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FINANCIAL STATUS DIAGNOSIS AS AN ENTERPRISE MANAGEMENT INSTRUMENT

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diagnostics, indicators, enterprise, financial status, analysis, stages.

The stages of carrying out the process of financial diagnostics as a tool for ensuring the viability of enterprises are suggested. It is established that if you consistently adhere to the proposed steps, the company will be able to achieve effective viability. It has been determined that, in order to maintain a sound financial position, business leaders need to have timely diagnostics of financial performance indicators that will help identify existing problems in the enterprise and properly coordinate bankruptcy prevention activities. According to the aggregate balance, the type of financial stability of the studied enterprise is established, by determining the degree of sufficiency of own or borrowed working capital for production and sales activities. Diagnosis of financial and economic indicators of the investigated enterprise is carried out on the basis of assessment of property status, liquidity (solvency), financial stability, profitability and business activity. It has been established that financial diagnostics, as a tool for ensuring the viability of the enterprise, allows to identify deficiencies and problems in the activity of the enterprise, and through systematic financial analysis, it is possible to accurately diagnose and identify the causes of any negative or positive indicators and trends. It is determined that to make rational and effective management decisions to achieve all the goals and objectives of the enterprise, it is necessary to conduct financial diagnostics of the entity.

ДІАГНОСТИКА ФІНАНСОВОГО СТАНУ ЯК ІНСТРУМЕНТ УПРАВЛІННЯ ЖИТТЄЗДАТНІСТЮ ПІДПРИЄМСТВА

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Ключові слова:

діагностика, показники, підприємство, фінансовий стан, аналіз, етапи.

Запропоновано етапи проведення процесу фінансової діагностики як інструмента забезпечення життєздатності на підприємствах. Установлено, якщо послідовно дотримуватися запропонованих етапів, підприємство зможе досягти ефективного забезпечення життєздатності. Визначено, для того, щоб утримувати стійкий фінансовий стан, керівникам суб'єктів господарювання потрібно вчасно проводити діагностику показників фінансової діяльності, яка допоможе виявити існуючі проблеми на підприємстві та правильно скоординувати дії щодо запобігання банкрутства. За даними агрегованого балансу встановлено тип фінансової стійкості досліджуваного підприємства через визначення ступеня достатності власних чи позичених оборотних засобів для здійснення виробничо-збутової діяльності. Проведено діагностику фінансово-економічних показників досліджуваного підприємства на основі оцінки майнового стану, ліквідності (платоспроможності), фінансової стійкості, рентабельності та ділової активності. Установлено, що фінансова діагностика як інструмент забезпечення життєздатності підприємства дає змогу виявити недоліки та проблемні місця в діяльності підприємства, а за допомогою системного фінансового аналізу можна точно встановити діагноз та виявити причини будь-яких негативних або позитивних показників та тенденцій. Визначено, щоб раціонально та ефективно приймати управлінські рішення для досягнення усіх цілей та завдань підприємства, необхідно проводити фінансову діагностику суб'єкта господарювання.

Statement of the problem

Under modern business conditions, enterprises face the problem of survival in the market. In order to maintain a stable financial position, business leaders need to timely diagnose financial performance indicators, which will help identify existing problems in the company and properly coordinate actions to prevent bankruptcy.

Analysis of recent studies and publications

Many economists today deal with diagnostic issues. For example, M. O. Kyzym, V. A. Zabrodsky, V. A. Zinchenko and Yu. S. Kopchak consider diagnostics of a financial condition of the enterprise as process which gives the chance to reveal disturbances of proportions in phases of a cycle of the capital at the enterprise at an early stage and establish the causes that caused them [1].

In their work, L. M. Saprykin and K. I. Shipil consider the diagnosis of the financial condition of the enterprise as a systematic and comprehensive assessment of its activities using various methods of analysis. In turn, in the methods of financial diagnostics, they see a set of scientific and methodological tools for studying the financial condition of the enterprise [2].

Scientist D. Savchuk believes that financial diagnostics is carried out at different stages of the emergence and development of the financial crisis at the enterprise: at the stage of early warning of the financial crisis; at the stage of possible pre-trial rehabilitation; in the process of bankruptcy proceedings, in particular, during the implementation of the procedure for disposing of the debtor's property; in the process of developing a remediation plan and conducting a remediation audit; to identify signs of fictitious bankruptcy, bankruptcy, concealment of persistent financial insolvency, illegal actions in case of bankruptcy [3].

