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DEVELOPMENT OF COMPANIES AND INNOVATIVE BUSINESS MODELS

Abstract. For managing the innovative development of an enterprise, the description of its business model is important and timely. This article outlines the approach to building a business model for the innovative development of industrial enterprises. An integrated business model is an important tool for the formalization and improvement of the company. The article discusses the general rules for creating an innovative business model: functions, enterprise mission, strategy, principles, types of innovative business models. In addition, it is noted that it is necessary to conduct research on the conditions that force one to switch from one type of business model to another.

Keywords: Business model, innovative technology, enterprise activity, value chain, competitiveness.

Introduction - Creating a management system that corresponds to the strategy of innovation development and ensures the competitiveness of the enterprise is a pressing task for Kazakhstan companies and industrial enterprises. This system should be based on processes of continuous improvement in a constantly changing environment, when material resources and company (enterprise) personnel are balanced and aimed at maintaining current and future competitiveness. We note that continuous, continuous improvements are primarily associated with the development of innovative production systems based on market-oriented flow control principles. The lack of a comprehensive research methodology and methodology for creating innovative production systems of Kazakhstan enterprises, which include methods for evaluating the results of innovative development, makes research in this area of economic science important and timely.

Main part - The research methodology can be based on the principle “from the particular to the general” at the first stage and on the principle “from the general to the particular” at the second stage. At the first stage, consider (explore) the experience of both successful, growing companies, and stable companies without large incomes. At the second stage, make a comparative analysis, highlight the general characteristics that accompany successful companies. Based on the findings, formulate a list of recommendations, and then check the effectiveness and correctness of the experience of other companies who agree to follow these recommendations. Based on interviews with company managers, it is possible to determine the applicability of the principles of successful companies to the rest [1] and ultimately create a typical innovative business model for the industry. Of course, in this situation, it is necessary to take into account (compare) the principles and incoming business conditions in different industries.

The article discusses the general rules for creating an innovative business model: functions, enterprise mission, strategy, principles, types of innovative business models. In addition, it is noted that the work [5] implies the need to study the conditions that force one to switch from one type of business model to another.

In recent years, the use of business models for managing enterprises in the food industry has been actively expanding. Business modeling is the process of developing various business models of an enterprise (strategy, processes, organizational structure, resources and development) with the aim of formalizing and optimizing the activities of an enterprise. There are various approaches to the definition of the concept of “business model” [2], [3], [4]. By a business model, we mean a family of ways of doing business in a company (its structure, products, ways of delivering and servicing goods, increasing market

value), the rules of doing business, which lie in the basis of the company's strategy. In a business model, they take into account the infrastructure necessary to promote a service or product to the market so that products and services are at the same time simple for the customer and profitable for the company.

A business model (innovative) is a business method by which a company can provide itself, that is, make a profit. The business model explains how the company makes money by determining the company's position in the value chain.

Thus, an innovative business model helps to describe how a business positions itself in the value chain within its industry and how it (the business) is going to provide for itself, that is, to create profits.

Based on this definition of an innovative business model, it is necessary to consider the functions of this business model, namely what it (the company) should do in accordance with the main provisions of the model: 1) Create a value chain model and describe a competitive strategy, the goal of which will be to acquire competitive advantages; 2) To determine the values obtained as a result of innovation, to determine the necessary assets for the value chain; 3) Establish (identify) the market segment and the goals of using an innovative product, as well as establish the company's position in relations with external agents (customers, suppliers and competitors).

Before proceeding to the selection of a suitable innovative business model, a company needs to formulate and define a mission in accordance with the P2M approach (“A Guidebook of Innovative Project Management, based on the experience of Japan). The mission is the main goal of the organization, the meaning of its existence, therefore it is necessary first of all to define it, define the essence of the business, that is, from which it is impossible to refuse under any circumstances and circumstances. Refusal from the mission means significant reformatting of the company, which essentially speaks of a new company with a different strategy. In essence, the choice of the mission of an innovative company is the choice of an innovation strategy, from which the choice of principles for constructing an innovative business model follows. After choosing a strategy and principles for building an innovative business model, you can proceed to standard and non-standard building procedures: assessment of current assets (financial, human and material resources), competence assessment (protected intellectual property and high-level specialists with ready-made ideas for licensing). Note that the assessment of competence at the present time, the time of the technological structure, becomes an essential factor when choosing a suitable innovative business model. The widespread use of information technology in the 90s opened up new opportunities for their applications to project management tasks. The challenge today is the use of project management as a methodological basis for the implementation of innovative technologies at the enterprise level.

If we consider the principles of building an innovative business model, then the main three principles are: 1) Focus on managing the chain of creating innovative value: supporting the generation of ideas and projects, building a portfolio of projects, supporting project development, organizing the commercialization of projects; 2) Aiming at managing the system of relationships with partners. In particular, the processes of generating ideas and developing projects can be partially or fully, depending on their own capabilities, given to partners (outsourcing); 3) The focus on building a viable business and the main roles here are played by the team's ability and adequate, to the team's capabilities, the choice of a project portfolio. The level of ability to build on the basis of innovative technologies the flow of projects of varying complexity and duration ultimately determines the level of business viability.

Depending on which of the three main principles of an innovative business model is fundamental and in what proportion these principles are in the overall strategy of an enterprise, four types of business models can be distinguished: 1) Profit (part of the profit); 2) Cooperative (cooperation with other partner companies in individual business processes of the chain, each of which is interested in the best results); 3) Licensed (with technological background, to form part of the profit through the sale of its own licensed products). 4) Mixed (in each link of the value chain there are elements of either a cooperative model or elements of a licensing model and at the same time all important links of the chain are under the complete control of the enterprise)

The choice of an integrating business model is due to the following reasons:

1) operational (the need to control the quality of products, tight deadlines, lack of guarantees from partners);

2) risks (slowing down the innovation business process, theft of ideas and others).

