УПРАВЛІННЯ ПІДПРИЄМСТВОМ

UDC 658.338.1

T. M. Kovalchuk, Doctor of Economics,
Professor,
A. I. Verhun, Candidate of Economic Sciences,
Associate Professor

ANALYSIS OF THE FINANCIAL CONDITION OF ENTERPRISES BY PHASES OF THEIR LIFE CYCLE

Urgency of the research. Solving administrative tasks related to the ranking of enterprises according to their financial condition predetermines the objective need to use methodical tools of financial analysis.

Target setting. An important factor in the financial situation that needs to be taken into account when developing the analysis techniques to ensure the comparability of enterprises is the phase of their lifecycle.

Actual scientific researches and issue analysis. Scientists such as L. Bernstein, G. Foster, E. Helfert, J. Wild, K. R. Subramanyam and others made a significant contribution to the development of methods for analyzing the indicators of financial status.

Uninvestigated parts of general matters defining. At the same time, little attention is paid to the issue of developing a method of comparative analysis of the financial condition of the phases of the enterprise's life cycle.

The research objective. The substantiation of the method of comparative analysis of the financial condition of enterprises, taking into account the phases of their life cycle on the basis of the method of analysis of hierarchies.

The statement of basic materials. The method of analysis of hierarchies developed a method of comparative analysis of the financial condition of enterprises located at different phases of the life cycle.

Conclusions. The use of this methodological approach allows you to take into account such an important factor in the financial condition of the enterprise as the phase of its life cycle and to provide decision-makers with a reasonable criterion as an integral indicator for the analysis of enterprises at different stages of development.

A comparative analysis of the financial condition on the basis of the proposed methodology can be carried out within the framework of strategic financial analysis and analysis of investment attractiveness of enterprises.

Keywords: life cycle phases; financial condition; financial ratios; Analytic Hierarchy Process.

УДК 658.338.1

Т. М. Ковальчук, д. е. н.,
професор,
А. І. Вергун, к. е. н.,
доцент

АНАЛІЗ ФІНАНСОВОГО СТАНУ ПІДПРИЄМСТВ ЗА ФАЗАМИ ЇХ ЖИТТЄВОГО ЦИКЛУ

Актуальність теми дослідження. Вирішення управлінських задач, пов'язаних із ранжуванням підприємств за їх фінансовим станом зумовлює об'єктивну необхідність використання методичного інструментарію фінансового аналізу.

Постановка проблеми. Важливим фактором фінансового стану, який необхідно враховувати при розробці методик аналізу для забезпечення порівнянності підприємств є фаза їх життєвого циклу.

Аналіз останніх досліджень і публікацій. Такі вчені як Л. Бернстайн, Г. Фостер, Е. Хелферт, Дж. Уайлд, К. Р. Субраманям та інші внесли значний внесок у розробку методик аналізу показників фінансового стану.

Виділення недосліджених частин загальної проблеми. У той же час мало уваги приділяється питанню розробки методики порівняльного аналізу фінансового стану за фазами життєвого циклу підприємства.

Постановка завдання. Обґрунтування методики порівняльного аналізу фінансового стану підприємств, що враховує фази їх життєвого циклу на основі методу аналізу ієрархій.

Викладення основного матеріалу. На основі методу аналізу ієрархій розроблено методику порівняльного аналізу фінансового стану підприємств, що знаходяться на різних фазах життєвого циклу.

Висновки. Запропонована методика дозволяє враховувати такий важливий фактор фінансового стану підприємства, як фаза його життєвого циклу і надавати особам, які приймають рішення зважений критерій в якості інтегрального показника для аналізу підприємств, що знаходяться на різних етапах розвитку.

Порівняльний аналіз фінансового стану на основі запропонованої методики може проводитись в рамках стратегічного фінансового аналізу та аналізу інвестиційної привабливості підприємств.

Ключові слова: фази життєвого циклу; фінансовий стан; фінансові коефіцієнти; метод аналізу ієрархій.

Urgency of the research. In the practice of making managerial decisions on competitiveness, creditworthiness, investment attractiveness and performance, there is a need for rating companies according to their financial status using financial analysis techniques. In connection with this, there is a need to develop adaptive methods of comparative analysis of the financial condition of enterprises.

