

Improvement of Financial Security Technologies for Entrepreneurial Entities

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Abstract: *The article aims to improve financial security technologies for entrepreneurial entities. The analysis of approaches used in the theory and practice of entrepreneurial entities has shown that it is reasonable to form a comprehensive method of assessing the financial security, which includes the comparative, normative, balance and modeling methods. It has been established that the basis of formalizing the functional load of the financial security mechanism for entrepreneurial entities is axioms of generality, singularity and transparency, the essence of which is disclosed in this mechanism. The analysis of the system of relations among various hierarchic levels of the financial security mechanism for entrepreneurial entities has allowed the authors to determine their hierarchy. The authors have defined the interconnection between the financial security level of conditionally homogeneous groups of entrepreneurial entities and structural inconsistencies in their development. It has been established that specific features of the generation of gross domestic product and financial result from separate types of economic activities are primarily stipulated by violations in cyclicity parameters and high volatility of characteristics. The study of the methodological support for the assessment of the financial security level of entrepreneurial entities has revealed substantial content and technical drawbacks. The total of single indicators is subjective as it does not give any possibility to come to unambiguous qualitative conclusions about the financial security level.*

Index Terms: *technology, financial security, indicator, entrepreneurship, mechanism, economy, cyclicity, uncertainty.*

I. INTRODUCTION

The progress in the economic science amid the fast-changing reality of the contemporary economic life makes it necessary to coordinate theoretical-methodological fundamentals of further scientific ventures. Semantically broad terms, which are used quite often, lead to a shift in the interpretation of the results of studies or even substantial mistakes. The ambiguity and subjectivism of scientific

developments considerably reduce the reliability of the results that concern both the most relevant and contemporary areas of research and those already determined and approved.

The scientific substantiation of the financial management of entities involved in economic relations at macro, meso and micro levels often concerns their financial security, the essence of which various researchers determine quite ambiguously. The task of attaining the financial security amid rapidly changing economic conditions, their discontinuity and uncertainty is relevant. These aspects, to a considerable extent, pertain to separate entrepreneurial entities because they are sensitive to external and internal threats and are marked by the slowest pace of development.

II. LITERATURE REVIEW

The study of the issues related to financial activities carried out by entrepreneurial entities was reflected in the papers by A.R. Buniatova [1], D.Yu. Desyatnichenko [2], K.B. Eremenko [3], D.A. Nosova [4], A.V. Pichugin [5], V.S. Savenko [6] and others. The analysis of publications related to the topic of the study makes it possible to identify inconsistencies proving that it is necessary to improve financial security technologies for entrepreneurial entities.

Scientists [7-9] pointed out that the reality of the present shows that the current theoretical support for the operation of the financial security mechanism for entrepreneurial entities is not sufficient. This is underscored by the lack of any definite consistency in analytical operations conducted to assess the financial security level, any algorithm in the management of the financial security, any procedure for assessing the influence of qualitative and quantitative conditions of the external environment at the financial security level. This poses a threat of the development of entrepreneurial entities in the conditions of uncertainty. Due to the comprehensive nature of the study, problems, which should be resolved to substantiate the financial security mechanism for entrepreneurial entities, remain unsolved and insufficiently elaborated.

III. METHODS

A. General description

The analysis of the approaches used in the theory and practice of entrepreneurial entities shows that the most reasonable solution is to form a comprehensive method for the assessment of the financial security, which includes comparative, normative, balance and modeling methods.

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The normative method allows us to determine the sum of the potential of each component of the financial security of entrepreneurial entities.

The comparative method is based on the determination of the financial efficiency given its value in a basic entrepreneurial entity. In the balance method, the financial efficiency is assessed by the amount of financial resources and data of surveys. The article’s information base includes statistical data from public authorities, legislative and statutory documents regulating financial activities of entrepreneurial entities [10-12].

B. Algorithm

During the study, we plan to systematize aspects related to the formation of the financial security mechanism for entrepreneurial entities, to develop measures aimed to coordinate activities carried out by main entrepreneurial entities providing the financial security and to substantiate the statute on the rational use of financial resources in the conditions of developing economic relations.

