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CHAPTER 1

CURRENT TRENDS IN ECONOMIC DEVELOPMENT

PERFORMANCE MEASUREMENT OF DEPARTMENT OF HEALTH, WEST ACEH DISTRICT USING BALANCED SCORECARD ANALYSIS

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Abstract. *This study aims to analyze the performance rating of the West Aceh District Health Office through 4 perspectives using the Balanced Scorecard approach as a measuring tool. The study approach is quantitative approach. The data analysis method used in this study is to calculate the ratio from the four perspectives of the balance scorecard to measure performance. The results of the study show that the performance of the financial perspective during 2016, 2017 and 2018 is not good. The service perspective shows a good performance value for 3 consecutive years. In 2016 and 2018 for internal business processes perspective internally shows the results of the performance was good, but for 2017 the results showed a quite good performance. Meanwhile, the human resource perspective shows that only in 2017 the West Aceh District Health Office performed well, but in 2016 and 2018 the results of the study showed that the performance was quite good. Overall the accumulated value of performance measurement balanced scorecard of DHO Aceh Barat showed healthy performance for 2 years (showing 2,8 points in 2016 and 2,9 points in 2017 with healthy performance category standard values $\geq 2,8$ points) but for 2018 the results show less healthy performance (showing 2.7 points).*

Keywords: *Balanced Scorecard, Performance, Health Services, Health Office, Balanced Scorecard Perspective.*

JEL classification: H11

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Introduction. To meet the basic health needs of all levels of society, the government undertakes one of the efforts, namely by providing public services in the health sector. Public services in this sector can be provided through the Community Health Center (puskesmas) as one of the technical service units (UPTD) at the Health Office which assists the government in health development (Bappenas, 2018).

The government must face several obstacles and challenges in providing health services. The society still often find problems getting health services. Problems in health services are not only faced by the Indonesian government. As an example of the health service problems faced in Turkey. Some of the problems that are often faced by Turkish people include obtaining health services, namely high costs, expensive medicine, inadequate number of health workers and positive attitude of officers (Gurluo & Duygu, 2019). Survey result of Mercer Marsh Benefits conducted in 2018 Medical Trend Around The World revealed that in Indonesia the most expensive fee for the medical expenses is hospital expenses including operating room, inpatient rooms and inpatient equipment rental costs (Handayani, 2019).

Literature Review. The main problem for the public sector is managing health care costs and to get fair and good quality health services (Deloitte, 2014). When compared to other industries, the health industry is a very expensive industry because current medical practices require more use of modern medical technology and tests (Boon, 2002). Most health agency spend millions of dollars on buying and upgrading their medical equipment.

Patients who want to get health services in China have to go through long waiting times to get health services because of the complex operational processes and various patient conditions (Huang , Chen, Yang, Chang & Lee, 2004). This situation also occurs in Aceh, there are still people who feel they do not get the health services they wish. In Anasril study (2018) reveals there are 60 % of patients visiting health centers say they get services that are not satisfactory and 40% of patients revealed they often do not get the information in detail about their illness.

Patients dissatisfaction and increase patient complaints against health services will affect the performance of health institutions (Yuen, 2012). Gurd, B., Gao (2008) showed that patient satisfaction is a main indicator in internal processes and health services towards patients affect patient loyalty and it will lead to sustainability of the health institutions in a competitive environment. Thus, Silow-Carroll (2008) emphasizes the need for better performance measurement for health agencies.

Performance is the level of achievement of a program of activities or policies in realizing the vision, mission, and goals of the organization as stated in the form of strategic planning. An accurate and efficient performance measurement system is very useful for managers as a tool to monitor, control, and improve the quality of health service performance (Lin, Liu, & Wang, 2013). Performance can be measured if individuals or groups have set standards or criteria as a measure of success (Moeheriono, 2012). Organizations usually measure performance using a financial perspective only. This measurement cannot measure performance as a whole because it cannot show what the company needs to do in the present and in the future. Financial information, patient satisfaction, the ability to process innovation and other non-financial information are needed in measuring performance in health institutions (Lin et al., 2013).

Kaplan and Norton (2001) suggest performance measurement using a *balanced scorecard* through four perspectives. In their study, they found that performance measurement using the *balanced scorecard* is the most effective measurement of performance. The four perspectives are finance, customers, internal business processes, and learning and growth. *The balance scorecard* is considered as the most suitable framework capable of providing significant information relating to internal and external organizational factors that will further contribute to organizational success. The use of the *balance scorecard* as a more accurate performance measurement system by considering financial and non-financial aspects is expected to be the right solution in optimizing performance improvement or growth. The application of the *balanced scorecard* as a performance measurement tool has been shown to improve patient safety and improve the quality of treatment for patients so as to reduce the incidence and injury of elderly cancer patients (Tsai et al., 2017).

Balance scorecard can provide an advantage in more accurate performance measurement results because it measures from the perspective of finance, customers, internal business processes, and learning and growth.

This article discusses the results of study that developed several previous studies conducted by Febriana (2012), Anshori (2018) and is a replication of study conducted by Marwal and Abdullah (2018). This study is different from previous study, namely this study uses secondary data as a source of research data and does not use primary data in the form of a questionnaire.

Performance. Performance is often defined as an organizational activity over a measured and agreed period. Performance is considered as a work achievement that can be achieved by someone (Mangkunegara, 2009). Performance can also be interpreted as a series of behaviors in individual activities to achieve the expectations or objectives within an organization (Lamatenggo & Hamzah, 2012). Thus performance is the level of achievement, result or achievement of an activity or program and policy in an organization.

Performance measurement is important to do so that the achievement of the goals and objectives that have been achieved can be known. Performance measurement means a process of assessing the achievements that have been carried out against the planned targets, including information and efficiency in using human resources in producing services and goods (Moeheriono, 2012). Performance measurement can be used as communication tools between employees and managers and aims to ensure that employees and managers in achieving, monitoring performance has been achieved and what has been planned (Tangkilisan, 2005).

The results of performance measurement can be a contribution to the progress and success of a company to achieve the planned targets when the results of these measurements become the basis for decision making and evaluation of the performance of employees and management involved in company activities (Nugrahayu & Retnani, 2015).

Some researchers consider the appropriate measurement to measure the performance of internal and external factors is to use a *balanced scorecard*. The *balanced card* is also an integrated measurement and provides a comprehensive operational description of the company. This approach has a more widely used by companies in Indonesia, not only for manufacturing, but also a service company or public sector organization (Oemar, 2010). The goal to be achieved in assessing the performance of public sector organizations is to assist managers in achieving the organizational goals set using non-financial and financial aspects. The performance appraisal system can be an organizational control tool, because performance is easier to achieve when there is reward and punishment in the organization (Mardiasmo, 2018).

Balanced Scorecard. Robert Kaplan and David Norton introduced the concept of a *balance scorecard* as a tool to measure organizational performance that is more balanced by adding non-financial performance as a performance measurement tool that is better than traditional performance measurement which only measures organizational performance from the financial aspect (Shukri & Ramli, 2015). The

balance scorecard application can be applied to organizations either with business goals or organizations with non-profit goals or public sector organizations by modifying several performance measurement indicators according to the organization (Kaplan & Norton, 2001a).

Performance measurement in public health sector organizations with the *Balanced Scorecard* is able to present a more structured and comprehensive picture compared to traditional systems that are still in use today. The use of the *Balance Scorecard* concept is expected to reduce weaknesses in performance measurement which is only oriented to the financial aspect (Anshori, 2018).

The *balanced scorecard* is a score card that is useful for recording a person's performance score in a balanced manner using two perspectives, namely financial and non-financial perspectives, both short and long term (Erick Norman Tomaso & Simanjuntak, 2018). The purpose of using the *balanced scorecard* according to Mohamad, Rasul and Umar (2004) is to clarify the company's vision and strategy, communicate strategic objectives, prepare targets, and increase feedback for strategic decision making and the learning process.

The Scorecard Balance Perspective. There are four perspectives used in measuring performance with *balance scorecard* analysis, namely:

1. *Financial Perspective.* Men sort Hansen and Mowen (2009) financial perspective set a goal of short-term financial performance and long-term. Financial growth has two strategic themes, namely: revenue growth, cost changes. From this perspective, criteria such as the rate of return on investment, shareholder value, profitability, revenue growth and unit costs will be determined, so as to demonstrate the strategic success of the organization (Shukri & Ramli, 2015). The assessment of the company's financial performance is related to the assessment of profitability, which is the company's ability to generate profits in one period (Nugrahayu, ER, & Retnani, 2015).

2. *Customer Perspective.* The customer perspective describes the internal ability to improve product performance, innovation, and technology in understanding market tastes. This perspective really requires market research in order to know the market situation (Rumintjap, 2013). According to Hansen and Mowen (2009) the customer perspective is defined as a component that is a source of income. This perspective describes how to select customers and market segments in which the company will compete. According to Kaplan and Norton (1996) not all customers have the same capabilities and conditions. Companies have different desires and tastes for products and services.