But such economists as V. V. Biba and T. V. Loza believe that the diagnosis of the enterprise should be based on indicators of financial and economic condition of the enterprise: indicators of property status, liquidity and solvency, financial stability, profitability and business activity [4]. However, in our opinion, this should also include indicators of innovation and investment status of the enterprise.

Researchers M. D. Bilyk, O. V. Pavlovskaya, N. M. Prytulyak and N. Yu. Nevmerzhytska believes that the diagnosis of the financial condition of the enterprise should be carried out systematically and using various types of models and methods that will structure and identify the relationships between key indicators. Thus, they distinguish three main types of models: descriptive, predicative and normative [5].

Economists have also paid a lot of attention to the study of the viability of the enterprise. Yes, Yu. G. Lysenko,

V. N. Timohin, R. A. Rudensky interprets viability as the possibility of functioning of the economic system (ES) for an unlimited period of time under the influence of perturbing factors at an acceptable level of efficiency [6].

Scientist V. Martynenko believes that the main purpose of maintaining the viability of the enterprise is to avoid losses [7]. N. V. Galkina considers the concept of viability of the enterprise as a socio-economic system, but from the standpoint of its innovative potential with an emphasis on the dominant importance of such an elusive resource as a leader. The main tool to ensure the viability of the enterprise should be a set of management functions for the formation of the innovation environment [8].

According to S. I. Savchuk, the viability of the enterprise is its ability to carry out the process of functioning at the expense of its own resources in the long run [9].

However, many issues related to the viability of the enterprise remain unexplored.

Objectives of the article

The objective of the article is to improve the diagnosis of the financial condition of the enterprise as a tool for managing its viability. To achieve this goal, the following tasks should be solved: to suggest the stages of the process of ensuring the viability of the enterprise; determine the type of financial stability and diagnose the financial performance of the enterprise.

The main material of the research

The viability of an industrial enterprise depends on ensuring its solvency, financial stability, business activity, profitability, competitiveness. The current liquidity ratio is considered the most important in assessing the viability of an industrial enterprise [10].

We will diagnose the financial condition of the enterprise LLC SPE "Energomash" and determine its viability. But, before carrying out diagnostics at the researched enterprise we will allocate a number of stages which need to be followed at diagnostics for achievement of effective maintenance of viability of the enterprise.

We offer the following stages of the process of ensuring the viability of the enterprise (Fig. 1).

To conduct financial diagnostics at the enterprise, we first determine the type of financial stability of the enterprise by determining the degree of sufficiency of own or borrowed working capital to perform production and marketing activities. In this case, the estimated indicators will be the following [11]: excess or lack of necessary for the formation of stocks and cover the costs of economic activity of the enterprise from the following sources: own working capital; own working capital, as well as medium-term and long-term loans and other loans; the total amount of working capital.

