<th>Model name</th>
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<tr>
<td>The DuPont Model, based on the ROA-indicator</td>
<td>Aimed at evaluating the return on investment made in the assets of an enterprise.</td>
<td>Does not take into account such factors as the way of investing, involved or joint capital, long-term or short-term capital involved.</td>
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<td>The EVA-based management</td>
<td>Directs the activities of the company towards increase of its value. Specifies the enterprise’s subdivisions that create added value. Helps to manage the monetary flows.</td>
<td>• Dependence of remuneration from the EVA-indicator, which leads to decision-making aimed at the short-term gains. • The system of indicators includes the financial indicators only.</td>
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<td>Tableau de bord</td>
<td>Management of enterprise through the system of cause-and-effect relationships of the financial and non-financial indicators. Provides enterprise management with information on each structural subdivision.</td>
<td>• Does not pay attention to the external factors that influence the company’s operations. • Hard binding to the structure of enterprise. • Lack of flexibility when changing objectives</td>
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In 1954, American specialist in the field of management Peter Drucker presented a new conception, named Management by Objectives, which became the basis for development of systems for enterprise performance management (table 3) [4; 20; 21].

The biggest popularity, along with development and elaboration of derived systems, models and methods in performance management, received the Balanced Scorecard System by Robert Kaplan and David Norton, which was proposed for use in the beginning of 1990’s (table 4) [1; 4; 10; 11; 14; 15; 16; 19; 20; 21; 22].

The concept of Total Quality Control was proposed by Armand V. Feigenbaum at the beginning of 1950’s. The total quality management is based on the thesis that enterprise should work upon the quality of products and the quality of all processes taking place in the enterprise. There is an opportunity to improve the efficiency of enterprise activities through the establishment of systems for performance management, which are based on the general concept of quality (table 5) [1; 4; 8; 11; 17; 18; 20; 21].

Quite interesting appears the «Stakeholder» model, which is also the Performance Prism. In the opinion of its authors A. Neely, Ch. Adams, M. Kennerley, the proposed model is the new word in performance management, as innovative concept of performance measurement and efficiency management of the second generation (table 6) [7; 9; 11; 13].

The above mentioned performance management systems and models do not represent the whole list of existing management technologies in the sphere of enterprise performance management. Their principles of construction and modification depend on capabilities for implementation and application, as well as needs of the economic entities.

These systems and methodologies evidence different perspectives of efficiency. Considering that efficiency of enterprise is a multifaceted conception, there is no perfect way of achieving performance measurement and management, but all of them contain valuable practical solutions [9, p. 164].

In our opinion, the biggest interest among these systems and performance management models causes the Performance

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<td>Development of a clear hierarchy of objectives within the enterprise with delivering purposes to subordinates. Activities of the employees is assessed in accordance with achieved results.</td>
<td>The management model is based on the formalization of tasks and is not adapted to the contemporary dynamic business environment.</td>
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<td>The Goal-Technology by A. Litiagin</td>
<td>Aimed at creating: • the system of setting goals and monitoring staff performance, based on identifying the individual goals for employees; • system for staff remuneration, which depends on the outcome of each individual employee, in a certain period.</td>
<td>The indicators are strictly related to the payment for work and system of settlements of the salary fund.</td>
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<td>• The system of strategic goals and indicators of achieving these goals, which determines the maximum transparent picture of vital activity of enterprise. • Establishes causal relationships between the strategic objectives, parameters that render them, and factors aimed at receiving the planned results.</td>
<td>Does not contain a clear establishment of responsibility levels, prospects of business, time and indicators.</td>
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<td>The BSC-model by Meisel (Lorenz Meisel)</td>
<td>Differs from the BSC due to the separate perspective of «human resources». The importance of assessing not only processes and systems, but also employees of enterprise is emphasized.</td>
<td>Quite insufficiently displays all the groups of parties concerned, which interact with the enterprise</td>
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<td>The Universal System Performance (TPS) by Hubert K. Rampersad</td>
<td>A systematic process of continuous, consistent and regular improvement, development, learning, aimed at stable growth of results from activity of both the enterprise and the workers.</td>
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Systems for performance management, based on the concept of global quality management

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Control system based on the concept of satisfying the concerned parties

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Prism, although this model of performance management is not that popular in the former Soviet Union countries. The Russian top Manager Alexey Molvinskii believes that the Performance Prism is meant for those users who are interested in the results of enterprise’s activity, allowing to identify the objectives of the enterprise, to ensure the implementation of strategy, set objectives and indicators to develop a measurement system [7].

A. Neely, Ch. Adams, M. Kennerley have presented the Prism as a three-dimensional system which does not suggest that common concerned parties are stakeholders and clients. It allows for the use of non-financial criteria in addition to financial and focuses the managers on the enterprises’ critical issues. This system is created to be sufficiently flexible with the aim to concentrate on the problems of different levels and can be directed to particular context, i.e., a separated concerned party or specific business process [9, c. 12 – 19, 165].

The Performance Prism is a holistic model for measuring efficiency, which is based on the best of existing systems. That is, a system that allows to determine the real problems and practical issues in the enterprise performance management and optimize the existing potential of the enterprise. The Performance Prism is based on:

- meeting needs of the concerned parties, i.e. who they are, what they want and what needs they have;

- contribution by the concerned parties, i.e. what we want from them and what we demand on a mutually compensatory basis;

- strategy, i.e. what strategies need to be applied to meet the concerned parties’ and our own interests;

- processes, i.e. what processes need to be adjusted with a view to implementing the strategies;

- capabilities, i.e. what should be provided to manage the processes [9, p. 165].

