

UDC 339.138

JEL Classification: M31

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APPROACHES TO FORMING ENTERPRISES' BUSINESS-MODELS

The article describes the basic definitions of the concept of business model. The approaches definitions are analysed and systematized. Value, procedural and declarative approaches are considered separately. Their disadvantages are highlighted in terms of the stress-testing method. The expediency and urgency of introducing new approaches are described. Instrumental and systematic approaches have been identified and their definitions have been formed. The criteria that must be met when forming business models are summarized in the framework of the systematic and instrumental approaches implemented to use the stress testing methodology.

Keywords: stress testing, business model, marketing stress testing, method of MST.

DOI: 10.15276/mdt.3.4.2019.3

Statement of the problem in general form and it's connection with important scientific or practical tasks. The operation of enterprises in the VUCA environment lead to the need of constantly monitoring the compliance of business models, which is the basis for the operation of such an enterprise with the constantly changing factor of the enterprise marketing environment, the analysis of the internal environment adequacy to market challenges and the ability to adapt or level challenges. One such method used to analyse stress-testing method, that is systematically applied in the banking sector to test the resilience of banking institutions to external factors. However, the same problems exist for industrial and intermediary companies operating in a learning environment. Developing stress-testing method of company's business models is an important tool for senior management in their strategic enterprise management process, for investors to evaluate the attractiveness of the business its ability to ensure the profitability of the enterprise.

Such method is the marketing stress-testing method proposed by the authors.

Marketing stress-testing [10] is the process of analysing the resilience of a business model to changing factors in a company's marketing environment for its ability to create value for the selected target audience and to provide a given level of profitability for the company within a given period, in order to identify destabilizing environmental factors and narrow sides of business (processes, structure, legal form) to identify the necessary strategic changes.

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Marketing stress testing method (MST) [10] – a method of assessing the potential impact of marketing environment factors on an organization to form its sustainable business model by assessing the potential vulnerability of the organization's tangible and intangible assets, its business processes and functions, forecasts of dynamic changes of environmental factors and potential risks, in order to propose possible changes in the system and prevent stressful situations upon the occurrence of which the company will have an idea how to decide the situation.

A business model that meets the above criteria can be used to effectively implement a marketing stress-test that will allow businesses to be competitive in a VUCA environment.

Analysis of the latest research and publications, which initiated the solution of this problem and on which the author relies. As can be seen from the definitions, the marketing stress-test should be based on a specific business model or a set of them, which requires appropriate systematization and analysis of such models for their ability to provide marketing stress testing.

Foreign scientists (L. Cohen, Z. Baida, N. Kouvenhoven, O. Oosterwalder [2], I. Pignier [7], A. Smith, G. Bernard, P. Papakakos) were researching the problems of defining the essence of business models as well as national scientists (P. Kutsyk, V. Lunin and N. Kubina, A. Rosman, G. Shportko, T. Gavrilova, A. Alsufiev, AS Janson) [1]. Formation and classification issues were dealt with by Zozulyov, Osterwald. In these works, the authors propose business-models of different types, reflecting different aspects of building a business, shaping its marketing strategy.

Highlighting the previously unresolved parts of the general problem to which the article is devoted. Paying tribute to these authors, it should be noted that these models require a comprehensive analysis for consistency, the possibility of their integration, classification and development in the context of the formed problems, to conduct marketing stress testing of the enterprise business model.

Formulation of the purpose of the article (statement of the problem). The purpose of the study is to develop a system of criteria for classifying approaches to the formation of enterprise business-model; analysis of the advantages and disadvantages of such approaches; defining approaches to the formation of business models for marketing stress testing.

Statement of the main material of the research with full justification of the scientific results obtained. There are two general approaches on which the interpretation of business model is based: which is used in practice and scientific. In practice, a business model refers to a specific distinctive feature or process that ensures the functioning of the business. As a business model, methods of forming a competitive advantage are used and the following approaches are [11]: advertising, affiliate program, commission, crowdsourcing, rejection of intermediaries, fragmentation, freemium, leasing, low-touch, marketplace, razor and blade, razor and blade vice versa, reverse auction, subscription. These approaches to the definition of the model are not complex, they reflects only the instrumental part of the model-business, which does not correspond to the scientific paradigm, which provides in particular: comprehensiveness, consistency, understanding of the goals tasks and processes of business functioning. The analysis of scientific literature allowed to identify such approaches to the formation of business models: declarative, valuable, investment, organizational, economic, value-economic, procedural, innovative, marketing, structural-logical, analytical, which are presented in the Table 1.