Target setting. Existing techniques for an integrated assessment of a financial condition are based on the use of groups of indicators and provide for the definition of a generalizing integral indicator of the financial condition, which is a balanced criterion for evaluating a complex system, provides an opportunity to conveniently track the dynamics of the financial condition of an individual enterprise and

УПРАВЛІННЯ ПІДПРИЄМСТВОМ

determine the rank of enterprises according to this criterion. However, the problem of the objectivity of assessments of the financial condition arises if the life cycle of the comparable enterprises is not taken into account. In fact, such an important factor is ignored as the stage of development of enterprises, which violates the conditions of comparability.

Actual scientific researches and issue analysis. The issues of comparative estimation of the financial condition of enterprises were dealt with by such scientists as L. Bernstein [2], G. Foster [3], E. Helfert [5], J. Wild [10], K. R. Subramanyam [10] and others.

Univestigated parts of general matters defining. At the same time, beyond the attention of researchers there remains the issue of developing a method of comparative analysis of the financial condition of the phases of the company's life cycle (PLC). It should be noted that the comparability of financial condition of enterprises can be ensured under one of the following conditions: the same PLC for all investigated enterprises; a correct interpretation of the values of the indicators of the financial status of enterprises with different PLC s, which requires an analysis of the construction and consideration of a complex system of factors for different enterprises of the company and the implementation of heuristic estimates (this is associated with a high probability of error); correction of the analysis method, which reflects the features of each PLC. At different phases, enterprises have distinct goals, tasks and problems, the need to consider which forms the requirements for methodological analysis of financial condition.

The research objectives. The purpose of the paper is to justify the method of comparative analysis of the financial condition of enterprises, taking into account the phases of their life cycle on the basis of the analytic hierarchy process**.**

The statement of basic materials. The justification of the system of indicators is based on the approaches to understanding the essence of the financial condition. In this study, we proceed from the logic that this category characterizes the state of assets, liabilities and equity (as well as their interrelations) of an organization reflected in its financial statements. The most important characteristics of the financial condition of an enterprise are the efficiency of the use of assets, reflected in the system of indicators of business activity and profitability, its liquidity and financial stability [2; 3; 5; 10].

These characteristics vary depending on which stage of development (at which phase of the life cycle) the enterprise is having. Analysis of the research of the company's life cycle [1; 4; 6; 7; 8] shows that it can be represented by the stages of emergence, growth, maturity and decline. Each of them reflects the special conditions of the company's activity (state of its financial resources, technical condition, volumes of activity, level of financial stability and solvency, etc.) and, due to them, relevant for each stage of the needs and tasks. The latter largely determines the requirements for the financial condition and its analysis at each stage.

For a comparative analysis of the financial status of enterprises in different phases of the life cycle, it is proposed to use the Analytic Hierarchy Process (AHP), which is intended for modeling and solving multicriteria decision-making problems. One of the advantages of the AHP is that it allows you to combine the qualitative characteristics of different phases of the life cycle and quantitative indicators of the financial condition.

To make a decision on this method, its decomposition is carried out in the following sequence [9, p. 85]:

1. Identification of the problem.

2. Structuring the decision hierarchy (representing the goal of the solution) through the intermediate levels (the criteria on which the following elements depend) and to the lowest level (which is usually a set of alternatives).

3. Construction of the matrix of pairwise comparisons (each element at the upper level is used to compare the elements of the level, which is directly below it relative to it).

4. Use of prioritized comparisons for weighing priorities located directly below this level. This is done for each item. After that for each item of the lower level it is added to it weighted values and determines a general or global priority. The process of weighing and adding continues until the final priorities of the lowest-level alternatives are identified.

The ultimate goal of the AHP method is to solve the problem of ranking the aggregate of enterprises located at different PLCs in terms of the integral index of financial condition.

УПРАВЛІННЯ ПІДПРИЄМСТВОМ

The assessment of the financial condition is based on the subsystems of indicators of business activity and profitability, liquidity, financial stability. When forming them, it is necessary to adhere to such key approaches. The indicators should reflect the most significant aspects of the financial condition of the enterprise, reflect the efficiency of the use of resources and the financial risk of their formation, the number of indicators should not be too large to avoid duplication and ineffective structuring of information and, accordingly, complicate interpretation. In addition, a comparative analysis of the financial situation of different enterprises may be correct given the use of relative indicators.

