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Accounting and analytical support as a risk management tool in the economic activity of a firm

Soporte contable y analítico como una herramienta para la gestión de riesgos en las actividades económicas de una empresa

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ABSTRACT:

The article presents an algorithm for identifying risks in asset management and the sources of its financing by means of improved accounting and analytical support. Purpose: to offer an objective system of risk assessment indicators based on financial statements. The methods of accounting, probability theory, financial management and financial analysis are used in the paper. Value: the measures of tactical and strategic financial management for mitigating repayment risk in company's economic activities are systemized.
Keywords: Financial reporting, accounting and analytical provision, repayment risk, system of indicators.

RESUMEN:

El artículo presenta un algoritmo para identificar los riesgos en la gestión de los activos y las fuentes de su financiación a través de una mejor contabilidad y soporte analítico. Objeto: ofrecer un sistema objetivo de indicadores de evaluación de riesgos basados en datos contables. Se utilizaron métodos de contabilidad, teoría de probabilidad, gestión financiera y análisis. Importancia científica: medidas sistemáticas de gestión financiera táctica y estratégica para nivelar el riesgo de crédito en las actividades económicas de una empresa
Palabras clave: Informes financieros, soporte contable y analítico, riesgo de crédito, un sistema de indicadores.

1. Introduction

Determining the indicators for assessing the risk of a commercial organization's activities is the subject of disputes among scientists around the world. The process of making management decisions in the face of uncertainty is directly related to accounting and analytical support, the high level of which allows minimizing risks in business. The important

elements in the system of accounting and analytical support are accounting (financial) reporting and methods of economic analysis. The concept of risk management can be seen as a revealing symptom of the increasing need for organizations to update their portfolio of risks and opportunities in a rapidly changing and highly competitive environment (Mazri, 2017). Accordingly, the choice of indicators for risk management has been widely discussed in both scientific and business communities, with, however, a lack of agreement about what indicators most obviously show the risk level. There are risks in any type of business. Risk is uncertainty about future events that can affect the achievement of the company's tactical, strategic, financial and other goals. Today, risk has become an integral part of life, including business. The issues of uncertainty and risks have been studied for a long time by various scientists and from different points of view. During this time, multivariate approaches to forecasting risks and protecting against them have been elaborated – it is the integration of risks, the aspiration to minimize them, prevent them, and so on. However, the problem of creating an efficient risk management system at the micro level is becoming increasingly topical.

Most of risk management frameworks are focused on the insurance or financial industry. There are three major shortcomings of the existing risk management frameworks – the absence of conceptual constructs, lack of corporate level focus and the absence of an adequate system of indices for risk evaluation (Kumar et al., 2016)

Since the 1990s, the problems of risk assessment have become relevant for Russia, which is related to the growing need to reflect not only past economic facts in the reporting, but also provide information on the future facts of economic life (Shevelev, 2014, p. 70). This constitutes a serious problem, since information about the future is not fully known and probabilistic. Accounting statements can be an element of accounting and analytical provision of a firm's risk management.

Many authors are currently giving consideration to the accounting and analytical support of risk management, based on financial and accounting statements. Thus, according to Fang et al. (2017), the accounting system has a significant impact on bank risk-taking in the Central and Eastern European (CEE) countries. Specifically, compliance with the IFRS induces large drop in bank risk, while increased domestic accounting laws lead to greater risk-taking. From this point of view, the IFRS Index is negatively related bank risk.

The purpose of the work is to develop an algorithm of accounting and analytical support as a tool for managing risks in the organization's economic activities. To achieve this goal, it is considered necessary to set and consequently fulfill the following tasks:

first task – to provide a review of literature on the problems of accounting and analytical support;

second task – to propose the author's methodology of accounting and analytical support as a risk management tool.