Here is a brief description of the approaches to building business models in the Table 1.

Table 1 – Approaches to defining the concept of business models of the enterprise

Approach	Definition	Author	Source
Declarative	The CANVAS business model is a conceptual tool that incorporates a set of elements and their interrelationships and reflects the logic behind how a company makes money.	A. Osterwalder	[2]
System	The key terms that define the content of the business model are the concepts of business logic, value creation processes and stakeholders (stakeholders) for which value is created. The business model also reflects the architecture of value, revenue, cost and profit.	S. Smerichevskii, O. Klimova	[1]
Valuable	A business model is a value curve that reflects how the company will satisfy the needs of the consumer by different criteria. The business model is a value curve that reflects how a company will meet the needs of consumers across different criterias.	C. Kim, R. Moboran	[6]
Analytical	The business model concept is a unified unit analysis that helps you understand the value creation process, which is the result of many resources and the result of many processes. Business model organizations are the logic of connecting resources and capabilities in order to consistently reach their principals goals and conduct business activities. ... That's it configuration of resources and capabilities that will allow the firm to create unique value.	K. Prahalad, V. Ramaswami	[7]
Investment	For investors, the business model is a way to evaluate, if the company achieve success. But for a businessman, it's a tool for dynamically developing.	D. Debelak	[7]
Organizational	The business model consist of four interrelated elements: consumer value of the product, formula profit, key resources, key processes.	K. Christensen and et al.	[7]
Economic	The business model is the basic logic behind creating an added one value in the company. There are three types of models: component business models, operating business models and models of change.	J. Linder, S. Cantrell	[7]

Descriptive	A business model is an idea of how an organization makes (or intends to make) money. Business model describes the value that an organization offers to different clients, reflects the ability of the organization, a list of partners needed to create, promote and supplying this value to clients, capital relations, required to generate sustainable revenue streams.	A. Ostwalder, I. Pignier	[7]
Value-economic	A business model is the way a company uses to value creation and profit	G. Chesborough	[7]
Procedural	A business model is how a company chooses a consumer, formulates and delineates its proposals, allocates resources, determines what tasks it can to perform on their own and for which they will have to be involved specialists on the market, creates value for the consumer and profit from it. Companies can offer products, services or technologies, but this proposal is based on a comprehensive system of actions and relationships of a business-model creation.	A. Slivotski	[7]
Innovative	Business concept and business model are made of the same test: a business model is just a business concept, brought to life. The main characteristics of the business model are formed depending on its ability to innovate about the industry and its past (updates, revolution, flexibility and cost reduction).	G. Hamel	[7]
Marketing	A business model is the sum of three answers basic questions. Who is my target audience? What products or services will be my value the proposal and what will be its competitive advantage? How can I do this effectively?	K. Marquides	[7]

1) a Declarative approach. This approach is represented by the Canvas model (full name-Business Model Canvas), authored by A. Osterwald (Fig. 2). This model provides a visual representation of the system of related processes and results that reflect the value that the company's business will provide to consumers, and the means to ensure this. Its main advantages and features of construction: a) the model statically describes the system that exists at the moment or will exist; b) implementation in the format of a graphical template during the development of business processes, plans, projects. Visualization is the main advantage of the graphical direction and the basic elements of this model are: customer segments; value proposition; channels; customer relationships; revenue streams; key resources; key activities; key partners; cost structure.