As for the subsystem of indicators of business activity and profitability, it should generally reflect such an aspect of the financial condition as the efficiency of the use of resources. Efficiency of resources and their separate components (non-current assets, current assets, stocks, receivables, etc.) is determined by the indicators of turnover, turnover terms, and the load of these resources in circulation. These indicators reflect different aspects of this efficiency (the number of revolutions per period, the number of days in one turnover, the level of attraction of the corresponding resource in turnover), but at the stage of interpretation of the results give the same conclusions. Therefore, the choice of a particular indicator will have a greater significance in terms of the methodology for its calculation. In our opinion, it is sufficient to calculate the coefficients of turnover. With regard to objects, it is important to reflect the effectiveness of all assets, including - current assets, and funds in the calculations. Another aspect of efficiency is determined by profitability indicators. The turnover of assets and the return on total capital are to some extent duplicated, but the last indicator, determined by net profit, generalizes all aspects of operational, investment and financial activity and gives a more complete description of the efficiency of activity during the reporting period.

Taking into account the above, for the subsystem of business activity and profitability, a set of indicators is proposed, which includes the turnover rate of current assets, the coefficient of turnover of accounts receivable, the coefficient of return on total capital.

The first subsystem is closely linked to the subsystem of liquidity indicators: liquidity is conditioned by the effectiveness of activities, in turn, the effectiveness depends on the structure of assets (which determines their liquidity). On the other hand, liquidity risk is associated with insolvency risk. It can be determined in the long run by the results of the analysis of financial sustainability. In practice, the liquidity analysis calculates such relative indicators as the general coverage ratio, the rate of rapid liquidity, the cash ratio, the ratio of the independent (secured) liquidity, the share of current assets in the total assets, the share of inventories in working assets, relative indicators, determined on the basis of the indicator working capital. The first three indicators, which reflect three levels of coverage of current liabilities, have become the most widespread.

The methods of analysis of financial stability have received significant development. There are about 40 indicators in the literature. The analysis of these indicators systems among the most used indicators makes it possible to allocate the following: the coefficient of independence, the coefficient of maneuverability of equity capital, the coefficient of long-term attraction of borrowed funds, the coefficient of the ratio of attracted and equity capital, the ratio of financial leverage. However, the last two indicators have the same economic content - characterize the level of financial risk, often the methods of their calculation also coincide.in addition, the risk, determined by the ratio of attracted and equity capital, can also be determined by the ratio of own and aggregate capital (the coefficient of financial independence). In view of this, the system will be informative enough to include the first three indicators.

Thus, the lower level of the hierarchy implies a comparison based on the following subcriteria: the turnover rate of current assets (Tca), turnover rate of accounts receivable (Tr), the coefficient of return on total capital (Rc); current ratio (CRr), quick ratio (Qr), cash ratio (Cr); independence coefficient (Ci), maneuverability factor of equity (Me), long-term borrowing factor (Cbf).

In view of the above structured hierarchy of analysis of the financial condition will look like this scheme (Fig. 1).

We believe that when substantiating the priorities of the second (AP, L, FS) and third (Tca, Tr, Rc, CRr, Qr, Cr, Ci, Me, Cbf) levels of the structured hierarchy of the integral index of financial condition it is necessary to proceed from the relevance of the tasks that occur in the enterprise in the appropriate phase of the life cycle. Elements related to the most problematic issues should receive the highest priori-

УПРАВЛІННЯ ПІДПРИЄМСТВОМ

ty and vice versa. Such an approach would mean that the best financial status will be shown by those companies that are best suited for the tasks relevant to that phase of the life cycle, on what they are.
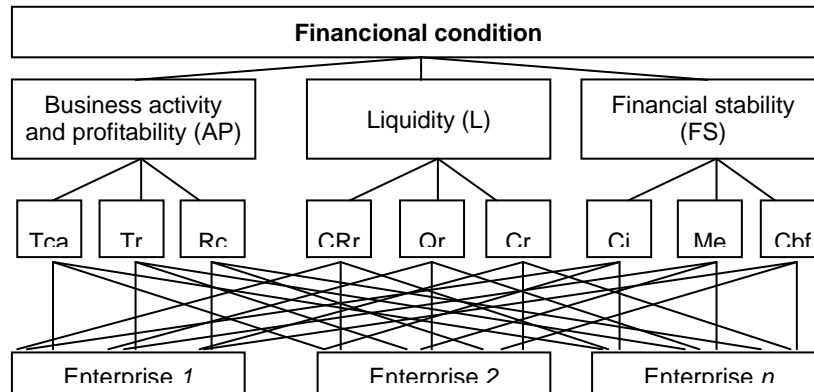