2. Analysis and risk management of the organization: comparison of existing approaches

The problems of risk assessment abroad became most discussed in the 20th century. One of the first authors to disclose the uncertainty and essence of risk is Knight, who wrote about this in the book "Risk, Uncertainty and Profit" (Knight, 1965). Under uncertainty, he understood "immeasurable uncertainty", which is unique given the absence of any opportunity to measure it.

In addition, the theory and practice of risk assessment is based on the relationship between the effectiveness of risk management, economic theories of choice in accordance with risk, financial economics and price theory of economic entities. Risk assessment can be interpreted as representations of risk orders, as well as absolute (monetary) coefficients of risk. The first approach can be called "axiomatic", since the risk costs are calculated in accordance with the functionality determined by a set of desirable properties. The risk cost is interpreted as a measure of risk and can be caused by the economic theory of price, formed under the influence of risks. The second approach is to contextualize the concerns of a risk

bearer by introducing it to a market where risks are traded (Tsanakas, & Desli, 2015).

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Another group of authors believes that it is objectively necessary to assess risk by means of using cost-benefit analysis indicators (CBA) that can be used to identify risk mitigation strategies, providing an appropriate compromise between the cost of implemented measures and the achieved risk mitigation (Špačková, & Straub, 2015).

The first form of systemic risk focuses on unraveling widespread disproportions and is illustrated by comprehensive literature on the existence of risks, vulnerabilities and imbalances in banking systems and the overall macrofinancial environment prior to historical financial crises. Early and late empirical literature identified general patterns in the underlying vulnerability that preceded financial crises (Mezeic, & Sarlin, 2017). Focusing on the presence of vulnerabilities and imbalances in the economy, early warning models can be used to foresee the probabilities of systemic financial crises in the future (Duca, & Peltonen, 2013). These models use a set of vulnerability and risk indicators to determine if the economy is in a vulnerable state.

Risk management operations, combining risk management and risk financing operations, are extremely powerful tools for modern risk management. The cost of such an operation for risk treatment is one of the fundamental factors for developing and implementing proactive and reactive risk management processes (Panagiotis, & Constantinos, 2014, p. 35).

According to modern approaches, there are 4 risk zones at the economic entity's level:

- risk-free zone (1) – characterized by zero or negligible losses;

- acceptable risk zone (2) – related to the level of losses within the Central Bank of Russia (CBR) refinancing rate;

- critical risk zone (3) – emerges when an organization can lose all current assets;

- disastrous risk zone (4) – related to such a state when all of the net assets can be lost and the first signs of bankruptcy emerge.

The most important management task is the ability to anticipate and prevent the emergence of problems, i.e. the ability to manage risks or be able to foresee weaknesses in the organization's activities, assess potential losses and elaborate adequate ways to exclude or minimize them (Endovitsky, 2009). Risk management is based on a comprehensive assessment of the risk factors associated with each type of activity. Given that all risks are related to the business value, while making managerial decisions, it is necessary to proceed from the fact that each decision has an ambiguous effect on the business value and corresponds to a certain ratio of risk and profitability. At the same time, depending on the goals at which management actions are aimed, risks can be transformed from one type to another and accordingly, different indicators should be controlled in the accounting (financial) statements, reflecting the risk level. On the other hand, a significant part of economic entities' activities risks has financial consequences and, accordingly, affects the firm's result indicators reflected in its financial statements (Sigidov, & Shchetkina, 2016).

One of the problems of risk management in a modern organization is the fact that risk handling in traditional approaches is generally rather defensive in that it concentrates on the protection of the firm against adverse financial scenarios (Gazert, & Martin, 2015).

The identification of the essence, classification and comparison of risk identification methods, based on the accounting data, are the subjects of many works written by domestic and foreign authors, in particular, Aman, & Rahman (2015), Schiff (2012) and others.

Thus, risk and uncertainty are inherent in the external environment. At the same time, accounting reports, systems, norms and regulations can contribute to the development of management decisions for its leveling. A variety of normative theories and descriptions of

overcoming risk and uncertainty prescribe their various consequences, which should be reflected in the framework of analytics and accounting (Sunder, 2015, p. 547).