3. *Internal Business Process Perspective.* The third perspective of the *balanced scorecard* is internal business processes perspective. Kaplan and Norton (2001) state that this perspective explains how companies assess all activities that the company carries out in the form of manager or employee activities in creating a product that will provide customer and shareholder satisfaction.

4. *Growth and Learning Perspectives.* According to Kaplan and Norton (1996) retaining employees is important for the company. In achieving the three perspectives above, the company must monitor the welfare of employees and increase employee

knowledge and insight. This is because by increasing knowledge, employees will participate in achieving company goals. This fourth perspective is the ability that aims to develop the organization. According to Gaspersz (2013), the growth and learning perspective has the goal of achieving excellence in the three perspectives above.

Strengths and Weaknesses of the *Balanced Scorecard*. Kaplan and Norton (2001) state that there are five advantages of the *balanced scorecard*, namely:

1. *The balanced scorecard* is able to observe the long -term and short - term performance of the organization.
2. *The balanced scorecard* is able to show a relationship in a causal relationship including financial and non- financial measures.
3. *The balanced scorecard* includes a driver in achieving financial goals. Progress in building the company's future capabilities is always considered in addition to the company's main goal of seeking profit.
4. *The balanced scorecard* pays attention to important aspects from the external side of the company, for example the customer does not only pay attention to the internal side of the company.
5. *The Balanced Scorecard* can be used as a strategic management framework, not just a performance measurement system.

In practice the application of *balanced scorecard* is not as easy as one might think. Because the implementatin of the *balanced scorecard* requires full commitment from top management. According to Atkinson , Kaplan, Matsumura and Young (2012) inserting a new management system into an organization is very difficult, so there are several weaknesses of the *balanced scorecard*, namely :

1. No commitment from top management.
2. *The scorecard* does not flow down his responsibility.
3. *The scorecard* is over-designed.
4. *The balanced scorecard* is treated as a consulting system.

Aims. The purpose of this study was to measure the performance of the Aceh Barat District Health Office from a financial perspective, a customer perspective, an internal business process perspective and a learning and growth perspective.

Methods. This study uses quantitative methods with an emphasis on objective phenomena. The study design was formed using numbers and controlled experiments. This study is included in non-experimental research, namely study with descriptive quantitative methods (Syamsudin & Damiyanti, 2011). The unit of analysis is an organization, namely the West Aceh District Health Office. This study uses secondary data sources, namely data obtained from the Health Office of West Aceh district in the form of organizational profiles, as well as literature research, literature, journals, articles, magazines, and literature related to the subject of writing, especially Statistical Reports (BPS) and Financial Report issued by the Supreme Audit institution (BPK) as a result of the audit by the West Aceh District Health Office.

The initial stage for analyzing the data is performing performance calculations to measure each financial perspective, customer aspects, internal business processes and human resources. After measurement perspective of *the Balanced Scorecard*

(BSC), then the next stage is the interpretation stage where the findings on the scorecard are interpreted. After doing the interpretation, the third stage is to perform the calculation of the accumulation of measurement of performance after getting the scorecard value through the weighting of the individual indicators perspective, resulting in the total value of the performance of the average scorecard every perspective of *Balanced Scorecard*. Researchers at this stage can draw the final conclusion whether the organizational performance is in the healthy category or not. With regard to performance measurement, the weighting system, method of multiplication of weights and values, the total value of the resulting performance and the categorization of whether the West Aceh District Health Office is healthy or not must be based on the following flow chart:

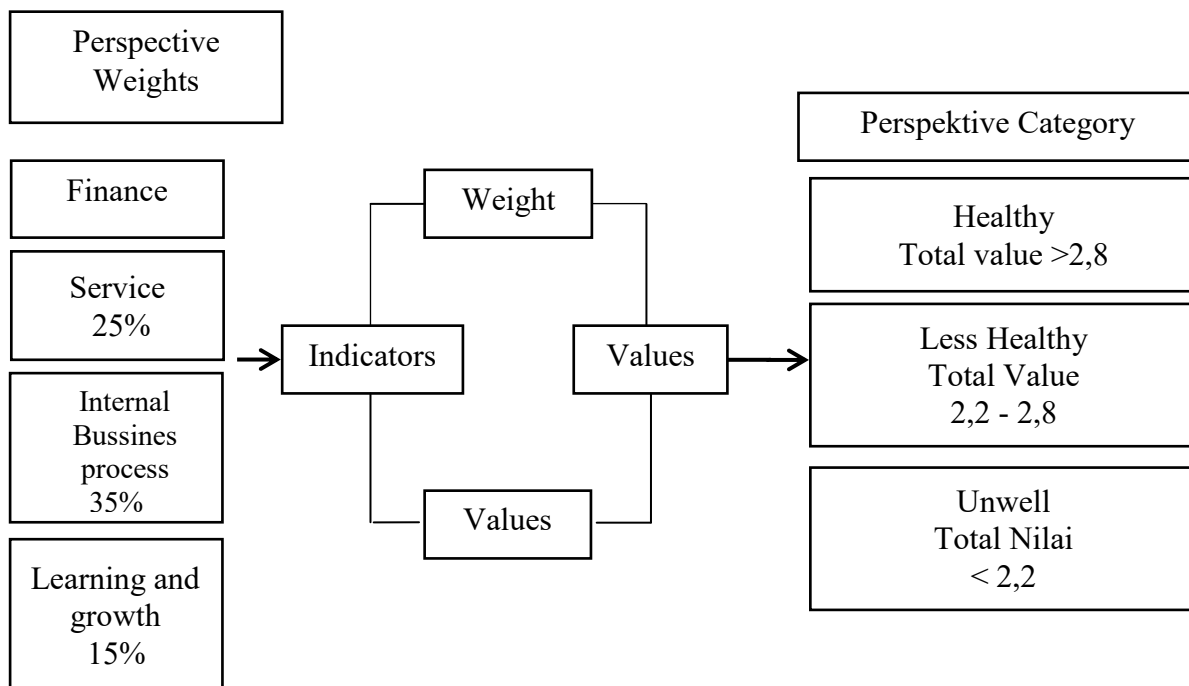


Fig. 1. Performance Value Calculation Method

Source: BPPSPAM Standart, 2015

Information:

- Perspective weights are the sum of weights for each perspective;
- Indicators are performance indicators for each perspective;
- Weights are the weight figures for each of the performance indicators;
- The indicator value is the standard value of each indicators;
- The performance value is the result of multiplying the weight to the indicator value.

The determination of organizational performance based on the assessment of each perspective can be seen in table 1.

Table 1

Calculation Weight of the *Balanced Scorecard* Perspective

Aspect	Key Performance Indicator	Weight	Decimal
Finance (25%)	1. Solvency	6.25%	0.0625
	2. Operating Ratio	6.25%	0.0625
	3. Cash Ratio	6.25%	0.0625
	4. Income Effectiveness Ratio	6.25%	0.0625
	Total	25%	0.25
Customer (25%)	1. Patient Service Coverage	5%	0.05
	2. Patient Growth	5%	0.05
	3. Postpartum service Coverage	5%	0.05
	4. Management of Neonatal Complications	5%	0.05
	5. Infant Health Service Coverage	5%	0.05
	Total	25%	0.25
Internal Business Process (35%)	1. Neonatal Mortality Rate	5%	0.05
	2. Infant Mortality Rate	5%	0.05
	3. Infant Mortality Rate	5%	0.05
	4. Maternal Mortality Rate	5%	0.05
	5. Case Notification Rate Tuberculosis	5%	0.05
	6. Coverage of Diarrhea Cases	5%	0.05
	7. Dengue hemorrhagic fever morbidity rate	5%	0.05
	Total	35%	0.35
Growth and Learning (15%)	1. Health Worker Ratio	5%	0.05
	2. Employee Training Ratio	5%	0.05
	3. Training Expenses Against Employee Expenses	5%	0.05
	Total	15%	0.15
Total Scorecard		100%	1

Source: Marwal & Abdullah, 2018

The score card indicators of the resulting ratios are categorized into several assessments, namely the range 0 – 0,19 in the very bad category , the range 0,2 – 0,39 in the bad category, the range 0,4 – 0,59 in the fairly good category, range 0,6 – 0,79 is categorized as good and range > 0.8 is categorized as very good. As for the scorecard, indicators of employee and customer responses produced will not be categorized into several ratings because the maximum value of the highest Likert scale for each indicator is different (Marwal & Abdullah, 2018).

Results. Performance Measurement Perspective Balanced Scorecard At Health Office In Aceh Barat. Financial Perspective. Based on the results of the analysis of the performance of the financial perspective of the West Aceh District Health Office 2016, 2017 and 2018, it is obtained an illustration of the extent to which the contribution of the financial perspective is seen from the point of view of the level of solvency ratios, operating ratios and cash and income effectiveness. The results of the analysis prove that the state of each degree of performance appraisal management shows varying numbers, this can be shown in Table 2.