Fig. 1. Hierarchical model of the analysis of the financial condition

Taking into account the features of each phase of the life cycle and important tasks for enterprises at each phase, the priority of elements 2 and 3 levels is grounded. They are reflected in matrices of pair-wise comparisons of elements 2 and 3 for different phases of the enterprise life cycle (Tab. 1 and 2).

Table 1
Matrixes of pair-wise comparisons of elements of level 2 by phases of the life cycle

Elements of the 2nd level of the hierar-chical model	Emergence			Growth			Maturity			Decline		
	AP	L	FS	AP	L	FS	AP	L	FS	AP	L	FS
Business activity and profitability (AP)	1	5	7	1	5	3	1	1	1/3	1	1/4	1/3
Liquidity (L)	1/5	1	3	1/5	1	1/3	1	1	1/3	4	1	3
Financial Stability (FS)	1/7	1/3	1	1/3	3	1	3	3	1	3	1/3	1

Table 2
Matrixes of pair-wise comparisons of elements of level 3 by phases of the life cycle

Elements of Level 3 subsystem "Busi-ness activity and profitability"	Emergence			Growth			Maturity			Decline		
	Tca	Tr	Rc	Tca	Tr	Rc	Tca	Tr	Rc	Tca	Tr	Rc
Turnover rate of current assets (Tca)	1	3	7	1	2	1/5	1	3	4	1	1/2	1/3
Turnover rate of accounts receivable (Tr)	1/3	1	5	1/2	1	1/4	1/3	1	2	2	1	1/2
Coefficient of return on total capital (Rc)	1/7	1/5	1	5	4	1	1/4	1/2	1	3	2	1
Elements of Level 3 subsystem"Liquidity"	**Cr**	**Qr**	**CRr**	**Cr**	**Qr**	**CRr**	**Cr**	**Qr**	**CRr**	**Cr**	**Qr**	**CRr**
Cash ratio (Cr)	1	4	7	1	1/2	1/5	1	1/2	1/5	1	3	5
Quick ratio (Qr)	1/4	1	3	2	1	1/3	2	1	1/3	1/3	1	3
Current ratio (CRr)	1/7	1/3	1	5	3	1	5	3	1	1/5	1/3	1
Elements of Level 3 subsystem "Financial Stability"	**Ci**	**Me**	**Cbf**	**Ci**	**Me**	**Cbf**	**Ci**	**Me**	**Cbf**	**Ci**	**Me**	**Cbf**
Independence coefficient (Ci)	1	1/7	1/2	1	1/5	1/6	1	5	4	1	4	6
Maneuverability factor of equity (Me)	7	1	5	5	1	1/2	1/5	1	1/2	1/4	1	2
Long-term borrowing factor (Cbf)	2	1/5	1	6	2	1	1/4	2	1	1/6	1/2	1

In the future, it is necessary to check the relative importance of the compared elements for their coherence. To do this, we first define the priority vectors (Tab. 3).

Values of local priority vectors (u_i) are determined by:

$$u_i = \frac{\overline{u_i}}{\sum_{i=1}^{n} \overline{u_i}}, i = \overline{1, n;}$$

(1)

УПРАВЛІННЯ ПІДПРИЄМСТВОМ

$$\overline{u_i} = \sqrt[n]{\prod_{j=1}^{n} a_{ij}}, i = \overline{1, n};$$

(2)

where a_{ij} - the element of the j column;

n - the number of criteria.