The presented literature review of research on various risks in the economic activity of an organization testifies to the need for management in constantly changing external conditions. At the same time, each participant in such interaction makes management decisions in qualitative results of organization's activities' analysis, based on accounting and analytical support.

3. Methods

The research is based on scientific methodology, which includes a comprehensive and systematic approach to solving the problems of risk assessment, based on the data of accounting reports, as well as ensuring the unity of historical and logical analysis to provide the reliability of the research results. The authors of the research relied on the position of the leading Russian and foreign scientists in the field of accounting and risk management.

A comprehensive information base is required for effective risk management. Only the availability of the most accurate and reliable information provides an opportunity to take decisions to mitigate risks and predict the behavior of counterparties. Fully data-driven techniques provide construction practitioners and academicians with an easy and automated way of getting valuable empirical insights from attribute-based data extracted from unstructured textual injury reports (Tixier et al., 2017). Therefore, risk analysis should be built on pillars other than those indicated above, and in recent years, work has been conducted to establish risk analysis as a science based on a new platform. Many scholars have been involved in this development. Here accounting records could be used as a database for risk measurement (Aven, 2017).

At the same time, a combination of external and internal information flows accumulated in accounting and financial reporting is required. Financial reporting is an important source of information for external analysts, formed on the basis of general accounting rules. The requirements for disclosing more information are becoming dynamic. As the most recent document, it is possible to note the Decree of the Ministry of Finance of the Russian Federation No. PZ-9/2012 "On Disclosure of Information regarding the Risks of the Economic Activity of Organizations in the Annual Financial Statements" (Clause 13), which highlights the need for additional indicators and explanations for potential business risks, which the organization is exposed to. At the same time, according to the requirements of the Ministry of Finance of the Russian Federation, general information should be disclosed – on the risk exposure and the reasons for its occurrence, concentration risk, as well as the risk management mechanism (methods applied for risk assessment and mitigation).

The presence of risks can be attributed to the lack of a sufficiently high level of accounting and analytical support that facilitates the adoption of decisions to protect enterprises in various economic conditions. Accounting and analytical provision for risk management is the accounting and analytical provision procedures, including various types of accounting and methods of economic analysis, respectively, based on the formation of a balanced system of indicators. Those indicators are disclosed in the accounting (financial) statements, which, combined with the implemented procedures, can permit to timely identify weaknesses in the financial policies of the organization, exercise control over its potential risks, and take a tactical and strategic economic decision regarding the asset management and the sources of its financing (Cheglakova, 2010, p. 43). Moreover, to increase the reliability of information in the company's accounting and analytical support, it is required to determine the risks that can reduce it (Derun, 2016, p. 98).

It should be specifically noted that each interested external user of information in the economic entity's activity should possess certain skills of recognizing the presence or absence of a specific type of risk. Therefore, it is very important to know the indicators of the overall risk component of the organizations' balance sheet report. It can be a high concentration of assets in certain positions, a sharp increase or decrease in stock accounts' balances, cash and receivables, a slowdown in the turnover of current assets, the existence of a loss and receivables, unrealistic for collection, etc. Each group of assets and liabilities of

the balance sheet can be considered as a risk component in the structure of the organization's property.

Thus, non-current assets are considered important from the point of view of making strategic decisions. A property complex with a certain value can provide a strictly defined volume of sales, which is calculated on the basis of production capacity. The acquisition of new fixed assets is connected with a change in their value in the balance sheet and an increase in output. At the same time, analyzing the dynamic changes in fixed assets and non-current assets, in terms of the riskiness of each asset, it is advisable to highlight and it is desirable to disclose the following groups of assets in the explanatory notes to the financial statements:

- growth assets, which in the future will create a certain amount of added value;

- supporting assets that permit to maintain the results of the activity within the current limits;

- digressive assets, the value of which is decreasing. In the future, this trend may lead to a decrease in the financial result.