Table 2

Degrees of Performance Management from Financial Perspective

Financial Indicators	Actual 2016			Actual 2017			Actual 2018		
	Ratio	Score	Level	Ratio	Score	Level	Ratio	Score	Level
1.Solvency	75,76%	1	Not good	55,89%	1	Not good	42,50%	1	Not good
2.Operating Ratio	4,54%	1	Not good	5,16%	1	Not good	5,74%	1	Not good
3.Cash Ratio	3,92%	1	Not good	2,83%	1	Not good	1,95%	1	Not good
4.Income Effectiveness	89,21%	4	Well	94,56%	5	Very good	85,66%	4	Well
Total		7	Not good		8	Not good		7	Not good
Average		1,75	good		2	good		1,75	good

Source: Secondary data processed in 2020

The first financial indicator is the solvency ratio where this ratio aims to measure the level of ability to pay off all existing debt using all assets. In 2016, resulted a solvency ratio of 75.76% which was considered not good and experienced a decrease in 2017 which resulted in a solvency of 55.89 %, which is also rated not good. Likewise in 2018 this ratio continued to decrease, which was only able to produce a solvency ratio of 42.50%. Operating ratio are used to measure how much of the cost efficiency or operating expenditures incurred to produce income, in this case the District Health Office Aceh Barat is able to produce a ratio of operating at 4,54 in 2016, the operating ratio of 5,16 for the year 2017 and 5,74 in 2018 in the bad category. The results of the calculation resulted in a cash ratio of 3.92% in 2016, of 2.83% in 2017 and 1.95 % in 2018 in the bad category.

Ratio of effectiveness revenue in Aceh Barat District Health Office showed the results were very good, that the ratio of the effectiveness revenue can generate ratio of 89,21 % in 2016, and then increased in 2017 by 94.56% and 85,66% of 2018. Overall where the average value of indicators of the financial perspective generates a value of 1,75 for the year 2016, 2 for 2017 and 1,75 for the year 2018 to the category of less well. A summary of the calculation of the performance from a financial perspective can be seen in the following table 3.

Table 3

Financial Perspective Performance

Financial Perspective	Indicator Weight (0,25)	2016		2017		2018	
		Score	Score	Score	Score	Score	Score
1. Solvency	0,0625	1	0,0625	1	0,0625	1	0,0625
2. Operating Ratio	0,0625	1	0,0625	1	0,0625	1	0,0625
3. Cash Ratio	0,0625	1	0,0625	1	0,0625	1	0,0625
4. Income Effectiveness	0,0625	4	0,25	5	0,3125	4	0,25
Total			0,4375		0,5		0,4375

Source: Secondary data processed in 2020

Total scorecard generated a financial perspective with a weight of 25% in 2016 by 0,4375, in 2017 amounted to 0.5 and in 2018 amounted to 0,4375. The proportion of donations *scorecard* for performance on the financial perspective range of 0,4 - 0,59 categorized quite good. These results indicate that the contribution of the *scorecard* from a financial perspective to the total *scorecard* is considered quite good.

Customer Perspective. The results of measuring indicators related to organizational services can be seen in the following table:

Table 4

Degrees of Management of Customer Perspective Performance

Customer Indicators	Actual 2016			Actual 2017			Actual 2018		
	Ratio	Score	Level	Ratio	Score	Level	Ratio	Score	Level
1. Patient Visit Service Coverage	165%	5	Very good	15,85%	5	Very good	152,89%	5	Very good
2. Growth in Patient Visits	-51,54%	1	Not good	-3,2%	1	Not good	1,49%	1	Not good
3. Postpartum Service	118,96%	5	Very good	116,03%	5	Very good	134,09%	5	Very good
4. Management of Neonatal Complications	54,95%	3	Pretty good	46,85%	3	Pretty good	57,17%	3	Pretty good
5. Infant Health Services	56,90%	3	Pretty good	45,12%	3	Pretty good	44,67%	3	Pretty good
Total		17	good		17	good		17	Well
Average		3.40			3.40			3.40	

Source: Secondary data processed in 2020

Patient visit service coverage resulted in a percentage of 165% in 2016, 153.85% in 2017 and 152.89 % in 2018 in the very good category. This indicates that the Aceh Barat District Health Office has been able to provide services for visiting patients or residents who must be served in the service area.

Through these measurements show that there has been a decrease in the growth of patient visits by -51.54 % in 2016, but in 2017 the decrease in visit changed to -3.2% and in 2018 there has been an increase in visits by 1,49%. The results of measuring the growth of patient visits at 3 consecutive years were categorized as not good. These results indicate that the West Aceh District Health Office has not been able to invite the public to get health services in their service areas. Based on data from the calculations, the level of ability in its service area health Aceh Barat District Health Office reached over 100% in last three years. This shows the commitment of the West Aceh District Health Office to serve postpartum mothers very well.

The measurement results generate a neonatal complication management ratio of below 60% in the last three years. This indicates that the Aceh Barat Health Office is quite good at handling neonatal complications that occur in Aceh Barat District. Likewise, the indicator of infant health service coverage, which is based on the average number of infant health services for the number of babies in a certain period. From the calculation, the baby's health care coverage in 2016 amounted to 56,90% of the entire number of babies in West Aceh district by category quite well, in 2017 decreased the percentage that becomes 45,12%, but this number is still in the

category of quite good, and continued to decrease in 2018 to 44.67% even though the category was still quite good. This suggests that the coverage baby's health care continues to decrease from year to year but is still in the category quite well.

Overall the calculation of the customer perspective shows the average customer perspective indicator value of 3,4 for 3 years of observation. After analyzing the indicators from this perspective, the next step is to multiply the standard value of the resulting customer perspective indicators with the indicator weights can be seen in Table 5.

Table 5

Customer Perspective Performance

Customer Perspective	Indicator Weight (0.25)	2016		2017		2018	
		Score	Score	Score	Score	Score	Score
1. Patient Service Coverage	0,05	5	0,25	5	0,25	5	0,25
2. Patient Growth	0,05	1	0,05	1	0,05	1	0,05
3. Postpartum Service	0,05	5	0,25	5	0,25	5	0,25
4. Management of Neonatal Complications	0,05	3	0,15	3	0,15	3	0,15
5. Infant Health Services	0,05	3	0,15	3	0,15	3	0,15
Total		0,85		0,85		0,85	

Source: Secondary data processed in 2020

Total scorecard generated the customer perspective with a weight of 25% in 2016 amounted to 0,85, in 2017 of 0.85 and in 2018 at 0,85. The proportion of the *scorecard* contribution to performance from the customer perspective is rated as 0.85 which is in the range > 0.80 . The result of the calculation shows that the score of the *scorecard* contribution from the perspective of the total service of the overall *scorecard* is considered very good.

Internal Business Process Perspective. The results of measuring the organization's internal business process indicators can be seen in the following table 6.

The results of measuring the neonatal mortality rate resulted in a percentage of 0,32 % in 2016, 0.25% in 2017 and 0.37 % in 2018 with the very good category. The infant mortality rate also produces a very good percentage of 0,49% in 2016, 0.43% in 2017 and 0.45% in 2018. Infant mortality rate also shows a very good percentage with a result of 0.49% for 2016, 0.43% for 2017 and 0.48% for 2018.

The calculation results show that the maternal mortality rate was 3,79% in 2016, 5.53% in 2017 and 2.04% in 2018. In three consecutive years the maternal mortality rate resulted in bad performance. One of the causes is the lack of the number of pregnant women who make k1 visits and those who make k4 visits.

Calculation of indicators *case notification rate of TBC* resulted in the percentage of 95,85% in 2016, 104,48% in 2017 and 111,71% in 2018 categorized not good. From year to year, the percentage of TB cases found is increasing. These results

indicate that the West Aceh District Health Office has not been able to reduce the number of TB cases in West Aceh district.

Table 6

Degrees of Performance Management in the Internal Business Process Perspective

Internal Business Process Indicators	Actual 2016			Actual 2017			Actual 2018		
	Ratio	Score	Level	Ratio	Score	Level	Ratio	Score	Level
1. Neonatal Mortality Rate	0,32%	5	Very good	0,25%	5	Very good	0,37%	5	Very good
2. Infant Mortality Rate	0,49%	5	Very good	0,43%	5	Very good	0,45%	5	Very good
3. Infant Mortality Rate	0,49%	5	Very good	0,43%	5	Very good	0,48%	5	Very good
4. Maternal Mortality Rate	3,79%	1	Not good	5,53%	1	Not good	2,04%	1	Not good
5. Case Notification Rate TBC	95,85%	1	Not good	104,48%	1	Not good	111,71%	1	Not good
6. Coverage of Diarrhea Case Handling	31,95%	2	Not good	22,57%	2	Not good	23,49%	2	Not good
7. DBD morbidity rate	34,72%	3	Pretty good	66,17%	2	Well	48,78%	3	Pretty good
Total		22	Well		21	Pretty good		22	Good
Average		3,14			3			3,14	

Source: Secondary data processed in 2020

Based on calculations, the West Aceh District Health Office produced a coverage for handling diarrhea cases of 31.95% in 2016, 22.57% in 2017 and 23.49% in 2018. The results of the calculation of this indicator are included in the not good category. This indicates that the number of cases of handling diarrhea in West Aceh is still far from the target.

