

# PECULIARITIES OF BUSINESS DEVELOPMENT INFORMATION PROVIDING OF MODERN CORPORATIONS

DOI:10.5281/zenodo.3870686

Oksana Kyrylenko, Valentyna Novak, Kateryna Razumova

**Abstract.** Some issues of correspondence between the development of the corporation and the development of information support for solving the problems of corporate governance using modern information technologies and information systems are investigated. It is proved that strategic management in the field of information technology and information systems should be singled out as a key component of strategic management of corporate business development.

**Key words:** corporations, corporative management, quality of corporative management, information support, strategic management.

**Formulation of the problem.** The relevance of the article is due to a number of economic factors that characterize trends in the development of economies of different countries. The corporate form of business organization is dominant in the world practice, especially in large scale organizations. It is considered the most suitable for further development in a market economy and is a characteristic example of the evolutionary development of society.

At the present stage of the Ukrainian economy development, the problem of economic security of any corporation becomes a problem, which consists in providing quality information to the management processes of both the corporation as a whole and its separate divisions. Economic security needs of corporations make to the quality of information a number of new non-negligible requirements, that can and should be met with the help of modern information technologies.

Modern information systems require companies to incur significant costs, which, if not well-considered, economically grounded, will not create additional value, will not pay off, and may become an additional factor in the breach of economic security of the enterprise. Thus, the problem of managing the information processes of economic security of companies is doubly urgent.

**Analysis of recent research and publications.** The general laws and current issues of corporate governance development are widely researched by such scientists as V.A. Seleznev, A.V. Bandurina, O.I. Dragan, S.O. Orekhov and others. The world economic literature examines different models of corporate management, which are determined by the peculiarities of economic development of each country. Foreign scientists Mengxin Zhao, Dariusz Wójcik, Margaret Rouse, Franklin Allen and others also widely consider the features of corporate governance in today's market relations.

Information problems related to the successful development of corporations are devoted to a number of studies that focus on identifying indicators of the degree of enterprises economic stability and allow, first of all, to determine the level of financial stability and its marginal values [1,2,6]. The level of financial

stability is associated with the forecasting of losses in economic risks, risk management, crisis management, etc. [3].

**An unresolved part of the overall problem.** Scientific justification of corporate management was made by researchers in different aspects, however, information aspects of corporation activity effectiveness increase and measures development of corporate management in joint stock companies and corporate associations quality increase needs further research.

Traditional business research approaches based on individual calculations of financial stability indicators. They do not link the internal and external environment of the company to the general information environment, despite the fact that the vast majority of enterprises have implemented information systems based on modern information technologies.

On the other hand, existing approaches to assessing the efficiency and importance of information technology are related, first of all, to the characteristics of individual functional components: the performance of network equipment, the efficiency of the process of development and implementation of systems, etc. If the company does not have clear information about the customers, it is not known to whom it works, what goods or services are needed by the buyers, what price the customers are ready to pay and what they will need tomorrow, so there is no marketing and development planning in the enterprise, and accordingly there is no business, so its effectiveness cannot be guaranteed.

**Problem statement (purpose of the article).** In this scientific work problem of information process management of corporation activity, which information environment needs appropriate structuring, is investigated.

**The purpose of the article** is investigation of organizational aspects of corporation activity efficiency increase and developing measures of corporation management in corporate associations quality increase, taking into account peculiarities of national economy.

**Main content.** At the present stage of economic development, adapting to constant external changes is a prerequisite for the activity of any organization. Spontaneous and chaotic changes in the activity of the corporation lead to the loss of market positions, problems in the internal environment, to the loss of levers of managing a complex object. Responding to the demands of the modern world can only be considered a warning strategy for the development of the corporation, the implementation of which is provided with full information support.

The precautionary development strategy assumes that the corporation seeks to influence events occurring in the external environment rather than simply responding to external circumstances as they arise. The presence of such a strategy has significant advantages, since participation in changes occurring in the external environment guarantees their timely detection and adequate response. However, if changes in the external environment can be significant in scope and impact, the impact on them can be vital to the corporation. Corporate development is a complex, multidimensional process that cannot be managed without high-quality information technology built using modern computer technology.

In the scientific literature several main directions of the company's business-model and corporate

environment information resources problems of effective management solution. The most attention is paid to solving the problems of situational management of the business model and the problems of optimal management of resources of the information environment [1,2,6,]. A number of scholars pay considerable attention to strategic management information support, pointing to the relationship between the business environment and the information environment of the organization [2, 6]. A considerable part of scientific works is devoted to the questions of information support of search of directions of development of the companies, research and forecasting of development of events with use of modern information technologies [7].