C. Technological scheme

We plan to conduct the study under the following scheme in which the financial security of entrepreneurial entities is considered as a system arising based on a set of factors in the financial environment (Figure 1).

IV. RESULTS

The formation of the financial security mechanism for entrepreneurial entities is quite shapeless and needs to be specified because there are differences in the interpretation of the basic terms “economic security”, “financial security”, “mechanism”, “economic mechanism” and “financial mechanism”. These differences are mainly based on the absence of unity in the description of the semantic cores of the terms and the structure of their components.

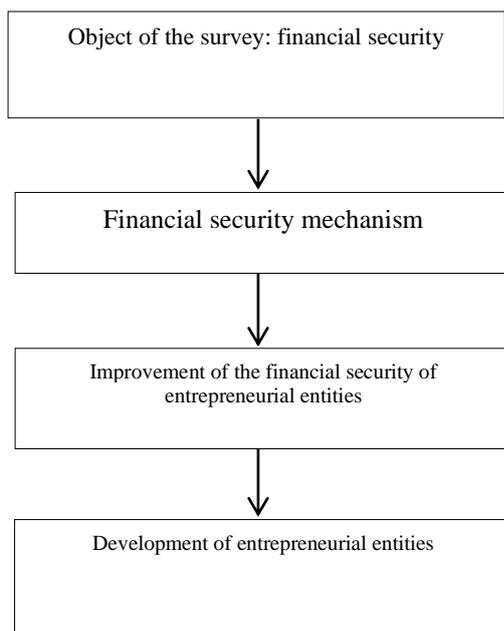


Fig. 1: Technological scheme of the study related to the financial security mechanism for entrepreneurial entities.

Both the financial security of entrepreneurial entities and the relevant financial mechanism can generally be considered

in a broad and narrow sense given the perception of their essence. In the broad sense, the financial security mechanism constitutes a system of methods, levers, tools and ways of operations carried out by entrepreneurial entities. In the narrow sense, this is a system of financial methods, levers, tools and ways of achieving such a financial condition that is characterized by the resistance to internal and external threats. General functions of the financial security mechanism are distributive and control, which are implemented as part of the mechanism of an entrepreneurial entity as a whole. Specific functions can include stabilization (the creation and the maintenance of the financial equilibrium in an entrepreneurial entity when usual fluctuations in financial flows within the entity will not violate regularities of its operation and development), adaptation (the creation of a system for flexible and quick reaction to marginal fluctuations in the external economic conditions) and defense (the creation of influential financial systemic counteractions to threats and dangers that can result in the crisis condition even if an entrepreneurial entity is in the condition of the financial equilibrium). The identification of the interrelation among axioms, functions and operating principles of the financial security mechanism allows us to form a variable hierarchy of tasks that can be worked out in detail and structured in accordance with the specific features of activities carried out by entrepreneurial entities, their current status, development prospects and a specific list of dangers and threats.

The structural organization of the financial security mechanism for entrepreneurial entities is stipulated by its broad interpretation and the direction of structuring. The width of the mechanism’s interpretation is determined by the scope of subject-object relations that can be included in the mechanism and peculiarities of regularities based on which the financial security mechanism operates.

In the narrow sense of the financial security mechanism for entrepreneurial entities, external actions and the external circle’s subjects influence directly the mechanism as a whole, changing the interaction within the mechanism, the behavior and financial interests of the internal circle’s subjects which, based on new conditions, assess the financial security level and select new managerial actions. From this point of view, the financial security mechanism is a partially open economic system with the hierarchic levels of organization. In the broad sense, the financial security mechanism for entrepreneurial entities constitutes a practically open system because subject-object relations arise both between the internal circle’s subjects and the subject and between the external circle’s subjects and the subject, changing regularities of the mechanism’s operation. The study results show that there are specific tendencies of changes in the financial security level of entrepreneurial entities in their homogenous or conditionally homogeneous groups. These tendencies can be determined by one direction of structural changes in the economy. In other words, the total of external dangers and threats is homogeneous for homogeneous groups of entrepreneurial entities and dependent on the structural ratio of groups of enterprises.