The DBD morbidity indicator was only able to produce a pretty good performance in 2016 of 34.72%, this number continued to increase in 2017 by 66.17% in not good category and in 2018 48.78% was categorized as good. Overall, based on the measurement results, it shows that the average value of the internal business process perspective indicator value is 3,14 for 2016 with the good category, for 2017 it decreased with a result of 3 in the pretty good category and increased again in 2018 by 3,14 with good category. The performance of the internal business process perspective is seen in the following table 7.

The total *scorecard* produced by an internal business process perspective with a weight of 35% resulted in a value of 1,10 in 2016, 1,05 in 2017 and 1,10 in 2018. The proportion of the scorecard contribution from the internal business process perspective is considered very good because it is in the range $> 0,81$. Overall, the total achievement of the scorecard has described the Health Office Aceh district of Aceh Barat have been doing internal business process organization with excellent although for certain aspects, the Health Office Aceh district of Aceh Barat had to

make corrections at the rate of maternal mortality, *case notification TB rate*, as well as the coverage of diarrhea cases.

Table 7

Internal Business Process Perspective Performance

Internal Business Process Indicators	Indicator Weight (0.25)	2016		2017		2018	
		Score	Score	Score	Score	Score	Score
1. Neonatal Mortality Rate	0,05	5	0,25	5	0,25	5	0,25
2. Infant Mortality Rate	0,05	5	0,25	5	0,25	5	0,25
3. Infant Mortality Rate	0,05	5	0,25	5	0,25	5	0,25
4. Maternal Mortality Rate	0,05	1	0,05	1	0,05	1	0,05
5. Case Notification Rate TBC	0,05	1	0,05	1	0,05	1	0,05
6. Coverage of Diarrhea Cases	0,05	2	0,10	2	0,10	2	0,10
7. DBD morbidity rate	0,05	3	0,15	2	0,15	3	0,15
Total		1,10		1,05		1,10	

Source: Secondary data processed in 2020

Learning and Growth Perspective. The results of measuring the indicators of learning and organizational growth can be seen in the following table 8.

Table 8

Degree of Performance Management in Learning Process and Growth Perspective

Learning and Growth Process Indicators	Actual 2016			Actual 2017			Actual 2018		
	Ratio	Score	Level	Ratio	Score	Level	Ratio	Score	Level
1. Total Employee Ratio	5 people	5	Very good	4 people	5	Very good	5 people	5	Very good
2. Employee Training Ratio	57,67%	3	Pretty good	75%	4	Good	31,08%	2	Not good
3. BDTBP Ratio	1,39%	1	Not good	0,23%	1	Not good	0,32%	1	Not good
Total		9	Pretty good		10	Well		8	Pretty good
Average		3			3,3			2,67	

Source: Secondary data processed in 2020

The measurement resulted in a ratio of 5 people in 2016, 4 people in 2017 and 5 people in 2018 with a very good category for 3 consecutive years. The measurement results show that the ratio of employee training is only able to reach 57,67% in 2016 which is categorized as pretty good, increasing to 75% in 2017 in the

good category but in 2018 it fell to 31,08 % in the not good category. The results of measurements in the year 2016 indicates the ratio of the burden of education and training to personnel expenses only amounted to 1,39% with the category is not good. This ratio continued to decrease in 2017, which was only 0.23% in the bad category and in 2018 it was 0,32% in the bad category. Although employee training ratio and employee expenses ratio are considered insufficient, overall based on the measurement results of the learning and growth perspective shows that the average indicator value is 3 for 2016 3,3 for 2017 and 2,67 for 2018 with pretty good category. Performance overview perspective of learning and growth generated by the weight indicator that can be seen on table 9.

Table 9

Performance Perspective Learning and growth

Learning and Growth Indicators	Indicator Weight (0.15)	2016		2017		2018	
		Score	Score	Score	Score	Score	Score
1. Total Employee Ratio	0,05	5	0,25	5	0,25	5	0,25
2. Employee Training Ratio	0,05	3	0,15	4	0,20	2	0,10
3. BDTBP Ratio	0,05	1	0,05	1	0,05	1	0,05
Total			0,45		0,50		0,40

Source: Secondary data processed in 2020

The total *scorecard* produced by a learning and growth perspective with a weight of 15% produces a value of 0,45 for 2016, 0,50 for 2017 and has decreased, namely with a score of 0,40 for 2018. For three years observation of the contribution of the *scorecard* to internal performance from the perspective of learning and growth was only able to achieve a pretty good performance category because a was in the range 0,4 – 0,59. Performance total value of the average scorecard every perspective as follows:

Table 10

Accumulated Performance Measurement of the Aceh Barat District Health Office 2016-2018

No.	Perspective	Scorecard 2016 year	2017 Scorecard	Scorecard 2018 year
1	Finance	0,4375	0,5	0,4375
2	Service	0,85	0,85	0,85
3	Internal Process	1,10	1,05	1,10
4	Growth and Learning	0,45	0,50	0,40
Total Performance Score		2,838	2,9	2,788
Category		Healthy	Healthy	Unwell

Source: Secondary data processed in 2020

Based on the accumulated performance measurement with a *balanced scorecard*, it can be concluded that the performance of the West Aceh District Health Office in 2016 is categorized as healthy with a total performance of 2,838. The total value of the performance in 2016 is lower when compared with the total performance of 2017 namely 2,9 (category healthy). In 2018 the total performance of the West

Aceh District Health Office was lower than 2017, namely 2,788 in the unhealthy category.

Conclusion. Based on the results of data analysis on the performance of the West Aceh District Health Office, it can be concluded:

1. The assessment of the performance of the West Aceh District Health Office from a financial perspective has generally been not good for 3 consecutive years.
2. The performance of the West Aceh District Health Office from a service perspective has generally had a good performance from 2016-2018.
3. The performance of the West Aceh District Health Office from the perspective of internal business processes has performed good in 2016 and 2018 and performed pretty good in 2017.
4. Performance measurement Aceh Barat District Health Office visits of learning and growth perspective p there in 2016 and 2018 showed quite good results, in 2017 resulted in a good performance by category.
5. The accumulated performance measurement shows the performance of the West Aceh Health Office in 2016 and 2017 in the healthy category and for 2018 in the unhealthy category.

Some limitations that exist in this study are:

1. This study uses a limited indicator on each perspektive *balanced scorecard* to measure performance so that the measurement results do not yet reflect the overall performance of the Department of Health West Aceh District.
2. The object of research is still narrow, namely the West Aceh District Health Office. Study with more objects needs to be done so that the study results can cover a wider area.

Based on the study that has been done, the researchers provide several suggestions as follows:

1. For the Health Department of West Aceh can perform efficiency on personnel expenses and the electrical load into debt because of West Aceh Health Office so high that the solvency ratio can be increased so that the performance of the financial perspective of West Aceh Health Office can be better. The West Aceh Health Office must also be more active and creative in promoting health services, especially in the field of health promotion. It must be more innovative so that people are not reluctant to get health services at community health centers and in the end, it makes performance from the service perspective of the West Aceh Health Office will also be better. Education and training to employee must be a priority in improving employee competence. The West Aceh Health Office must budget the burden of education and training every year so that it can create education and training programs so that performance from a growth and learning perspective will give good results.
2. Further study is expected to develop and use other indicators to measure the performance of the West Aceh District Health Office so that the results of performance measurement are more accurate in describing the actual state of performance of the West Aceh District Health Office.