Most modern corporations operate in an unpredictable, ever-changing environment and therefore require strategic survival methods. Effective strategic management can only be built on information technology. Today's enterprise management views information technologies through the prism of automation of existing processes and sees their mission in performing service functions.

Strategic management understands the mission of information technology differently. It believes that the main task of information technology is to develop a competitive business. In strategic management, IT resources of the enterprise should be used to create, support and deepen sustainable competitive advantage of the enterprise. Development and change management has long since crystallized into an independent area of management, which in practice is very rarely in contact with the use of modern information technology (IT) and information systems (IS).

The desire to create a large and competitive corporation that has significant resource potential, implements a wide range of business projects that can improve the efficiency of operations and reduce the costs of operating the management system as a whole, in practice often leads to opposite results. Strategic management, which must guarantee high quality and analytical excellence of the solutions it offers, is effectively designed to solve problems of business development in modern conditions. The strategic management information environment is effective if development strategies are reflected in results, changes, diagnostics. Corporate business constantly needs information support of current production and technological processes and computer analysis for the purpose of forecasting, risk assessment, creation of reliable hypotheses of development of situations, informational support of implementation of preventive strategies and strategic management, fast search of adequate answers to the requirements of time.

Most corporations have been created through reform, thanks to integration or diversification strategies, the implementation of which requires additional information support for strategic management processes. Reforming needs to be addressed by a number of strategic management problems, which include the following:

- taking advantage of the scale of activity, as evidenced by the indicators of expansion of the market, the reduction of transaction costs, the concentration of investment resources in priority areas of development;
- obtaining access to various resources: financial, labor, material, information, modern technologies;
- achievement of financial stability;
- improving the quality of products, services, management processes, implementation and information support of a modern quality management system;

- introduction of innovative activity, provided with R&D, experimental base, powerful intellectual and resource potential.

The empirical, scientific, technological and organizational basis for the development of the corporation is information technology for solving the above and other strategic problems. Using these technologies, you can present business development problems at the vision, data, knowledge and decision levels.

The level of vision covers business development problems, expressed in the form of a development strategy. The level of data is intended to express the development strategy in a set of strategic measures, indicators, values of indicators. At the level of knowledge, the problem of development is revealed and understood in all its senses. At the decision level, the strategic problem is solved in the technical project of strategic innovation.

Strategic management is responsible for the entire life cycle of a strategic problem. This cycle includes the following stages - analysis, design, execution. In the first stage, strategic management creates an empirical basis for future decisions, forms a vision of business development problems in all perspectives, which aims at justification, implementation and strategic measures. At the stage of system analysis, strategic management is aimed at understanding the patterns, therefore organizes research aimed at gaining knowledge about the problems of business development. At the design stage takes place development, design, approval of strategic decisions, carries out practical problem solution of business development in every strategic perspective and in result created final technical project of strategic innovations. At the stage of implementation, strategic management of innovative development is carried out, the work stages of project works are managed, the introduction of new business is supported, in every way contributing to the actual entry of the corporation to a new level of competitiveness.

In the process of implementing integration or diversification strategies, reform covers the entire corporate governance system. It is impossible to create a simple control system to manage complex systems and processes. Both individuals and entire organizations are unable to cope with problems exceeding a certain level. When this level is exceeded, executives are no longer able to understand what is happening and develop an adequate corporate governance strategy.

The complexity of managing a corporation in the process of implementing development strategies is also related to the pace of environmental change. Exposure to the environment is a determining factor for a corporation when choosing a management system. The speed of change in the external environment is increasing and, accordingly, the complexity of the problems that the corporation faces. The more complex these problems, the more time it takes to solve them. The greater the speed of change, the shorter the life of the solutions found. By the time the solution is found, the situation has already changed and a fundamentally new solution is needed. A corporation cannot do so quickly and efficiently unless its management possesses such ability. The complexity and the decisions taken must be consistent with the complexity and changes that occur in the external environment, and this requires adequate information support.

In practice, corporation information resources are rarely enough to effectively integrate or diversify strategies without additional avoidable problems. The question arises as to the accumulation of information capacity that can be directed to change.

The implementation of the processes of reforming, reorganizing or restructuring in modern conditions require the reconstruction of both the corporate management system and the information system of management processes and activities in general.

Preparation for changes in a corporation can be the engineering and re-engineering of business processes as a method of radically improving the work of a modern enterprise in order to adapt its business model to new conditions [4, 5].