Table 3

Vectors of Priorities of Level 2 elements

Ele-ments	Emergence				Growth				Maturity				Decline			
	AP	L	FS	Priority vectors, u_i	AP	L	FS	Priority vectors, u_i	AP	L	FS	Priority vectors, u_i	AP	L	FS	Priority vectors, u_i
AP	1	5	7	0,731	1	5	3	0,637	1	1	1/3	0,200	1	1/4	1/3	0,117
L	1/5	1	3	0,188	1/5	1	1/3	0,105	1	1	1/3	0,200	4	1	3	0,614
FS	1/7	1/3	1	0,081	1/3	3	1	0,258	3	3	1	0,600	3	1/3	1	0,268

The maximal proper value of the inverse-symmetric matrix of pairwise comparisons is determined by:

$$\lambda_{max} = \sum_{j=1}^{n} u_j \left(\sum_{i=1}^{n} a_{ij} \right)$$

(3)

For the phase of emergence:

$$\lambda_{max} = 0,731 \cdot (1 + \frac{1}{5} + \frac{1}{7}) + 0,188 \cdot (5 + 1 + \frac{1}{3}) + 0,081 \cdot (7 + 3 + 1) = 3,0649$$

For the growth phase:

$$\lambda_{max} = 0,637 \cdot (1 + \frac{1}{5} + \frac{1}{3}) + 0,105 \cdot (5 + 1 + 3) + 0,258 \cdot (3 + \frac{1}{3} + 1) = 3,0385$$

For the phase of maturity:

$$\lambda_{max} = 0,2 \cdot (1 + 1 + 3) + 0,2 \cdot (1 + 1 + 3) + 0,6 \cdot (\frac{1}{3} + \frac{1}{3} + 1) = 3$$

For the phase of decline:

$$\lambda_{max} = 0,117 \cdot (1 + 4 + 3) + 0,614 \cdot (\frac{1}{4} + 1 + \frac{1}{3}) + 0,268 \cdot (\frac{1}{3} + 3 + 1) = 3,0735$$

To determine the coherence of judgments, the coherence index (CI) and the coherence ratio (CR) are calculated. The logic of judgments is preserved, if for the matrix of pairwise comparisons the value of the relation of the consistency of RC< 0,1.

$$CI = \frac{\lambda_{max} - n}{n - 1}$$

(4)

$$CR = \frac{C^2}{\hat{I} \ (^2\hat{I} \ )}$$

(5)

where, M(IO) is the mean value of the homogeneity index, which is determined experimentally for matrices of different dimensions. For the studied matrices, it is 0.58.

The obtained results confirm the consistency of judgments. For the phase of emergence: CI = 0,0324, CR = 0,0559; for the growth phase: CI = 0,0193, CR = 0,0332; for the phase of maturity: CI = 0.000, CR = 0.000; for the decline phase: CI = 0.0368, CR = 0.0639;

At the next stage, for each level 2 criterion, an analysis of the relevant subcriterion level 3 is conducted.

УПРАВЛІННЯ ПІДПРИЄМСТВОМ

Table 4

Matrixes of pairwise comparisons of elements of level 3 by phases of the life cycle