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FORECASTING HOTEL INCOME IN CURRENT UNSTABLE DEVELOPMENT SITUATIONS

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Abstract. *The article describes the development of an economic-mathematical model that allows to identify the influence of factors on the formation of income of hotels and similar accommodation in Ukraine and to forecast the level of hotel industry income. To create an economic-mathematical model, the analysis of statistical data characterizing the hotel industry in Ukraine for the period from 2010 to 2019 has been carried out. To forecast the hotels income and similar accommodation for the short term, a forecast of such indicators as operating costs of hotels and similar accommodation, housing resources of hotels and similar accommodation has been built. To do this, Box-Jenkins method (ARIMA), which is a part of the Statistica application package, is used. On the basis of the economic-mathematical model the forecast of influence of operating expenses and housing resources of hotels and similar accommodation on income of hotels and similar accommodation has been made. The analysis of the main parameters of the economic-mathematical model, which are quite significant (there is a close relationship between other indicators, the proximity of the economic-mathematical model to sample statistics, the significance of factors on the studied indicator, the homogeneity of the forecast complex, the proximity of empirical theoretical distribution, absence of multicollinearity), as well as surpluses demonstrates that we have created an adequate model of short-term forecast. According to the forecast for 2020-2022 in Ukraine, some reduction in operating costs, housing resources in hotels and similar accommodation and income of hotels and similar accommodation is expected. This situation is due to the current unstable situations that have arisen in the country and in the world. The hotel business is strongly influenced by various internal and external factors: economic, social, geopolitical, legislative transformations, force majeure, climatic conditions, market dynamics, including goods, services and resources. Directly or indirectly, these factors determine the amount of income of hotels and similar accommodation, as an important indicator of development, due to the price aspects in the market of hotel services and the demand for hotel services.*

Keywords: forecast, hotel, indicators, income, operating expenses, housing resources.

JEL Classification: C53, L83, M21

Formulas: 2; **fig.:** 8; **tabl.:** 1; **bibl.:** 11.

Introduction. The current development status of the hotel industry of Ukraine is influenced by various unstable national and world trends. The dynamics of the hotel industry is marked by the intensification of qualitative changes and structural transformations, the interaction of elements on the basis of a systematic approach that is exposed to the external situations. The situation analysis and study of functioning and trends in the hotel business is an important step in the economic activity development of economic entities of the hotel industry in Ukraine. The number of hotel business enterprises gradually increased, the reason for this was the increase in demand for mini-hotels, apartments, guest houses. The number of budget accommodation facilities (hotels without categories, hostels) have reasonably increased, and the number of dormitories decreased. In recent years, there have been some processes of consolidation of hotels and similar accommodation.

In world statistics, the determinants of hotel profitability are room occupancy with an average value approaching 70%, and the average cost of one day's stay, which is about \$ 85 [1]. In Ukraine, there is still a fairly low level of housing

resources [2]. Kyiv, the tourist cities Odessa, Lviv, Dnipro, Kharkiv, Uzhhorod, Mykolayiv, etc. are the most provided with housing. This indicates a significant potential of the hotel market of large tourist cities, but not for all segments.

The most financially stable in 2015-2019 are hotels that link the cost of rooms to foreign currency. These include 4-star and 5-star hotels of high quality. The most difficult and strongest turbulent periods (political perturbations, economic conflicts) affect 4-5-star hotels. Accordingly, the occupancy of the number of rooms for this category decreases. The reason is the predominant location of the hospitality facility on a foreign guest, primarily business people.

Income is a motivating factor, an important source of hotel business, the main criterion for assessing the production and economic activity of each enterprise. Therefore, an important feature of economic analysis is research, analysis, evaluation, forecasting the impact of various factors on the income level of the hotel industry using methods of economic-mathematical modeling to find reserves and opportunities for their mobilization in the current and future periods.

Literature review. Kapranova L., Nikitin D. (2018) [3], Ostapenko J. (2016) [1] consider the main problems and prospects for the development of the hotel industry through the prism of statistics. Bereshchak V. (2019) [4], Ilyin A. (2020) [5] provide an overview of the hotel market, describe the situation with hotels in Ukraine, identify factors that have an impact on the hotel business. Yurynets Z., Baida B., Petrukh O. (2015) [6] investigate the issues of functioning and developing of the hotel industry, competitiveness of the hotel industry and the economy in general within the innovation component. However, these authors only state the need to use economic-mathematical modeling to predict the development of the hotel segment and theoretically note the factors that affect the hotel industry.

Empirical experience of methods application of the system analysis and methodology of functional modeling for development research of processes of hotel economy has been received from works by Topolnik V., Rakova K. (2014) [2]. Abdullaeva AA (2009) [7] describes the impact of information technologies, their role in the effective management of the hotel business. However, these authors do not use econometric modeling methods, the Box-Jenkins method, which best allows you to select indicators that affect the impact on the hotel industry, the process of income generation and to predict the development of the hotel segment.

Aims. The purpose of the study is to develop an economic-mathematical model that allows to identify the factors impact on the income formation of hotels and similar accommodation in Ukraine.

Methods. During the study there have been used Box-Jenkins method (ARIMA) (to predict indicators such as operating costs of hotels and similar accommodation, hotel housing and similar accommodation); economic-mathematical modeling (to build a model and identify the impact of operating costs of hotels and similar accommodation, hotel housing and similar accommodation on the level of income of hotels and similar facilities); method of analysis, synthesis, generalization (when forming logical conclusions about the forecasting results).

Results. To create an economic-mathematical model, the analysis of statistical data characterizing the hotel business in Ukraine for the period from 2010 to 2019 has been carried out. The model parameters have been set on the basis of statistical data, which are given in table 1.

Table 1

Statistical data for creating an economic-mathematical model

Years	Income of hotels and similar accommodation, UAH mln.	Operating expenses of hotels and similar accommodation, UAH mln.	Housing resources of hotels and similar accommodation, ths. sq.m.
	Y	x_1	x_2
2010	3423,64	3981	1700,6
2011	3608,76	4043	1624,6
2012	4486,84	4182	1805,3
2013	4957,53	4250	1996,1
2014	5012,43	4334	1604,8
2015	5112,14	5892	1338,5
2016	6710,16	5640	2187,4
2017	8629,3	5590	1907,5
2018	10293,3	5542	2092,6
2019	11434,6	5500	2134,5

Source: based on [8]

The economic-mathematical model (1) has been obtained:

$$Y = a_1 + a_2x_1 + a_3x_2, (1)$$

Y - income of hotels and similar accommodation, UAH million;

x_1 - operating expenses of hotels and similar accommodation, UAH million;

x_2 - housing resources of hotels and similar accommodation, ths. sq.m.;

a_1 - free members of the formed equation;

a_2, a_3 - coefficients of the formed regression equation.

The research uses the functions and principles of constructing multiple regression using the application package Statistica 6.0, which allow to identify the influence degree of these factors on the study object using step-by-step multifactor analysis [9].

Let us analyze such indicators as operating costs of hotels and similar accommodation, housing resources of hotels and similar accommodation. The indicators changes over time can be seen in Fig. 1.

Operating costs of the hotel industry in Ukraine tend to fluctuate over time. The turning point in the changes is 2015 and 2016. The reason for the reduction of operating costs was the social and economic crisis, political instability in the country, reduced tourist flow, reduced housing resources of hotels and similar accommodation, reduced supply of hotel business, rejection in the need to modernize rooms.

However, this situation has gradually improved and the number and quality of hotel services have improved accordingly.

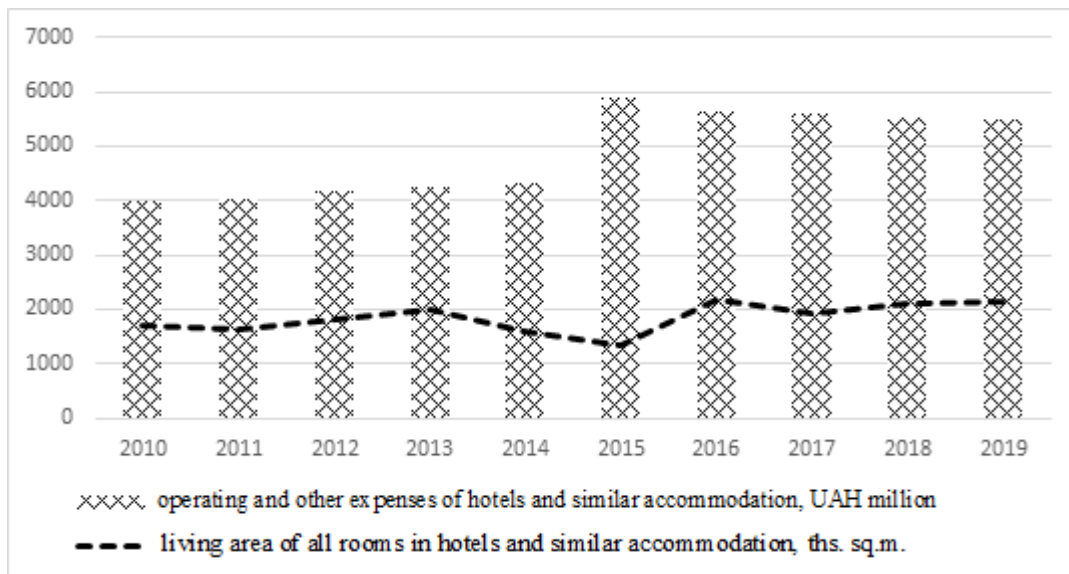


Fig. 1. The indicators changes over time to create an economic-mathematical model

Source: generated by the author

To forecast the income of hotels and similar accommodation for a short period, you first need to build a forecast of such indicators. as operating expenses of hotels and similar accommodation and housing resources of hotels and similar accommodation. To do this, let us use Box–Jenkins method (ARIMA), which is part of the application package Statistica [9, p. 61]. The forecast model created based on Box-Jenkins method (ARIMA) has advantages as it is marked by accuracy and adequacy for carrying out research for the short-term period [9, p. 196].

