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ENTERPRISE FINANCIAL SECURITY THREATS: IDENTIFICATION, ASSESSMENT AND FORECASTING MODELS

Summary

The assessment approach for internal and external threats level to enterprise financial security is proposed. It integrates a set of techniques that determine the targeted practical orientation of the developed toolkit and has an analytical and applied aspect.

Key words: enterprise, financial security, external and internal environment, threats, models

Анотація

Запропонована методологія оцінки рівня внутрішніх та зовнішніх загроз фінансової безпеки підприємства, що включає в себе комплекс методів та моделей, які визначають цільову практичну спрямованість розробленого інструментарію та мають аналітичний та прикладний аспект.

Ключові слова: підприємство, фінансова безпека, зовнішнє та внутрішнє середовище, загрози, моделі

Аннотация

Предложена методология оценки уровня внутренних и внешних угроз финансовой безопасности предприятия, которая включает в себя комплекс методов и моделей, которые определяют целевую практическую направленность разработанного инструментария и имеют аналитический и прикладной аспект.

Ключевые слова: предприятие, финансовая безопасность, внешняя и внутренняя среда, угрозы, модели

In order to more systematically and adequately investigate enterprise financial security level it is necessary to identify and classify the set of threats to the external and internal environment that affect the security level and conduct complex assessment of the state of threats and determine the level of interrelation between researched categories. So the complex analysis of financial security level is impossible without systematic study and simulation of threats in the enterprise activity. The paper proposes model of a complex dynamic assessment of threats to enterprises financial security, which has an analytical and applied aspect and includes the following steps:

1. Analysis of the indicative space and the formation of a system of indicators of threats of external and internal environment, which affect the enterprise financial

security level.

2. Assessment of the relevance and significance of the factors of threats of the external and internal environment that affect the financial security level.

3. Estimation of local and general integral indicators of threats of factors of external and internal environment on the basis of integral rating estimation.

4. Classification and interpretation of threats of external and internal environment.

5. Forecasting integral indicators of threats to the factor space of external and internal environment for the recognition of future development trends.

1. The task of this stage is the formation of classes of possible threats on the basis of monitoring the enterprise external and internal environment. At this stage, the predicted study interval and probable intervals of the impact of threats are determined.

2. The managers of the enterprise (experts) predict the size of potential losses in the adopted conditional units depending on the scenario of the development of threats and the probability of their implementation.

3. On the basis of expert information, the average potential damage from the threats is calculated and the threats are ranked in size of the average damage at each given interval of the study.

4. Next, the ranking of threats is done on the relevance and significance of the losses. Factors of the threats of internal environment are grouped into 5 aggregated groups: labor resources, means of production, capital, technologies, management.

Factors of external threats are grouped into seven major groups: social and political, state strategic position, macroeconomic, market, banking, fiscal, stock.

The general integral indicator of threats level of enterprise internal environment is formed as follows:

$$I_Z_VSR_{it} = (\{I_Z_VSR(TR)_{1_it}\}, \{I_Z_VSR(ZV)_{2_it}\}, \{I_Z_VSR(KAP)_{3_it}\}, \{I_Z_VSR(TECH)_{4_it}\}, \{I_Z_VSR(UPR)_{5_it}\})$$

where X_{i_j} – indicators of the first level of the system of estimation of local components of threats of enterprise internal environment; $I_Z_VSR_{j_it}$ – local threats

to the internal environment for i -th enterprise ($i = 1 \div 7$) in the relevant period of time t ($t = 1 \div 5$); $I_Z_VSR_{it}$ – complex general indicator of threats to the internal environment for i -th enterprise ($i = 1 \div 7$) in the relevant period of time t ($t = 1 \div 5$).

The general integral indicator of threats level of external environment is:

$$I_Z_ZSR_t = (\{I_Z_ZSR(SP)_{1_t}\}, \{I_Z_ZSR(SPD)_{2_t}\}, \{I_Z_ZSR(MACRO)_{3_t}\}, \\ \{I_Z_ZSR(RIN)_{4_t}\}, \{I_Z_ZSR(BANK)_{5_t}\}, \{I_Z_ZSR(FISC)_{6_t}\}, \{I_Z_ZSR(BIRG)_{7_t}\})$$

where X_{i_j} – indicators of the first level of the system of estimation of local components of threats of the enterprise external environment; $I_Z_ZSR_{j_t}$ – local components of threats of the enterprise external environment in the appropriate period of time t ($t = 1 \div 5$); $I_Z_ZSR_t$ – complex general indicator of the state of threats of the enterprise external environment in the appropriate period of time t ($t = 1 \div 5$).

The quantitative rating assessment for the level of threats can vary from 0 to 1.

$I = 0$ determines the ideal or reference state of threats to the enterprise financial security. The greater the value of the integral indicator approaches 0, the more favorable is this factor of threats affecting the financial security level.

Consequently, the proposed approach for assessment of internal and external threats level to enterprise financial security has the following advantages: the rating integrated assessments of the state of threats are immeasurable and normalized, and therefore allow us to evaluate and conduct spatial-comparative analysis, regardless of the characteristics of each individual enterprise and environmental factors that determine the targeted practical orientation of the developed toolkit and has an analytical and applied aspect.

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