PLC	Emergence				Growth				Maturity				Decline			
	"Business activity and profitability"															
Elements	Tca	Tr	Rc	Vector of priority, Vi	Tca	Tr	Rc	Vector of priority, Vi	Tca	Tr	Rc	Vector of priority, Vi	Tca	Tr	Rc	Vector of priority, Vi
Tca	1	3	7	0,649	1	2	1/5	0,186	1	3	4	0,625	1	1/2	1/3	0,163
Tr	3	1	5	0,279	2	1	1/4	0,127	1/3	1	2	0,238	2	1	1/2	0,297
Rc	1/7	5	1	0,072	5	4	1	0,687	1/4	1/2	1	0,136	3	2	1	0,540
	λ_{max}=3,0649; CI=0,0324 CR=0,0559				λ_{max}=3,094; CI=0,047 CR=0,081				λ_{max}=3,0183; CI=0,00091 CR=0,0158				λ_{max}=3,0092; CI=0,0046 CR=0,0079			
	"Liquidity"															
Elements	Cr	Qr	CRr	Vector of priority, Vi	Cr	Qr	CRr	Vector of priority, Vi	Cr	Qr	CRr	Vector of priority, Vi	Cr	Qr	CRr	Vector of priority, Vi
Cr	1	4	7	0,705	1	1/2	1/5	0,122	1	1/2	1/5	0,122	1	3	5	0,637
Qr	1/4	1	3	0,211	2	1	1/3	0,230	2	1	1/3	0,230	1/3	1	3	0,258
CRr	1/7	1/3	1	0,084	5	3	1	0,648	5	3	1	0,648	1/5	1/3	1	0,105
	λ_{max}=3,0324; CI=0,0162 CR=0,0279				λ_{max}=3,0037; CI=0,0018 CR=0,0032				λ_{max}=3,0037; CI=0,0018 CR=0,0032				λ_{max}=3,0385; CI=0,0193 CR=0,0332			
	"Financial Stability"															
Elements	Ci	Me	Cbf	Vector of priority, Vi	Ci	Me	Cbf	Vector of priority, Vi	Ci	Me	Cbf	Vector of priority, Vi	Ci	Me	Cbf	Vector of priority, Vi
Ci	1	1/7	1/2	0,094	1	1/5	1/6	0,081	1	5	4	0,683	1	4	6	0,701
Me	7	1	5	0,740	5	1	1/2	0,342	1/5	1	1/2	0,117	1/4	1	2	0,193
Cbf	2	1/5	1	0,167	6	2	1	0,577	4	2	1	0,200	1/6	1/2	1	0,106
	λ_{max}=3,0142; CI=0,0071 CR=0,0122				λ_{max}=3,0291; CI=0,0145 CR=0,0251				λ_{max}=3,0246; CI=0,0123 CR=0,0212				λ_{max}=3,0092; CI=0,0046 CR=0,0079			

The next step defines the global priorities for Level 3 elements (Tab. 5).

Table 5

Global Priorities for Level 3 over Lifecycle Phases

№	Emergence			Growth			Maturity			Decline		
	V ij	U i	Zi	V ij	U i	Zi	V ij	U i	Zi	V ij	U i	Zi
1	0,649	0,731	0,474	0,186	0,637	0,119	0,625	0,2	0,125	0,163	0,117	0,019
2	0,279	0,731	0,204	0,127	0,637	0,081	0,238	0,2	0,048	0,297	0,117	0,035
3	0,072	0,731	0,053	0,687	0,637	0,438	0,136	0,2	0,027	0,540	0,117	0,063
4	0,705	0,188	0,133	0,122	0,105	0,013	0,122	0,2	0,024	0,637	0,614	0,391
5	0,211	0,188	0,040	0,230	0,105	0,024	0,230	0,2	0,046	0,258	0,614	0,159
6	0,084	0,188	0,016	0,648	0,105	0,068	0,648	0,2	0,130	0,105	0,614	0,064
7	0,094	0,081	0,008	0,081	0,258	0,021	0,683	0,6	0,410	0,701	0,268	0,188
8	0,740	0,081	0,060	0,342	0,258	0,088	0,117	0,6	0,070	0,193	0,268	0,052
9	0,167	0,081	0,013	0,577	0,258	0,149	0,200	0,6	0,120	0,106	0,268	0,028

At the stage of structuring elements of the fourth level, there is no need to use expert estimates as the actual indicators of the financial condition of the comparable enterprises are used (Tab. 6). It's also eliminates the need to use the priority scale, since priorities are determined by the ratio of indicators calculated on the basis of actual financial reporting data. In this case, the range of relations goes beyond the scale of 1 to 9, and is determined by the value of the relations themselves. As a consequence, we obtain the most matched matrices of pairwise comparisons for coherence relations that go to zero (Tab. 7). Data on enterprises (in the following - E1, E2, E3) was obtained from the database smida.gov.ua.

At the final stage, the global priorities of the fourth level are determined individually for each enterprise, depending on the phase of its life cycle. Since E 1 and E 3 are in the phase of maturity, and E 2

УПРАВЛІННЯ ПІДПРИЄМСТВОМ

are in the phase of growth, their local priorities are multiplied by the global priority of level 3 for the phase of maturity and the phase of growth, respectively.