Fig. 2 and Fig. 3 show the procedure for creating a short-term forecast for the indicators: operating costs of hotels and similar accommodation, housing resources of hotels and similar accommodation.

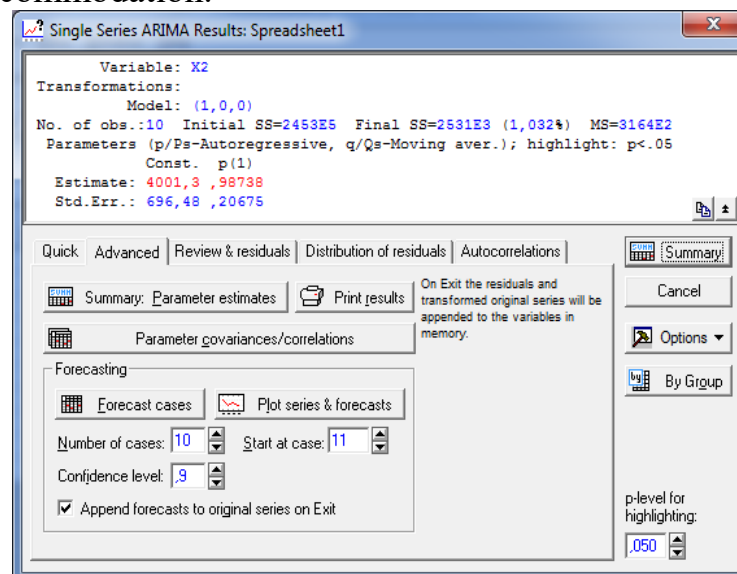


Fig. 2. Adjustments and results of Box-Jenkins method (ARIMA) application for the indicator of operating costs of hotels and similar accommodation

Source: generated by the author

Given the auto-correlation function and the partial auto-correlation function, it should be noted that the best model for these indicators will be ARIMA (1,0,0).

Input: X2 (Spreadsheet1)						
Transformations: none						
Model:(1,0,0) MS Residual= 3164E2						
Paramet.	Param.	Asympt. Std.Err.	Asympt. t(8)	p	Lower 95% Conf	Upper 95% Conf
Constant	4001,347	696,4838	5,745069	0,000431	2395,253	5607,442
p(1)	0,987	0,2068	4,775719	0,001398	0,511	1,464

Fig. 3. Parameters of the ARIMA model for operating costs of hotels and similar accommodation

Source: generated by the author

The analysis of Fig. 3 allows us to see that the estimates of the model parameters are quite significant ($p < 0.1$). The analysis of surpluses shows that we have created an adequate model of short-term forecast for operating costs of hotels and similar accommodation.

There have been taken similar actions to forecast the housing resources of hotels and similar accommodation.

The forecast of indicators for the short-term period of time is presented in Fig. 4.

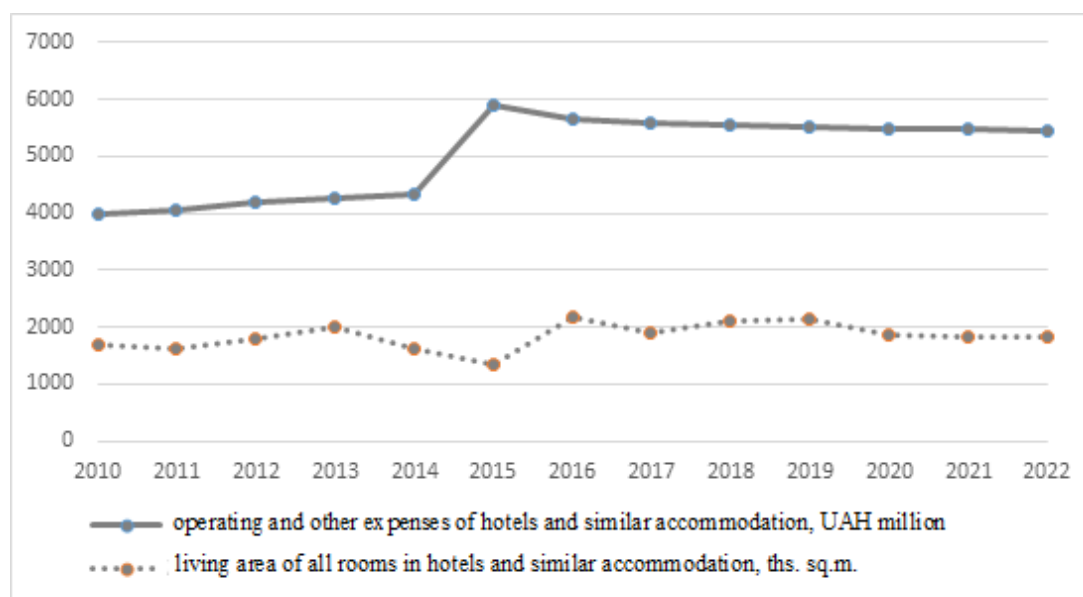


Fig. 4. Forecast for the indicators of operating costs and housing resources of hotels and similar accommodation

Source: generated by the author

According to the forecast for 2020-2022 in Ukraine, some reduction in operating costs and housing resources in hotels and similar accommodation is expected.

The results of the forecast for the indicator of income of hotels and similar accommodation are shown in Fig. 5.

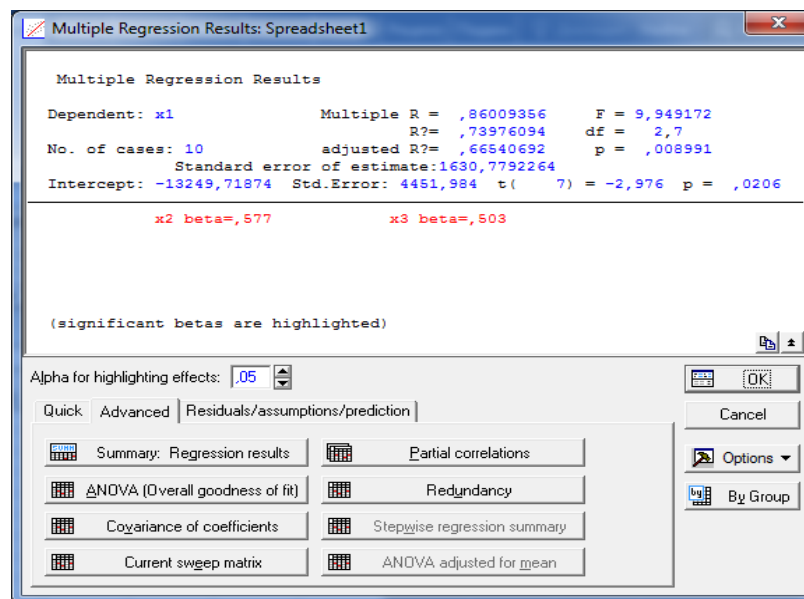


Fig. 5. Forecasting results for the indicator of income of hotels and similar accommodation

Source: generated by the author

The correlation matrix for indicators of income of hotels and similar accommodation, operating expenses of hotels and similar accommodation, housing resources of hotels and similar accommodation is shown in Fig. 6:

Variable	Correlations (Spreadsheet1)		
	x1	x2	Y
x1	1,000000	0,264308	0,710034
x2	0,264308	1,000000	0,655805
Y	0,710034	0,655805	1,000000

Fig. 6. Correlation matrix for indicators

Source: generated by the author

According to the data obtained in Fig. 6, we can see indicators (above average) for the income of hotels and similar accommodation. The homogeneity of the predicted population, the proximity of the empirical distribution to the theoretical one and the absence of multicollinearity have also been revealed.

The forecasting results for the indicator of income of hotels and similar accommodation are presented in Fig. 7.

Regression Summary for Dependent Variable: Y (Spreadsheet1)						
R= ,86009356 R²= ,73976094 Adjusted R²= ,66540692 F(2,7)=9,9492 p<,00899 Std. Error of estimate: 1630,8						
N=10	Beta	Std. Err. of Beta	B	Std. Err. of B	t(7)	p-level
Intercept			-13249,7	4451,984	-2,97614	0,020627
x1	0,577008	0,199923	2,1	0,713	2,88615	0,023445
x2	0,503298	0,199923	5,2	2,060	2,51746	0,039959

Fig. 7. The result of multiple regression for the income of hotels and similar accommodation

Source: generated by the author

Fig. 7 shows that the parameter estimates are significant because p is less than 0.05. The analysis of surpluses and parameters shows that we have created an adequate model of short-term forecast for the income of hotels and similar accommodation.