Current assets are also an important risk component in the structure of the organization's assets. Moreover, each component of this group has its own level of risk:

- monetary resources are treated as money stored in settlement accounts and cash department, also as cash equivalents. The currency and inflation risks are more typical for it, the leveling of which is based on the use of different protection mechanisms;

- accounts receivable are estimated in accordance the maturities of liabilities and changes in the value of this debt over time;

- stocks are considered from the point of view of their relevance, availability and timely reproduction in the process of production.

If a risk in the current assets' management is determined, attention should be paid to the maturity of liabilities, the availability of uncollectable receivables and market prices for stocks. It should also be considered that current assets are dependent on the sale of products and provided services. Therefore, when assessing its impact on the risk component level, it is necessary to consider its relationship with:

- the volume of sales;

- the rate of turnover;

- payment policy (which rules for payment by installments are applied in the organization);

- the level of risk, connected with maturity of short-term liabilities;

- the liquidity of stocks.

Owned capital, as well as other elements of the balance sheet, may be at risk. This is mainly due to its structure. Its level of protection can be determined by the following criteria:

- the amount of capital and its replenishment at the expense of the organization itself or investors;

- creation of reserve stocks;

- current and market value of the organization's shares in real time;

- change of sources in the owned capital's structure;

- change in the price of capital in the course of operations with securities;

- amount of reinvested profit.

Long-term sources of financing can be exposed to currency risk, since it can be presented in the balance sheet in different currencies. When assessing this risk component, it should be taken into account that long-term liabilities cannot be reflected in a certain accounting period, as well as its maintenance costs, which as a result can either reduce costs or overstate profits. At the same time, short-term sources of financing are less risk-prone than the long-term ones. It is important to manage it to maintain the level of solvency, creditworthiness and reduce the risk of bankruptcy of the organization.

For the timely detection of risks, if any, the authors suggest controlling the risks based on: 1) reliable information in the financial statements; 2) methods of analyzing the potential of the enterprise, which involves identifying inefficient assets and unrealistic incomes, as well as the presence or absence of risk; 3) indicators "net assets" and "quality level of net assets" to identify the risk zone; 4) analysis methods (balanced scorecard) to identify inefficient assets and liabilities to find and justify the stocks for its recovery or exclusion; 5) the choice of alternative solutions for risk management (transfer, refusal, etc.).

The sequence of procedures for identifying the presence of risk at an organization is presented in Table 1.

Table 1
Methods for detecting assumed risk in assets' management and sources
of its financing based on the analytical and accounting support

I stage of the author's methodology	
Checking the quality of indicators' formation in the accounting (financial) statements	Analysis of the dynamics and structure of the groups of assets and liabilities of an organization based on the use of well-known techniques for revealing the facts of "dressing" and "falsification" of the resulting performance indicators of an enterprise
II stage of the author's methodology	
Forming evaluation indicators (balanced scorecard)	The analysis is aimed at identifying the presence of risk, the type of risk in the context of risk components based on the specification of indicators in a corresponding statement
III stage of the author's methodology	
Determining the risk zone	There are 4 risk zone: 1 and 2, where OC ≥ NA, 3 – OC ≤ NA, 4 – NA > OC
IV stage of the author's methodology	
Economic solutions for management of assets and sources of its financing	The decisions can be divided by nature into operational and strategic ones, taking into account qualitative differences in the structure of assets and the sources of their formation

From Nithyanandhan, S. H., & Mansor, N. (2015). Self help groups and
women's empowerment. *Indian Journal of Social Development, 7*(2), 144–165.

