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**COMPANY'S BUSINESS MODEL STRESS TESTING AS A BASE OF  
ECONOMICAL SUSTAINABILITY IN THE NEXT NORMALITY  
СТРЕСС-ТЕСТУВАННЯ БІЗНЕС МОДЕЛІ ПІДПРИЄМСТВА ЯК ОСНОВА  
ЕКОНОМІЧНОЇ СТАБІЛЬНОСТІ У МАЙБУТНІЙ НОРМАЛЬНОСТІ**

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*The article reflects the current problem of enterprises' sustainability in the modern VUCA-environment, their ability to form a competitive model of behavior and pre-planned reactions in the different scenarios appearance. The tool that allows to solve this problem is called the method of marketing stress testing of the enterprise' business model. It is analyzed that the method includes basic aspects of the theory of enterprise sustainability, business models and stress testing in the banking sector. The concept of marketing stress testing as a tool and method is highlighted. Added a new concept of MST method as a process that provides an effective method for testing the stability of the enterprise. The steps in conducting marketing stress testing for the enterprise using both quantitative and qualitative research methods are analyzed and systematized.*

**Key words:** *stress testing, business model, marketing stress testing, MST*

**INTRODUCTION.**

In this paper authors considered a new instrument: marketing stress testing method as a key factor for achieving company's sustainability in a long term period of time. This sustainability is achieved due to conducting modeling of company's behavior in low- informational environment. This method is a new instrument for facing future threats in extreme changing marketing conditions. The method helps to keep competitive advantages and change business' behavior in a short period of time on business, corporate and functional levels. Authors presented a new business model: holistic one, designed specially for stress testing development and demonstrated key stages for methodology conducting.

**1. WHY STRESS TESTING IS SO IMPORTANT IN NEW ECONOMIC ARCHITECTONICS?**

Our world goes through fundamental global changes, that inevitably entail challenges that our humankind never've been forced before. These processes weren't formed for one day or even decades, it was a long term period of time, in which the world economic system led to the situation of unalterable changes of its structure on a fundamental level.

In the 20th Century we used to have a more predictive economic behavior that could be planned, forecasted, measured. International markets were divided between key players, marketing business strategies were more stable as well as consumer behavior models. Perspectives of global economic systems were more transparent and predictive enough to work steadily in the marketing environment of that time.



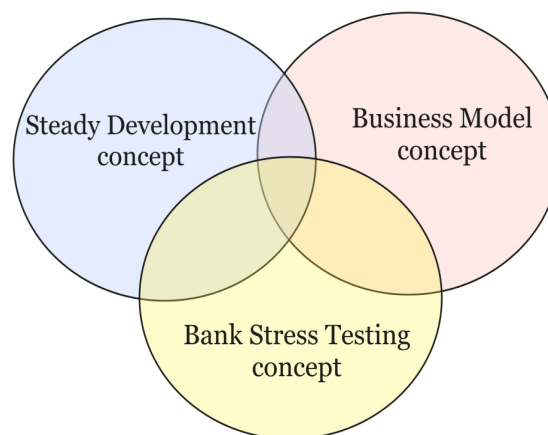
But rapid changes for the last 20 years influenced by extreme technological progress, fundamental changes in political and social orders, as a result VUCA environment lead to the fact that the world started to talk about fluctuation in the economic systems. Nowadays the world is in a state of new architectonics formation which will include new business processes, information and communication interactions, society values, behavioral attributes, system's stable state and as a result new business models.

Accelerator of the transition to a new state of economy became Covid-19, that led the world to the edge of the global crisis and uncertainty. The mankind was faced by an unprecedented situation of world lockdown, when macroeconomics of all countries and businesses were forced to rapidly review their strategies in short term perspective in order to survive. So **what is the Next Normality we should expect?**

Economic process has two most possible scenarios of development. The first one refers to its natural way of market purification. In this case companies, influenced by market environment, and their right decision-making will be determined by trials and errors. The second one suggests a new methodology appearance that allows to define challenges from a company's environment, predict effects and adopt an economical behavior model as a result. Nowadays business wants to understand what will it be a new normality look like as a source of as a new quantum state of economic system. Owners and CEOs need instruments which allow them to save its business during the transformation of the economic system from previous to another quantum level. One of such instruments is Business Model Stress Testing.

## 2. CONCEPT OF MARKETING BUSINESS MODEL STRESS TESTING

Idea of marketing stress testing was formed on the intersection of 3 scientific concepts such as: concept of enterprises, steady development, business models concepts and bank stress-testing concept (Figure 1).