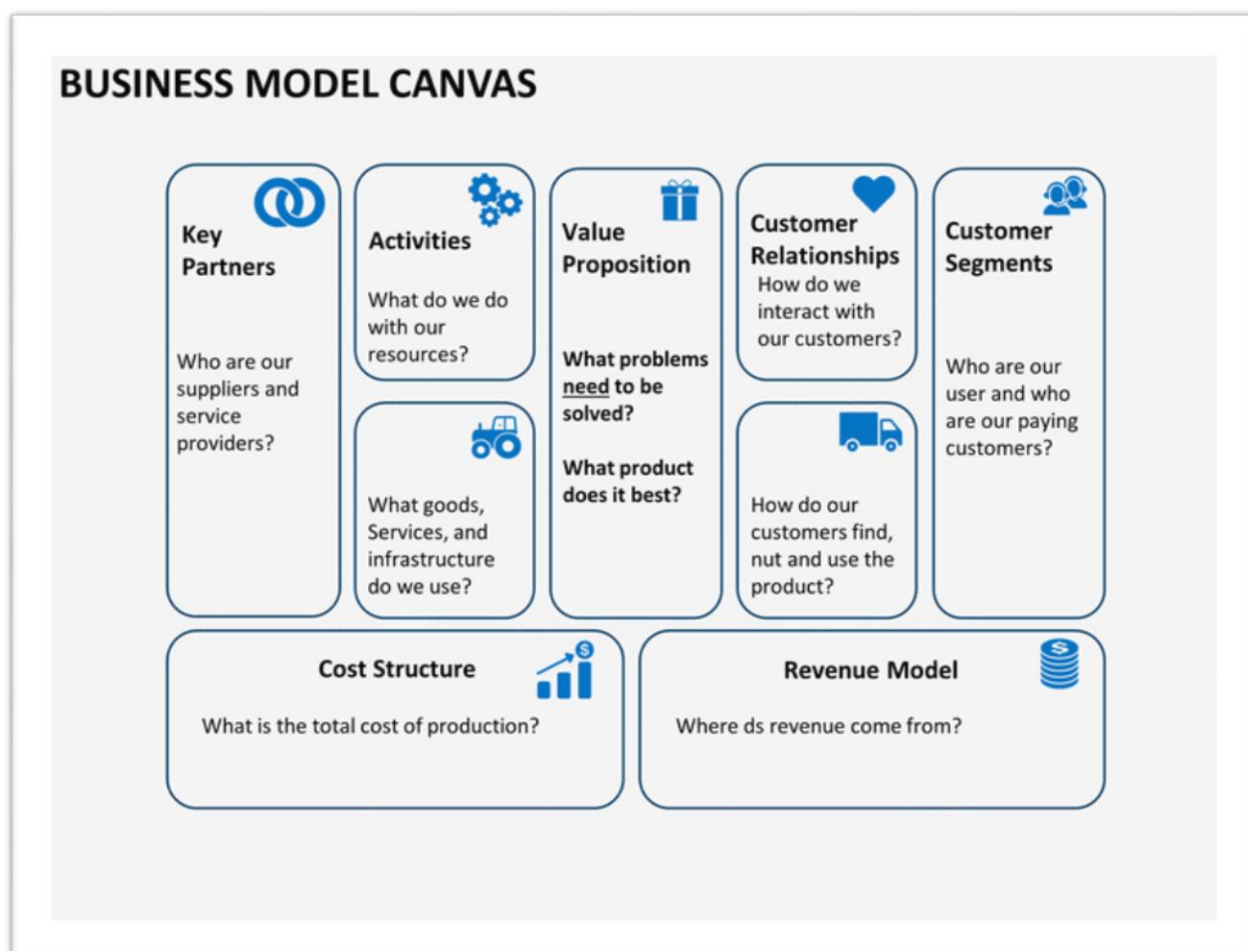


Figure 2 – CANVAS model [2]

The model has four basic groups: consumers (customers), supply, infrastructure and profit formula. Issues that are not covered by this model but are important for stress-testing: the model reflects the final result without taking into account the processes and factors that led to such a system; model is static; does not include those elements that affect the need to revise the existing model; does not model the likely situations that arise in the case of changes in the structural elements of the business model.