This thesis makes it possible and advisable to perform a general assessment of the financial security level for entrepreneurial entities once external dangers and threats materialize. Within the financial security mechanism for entrepreneurial entities, it corresponds to the task of assessing the external environment.

Main sources of external dangers and threats to the financial security of entrepreneurial entities are the instability in the economic environment, the general slowdown of economic activity, high volatility of main indicators and inconsistency in the structural ratio of homogeneous groups of entrepreneurial entities.

We determined directions for the development of economic activities from the viewpoint of their achievement of the financial security:

- for all types of economic activities - *Emin*; *PVSF*_{0.03}; *DVSF*_{0.27}; *HV*_{0.1};
- for agriculture, forestry and fishery – *Emin*; *PVSF*_{0.12}; *DVSF*_{0.02}; *HV*_{0.08};
- for the industrial sector – *Emin*; *PVSF*_{0.22}; *DVSF*_{0.03}; *HV*_{0.084};
- for the construction industry – *Emin*; *PVSF*_{0.1}; *DVSF*_{0.1}; *HV*_{0.1};
- for wholesaling and retailing, vehicle and automobile repair – *Emin*; *PVSF*_{0.094}; *DVSF*_{0.094}; *HV*₁;
- for transport, warehousing, postal and express delivery sectors – *Emin*; *PVSF*_{0.07}; *DVSF*₂; *HV*_{0.034};
- for financial and insurance activities – *Emin*; *PVSF*_{0.096}; *DVSF*_{0.32}; *HV*_{0.32};
- for real estate transactions – *Emin*; *PVSF*_{0.2}; *DVSF*_{0.11}; *HV*_{0.84};
- for education – *Emin*; *PVSF*_{0.14}; *DVSF*_{0.15}; *HV*_{0.82};
- for healthcare and social support – *Emin*; *PVSF*_{0.075}; *DVSF*_{0.03}; *HV*.

Practice shows that the total of financial security indicators can be fairly broad but its fundamental structure varies depending on the study's specific goal and is subjective. If single indicators are used, there are substantial deviations in the results of the assessment and practical difficulties in the creation of a hierarchy for the study's objects given financial

security. However, we found out that there is high convergence in the results for the assessment of the financial security level for conditionally homogeneous groups of entrepreneurial entities in terms of the specific weight of unprofitable entrepreneurial entities.

The study results related to the financial security level for the aggregate of single indicators for conditionally homogeneous groups of entrepreneurial entities allowed us to highlight sources of negative and positive changes in the vector of the financial security. Given the study results, the main source of a reduction in the financial security for an overwhelming majority of entities (both at the meso and micro levels) is a decrease in operating efficiency and deterioration of capital turnover.

When using integral criteria for the assessment of the financial security level, if the calculation base is one and the same, we see notable differences in the results of assessment for both the hierarchy of the study's objects in terms of the financial security and for the direction of changes towards the financial security. This substantially impedes the execution of the financial security mechanism's specific functions. Assessment results of the financial security level within a group of integral criteria coincide in one out of ten cases for conditionally homogeneous groups of entrepreneurial entities and not once for specific entrepreneurial entities (Table 1).

We propose the following directions for the improvement of methodological support for the quantitative assessment of the financial security level of entrepreneurial entities:

- 1) to improve methodological support of this assessment from the systemic point of view for internal systemic components of the assessment (the approval of methodological support for the assessment of the financial condition and the operating efficiency of an entrepreneurial entity, the methodological support for the assessment of variability in main criteria of the financial security, the methodological support for the assessment of the dynamic equilibrium of entrepreneurial entities);
- 2) improvement in the methodological support for the assessment of the financial security level from the systemic point of view for external systemic actions.