One of the main indicators that characterizes the density of the correlation between the selected factors, the proximity of the mathematical form of the relationship relative to the sample statistics is the coefficient of multiple correlation. The correlation coefficient varies from -1 to 1, and: if $R > 0$, then between the random variables and the independent variable there is a direct relationship, if $R < 0$, then between these random variables there is an inverse relationship [10]. For the created model $R = 0,86$. This indicator characterizes the close relationship between other indicators and the proximity of the economic-mathematical model to the sample statistics.

In the course of creating an econometric model, one of the problematic issues is to establish the significance of the influence of individual factors on the studied indicator. The significance of the factors influence on the studied indicator is determined by F-statistics. According to Fisher's criterion $F(2,7) = 9.9492$ (significantly higher than the tabular critical value), we can conclude that the relationship between the indicators is significant. The standard estimate error is 1630.8, i.e. the coefficients estimates are quite statistically significant.

Thus, the created economic-mathematical model will look like:

$$Y = -13249,7 + 2,1x_1 + 5,2x_2 \quad (2)$$

On the basis of the economic-mathematical model the influence forecast of operating expenses and housing resources of hotels and similar accommodation on incomes of hotels and similar accommodation has been made (Fig. 8).

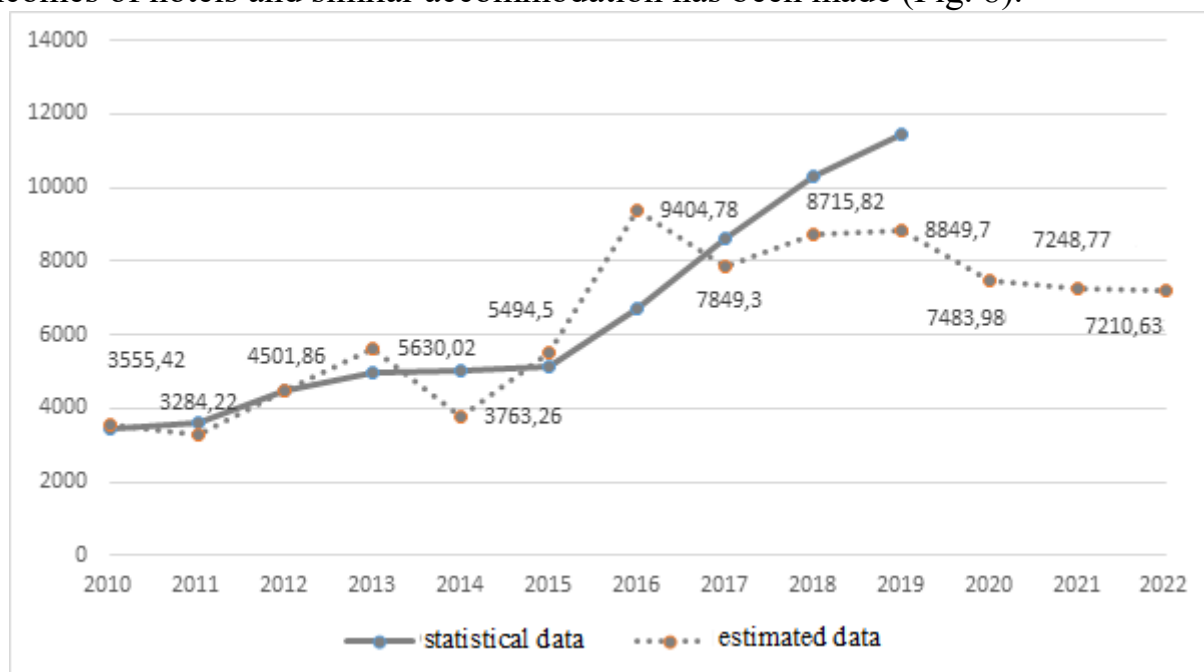


Fig. 8. Income forecast of hotels and similar accommodation

Source: generated by the author

From Fig. 8 it can be concluded that the income level of hotels and similar accommodation in 2020-2022 will decrease. This situation is due to the current unstable situations that have arisen in the country and in the world.

Discussion. The change in the income level of hotels and similar accommodation is to some extent due to changes in the quantity and quality of hotel services and rising prices. The cost of living in hotels and similar accommodation in Ukraine is significantly higher than the cost of living in hotels of similar class in the EU. The high prices for hotel accommodation can be explained primarily by the small number of it in the market of hotel services.

The cost of living in hotels of different categories in Ukraine ranges from \$ 6-8 (in hotel-type dormitories in the regions) to \$ 300-400 in 4-star hotels. At the same time, the Premier Palace Hotel costs around \$ 3,000 [3].

Due to the localization of demand for hotel services, it is worth noting the focus of guests on lower price segments. Due to the reorientation towards organized customer groups, the workload in almost all hotel segments has increased slightly. In general, the growing share of Ukrainian tourism affects changes in the structure of demand for hotel services, target audience, consumer behavior. Quite often, hotel assets are a part of a strategy to diversify the income of large companies, especially when it comes to foreign investors.

The hotel business is strongly influenced by various internal and external factors: economic, social, geopolitical, legislative transformations, force majeure, climatic conditions, market dynamics, including goods, services and resources. Directly or indirectly, these factors determine the amount of income of hotels and similar accommodation, as an important indicator of development, due to price aspects in the market of hotel services, demand for services and so on.

A significant part of the profitability of collective accommodation in Ukraine accounts for the income of hotels and similar accommodation, in the structure of which the main share is due to income from the rooms sale, additional services provision [1]. The financial and economic crisis in the country has led to a deterioration in living standards, lower social security and basic human needs, which at the same time leads to lower demand for hotel services, as such services are usually not essential goods, and virtually no stimulating in development of the tourism sector of the economy reduces the profitability of enterprises in the hotel sector in general [11].

Conclusion. Thus, based on the above, the hotel industry as an important sector of Ukraine's economy, which interacts with other segments in a dynamic, uncertain external environment and contributes to the development of the economy as a whole, needs state support given the new stage of global business development and new global trends, different internal and external factors (economic, social, geopolitical, legislative transformations, force majeure, climatic conditions, dynamics of market conditions, including goods, services and resources). The main prerequisites for the hotel industry development and increasing the profitability of the hotel sector should be to stimulate the development of the tourism sector of the economy, increasing living standards and social security. In order to improve the hotel business, it is

necessary to stimulate the development of tourism and hotel industry, attract foreign visitors through the development and implementation of national and regional programs, strategies for hotel business development, monitoring the implementation of these programs, creating appropriate conditions to attract investment in the hotel industry.

Author contributions. The authors contributed equally.

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MONITORING MECHANISM OF RESILIENCE OF THE ANTI-CRISIS POTENTIAL SYSTEM OF THE CONSTRUCTION ENTERPRISE IN THE LONG-TERM PERIOD

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Abstract. The anti-crisis potential of enterprises belonging to industries with a long production cycle is unstable, as the time interval between incoming cash flows is much longer than between outgoing ones. This problem is especially actual for construction companies, whose income largely depends on the state of investment demand. Therefore, there is a need to develop an effective mechanism to control the resilience of the anti-crisis system of the construction company to environmental conditions. According to many scientists, anti-crisis potential is associated with the financial sanitation. Given the undeniable usefulness of the analyzed developments, there has been noted that they are unsuitable for managing the financial sanitation capacity and anti-crisis potential of construction companies. After all, most of them are suggested for agricultural or industrial ones. Given the definition of "financial sanitation", the implementation of measures aimed at restoring business is impossible without investment. Investing funds in any business project, including those aimed at strengthening the financial condition of the enterprise, will be efficient only when they provide an economic effect. Thus, the requirement of return on investment is indisputable, but for high-risk activities, including construction, there is an additional condition, to get a return on investment as soon as possible: from 3 to 10 years. After all, this is the duration period of different types of macroeconomic cycles, during which the vast majority of construction companies go through all stages of economic development: from growth to decline.

The dependence of the payback period of equity capital on other factors of the internal and external environment of business systems has been studied in order to manage the rehabilitation and anti-crisis potential of a construction company. General scientific methods such as analysis, synthesis, deduction, induction, analogy as means of studying and generalizing theoretical approaches to providing anti-crisis potential; Backward Stepwise method (construction of multifactor linear regressions Statistica 8.0), providing the sequential construction of equations in which the set of input factors decreases by removing the least significant to explain the variation of the independent variate. In order to increase the efficiency of decision-making on the feasibility of additional equity attraction by construction companies there has been developed a methodological approach to forecasting the level of financial sanitation capacity of the construction company. It is a complex; a multifactor model - a linguistic scale, allows to identify changes in the payback period of equity in the medium term using quantitative and linguistic estimates and can be used as a functional module of digitized economic management of the enterprise.