2) Value approach. The value approach is based on the positions of C. Kim in the book "Blue ocean strategy". The main idea of the development is to form a niche value for the consumer, instead of fighting in a highly competitive niche. The elements of this model are: a) value creation through innovative value, the competitiveness factor is innovation; b) to maintain the competitive position of the enterprise in the market, 3 basic elements are used in the observance of innovative value: practicality, price, costs; c) the strategic outline-an element of diagnostics and construction of strategy of innovative differentiation is used. The blue ocean strategy uses a four-action model. It is presented in the form of four questions: 1) which factors that the industry takes for granted should be eliminated; 2) which factors should be significantly reduced compared to existing industry standards; 3) which factors should be significantly increased compared to existing industry standards; 4) which factors not previously proposed by the industry should be created? Issues that are not covered by this model but are important for stress testing: analysis of internal business processes of the company; availability of criteria for assessing the transition to a niche strategy; model is static.

3) The Procedural approach. This approach is presented by the business model of Zozulyov O. V. [8]. The elements of this model are: the description of the processes of the enterprise as a source of competitive advantages; the creation of value for the company is formed through the core competence. The structural elements of the company are: company infrastructure; human resources management; technology development; logistics; internal logistics; production activities; external logistics; marketing and sales; service; source of competitive advantages; cost leadership; differentiation; goods; properties; market; marketing; consumer; values and needs; core competence of the company; insourcing; outsourcing. Issues that are not covered by this model are important for stress testing: the model does not demonstrate a change in the core competence in the long term; it is static.

In the course of the analysis of the above models, it is possible to identify their following common weaknesses in terms of marketing stress-testing: they all consider the statics, not the dynamics of the functioning of the enterprise on the basis of such a model; not fully can act as a tool for testing the sustainability of enterprises in a VUCA environment; describing a certain side of the existence of the business model; in some places there are significant obstacles in the integration of these models for systematic testing. Based on this, we can propose two new approaches to the definition and formation on this basis of business models of the enterprise, which would be more utilitarian for marketing stress testing of the company's stability: instrumental and system approaches.

The instrumental approach. The business model is a tool of analysis of company activities in terms of processes, functions, structures, flows and linkages, covering external and internal environment of the enterprise (marketing, organizational and business aspects within the firm) allows to investigate the company's ability to conduct effective marketing activities in a changing market environment that allows to explore the future of the company if you change different elements in the structure.

In the instrumental approach, the model should contain the possibility of instrumental research, such a model for its functionality, stability in providing this functionality, feasibility, reliability, informativeness.

System approach. Business model – is a system of interrelated strategies, processes, functions and tools aimed at achieving a set of goals facing the organization and reflects the ways and means of creating and obtaining competitive advantages in a changing market environment.

Business models that are created should include a list of tools, materials necessary for the formation of the model, which would determine the systemic nature and include various aspects mentioned above.

The above-mentioned approaches make it possible to form a business model that will reflect the level of stability of the enterprise in the VUCA environment during stress testing. Instrumental and system approaches to the concept of a business model meet the criteria that need to be achieved to develop a business model that would meet the necessary criteria for marketing stress testing: invariance of commodity markets, functionality, temporality, feasibility, instrumentality and systematic. It is the development of new approaches that will form a scientifically-applied business model, which would make it possible to effectively carry out the MST method in a turbulent environment and provide an effective solution to improve the competitiveness of the enterprise.

Conclusions from this research and prospects for further developments in this area. The conclusion from this study and the prospect of further development in this direction. The analysis of literature sources showed that there are significant differences in the understanding of the concept of business models revealed between practitioners and scientists. It has been found that the stress testing approach used by practitioners does not meet the

requirements for such a procedure. The analysis of scientific sources showed that existing interpretations of business models can be divided into the following approaches: declarative, value, investment, organizational, economic, value-economic, procedural, innovative, marketing, structural-logical, analytical. Based on the specifics of stress testing, the need for implementation was identified and created two new approaches: an instrumental approach and a systematic; criteria, which the models built within these approaches should meet. The results obtained give rise to the construction of new business models for the stress testing method at the intersection of marketing, tooling and system approaches.