Thus, to identify the presence of risk in the organization, first of all, it is necessary to check whether the principle of reliability is observed when forming the indicators in the accounting (financial) statements. Having checked the absence of facts of dressing and falsification, it is necessary to determine the presence of risk by means of evaluation criteria, characterizing the sufficiency of own funds for the discharge of liabilities, the profitability of current activity and the share of the main source of financing in aggregate sources. To specify the risks, it is recommended to calculate the simple relative indicators, proposed in Table 2:

Table 2
System of indicators to determine the presence of risk at an organization

No.	Indicator	Formula	Characteristics of the indicator
1	The coefficient of independence (dependence) from aggregate liabilities (C1)	$C1 = NIco + A/JD$	Characterizes the share of own funds in the total debt of the organization.

2	Profitability from current activities (C2)	C2 = MF/JD	Characterizes profitability from current activities.
3	Coefficient of profitability by fixed capital (C3)	C3 = (Pca + E%)/(LD + OC)	Characterizes the return on fixed capital before payment of taxes.
4	Coefficient of the ratio of own source of financing to total owned capital (C4)	C4 = UP/OC	Reflects the share of the main source of financing in the total amount of owned capital. Its optimum value is above 0.5.
Conventional designations, used in formulas		NIco – net income from the current operations, A –amortization, JD – joint debt, MF – money flow from the operations of the current activity, Pca – profit from the current activity before the payment of taxes, E% – expenditures on payments of interests, LD – long-term debt, OC – owned capital, UP – undistributed profits	

From *Enterprise risk Management* [Upravlenie riskami predpriyatiya],
in Russian, by E. A. Utkin, 2003, Moscow: TEIS.

Scientific literature presents various approaches to model building of a system of indicators for identifying a risk zone in the structure of assets and sources of financing of an economic entity.

Credit risks are directly related to the assessment of the efficiency of using the circulating assets of the organization. Therefore, taking into account the available data on the financial and economic activities of the organization in the accounting (financial) statements, as well as information provided in its Annexes, every element of current assets requires close attention while analyzing the efficiency of the use of circulating assets. To reduce the risk of an organization' creditworthiness, a three-level system of balanced indicators is proposed. During its formation, the possibility of its calculation was accounted for according to the data of accounting (financial) statements.

The system of first-level indicators should reflect the value of own circulating assets and the effectiveness of its use by means of indicators of turnover and profitability, the level of its use in production activities, the ability to support operating activities in case of production conversion. The approximate list is presented in Table 3.

Table 3
System of aggregate indicators, characterizing the efficiency of using the circulating assets

No.	Indicator	Formula	Line codes of statements
1	Amount of own circulating assets (net current capital) (OCA)	• $OCs + DT – NA$ • $CA – CT$	s. No. 1 (line 1300 + 1400 + 1530) – line 1100
2	Coefficient of provision of current assets by own assets (Coca)	OCA/CA	s. No. 1 (line 1300+ 1400+ 1530) – line 1100/line 1200
3	Coefficient of turning capability of current assets (CturCA)	D/CA	s. No. 1 line 1250/line 1200
4	Coefficient of asset turnover (Ctca)	R/CA	line 2110 s. No. 2/0.5 × (line 1200by + 1200ey s. No. 1)
5	Duration of current assets' turnover for the	$n/Ctca$	(0.5 × (line 1200by

	period (days) (Dtca)	or (n × CA)/R	+1200ey) s. No. 1 × n)/line 2110 s. No. 2
6	Coefficient of loading (fixing) of current assets (Cfix)	CA/R	0.5 × (line 1200by + 1200ey s. No. 1)/line 2110 s. No. 2
7	Profitability of current assets in terms of profit before payment of taxes (Pca)	$Pbefore\ taxes/CA$	[Line 2300 s. No. 2/(0.5 × (line 1200by + 1200ey) s. No. 1)] × 100%

From *Enterprise risk Management* [Upravlenie riskami predpriyatiya],
in Russian, by E. A Utkin, 2003, Moscow: TEIS.

The system of second-level indicators (private indicators) should comprehensively characterize the business activity of the organization, the profitability and the level of its use. It permits to identify a weakness in the structure of current assets by the speed of turnover and the duration of turnover in the context of each element.