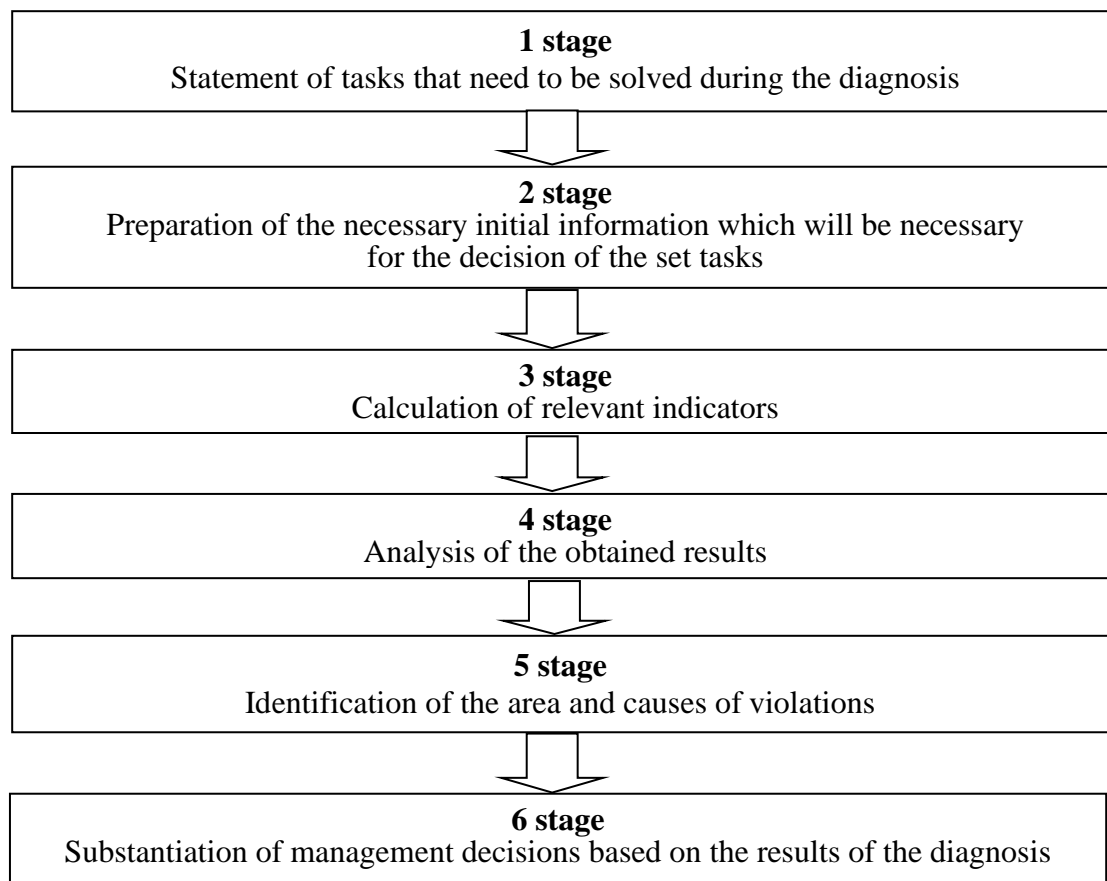


Fig. 1. Stages of the process of financial diagnostics at the enterprise as a tool to ensure its viability
Note: developed by the authors

Depending on the possibility of financing stocks with these sources, five zones of financial stability are defined [11]:

- a) absolute financial stability – a situation where the company has enough working capital for normal and productive operation;
- b) the zone of normal financial stability is a situation when the company uses almost only its own working capital to form stocks and ensure operating costs;
- c) the zone of unstable financial situation is a situation when the company does not have enough working capital

to ensure normal operation, so it needs to use medium-term and long-term borrowed funds;

- d) the zone of critical financial condition is a situation when the enterprise uses not only medium-term and long-term, but also short-term loans to finance its activities;
- e) the zone of financial crisis is a situation when the company is unable to provide financing for its activities, neither its own nor borrowed funds, i.e. the company is on the verge of bankruptcy.

According to the aggregate balance sheet, determine the type of financial stability of the studied enterprise.

Table 1 – Determining the type of financial stability of LLC SPE "Energomash" for 2018 (UAH)

№ s/n	Indicators	Beginning of 2018	The end of 2018
1	Equity	1680558	2686070
2	Non-current assets	1021386	1231380
3	Own working capital (1-2)	659172	1454690
4	Long-term liabilities	183313	219912
5	Availability of own and long-term sources of stock coverage (3+4)	842485	1674602
6	Short-term loans and borrowings	1965862	5339641
7	The total size of the main sources of stock coverage (5+6)	2808347	7014243
8	Stocks	216319	484777
9	Excess (+) or lack (-) of working capital (3-8)	442853	969913
10	Excess (+) or lack (-) of own funds and long-term loans and borrowings (5-8)	626166	1189825
11	Excess (+) or lack (-) of major sources of stock coverage (7-8)	2592028	6529466

Note: calculated by the authors on the basis of financial statements of the enterprise

After analyzing the financial condition of the studied enterprise, we can conclude that the enterprise has absolute financial stability, ie the company has enough working capital for normal and productive operation.

Now we will diagnose the financial performance of the company LLC "SPE Energomash" for the last two years and draw the appropriate conclusions.

To do this, use the main indicators of financial and economic condition of the enterprise (Table 2).