1. Smerichevs'kij S. F., Klimova O. I. (2017) *Business model CANVAS yak universal'na koncepciya upravlinnya biznesom kompaniy* [business model CANVAS as a universal business management concept for a company]. Available at: http://www.investplan.com.ua/pdf/9_2017/4.pdf. (in Ukrainian)
2. Gavrilova T., Alsufyev A., Yanson A. S. (2014) Modern Notation of Business Models: Visual Trend. *ForesightRussia*, vol. 8, no. 2., pp. 56–70.
3. Osterwalder A., Pigneur Y. (2008) *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. New Jersey: John Wiley & Sons Inc.
4. Kucik P.O. (2013) Biznesmodel' kompanii ta ii vidobrazhennya u korporativnij zvitnosti [Steps to the transition to the leaner system industrial enterprises of Ukraine]. *Visnik L'vivs'koї komercijnoї akademii: zb. nauk. prac'* [Bulletin of the Lviv Commercial Academy: a collection of scientific papers], pp. 8–20. (in Ukrainian)
5. Shport'ko G.YU. (2013) Etapi perekhodu na sistemu "berezhlive virobnictvo" promislovih pidpriemstv Ukraїni. [Stages of transition to the system of "lean production" of industrial enterprises of Ukraine]. *Ekonomichnij prostir* [Economic space], no. 73. pp. 289–297. (in Ukrainian)
6. Merkushova N. I. *Biznes-model' yak instrument efektivnogo pidpriimstva* [Business model as an instrument of effective enterprise]. Available at: <https://openbooks.itmo.ru/ru/file/4374/4374.pdf>. (in Ukrainian)
7. *Suchasni trendi biznes modelej* [Modern trends of business models] Available at: <https://cyberleninka.ru/article/n/upravlenie-biznes-modelyu-stanovlenie-kontseptsii-i-sovremennye-trendy>. (in Ukrainian)
8. *Upravlinnya biznes modellyu, stanovlennya koncepcii ta suchasni trendi* [Business model management, concept formation and current trends]. Available at: https://www.researchgate.net/publication/307871626_Upravlenie_biznes-modelu_stanovlenie_koncepcii_i_sovremennye_trendy. (in Ukrainian)
9. Zozul'ov O. V. (2010) *Promyshlenny marketing: rynochnaya strategiya* [Industrial Marketing: market strategy]. Kiev: Center for Educational Literature. (in Ukrainian)
10. VUCA: new talent management and personnel planning environment. Available at: <https://brainify.ru/r/article/vuca-novaya-sreda-upravleniya-talantami-i-planirovaniya-personala>.
11. Zozul'ov O.V., Men'kova K.I. (2019) Ponyattya marketingovogo stress-testuvannya biznes-modeli pidpriemstva, yak faktora stalogo rozvitku organizacii [Understanding the marketing stress test of business models of entrepreneurship, as a factor in the development of organizations]. *Ekonomika ta pidpriemnictvo* [Economics and entrepreneurship], no. 43. (in Ukrainian)
12. Krinic'ka M. (2017) *17 biznes-modelej. Pridumati novu chi vikoristovuvati staru? [17 business models. Invent a new one or use an old one?]*. Available at: <https://kontur.ru/articles/5030>. (in Ukrainian)

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Підходи до формування бізнес-моделей підприємств.

Метою дослідження є формування системи критеріїв для класифікації підходів до формування бізнес-моделей підприємства; Аналіз переваг та недоліків таких підходів; визначення підходів до формування бізнес-моделей для проведення маркетингового стрес-тестування. У статті розглянуто основні визначення поняття бізнес-моделі. Проаналізовано та систематизовано визначення у підходи. Розглянуто ціннісний, процесуальний та декларативний підходи окремо. Виділено їх недоліки з точки зору проведення методу стрес-тестування. Описано доцільність та актуальність впровадження нових підходів. Виділено інструментальний та системний підходи та сформовані для них окремі визначення. Узагальнено критерії, які необхідно дотримуватись при формуванні бізнес-моделей у рамках системного та інструментального підходів, що впроваджуються задля використання методики стрес-тестування. Отримані результати сформовано та підготовлено для подальшої розробки методики створення бізнес-моделі підприємства.

Ключові слова: стрес-тестування, бізнес-модель, маркетингове стрес-тестування, метод MST.

Received to the editor November 26, 2019.