The system of private indicators for individual components of circulating capital and sources of its financing with an algorithm for its calculation and line codes of disclosing indicators in the financial statements is presented in Table 4.

Table 4
Private indicators, characterizing the efficiency of using the
current assets, in the context of their main components

No.	Indicator	Formula	Line codes of statements
1	Coefficient of stock availability (Cs)	OCA/S	s. No. 1 (line 1300 + 1400 + 1530) − line 1100/line 1210
2	Coefficient of asset turnover (Ctassets)	OP/S	line 2120 s. No.2/0.5 × (line 1210by + 1210ey s. No. 1)
3	Duration of current assets turnover for the period (days) (Dtca)	$n/(Dtca)$ or $(n \times S)/OP$	(0.5 × (line 1210by + 1210ey) s. No. 1 × n)/line 2120 s. No. 2
4	Coefficient of short-term sources turnover (Cstt)	R/CT	line 2110 s. No. 2/0.5 × (total line 1510, 1520, 1540, 1550by + 1510, 1520, 1540, 1550ey s. No. 1)
5	Coefficient of short-term loans turnover (Ctstl)	R/STL	line 2110 s. No. 2/0.5 × (line 1510by + 1510ey s. No. 1)
6	Duration of short-term loans turnover for the period, days (Dtstl)	$n/Ctstl$ or $(n \times STL)/R$	(0.5 × (line 1510by + 1510ey) s. No. 1 × n)/line 2110 s. No. 2
7	Coefficient of payable accounts' turnover (Ctpa)	$R\ (OP)/PA$ (it can be calculated by revenue or cost of production)	line 2110 s. No. 2/0.5 × (line 1520by +1520ey s. No. 1) or line 2120 s. No. 2/0.5 × (line 1520by+1520ey s. No. 1)
8	Duration of payable accounts turnover for the period, days	$n/Ctpa$ or $(n \times PA)/R\ (OP)$	(0.5 × (line 1520by + 1520ey) s. No. 1 × n)/line 2110 (or 2120) s. No. 2

No.	Indicator	Formula	Line codes of statements
	(Dtpa)		
9	Duration of payable accounts turnover to the suppliers for the period, days (DtPAsupp)	$n/DtPAsupp$ or $(n \times PAsupp)/OP$	$(0.5 \times (PA\ supp\ by + PA\ supp\ ey)$ s. No. 1 $\times n)/$line 2120 s. No. 2
10	Material return (Mr)	R/MC	Line 2110 s. No. 2/line 5610 of Explanatory text
11	Material capacity (Mc)	MC/R	Line 5610 of the Explanatory Notes/line 2110 s. 2

From *Enterprise risk Management* [Upravlenie riskami predpriyatiya],
in Russian, by E. A Utkin, 2003, Moscow: TEIS.

A systematic approach to determining and analyzing the indicators can be implemented in terms of security, turnover and duration of turnover. It is also recommended to comply it with all elements of current assets (stocks, accounts receivable, monetary resources and equivalents). The third set of indicators involves studying the dynamics of the repayment risk components (revenues and profits), which are influenced by the level of diversion of financial resources into the main components of current assets (Table 5).

Table 5
The influence of the indicators of current assets by the level of their
use on the main risk components of an organization's activity results