The engineering methodology allows to consider the activity of the corporation in a program-algorithmic form, distinguishing individual business processes into command "procedures" and "functions". That is, the activity of the corporation is represented in the form of a set of "programs" with its input and output information. The description of business processes is conducted for the purpose of their further analysis and reorganization. The purpose of the reorganization may be to ensure the implementation of the development strategy, implementation of the information system, reduction of production costs, improvement of customer service, creation of job and work instructions in the implementation of ISO-9000:2000 standards and more. For each such task, there are certain parameters that determine the set of critical knowledge of the business process. From task to task, the requirements for describing business processes may vary. In any case, the business process model should define the following:

- the input used by each process procedure;
- source information that is generated by each procedure of the process.

The logical essence of engineering is finding the optimal algorithm for any business process, based on the analysis and structuring of input information and redesign of output forms.

Solution of problems of implementation of corporate integration or diversification strategies related to flexibility, increase of production, presence of some contradictions in the organizational structure, can be carried out, according to the authors, by using reengineering of business processes without significant change of the management apparatus and maintaining the logic of corporate governance. But, at the same time, it should be noted that the effectiveness of re-engineering depends entirely on the structure, techniques and content of information technologies used in corporate governance.

The reengineering of business processes corresponds to the reconstruction of the business architecture, so at the same time you will need a new IT infrastructure capable of supporting process-oriented management rather than individual functional tasks. If business reengineering is carried out only on the basis of current analysis of conjuncture market conditions and other environmental factors, such tactics will inevitably lead to failure, despite the latest business processes and the latest information technologies.

The reengineering of companies requires the development of progressive and highly effective internal corporate governance standards. The most serious attention should be given to the fullest possible use of all resources, first of all - intellectual, based on new knowledge and perspective IT technologies related to the processing of this knowledge. Appropriate situational analysis and decision support models should be

integrated into the formal descriptions of the company's business models in one way or another. Many corporate business processes, including decision-making processes, can be made more productive by using modern information technology.

The corporation 's business model can be implemented electronically using special - grade software products [1,3]. Accordingly, a new set of products and functions emerges, which forms the organizational and functional model of the corporation of tomorrow. Reengineering, as a form of organizational development, is a program of transition from an initial to a prospective organizational and functional model. The main points of such a program will be the expansion (reduction), merger (division) of functions and units, as well as the redistribution of areas of responsibility.

The main purpose of the corporate governance system is to maximize the system's development potential, provided that the trends in the environment that have emerged are maintained in the forecast direction. The main task of the reconstruction is to maximize the capacity building of the corporate management system with cost constraints. Due to the fact that large corporations may change local business goals, the task of finding locally optimal solutions for certain parts of the corporate management system may occasionally arise.

Taking into account the prospects for the development of the corporate management system, the goal of reconstruction can be considered to maximize the potential of the system development in terms of the efficiency of future (predictive) functional tasks.

It is advisable to focus on the development of models that reflect the architectural features of strategic management information systems and mechanisms for influencing changes in business goals and business processes that occur at different stages of the corporate governance life cycle. The purpose of modeling is to systematize knowledge about the company and its business processes in a graphical form, convenient for analytical processing of the information obtained. The model should reflect the structure of the corporation's business processes, details of their execution, and the sequence of workflow.

To implement corporate development strategies, it is advisable to implement business development and improvement processes, such as strategic management, technology development, project management, quality management.

Separate business units that have their own IT resources, in the form of subsystems of a common corporate IS information-computing infrastructure, may also have their own business goals, generally not entirely related to the overall corporate purpose. In corporate units, these goals can change dynamically, which is quite natural for both the goals and the tasks facing the IT architecture of the respective corporate IS subsystem. Thus, within a large company, there may be a two-tier organizational structure for managing active developing systems.

In most cases, the starting point of the systematic design methodology for corporate IS strategic purpose should be to build a hybrid forecasting-analytic and system-target model that combines company and corporate IS. You can formulate basic requirements for such models, which should reflect:

- the current state of the external business environment and prospects for the development of needs for goods and services for the future;

- system-target characteristics of corporation and IS, incl. in the dynamics, taking into account the hypotheses of business development and consumer requirements, as well as taking into account the development of IT and technological and regulatory constraints;

- a functional description of business processes that contains information about the infrastructure of production of goods and services;

- structural-organizational forms and management methods adopted in the company (accounting technologies, planning and management, decision-making mechanisms, etc.);

- basic IT - solutions that characterize the state of information, computing and telecommunications infrastructure of the company.