The choice of a cooperative business model is due to the following reasons:

- 1) Risks and their reduction (operational, technical, market and others)
- 2) To benefit from the division of labor in the field of innovation (a variety of innovations, the complexity of the innovation system to obtain the final product, and others).

The choice of a licensed business model due to technological background and the possession of a revolutionary technology and (or) a team of developers of new high-level technology.

At different stages of the life cycle of technology, when no one in the company knows all the options for its use, they often use the cooperative business model. When the dominant option appears, it is advisable to move on to an integrating business model. For companies at the maturity stage, the choice of business model is determined by the terms of the business.

In connection with the transition of the company from one innovative business model to another and vice versa, it becomes relevant to study the direction of changes in the rules of doing business by a company, that is, to what extent the company's strategy is flexible and adapts to changing conditions. To do this, it is necessary to find the driving forces that determine and initiate changes in the structure of the business model: organizational, strategic, financial. An analysis conducted in [1] showed that the process of transition from one business model to another is due to many factors [5], [6]. In addition, contrary to the assumptions of the company returned to the previous business model, that is, the life cycle of the enterprise cannot be described by a linear function. These statements were confirmed as a result of three rounds of interviews with 40 managers of five companies over 10 years. On the basis of the research conducted, it was concluded that there is a need for a deeper study of the factors influencing the transition from one business model to another. It is necessary to clarify the constructed model, which explains the relationship of theoretical transition rules with the actual dynamics of rule changes.

Conclusion - Speaking about the innovative development of the company as a whole, it is necessary to note the basic factors - new knowledge, information, newest technologies. All this allows to provide strategic competitive advantages in the long run. The history of the development of the most successful companies in the world such as Apple, Nestle, Toyota, Microsoft, Mercedes-Benz, Google show that it is these kinds of factors that provide not just quantitative growth, but also a qualitative change in the state of the enterprise.

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ДАМУҒА КОМПАНИЯЛАР МЕН ИННОВАЦИЯЛЫҚ БИЗНЕС МОДЕЛЬДЕР

Аннотация. Кәсіпорынның инновациялық дамуын басқару үшін оның бизнес-моделінің сипаттамасы маңызды және уақтылы. Бұл мақалада өнеркәсіптік кәсіпорындардың инновациялық дамуы үшін бизнес-модель құру жолдары қарастырылған. Интеграцияланған бизнес-модель компанияны ресімдеу мен жетілдірудің маңызды құралы болып табылады. Мақалада инновациялық бизнес-модель құрудың жалпы ережелері: кәсіпорынның функциялары, миссиясы, стратегиясы, қағидаттары, инновациялық бизнес моделдерінің түрлері талқыланады. Сонымен қатар, бизнес-модельдің бір түрінен екіншісіне ауысуға мәжбүр ететін жағдайларға зерттеу жүргізу қажеттілігі туралы қорытынды жасалды.

Түйін сөздер: Бизнес-модель, инновациялық технологиялар, кәсіпкерлік қызмет, құндылықтар тізбегі, бәсекеге қабілеттілік.

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РАЗВИТИЕ КОМПАНИЙ И ИННОВАЦИОННЫЕ БИЗНЕС-МОДЕЛИ

Аннотация. Для управления инновационным развитием предприятия важным и своевременным является описание его бизнес-модели. В данной статье изложен подход к построению бизнес-модели

инновационного развития промышленных предприятий. Комплексная бизнес-модель является важным инструментом по формализации и улучшению деятельности компании. В статье рассматриваются общие правила создания инновационной бизнес-модели: функции, миссия предприятия, стратегия, принципы, разновидности инновационных бизнес-моделей. Кроме того, делается вывод о необходимости проведения исследования условий, вынуждающих переходить от одного типа бизнес-модели к другому.

Ключевые слова: бизнес-модель, инновационная технология, деятельность предприятия, цепочка создания стоимости, конкурентоспособность.

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REFERENCES

[1] Christiansen, J. K. ; Varnes, C.J. Drivers of changes in product development rules.// European Journal of Innovation Management. 2015. Vol: 18 Number 2pp. 218-237

[2]Kotelnikov V. New business models for a new era of rapid change driven by innovation (on a spiral). М .: Eksmo. 2007. 96 p.

[3]Isaev R. Complex business model of a commercial bank.// Management in a credit institution. 2008. No. 4. pp. 56-70.

[4]Strekalova N.N. The concept of a business model: a methodology for system analysis.// Economics and Economic Sciences. 2009. No 92. pp. 96-105.

5]Nurpeisova A.A., Rey I.Yu., Bizhanov D.T., Tleuzhanova D.A. Main elements of managing the process of creating innovation production // News of the National Academy of Sciences of the Republic of Kazakhstan, Series of Social and Human Sciences, September-October, Vo5.2, N2312018pp.53-56. <https://doi.org/10.32014/2018.2224-5294.9>

[6]Baymukhanova M.T., Dariskalieva M.S., Moldasheva A.K. Innovations in the economy: development methodologies of Kazakhstan.// News of the National Academy of Sciences of the Republic of Kazakhstan, Series of Social and Human Sciences, September-October, Vo5.2, N231 2019 pp 170 -174. <https://doi.org/10.32014/2019.2224-5294.64>

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