No.	Indicator	Formula	Line codes of statements
1	Change in revenue due to the cost of material resources (ΔRMR)	$(MCa - MCb) \times (Rb/MCb)$	(Line 5610 of the Explanatory Notes for the fiscal year − line 5610 of the Explanatory Notes for previous year) × (line 2110 s. No. 2 for previous year/line 5610 of the Explanatory Notes for previous year)
2	Change in revenue due to the influence of material return (ΔRM)	$[(Ra/MCa) - (Rb/MCb)] \times MCa$	[(Line 2110 s. No. 2 for the fiscal year/line 5610 of the Explanatory Notes for the fiscal year) − (line 2110 s. No. 2 for the previous year/line 5610 of the Explanatory Notes for the previous year)] × line 5610 of the Explanatory Notes for the fiscal year
3	Change in revenue due to the influence of the cost of current assets (ΔRCA)	$(TAa - TAb) \times (Rb/TAb)$	[0.5 × (line 1200by + 1200ey s. No. 1) − 0.5 × (line 1200bpy + 1200by s. No. 1)] × [line 2110 s. No. 2 for the previous year/0.5 × (line 1200bpy + 1200by s. No. 1)]
4	Change in revenue due to the influence of current assets turnover (ΔRTuCA)	$[(Ra/TAa) - (Rb/TAb)] \times TAa$	{[Line 2110 s. No. 2 for the fiscal year/0.5 × (line 1200by + 1200ey s. No. 1)] − [line 2110 s. No. 2 for the previous year/0.5 × (line 1200bpy + 1200by s. No. 1)]} × [0.5 × (line 1200by+1200ey s. No. 1)]
5	Revenue per ruble of material costs (Rmc)	R/MC	Line 2110 s. No. 2/Line 5610 of the Explanatory Notes

6	Profit from sales per ruble of material costs (Pmc)	P/MC	Line 2200 s. No. 2/ Line 5610 of the Explanatory Notes
7	Increase in gross profit per 1 ruble of the increase in material costs ($\Delta GP\Delta mc$)	$(GPa - GPb)/MCa-MCb$	(Line 2110 s. No. 2 for the fiscal year – Line 2110 s. No. 2 for previous year)/(Line 5610 of the Explanatory Notes for the fiscal year – Line 5610 of the Explanatory Notes for the previous year
8	Increase in profits from the sale of products per 1 ruble of the increase in material costs ($\Delta I\Delta mc$)	$(Po-Pb)/(MCa-MCb)$	(Line 2200 s. No. 2 for the fiscal year – Line 2200 s. No. 2 for the previous year)/(Line 5610 of the Explanatory Notes for the fiscal year – line 5610 of the Explanatory Notes for the previous year)
Conventional designations, used in formulas in Tables 3, 4, 5	• R – revenue from sale of a product; GP – gross profit; P – profit from sales; • MC – material costs; S – stocks • TAa, TAb – annual average turnover assets of accounting and base periods • PA – payable accounts, PAsupp – payable accounts to suppliers • STL – short-term loans • NA – non-current assets; CA – current assets • FP – finished products; by – beginning of the year; ey – end of the year; n – period • bpy –beginning of the previous year		

From *Enterprise risk Management* [Upravlenie riskami predpriyatiya],
in Russian, by E. A Utkin, 2003, Moscow: TEIS.

The dynamic growth of the indicators presented in the table can positively characterize the work of an organization, namely, that production technologies are resource-saving, and stock, materials, etc. are used effectively.

4. Results

Accounting and analytical support of risk control consists of various types of accounting and economic analysis methods, respectively, based on the formation of a balanced system of indicators disclosed in accounting (financial) statements. Those indicators, combined with the implemented procedures, can permit to timely identify weaknesses in the financial policy of the organization, perform control over its potential risks, and adopt an economic tactical and strategic decision on managing assets and sources of financing.

The proposed author's methodology for identifying risks in managing assets and the sources of their financing, based on improving accounting and analytical support, includes four stages: the first stage is the assessment of the quality of formation of indicators in the organization's accounting (financial) reporting; the second stage is the formation of evaluation indicators (balanced scorecards) to identify possible risks; the third stage is the identification of the risk zone; the fourth stage is the systematization of economic decisions on asset management and sources of their financing.

The consecutive implementation of the presented stages will allow determining a particular assumed risk zone, at the same time, focusing on the amount of net assets and the quality of their formation.

While considering the results at each of the selected stages of the author's methodology for identifying risks in asset management and the sources of their financing, it is necessary to use the dynamics of one or another indicator. If the result value of each of the first three coefficients is less than 1 and rapidly decreases, the presence or absence of risks in the organization's activities can be assumed.