Table 1. Coordination of integral criteria for the financial security level of entrepreneurial entities

| Level of assessment | Object | Coordination of criteria | Ways to integrate single components |
|---------------------|--------------------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------|
| Macro level | For all types of economic activities | 1.02 | The unequal sum method, the sum method considering the direction of changes in single indicators, the graphical method |
| Meso level | Agriculture, forestry, fishery | 1.66 | |
| | Industrial sector | 0.70 | |
| | Construction | 2.07 | |
| | Wholesaling and retailing | 0.97 | |
| | Financial and insurance activities | 0.35 | |
| | Real estate transactions | 1.11 | |



| | | | |
|-------------|-------------------|------|---------------------------------------------------------------------------------------------------------------------------------|
| | Education | 0.81 | |
| | Healthcare | 0.91 | |
| Micro level | Agro Nova LLC | 7.55 | The unequal sum method, the sum method considering the direction of changes in single indicators, the graphical method, scoring |
| | Golden Fridge LLC | 1.14 | |
| | Welbest LLC | 1.06 | |

As the assessment results converge and they are highly informative for the qualitative generalized assessment of the financial security level, we propose to use the unified total of identification information with regard to the financial security of entrepreneurial entities in the form of a passport. In this respect, the passport of financial security constitutes information about the gradation of its levels by the aggregate of single indicators.

In addition, according to the passport, financial security includes three gradations. Quantitative boundaries of the gradations can be determined as the value of indicators which are typical to abstract formations of entrepreneurial entities, a subject standard (is marked by expectable financial indicators of a subject from the conditionally homogeneous group) and a benchmark subject (normative or the best of the possible financial indicators of entities from the conditionally homogeneous group). The financial security passport defines the position of financial security for entrepreneurial entities in specific economic conditions.

However, structural decomposition analysis identified the preferential distribution of special functions of the financial security mechanism for entrepreneurial entities among leading units with various levels of responsibility. A combination of the results of structural decomposition analysis for the organizational support of the financial security mechanism for entrepreneurial entities allows us to create a theoretical model for the network of governing bodies' interactions when implementing this mechanism. This model should be specified for entrepreneurial entities which are in normal financial condition and for entrepreneurial entities whose financial position is unstable in the conditions of the non-aggressive economic environment.

In this model, governing bodies' interactions can be cyclical. A single cycle of governing interactions should be created and the hierarchy of relations among governing bodies with various levels of responsibility should not be violated when they interact. One line of governing bodies' interactions is formed for the model of governing bodies' interactions when using the financial security mechanism for entrepreneurial entities which are in the normal financial condition in the non-aggressive environment. While the final component, when this model is in use, is the creation of required financial conditions that ensure stable growth, final indicators measuring the operation of the financial security mechanism are an increase in the scope of operations conducted by entrepreneurial entities and their capital.

V. CONCLUSION

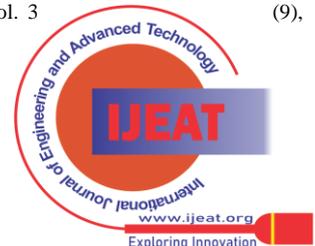
Summing up, it can be noted that the basis of formalizing the functional load of the financial security mechanism for entrepreneurial entities is axioms of generality, singularity and transparency, the essence of which is revealed via a clear perception of this mechanism as systematic learning. The analysis of the system of relations among various hierarchic levels in the financial security mechanism for entrepreneurial entities made it possible to identify the existence of their hierarchy.

We have determined interrelations among the financial security level of conditionally homogeneous groups of entrepreneurial entities and the existence of structural inconsistencies in their development. Specific features related to the output of gross domestic product and financial results in separate types of economic activities are mainly caused by violations in cyclicity parameters and high volatility of characteristics.

The study of the methodological support for the assessment of the financial security level of entrepreneurial entities revealed substantial content and technical drawbacks. The total of single indicators is subjective as the variable does not give any possibility to come to unambiguous qualitative conclusions about the financial security level. It is not adapted to specific economic conditions of operation and does not take into account changing economic conditions and the role of uncertainty in economic processes.

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