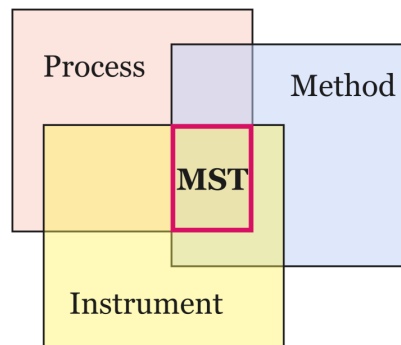


**Figure 1: Intersection of three scientific concepts for marketing stress testing idea formation**

Marketing business model stress testing was never analyzed on either theoretical or practical level, and method of stress testing was used only in the bank sphere. Problems of steady development, business models and bank stress-testing were analyzed by many scientists such as: S. Sharatov (2011), B. Budumyan (2013), N. Cherkassov (2010), Y. Horbunov, C. Voitko, A. Tarasiev, Z. Baida, O. Ostervald, A. Smith, A. Zozul'ov.



Authors were first to consider problems of business model stress testing in their previous publications, where practical necessity and theoretical based level was substantiated with classification of business models. But for now there is a need for developing main aspects of practical implementation of marketing stress-testing. During the analysis of marketing stress testing essence was concluded that marketing stress testing (MST) is simultaneously a process, method and instrument (Figure 2).



**Figure 2: Three states of marketing business model stress testing**

### ***Instrument.***

*Marketing Business Model Stress Testing (Business Model Stress Testing or MST)*- is an instrument of analysis the sustainability of business model to marketing environment in the aspect of companies ability to create value for the selected target audience and provide expected level of profitability within a certain period of time, by identifying destabilizing environmental factors, the limits of their changes, companies “bottlenecks” in order to determine the necessary strategic changes.

### ***Method.***

*Marketing Business Model Stress Testing* - is a method of estimation limits of companies business models functionality in different marketing environment conditions. The aim of stress testing method is an estimation of potential influence of marketing environment factors on companies steady development and business model functionality, that expects the evaluation of potential assets vulnerability, predicting dynamic changes of external environment factors and potential risks. It also predicts possible system changes and prevents stress situations in forthcoming of which the company will have no clue how to behave and react to a situation. Key role in formation of companies sustainability belongs to enterprise business model. Its ability to form company’s anti-crisis policy system in order to reduce risks, influences the company's ability to be resistant to external factors due to the VUCA environment.

### ***Process.***

*Marketing Business Model Stress Testing* - is the process which provides a detailed sequential procedure, formalization of the hierarchical system of business models of the enterprise, conducting situational analysis in order to reveal probable turbulences in company’s environment and potential limits of such turbulences; system of indicators formation, that define enterprises’ business model sustainability, modeling scenarios of company’s probable directions of development; on this basis defining weaknesses in the system of enterprise’ business models and limits of its functionality, formation of propositions.



### 3. HOLISTIC BUSINESS MODEL CONCEPT

To outline the procedure of stress testing, it is necessary to focus on the concept of the enterprise' business model.

The authors defined twelve approaches to the interpretation of the business model concept such as: declarative, structural-logical, value, analytical, investment, organizational, economic, analytical, value-economic, procedural, innovative, marketing.

This list can be completed by two new approaches, that are utilitarian for conducting marketing business model stress testing, these methods are: instrumental and system.

#### ***Instrumental approach.***

*Business model* - is an instrument for analyzing company's activity in the context of processes, functions, structures, flows and their relationships, that cover internal and external environments of the enterprise (marketing, organizational and business aspects within the firm) and allow to explore the company's ability to conduct effective marketing activities in a changing market environment, that allows to explore firms future under changing different structure elements.

Within the instrumental approach, the model should contain an option for conducting an instrumental business model study for its functionality, stability, feasibility, invariance in both statics and dynamic.

#### ***System approach.***

*Business model* - is a system of interconnected strategies, processes, functions, tools and techniques aimed at achieving a set of goals that company currently face and reflects ways for creating and maintaining competitive advantage in a changing market environment.

#### ***Holistic approach.***

*Business model* - is a system of different kinds of hierarchies business models, that corresponds to different management levels: corporate, business, functional. On the highest levels the general strategy and vision of business as a whole is defined, on the second - business processes, which form and provide a core of competence of the company as a source of its steady competitive advantages, the functional level- where a company's functions are divided in partial processes within a business cycle, which ensures its implementation. The enterprise holistic business model system is shown in Figure 3

Analysis of stress testing and holistic enterprise' business model definitions presented above, shows that a process of implementation should take into account next aspects:

- present a consistent procedure for analyzing the system of business models from universal to aspect ones;
- provide a modeling process;
- analyze the assets and enterprise' potential, its business processes, functions and resources;
- provide a systematic process;
- include both qualitative and quantitative methods;
- form a system of indicators including indicators of stability;



- identify bottlenecks in order to reengineer business processes in the enterprise and ensure key goals: achieving strategic goals and ensuring sustainable development.