Table 6

Indicators of financial condition

№	Rates	E 1	E 2	E 3
1	Turnover rate of current assets (Tca)	2,938	1,902	7,302
2	Turnover rate of accounts receivable (Tr)	5,856	3,874	142,8
3	Coefficient of return on total capital (Rc)	0,057	0,115	0,026
4	Cash ratio (Cr)	0,028	0,042	3,512
5	Quick ratio (Qr)	0,978	0,502	0,151
6	Current ratio (CRr)	1,423	1,113	3,877
7	Independence coefficient (Ci)	0,381	0,297	0,921
8	Maneuverability factor of equity (Me)	0,483	0,176	0,246
9	Long-term borrowing factor (Cbf)	0,126	0,076	0,000

Source: calculated according to the financial statements of enterprises (smida.gov.ua)

Table 7

Local Level 4 Priorities for Level 3 Criteria

Elements	E 1	E 2	E 3	Vectors of priority, wᵢ	E 1	E 2	E 3	Vectors of priority, wᵢ	E 1	E 2	E 3	Vectors of priority, wᵢ
	"**Business activity and profitability**"											
	Tca				Tr				Rc			
E 1	1	1,54	1/2,49	0,242	1	1,51	0,04	0,038	1	0,41	4,10	0,273
E 2	1/1,54	1	1/3,84	0,157	0,66	1,00	0,03	0,025	2,41	1,00	9,90	0,660
E 3	2,49	3,84	1	0,601	24,38	36,85	1	0,936	0,24	0,10	1	0,067
	"**Liquidity**"											
	Cr				Qr				CRr			
E 1	1	0,65	0,01	0,008	1	1,95	6,48	0,600	1	1,28	0,37	0,222
E 2	1,5	1,00	0,01	0,012	0,51	1,00	3,33	0,308	0,78	1,00	0,29	0,174
E 3	128	83	1	0,981	0,15	0,30	1	0,093	2,72	3,48	1	0,605
	"**Financial Stability**"											
	Ci				Me				Cbf			
E 1	1	1,28	0,41	0,238	1	2,53	1,88	0,519	1	2,53	1,88	0,519
E 2	0,78	1,00	0,32	0,186	0,39	1,00	0,74	0,205	0,39	1,00	0,74	0,205
E 3	2,42	3,10	1,00	0,576	0,53	1,35	1	0,276	0,53	1,35	1	0,276

Thus, among the investigated enterprises, the highest level of financial standing in E3, somewhat lower - in E2 and the lowest - in E1. This means that the financial condition of E3 is best suited to the challenges (threats) of the phase of the life cycle at which the enterprise is at the moment.

Table 8

Global Priorities Level 4

No.	Elements	Global priorites of level 3		Local priorities for Level 4			Global priorites of level 4		
		growth	maturity	E 1	E 2	E 3	E 1	E 2	E 3
1	Tca	0,119	0,125	0,242	0,157	0,601	0,030	0,019	0,075
2	Tr	0,081	0,048	0,038	0,025	0,936	0,002	0,002	0,045
3	Rc	0,438	0,027	0,273	0,660	0,067	0,007	0,289	0,002
4	Cr	0,013	0,024	0,008	0,012	0,981	0,000	0,000	0,024
5	Qr	0,024	0,046	0,600	0,308	0,093	0,028	0,007	0,004
6	CRr	0,068	0,130	0,222	0,174	0,605	0,029	0,012	0,078
7	Ci	0,021	0,410	0,238	0,186	0,576	0,098	0,004	0,236
8	Me	0,088	0,070	0,519	0,205	0,276	0,036	0,018	0,019
9	Cbf	0,149	0,120	0,519	0,205	0,276	0,062	0,031	0,033
	Total						**0,292**	**0,381**	**0,517**

Kovalchuk T. M., Verhun A. I. Analysis of the financial condition of enterprises by phases of their life cycle

УПРАВЛІННЯ ПІДПРИЄМСТВОМ

Conclusions and perspectives of further exploration. The method of analysis of the financial condition of the enterprises based on the hierarchy analysis method is proposed. The use of this methodological approach allows you to take into account such an important factor in the financial condition of the enterprise as the phase of its life cycle and to provide decision-makers with a reasonable criterion as an integral indicator for the analysis of enterprises at different stages of development.

A comparative analysis of the financial condition on the basis of this methodology can be carried out within the framework of strategic financial analysis and analysis of investment attractiveness of enterprises.