Within the framework of the study on the nature of risks in economic activity at the tactical

and strategic levels, the analysis of repayment risk becomes the most important. An objective assessment and consideration of possible risks of the borrower is an important component in its resources management. This may be reflected in determining the purpose of analyzing the assets and sources of their financing while identifying the repayment risk of external information users. The creditworthiness analysis plays an important role in determining the organization's exposure to repayment risk and its impact on financial statement indicators.

The analysis of the system of generalizing indicators that characterize the efficiency of using the current assets will reveal a weakness in the structure of current assets in terms of turnover speed and the duration of turnover in the context of each element (stocks, accounts receivable, monetary resources and equivalents).

In the context of stock analysis, it is necessary to disclose materials, products, finished products, semi-finished products of own production. Taking into account that current assets are financed mainly from short-term borrowed funds, it is considered necessary to investigate the effectiveness of its use in the context of short-term sources. It includes short-term loans and borrowings, payable accounts, and suppliers' payable accounts. In the system of private indicators, material consumption and material output are of great importance. These indicators permit to identify the presence of risk through the cost component of the organization's main activities.

The criterion for assessing the quality of formation of own capital will be the result of comparing own sources of capital investments with the value of non-current assets. The difference between own capital and the value of non-current assets can attract borrowed funds, as well as increase the efficiency of its own funds to develop business and reduce risk. In terms of balance, the excess of the value of the organization's own capital over the value of non-current assets means that current assets (liquid assets), net of debt, constitute the amount that can be invested in the organization's development (by converting all these assets into money).

The use of general and private systematized indicators, reflecting the basic indicators of the economic entities' activities, with a certain level of repayment risks, will allow developing management decisions aimed at their mitigation.

5. Discussion

Despite the variety of research on organization's risks in Russia and around the world, no classification of it exists. From the point of view of the tactical development of the enterprise, grouping risks by their level is becoming more important, and the activity of the enterprise is classified as risk-free, activities with permissible risks, critical risks, and activities with disastrous risks.

Risk management can be performed at the current level, based on financial reporting data; at the tactical level, based on the use of management accounting information; at the strategic level, which involves the evaluation of long-term prospects.

The regulation of the organization's net assets can be based on controlling the ratio of the value of own capital and borrowed one.

The management decision based on the results of the analysis can be formulated with respect to the qualitative differences. For example, decisions on assets acquisition can be based on different sources of financing. They can be either payable accounts or short-term loans and borrowings.

In the framework of operational decisions, steps can be taken to revise the optimal stock level, purchase or use of stocks, solve current production problems, accelerate asset turnover, increase margins, develop various schemes for repayment of receivables, use non-traditional forms of settlements with customers, etc.

Tactical management decisions include the change in the policy of settlements with debtors and creditors, the acquisition and use of non-current assets, short-term financial investments, etc.

Strategic decisions are aimed at long-term capital and financial investments, scientific development, etc.

6. Conclusions

Continuous business development requires the improvement of the system of accounting and analytical support for risk forecasting to promptly find solutions on changing strategies in asset management and the sources of their financing.

An organization's risk analysis may represent an algorithm for investigating the effectiveness of using its working assets in general, as well as in the context of its components.

Risk management is a complex of various but interrelated measures, taking into account the qualitative features of the structure and dynamics of the tactical and strategic working assets of an organization.

Due to a system of indicators characterizing the organization's potential, it is possible to single out the assets and liabilities, which are necessary for performing current activities and for the future, the assets and liabilities, which are critical, requiring protection and with acceptable risk.

The proposed algorithm for identifying risks in an economic entity's activity on the basis of a more detailed disclosure of information in accounting (financial) reporting and a balanced scorecard permits to consider and evaluate the impact of results on various controlled indicators at certain time intervals, to develop and adopt effective economic solutions that smooth out the influence of external negative conditions.

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