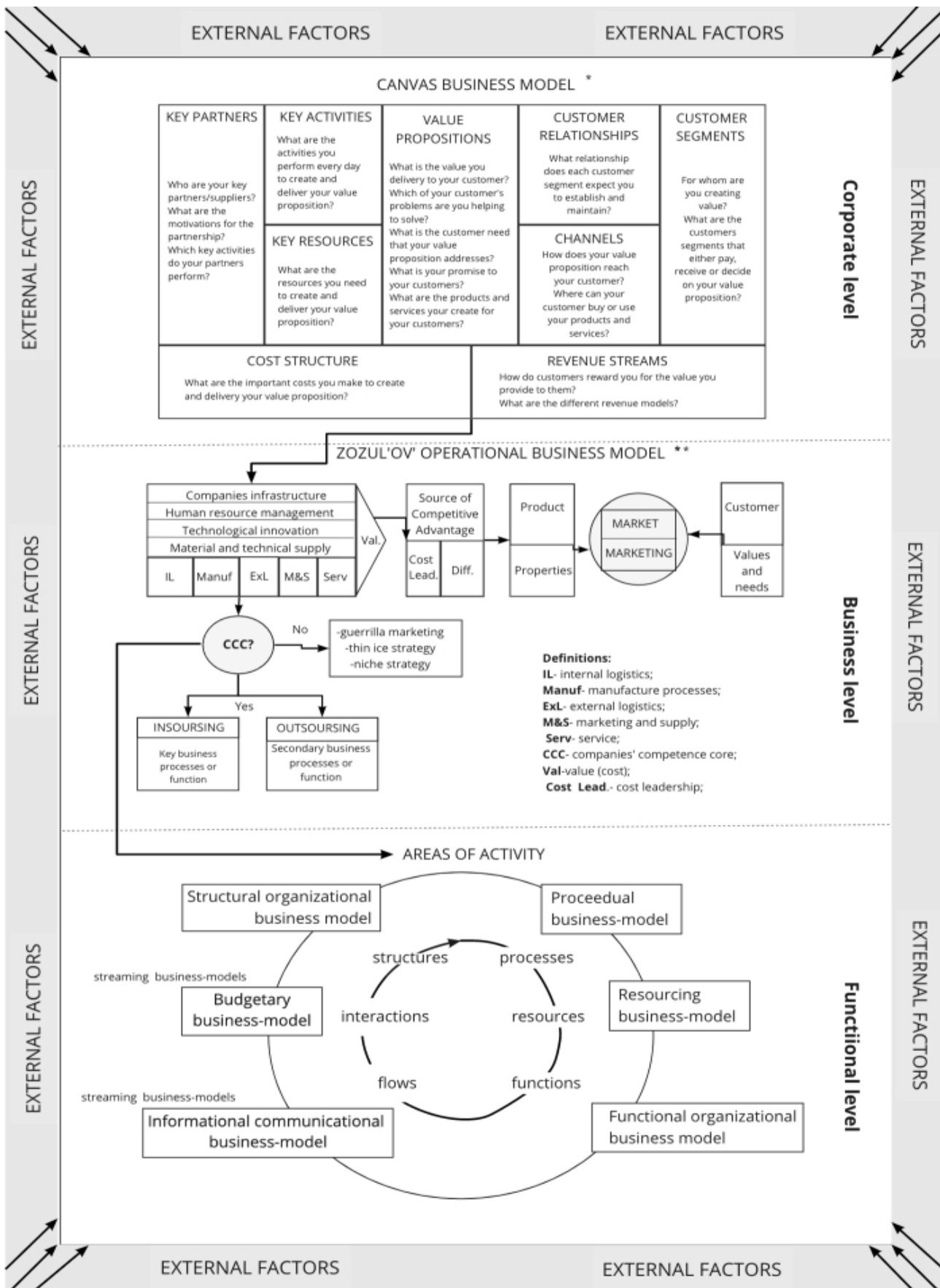


Figure 3: Holistic business model

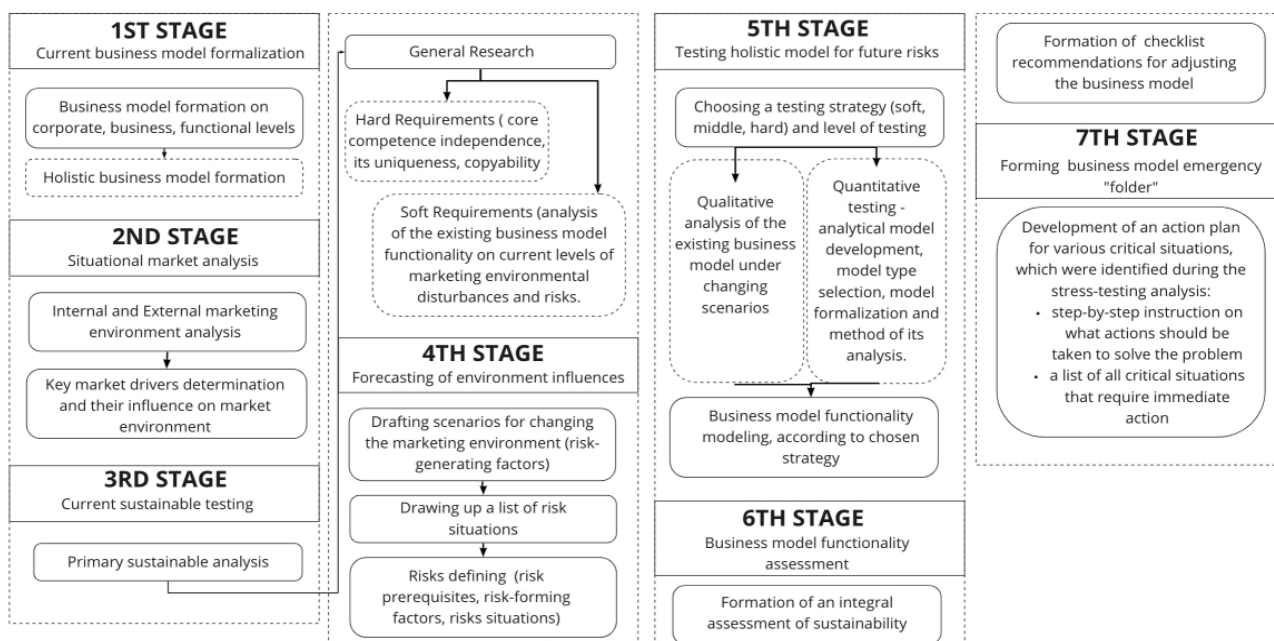




#### 4. MARKETING STRESS TESTING METHODOLOGY

Stress-testing on a practical and theoretical level was not analysed before, so there are no fundamental methodologies that can fit the need for marketing stress testing implementation. Methodology should include classical approaches for analysing marketing environment; risks evaluation; quantitative and qualitative testing of holistic business models for future risks.

Methodology of stress testing is divided in 7 sections and presents a complete analysis process from holistic business model development to concrete steps for achieving sustainability of enterprise (Figure 4).



**Figure 4: Business model stress testing methodology**

1st stage is to conduct a holistic business model (Figure 3) in order to start a stress testing method, 2nd stage is based on analysing the marketing environment, 3rd and 4th stages are based on primary preparation for testing holistic business model in order to collect all needed data. 5th stage is based on qualitative and quantitative methods for analysis in order to create a variability of scenarios for business model stress testing. 6th and 7th stages mostly refer to a strict list of recommendations that a company must do in order to keep its sustainability on a competitiveness level.

#### 5 CONCLUSION

Changes in marketing environment and economics lead to irreversible changes, where companies meet new challenges in Next Normality. Marketing business model stress testing - is an innovative method, process and instrument that helps businesses to achieve