References

1. Adizes, I. (1988). *Corporate Lifecycles: How and Why Corporations Grow and Die and What to Do about It*. Englewood Cliffs New Jersey: Prentice Hall [in English].

2. Bernstein, L. (1998). *Financial Statement Analysis, Theory, Application and Interpretation*. Boston: Irwin / McGraw-Hill [in English].

3. Foster, G. (1986). *Financial Statement Analysis*. Englewood Cliffs, New Jersey: Prentice Hall [in English].

4. Greiner, L. E. (1972). Evolution and revolution as organizations grow. *Harvard Business Review*, *50(4),* 322-329 [in English].

5. Helfert, E. (2001). *Financial Analysis: Tools and Techniques: a Guide for Managers.* Praha: Grada [in English].

6. Kimberly, J. R. (1979). Issues in creation of organizations: initiation, innovation, and institutionalization. *Academy of Management Journal, 22,* 437-457 [in English].

7. Lester, D. L., Parnell, J. A. (2008). Firm size and environmental scanning pursuits across organizational life cycle stages. *Journal of Small Business and Enterprise Development, 15(3),* 540-554 [in English].

8. Miller, D., Friesen, P. H. (1984). A longitudinal study of the corporate life cycle. *Management Science*, *30(10),* 1161-1183 [in English].

9. Saaty, T. L. (2008). Decision making with the analytic hierarchy process. *International Journal of Services Sciences, 1(1),* 83-98 [in English].

10. Subramanyam, K. R., Wild, J. (2009). *Financial Statement Analysis*. Boston: McGraw-Hill / Irwin [in English].

Література

1. Adizes I. Corporate Lifecycles: How and Why Corporations Grow and Die and What to Do about It. –Englewood Cliffs N.J.: Prentice Hall. – 1988. – 361 p.

2. Bernstein L. Financial Statement Analysis, Theory, Application and Interpretation. – Boston : Irwin / McGraw-Hill. – 1998.

3. Foster G. Financial Statement Analysis. – Englewood Cliffs, New Jersy: Prentice Hall. – 1986.

4. Greiner, L. E. Evolution and revolution as organizations grow / L. E. Greiner // Harvard Business Review. – 1972. – № 50 (4), P.322-329.

5. Helfert E. Financial Analysis: Tools and Techniques: a Guide for Managers. – Praha: Grada. – 2001.

6. Kimberly, J. R. Issues in creation of organizations: initiation, innovation, and institutionalization / J. R. Kimberly // Academy of Management Journal. – 1979. – № 22. – P. 437-457.

7. Lester, D. L. Firm size and environmental scanning pursuits across organizational life cycle stages. / D. L. Lester, J. A. Parnell // Journal of Small Business and Enterprise Development. – 2008. – № 15 (3). – P. 540-554.

8. Miller D. A longitudinal study of the corporate life cycle. / D. Miller, P.H. Friesen // Management Science. – 1984. – № 30 (10). – P. 1161-1183.

9. Saaty Thomas L. (2008). Decision making with the analytic hierarchy process. / Thomas L. Saaty // International Journal of Services Sciences. – 2008. – № 1. – P.83-98.

10. Subramanyam K. R., Wild J. Financial Statement Analysis. – Boston: McGraw-Hill/Irwin. – 2009.

Ковальчук Тетяна Миколаївна	доктор економічних наук, професор, завідувач кафедри обліку, аналізу і аудиту, Чернівецький національний університет імені Юрія Федьковича; https://orcid.org/0000-0002-6951-6609; E-mail: t.kovalchuk@chnu.edu.ua;
Kovalchuk Tetjana Mykolaivna	Doctor of Economics, Professor, Head of the Department of Accounting, Analysis and Audit, Yuriy Fedkovych Chernivtsi National University;
Вергун Андрій Іванович	кандидат економічних наук, доцент кафедри обліку, аналізу і аудиту, Чернівецький національний університет імені Юрія Федьковича; https://orcid.org/0000-0002-7521-3241; E-mail: verhun@i.ua;
Vergun Andrij Ivanovych	Candidate of Economic Sciences, Associate Professor at the Department of Accounting, Analysis and Audit, Yuriy Fedkovych Chernivtsi National University

Kovalchuk T. M., Verhun A. I. Analysis of the financial condition of enterprises by phases of their life cycle