Table 2 – The main indicators of diagnosis of financial and economic condition of the enterprise

Indicators	Calculation formula	Normative value
1	2	3
Assessment of property status		
Property of the enterprise	Currency balance	magnification
Depreciation rate of fixed assets	Depreciation / Initial cost of fixed assets	$\leq 0,5$
Fixed assets renewal ratio	Put into operation fixed assets / Initial cost of fixed assets	magnification
Liquidity assessment (solvency)		
Equity	The result of 1 section of the liabilities of the Balance Sheet	magnification
Coverage ratio	Working capital / Current liabilities	>1 (2-2,5)
Rapid liquidity ratio	Medium and highly liquid assets / Current liabilities	0,5-0,8
Absolute liquidity ratio	Cash / Current liabilities	>0 , (0,25-0,35)
Assessment of financial stability		
Coefficient of financial autonomy	Equity / Current liabilities	$\geq 0,5$
Debt capital concentration ratio	Borrowed funds / Balance sheet currency	$\leq 0,5$
Financial risk ratio	Borrowed funds / Equity	<1 , decrease
Coefficient of financial stability	Equity / Borrowed funds	≥ 1
Profitability assessment		
Profitability of sales	Gross profit / Sales revenue	magnification
Profitability of the main activity	Net income / Average assets	magnification
Return on equity	Net income / Average value of equity	magnification
Assessment of business activity		
Payback period of equity	100 / Return on equity	decrease
Return on assets	Production volume / Average annual cost of fixed assets	magnification

Note: generated by authors based on [12]

Now let's calculate the financial and economic indicators of the company LLC SPE "Energomash" for 2017-2018 (Table 3).

Table 3 – Calculation of financial and economic indicators of LLC SPE "Energomash" for 2017-2018.

Indicators	2017	2018	Deviation
1	2	3	4
Assessment of property status			
Property of the enterprise	3829733	8245623	115%
Depreciation rate of fixed assets	0,28	0,37	32%
Fixed assets renewal ratio	0,72	0,63	-12,5%
Liquidity assessment (solvency)			
Equity	1680558	2686070	59,83%
Coverage ratio	0,02	0,002	-90%
Rapid liquidity ratio	1,34	1,22	-8,96%
Absolute liquidity ratio	0,02	0,002	-90%
Assessment of financial stability			
Coefficient of financial autonomy	0,44	0,33	-25%
Debt capital concentration ratio	0,56	0,67	19%
Financial risk ratio	1,28	2,07	61,72%
Coefficient of financial stability	0,08	0,48	500%
Profitability assessment			
Profitability of sales	0,14	0,17	21%
Profitability of the main activity	0,12	0,18	50%
Return on equity	0,24	0,24	-
Assessment of business activity			
Payback period of equity	416	416	-
Return on assets	4,52	9,45	109%

Note: calculated by the authors on the basis of financial statements of the enterprise

The calculations show that the company's property in 2018 increased by 115% compared to the previous year. The increase in the rate of depreciation of fixed assets of the investigated enterprise by 32% in 2018 characterizes the deterioration of the material and technical base of the enterprise, but this indicator does not exceed the normative value.

As for equity, the company increased it by 59.83% in 2018 compared to 2017. The calculated coverage ratio, which tended to decrease and did not enter the regulatory value, indicates that the solvency of the company is problematic, because current assets are not sufficient to meet current liabilities.

Regarding the assessment of profitability on the calculated indicators, we can say that the company is profitable, as evidenced by the increase in profitability of sales and core business.

The assessment of financial stability showed that the value of the coefficient of financial autonomy indicated that at the end of 2018 the share of equity in the balance sheet currency is 33%. The coefficient of concentration of borrowed capital,

respectively, increased from 0.56 to 0.67 and indicates an increase in the level of financial dependence of the company on creditors. The financial stability ratio, although not within the normative value, tends to increase. So in 2018 it amounted to 0.48. However, the company should pay attention to increasing the likelihood of financial risks.

The determined financial and economic indicators at the researched enterprise can serve as elements of forecasting of a condition of viability of the enterprise in the following researches.

Conclusions

Thus, financial diagnostics, as a tool to ensure the viability of the enterprise, allows to identify shortcomings and problems in the enterprise, and with the help of systematic financial analysis can accurately diagnose and identify the causes of any negative or positive indicators and trends. In order to rationally and effectively make management decisions to achieve all the goals and objectives of the enterprise, it is necessary to conduct a financial diagnosis of the entity.