sustainability in a long term period of time and reduce future risks. Stress testing essentially connected with business model as a key subject of MST analysis. In connection with this, authors proposed a new vision of business model: holistic one. It presents business model on different levels: corporate, business, functional levels. A new concept of MST method needs a fundamental approach for its development. So on the basis of a holistic model, using quantitative and qualitative analysis, estimating future risks and creating a model that is sustainable to internal and external factors of the marketing environment, a new methodology was created.



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*В статті відображена сучасна проблема щодо стійкості підприємств у сучасному VUCA-середовищі, їх здатність до формування конкурентоспроможної моделі поведінки та заздальгідь спланований реакції при настанні різних сценаріїв розвитку подій. Представлено інструмент, який дозволяє вирішити це завдання, а саме метод маркетингового стрес-тестування бізнес-моделі підприємства. Проаналізовано, що метод включає в себе базові аспекти теорії стійкості підприємств, бізнес моделей та проведення стрес-тестування у*



банківській сфері. Виокремлено поняття маркетингового стрес-тестування як інструменту та методу. Додано нове поняття MST методу, як процесу, який забезпечує ефективну методику на тестування стійкості підприємства. Проаналізовано та систематизовано кроки при проведенні маркетингового стрес-тестування для підприємства з використанням як кількісних, так і якісних методів дослідження.

**Ключові слова:** стрес-тестування, бізнес модель, маркетингове стрес-тестування, MST