The starting point of a performance measurement system is to determine who are the concerned parties, what they desire and what they need. Concerned parties generally include: investors, consumers and intermediaries, workers and trade unions, suppliers and coalition partners, regulatory authorities, influential groups and unions. The company must decide what group of concerned parties need to be given more attention at some point in time [9, p. 171].

The second perspective of efficiency, namely contribution of the concerned parties, is an important element of the first. The main idea in this direction determines that each concerned party has its own compensation, i.e. what enterprise wants and requires – what the concerned parties want from enterprise [9, p. 171].

Strategies must guarantee satisfaction of the desires and needs of both the concerned parties and the enterprise itself. A strategy defines the route of the enterprise to achieving the...
desired goal. In this context, the system of measurement shows the following four features:

- being such that enterprise’s managers were able to track, what strategies are introduced, and whether those policies were selected by them;
- being such that it may be used with a purpose to inform the entire enterprise of the chosen strategies;
- being such that it may be used with the purpose of motivating and stimulating the introduction of the strategy;
- being such that as soon as it starts working, there will be possibility to analyze measurement data, with a view to determine whether the strategies are functional as as planned [9. p. 170-173].

A. Neely, Ch. Adams, M. Kennerley consider the four levels of strategies:

- corporate (in what business to work and how to achieve success?);
- organizational subheadings (on which markets there is to work and how to successfully serve them?);
- brands (which are the brands, products, services and how to successfully offer them?);
- operational (which processes and opportunities we need to have or to develop and implement to maintain services at markets and provide products and services efficiently and effectively?) [9. p. 173].

An important role plays the need to combine enterprise’s strategy with its processes, as well as simultaneous presence of capabilities for implementation of these processes.

Many companies organize their business processes by the four separate categories: development of products and services, demand generation, satisfaction of demand, planning and management of the enterprise. Each category has its own, more functional, ancillary processes [9. p. 175-176].

Namely processes make the company work. They display what kind of work, where, and how will be done.

To accomplish a process, capabilities must be present, i.e., a sum of people, practice methods, technologies and infrastructure. It must be determined, what capabilities enterprise exactly has to implement a specific strategy or a particular process.

Thus, summarizing the above considerations, A. Neely, Ch. Adams, M. Kennerley specify that the Performance Prism provides identifying of important constituents of strategies, processes and capabilities that are needed to maintain measurement and management, by means of which needs of different concerned parties will be satisfied [9. p. 182].

In our opinion, the presented model is quite effective although not used in Ukrainian enterprises, however, it has several cons:

- there are no clearly formalized criteria that makes it not well-understandable for Ukrainian specialists;
- enterprise must operate in a stable business environment, i.e. with clear and unchanging rules of doing business;
- not only shareholders and consumers, but other concerned parties should be taken into consideration, which is not the case in the practice of Ukrainian enterprises and needs to be re-thought.

Taking into account the submitted notes, we believe that the Performance Prism is a useful tool for management purposes, but it needs to be improved with a view to its application at Ukrainian enterprises.

So, it looks to be necessary to supplement the Performance Prism with two perspectives, namely internal environment of enterprise and external environment of enterprise, with a view to determine effects of factors of influence and risk factors on the activity of the enterprise. Therefore, environment of enterprise should provide answers to the following questions:

- what influence on the concerned parties is carried out;
- what could prevent the concerned parties from making their contribution;
- what factors may hinder the implementation of strategies;
- what could be an obstacle to the implementation of processes;
- in what way can capabilities vanish.

That is, the preexisting prism we will get through the prism of external and internal factors of influence and risk factors (Figure 1). This approach allows to opportunely identify the factors that can reduce the enterprise's performance on the chosen way of functioning or even nullify all the efforts of company direction.

Unfortunately, the business environment in Ukraine has its own specific negative features. So there may be a situation, where it will be more profitable for the enterprise, under the influence of external environment (new regulations, inflation, etc.), whether to cancel the scheduled program or to opportunely modify it. Thus, the methodology of building the Two-Prism model of enterprise performance management is as follows:

1. Determination of areas for the activities and development of enterprise.
2. Determination of concerned parties in the context of functioning and development of the enterprise.
3. Determination of the needs of the main concerned parties in the context of functioning and development of enterprise.
4. Elaboration and classification of the goals of enterprise.
5. Elaboration and classification of strategies for functioning and development of enterprise in accordance with the determined goals.
6. Determination and classification of the formalized processes of enterprise.
7. Determination and systematization concerning staff, technology, infrastructure, formalization of work methods.
9. Elaboration of influence and risk maps of the internal and external environment.

**Conclusions.** In the course of the study, an analysis of existing systems and models of enterprise performance management has been conducted, the essence and the disadvantages of these systems and models have been emphasized. The chosen model, namely the Performance Prism, which is, according to the author’s opinion, the most suitable to the performance management of the current Ukrainian enterprises and their functional subsystems. The proposed, on the basis of the Performance Prism, Two-Prism Model of enterprises performance management, is able to meet the
realities of the contemporary Ukrainian business environment. The idea is to supplement the Performance Prism with two more perspectives, namely internal environment of enterprise and external environment of enterprise.

Taking into account inconstancy of the Ukrainian business environment, controlling these two perspectives will allow to opportunely identify the risk factors that significantly influence the five classic perspectives of the Performance Prism. The proposed approach will provide increase in performance of enterprise and will be instrumental in its socio-economic development.

Prospects for further research. Perspective direction for further development of the research topic will be development of logic-information procedure for determining the calculation-analytical indicators and criteria of socio-economic development of enterprise in conditions of dynamically developed environment.

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