References

1. Kizim, M.A., Zabrodsky, V.A., Zinchenko, V.A., Kopchak, Y.S. (2003). Otsinka i diahnostryka finansovoyi stiykosti pidpryyemstva: monohrafiya [Assessment and diagnostics of financial stability of the enterprise: a monograph]. Kharkiv: INZHEK Publishing House [in Ukrainian].
2. Saprykina, L.M., Shipil K.I. (2012). Diahnostryka finansovoho stanu pidpryyemstva yak osnova zabezpechennya yoho ekonomichnoyi bezpeky [Diagnosis of the financial state of the enterprise as a basis for ensuring its economic security]. *Efektivna ekonomika – An efficient economy*, 11. Retrieved from: <http://www.economy.nayka.com.ua/?op=1&z=1577> [in Ukrainian].
3. Savchuk, D. (2014). Finansova diahnostryka yak skladova antykryzovoho kontrolinhu na pidpryyemstvi [Financial diagnostics as a component of crisis control at the enterprise]. *Ekonomist – Economist*, 11, 41-44.
4. Biba, V.V., Vine, T.V. (2015). Diahnostryka ta prohnozuvannya finansovo-ekonomichnoho stanu pidpryyemstva [Diagnosis and forecasting of the financial and economic state of the enterprise]. *Ekonomika ta derzhava – Economy and the State*, 5, 110-113 [in Ukrainian].
5. Bilyk, M.D., Pavlovskaya, O.V., Pryvalyak, N.M., Nevmerzhitskaya, N. Yu. (2005). Finansovyy analiz: navch.posib [Financial Analysis: Tutorial]. Kyiv: KNEU [in Ukrainian].
6. Lysenko, Yu.G., Timohin, V.N., Rudensky R.A. (2009). Metodolohyya modelyrovannya zhyznesposobnykh system v ékonomyke: monohrafiya [A methodology for modeling viable systems in economics: a monograph]. Donetsk: Southeast Ltd. [in Ukrainian].
7. Martynenko, V.P. (2006). Stratehiya zhytlyezdatnosti pidpryyemstv promyslovosti: navch. posib. [Sustainability Strategy for Industrial Enterprises: Tutorial. Tool]. Kyiv: Center for Educational Literature [in Ukrainian].
8. Galkina, N.V. (2019). Obespechenye zhyznesposobnosti predpryyatyya v uslovnyakh ynnovatsyonnoho tekhnolohycheskoho razvytya [Ensuring the viability of an enterprise in the conditions of innovative technological development]. *Yzvestyya vuzov. Hornyy zhurnal – Higher education news. Mountain Journal*, 5, 83–91 [in Ukrainian].
9. Savchuk, S.I. (2003). O sootnoshenyy ponyatyy konkurentosposobnosti produktsyy y predpryyatyy. Metodolohycheskiye aspekty [On the relation between the concepts of competitiveness of products and enterprises. Methodological aspects]. *Ekonomika: problemy teorii ta praktyky – Economics: problems of theory and practice*, 186(1), 57–68 [in Ukrainian].
10. Andryushchenko, I.E. (2017). Praktychna realizatsiya metodolohichnoho pidkhodu shchodo otsinyuvannya zhytlyezdatnosti promyslovoho pidpryyemstva. [Practical implementation of a methodological approach to assessing the viability of an industrial enterprise]. *Investytsiyi: praktyka ta dosvid – Investment: practice and experience*, 3, 38-41 [in Ukrainian].
11. Cherep, A.V. Khudoley, L.V. (2015). Osoblyvosti otsinky finansovo-ekonomichnoyi bezpeky pidpryyemstv mashynobuduvannya [Features of assessment of financial and economic security of machine-building enterprises]. *Visnyk ZNU. Ekonomichni nauky – ZNU Bulletin. Economic sciences*, 3 (27), 33-40 [in Ukrainian].
12. Tyutyunnik, Yu. M., Dorogan-Pisarenko, L. O., Tyutyunnik, S. V. (2016). Finansovyy analiz: navch. posib [Financial analysis: textbook. Tool]. Poltava: PDAA [in Ukrainian].