Strategic management in the field of information technology and information systems should be identified as a key component of the strategic management of corporate business development. The essence of the activity of this component is determined by the tasks of development and audit of the implementation of IT / IS-strategy in order to achieve the competitive advantages of the corporation in business. The responsibility of the component is to bring IT and IS into line with the requirements of the business and to justify the guarantees of their effectiveness in business. The strategic management of IT and IS corporations should:

- to provide a single corporate information environment;
- use IT and IS as key strengths and tools of the business;
- build IT and IS management based on processes, resources, and requirements for business information;

- to create business development model of an enterprise based on IT / IS strategy;
- to achieve and ensure consistency between the corporation's business objectives and IT and IS management;

- ensure effective management of IT and IS investments;
- fully undertake risk assessment, audit of information systems efficiency, optimization of all IT and IS activities, solving of personnel problems in this area.

Today, more and more IP software is built on the principle of component architecture, which allows, as from the details of the designer, to assemble the necessary functions from different parts of the application systems, with a kind of "specification" for such an assembly is a description of the business processes of the corporation. This provides a complete and flexible design of the corporation itself (its business processes) and the information system that supports its activities [4].

Modern business, as never before, demand from corporations' flexibility, both in terms of internal organization and in terms of interaction with the outside world. Today, corporations work with networked organizations where it is already difficult to separate one firm from another, as it is a matter of distributed virtual structures.

In order for such a system to work sustainably, it is necessary to formulate principles for building relationships with partners in all countries. All of this fits into the popular concept of managing logistics chains, and in order to use it, you need to describe all the interaction procedures of a large number of

different companies. Therefore, the need for methods and tools for reengineering external business processes, with the use of modern IT and IS to help implement this, is increasing.

The real competitiveness of corporate business is determined by the decisions of tomorrow, the ability to correctly predict the range of consumer requests for the future. This can be done only on the basis of existing experience and advanced creative business thinking, which allows you to constantly be at least one step ahead of your competitors, as well as appropriate information support using modern IT and IS strategic purpose.

Thus, modern strategic information systems are able to scan the competitive environment, take into account all important for the success of the macroeconomic and institutional market factors, measure, evaluate and predict competition in the industry, best practice, technological backlog, client and customer needs. As a result of the accumulation and purposeful processing of information, it is possible to form a summary vision of business problems and provide adequate strategic responses to these problems in the areas of competition, production, entrepreneurship, innovative development, staff training and corporate culture.

## References

1. Мостенська Т.Л. Корпоративне управління //Т.Л. Мостенська, В.О. Новак, М.Г. Луцький // Підручник. – 2-е вид. – К.: Каравелла, 2011. – 400 с.
2. Паламаренко В.Ю. Інтернет-технології як чинник підвищення конкурентоспроможності підприємства / В.Ю. Паламаренко, В.О.Новак // Proceedings of International scientific conference “Universum N VI”. Morrisville, Lulu Press., 2019 – Ч.3–С. 34-36.
3. Foreign Economic Activity of Enterprises: Textbook / [A.Stankiewich-Mroz, V. Perederii, V. Novak, O. Iliencko, S. Petrovska, O. Kyrylenko, G. Gurina, E. Danilova, K. Razumova, L. Lytvynenko]. – Lodz: Lodz university of technology press, 2018. – 145 p.
4. Kyrylenko O.M. Economics and organization of enterprises’ integration (tutorial); Ed. V. I. Shchelkunov and oth. – Kyiv: NAU, 2012. – 336 p. – P. 209-253.
5. V.Novak, M. Pimzhyna, E. Razumova. Problems and prospects of development management intellectual potential air enterprise. International scientific journal “Air trasport”. Tbilisi: GAU, №1(12). 2017, Publishing house LTD «Stamba-G», 181 P., P.31-36.
6. Novak V., Matvyeyev V., Bondar V., Karpenko. M. 2010. Informatsiyni systemy v menedzhmenti. Pidruchnyk. Kyiv, K: Karavela (in Ukrainian).
7. Hermalin B. and M. Weisbach. Boards of directors as an endogenously determined institution: a survey of the economic literature, Federal Reserve Bank of New York Economic Policy Review, April 2003, p. 7–26.

## Notes about Authors:

Prof. Kyrylenko Oksana, National Aviation University, Kyiv, Ukraine  
Prof. Novak Valentyna, National Aviation University, Kyiv, Ukraine  
Prof. Razumova Kateryna Kharkiv University of Humanities, kharkiv, Ukraine