Keywords: *anti-crisis potential, payback period of equity capital, level of consumption of owners' capital, capital multiplier for current liabilities, return on current assets, multifactor model, functional module of digitized economic management of the enterprise.*

JEL classification: C87, G33, L74

Formulas: 3; **fig.:** 1; **tabl.:** 1; **bibl.:** 30

Introduction. At the end of 2019, the construction market in Kyiv collapsed. With the withdrawal of the largest construction company Ukrbud, which declared bankruptcy at the end of 2019, the situation changed significantly. The change in the top of developers has affected not only the redistribution of weight in the market, but also the investors' attitude to developers. Due to the problems with such companies as Elita-Center, Ukrbud and others, many families who want to invest in housing construction are now focusing their attention on reliable companies and their reputation. In turn, the top management of the largest construction companies that remained afloat is increasingly drawing attention to the world practice of economic management, which has gained considerable experience in developing strategies to prevent bankruptcy, creating economic security of construction companies, crisis management and more. Despite of the researches carried out by Ukrainian and foreign scientists, the issue of developing and strengthening the anti-crisis potential of domestic construction companies requires additional research, given the critical state of most construction companies.

Literature Review. Many scientists associate the anti-crisis potential with the financial sanation one, in particular O.Yu. Andrushchenko defines anti-crisis potential and financial sanation as two main elements that form the potential for survival [1].

Effective management of anti-crisis potential should help strengthen the financial sanation capacity of enterprises. Thus, N.V. Trusova, S.V. Karman [4] note "the operational capacity of the enterprise should be considered not only as its current ability to survive, but also the ability to develop effectively in the future." Endovytsky D.A., Isaenko A.N. [5] characterize the mechanism of management of financial sanation capacity as a management tool, "aimed at systematic monitoring of financial and economic security, early detection of threats to their financial sanation capacity and development of strategic and tactical measures aimed at prompt restoration of financial sanation capacity and ensuring profitability, competitiveness and sustainable development of the enterprise." Bulovich T.V. [6] considers financial sanation capacity as a complex natural characteristic of the socio-economic system, which is based on its ability to maintain it in a balanced, stable state, which creates the preconditions for successful operation. In addition, this author notes that the remediation capacity is a kind of "economic immunity" of the enterprise, which determines its ability to counteract the negative effects of external and internal factors, forming the ability to self-reproduction [6, p. 162]. Management of the financial sanation capacity of the enterprise Lisnichuk O.A. proposes to consider as "a cyclical process that is formed as a result of the relationship of such management functions as monitoring, planning, design, implementation and control" [26].

Scientists also offer different ways of quantitative and qualitative assessment of financial sanation capacity and financial sanation potential, using indicators that differ in economic content [2-3, 8-24].

Oliynyk T.O., Shiblova A.M. [7] consider it appropriate to assess the financial sanation capacity using “traditional” models of bankruptcy prediction and SWOT-analysis. Similar methods were used by other scientists: Lisnichuk O.A. [26], Rudenko E.M. [11], however, alongside this they suggest their own development of an integrated indicator of financial sanation capacity, and use various methods of their justification. Lisnichuk O.A. proposes to determine the integral exponent based on the multifactor linear regression equation. Instead, Rudenko E.M. considers it appropriate to calculate the integrated indicator as a weighted average assessment of liquidity and financial stability. It is assumed that one should use not the actual values of indicators, but their relationship to the normative or industry average, as well as adjust these ratios to the weights of each factor in the overall model, determined by the expert method [11]. It should be noted that all the above methods of assessing the financial sanation capacity determine a certain conditional indicator, which is impossible to interpret clearly. Some development results [8-13, 19, 22, 25, 27-30] provide for the implementation of logit-transformation of such “conditional” integrated indicators, which provides a quantitative assessment of the probability of bankruptcy, default, withdrawal from the market.

Aims - to develop a comprehensive methodological approach to forecasting the level of financial sanation capacity of the construction company. The main task is the formation of anti-crisis potential of the construction company, able to withstand existing threats in conditions of digitalization of the economy, which determines the topicality of the study.

Methods. To study the components of the anti-crisis potential of construction companies and identify threats to their economic security we used a coefficient method, correlation-regression analysis, two-input classifications. “Multifactor model - linguistic scale” as a basis for organizing a digital management system of a construction company.

Results. The payback period of equity capital (PP_{EC}) in the financial analysis is proposed to be defined as the value inverse of financial return (ROE):

$$PPEC = \frac{1}{ROE} = \frac{EC}{NP}, \quad (1)$$

where EC, NP - respectively, the average value of equity capital and net profit for the reporting period.

According to (1), the owners' capital investment in the construction business will pay off the faster, the greater the amount of net profit received by the company in the period under review. If the company is operating at a loss, the result (1) will be negative and it will be impractical to invest in the assets of unprofitable business. After all, instead of gaining profit, there will be only a waste of capital.

The value of the payback period of equity capital according to formula (1) was calculated for a study sample of construction companies. Given the long-term nature

of investment, including financial sanitation, one should pay particular attention to the results of calculations for the period of four years before the crisis, shown in Fig. 1.

The diagrams and information fields (Fig. 1) present the statistical characteristics determined for the entire sample taking into account the subperiod, but without dividing the observations into crisis and non-crisis. Calculations showed that the average payback period of equity capital is almost 8 years, subject to 95% -s boundaries reliable interval, the figure is in the range from -3 to 19 years (Figure 1).

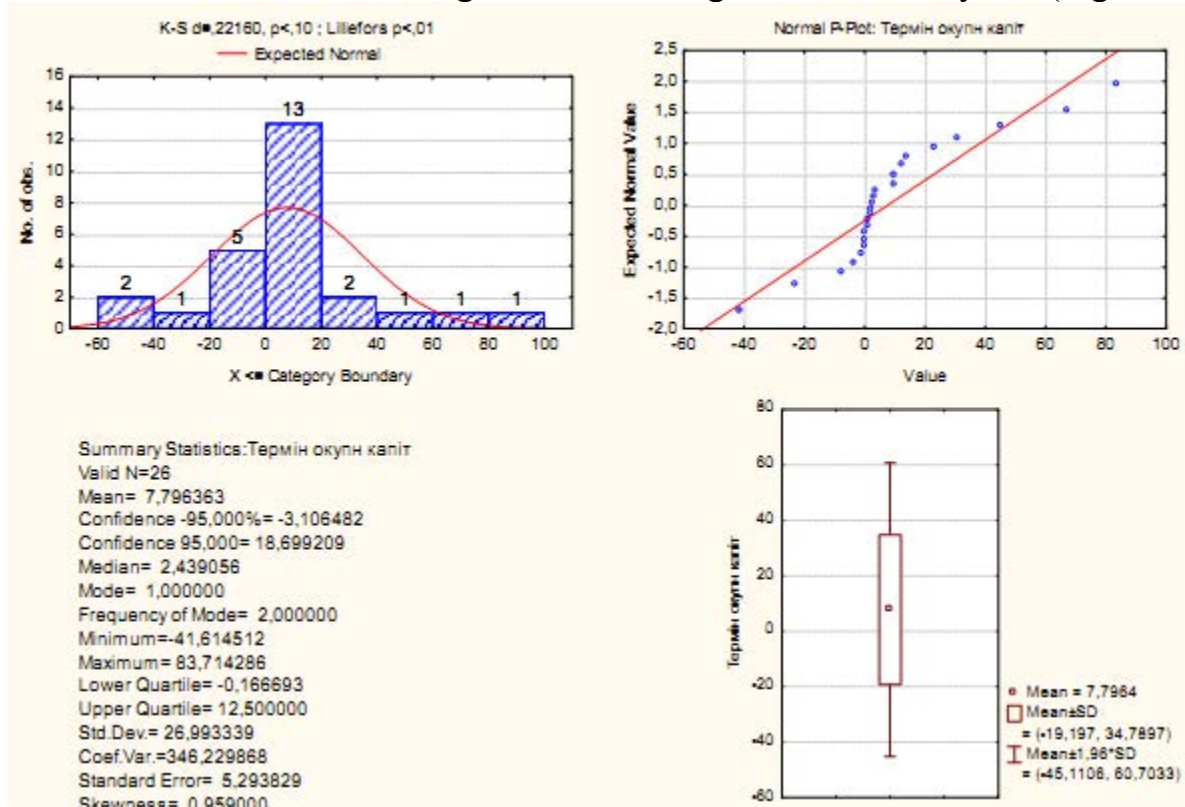


Fig. 1. Statistical characteristics of the payback period of equity capital for 4 years before the possible start of the crisis

In the analyzed sample, the minimum payback period is almost 42 years, the maximum is 84 years, the standard deviation (σ) is almost 27 years, and the standard deviation means:

$$\sigma_{PPec} = \frac{\sigma_{PPec}}{\sqrt{n-1}} = \frac{27}{\sqrt{5}} = 5,4 \text{ years} \quad (2)$$

where n is the volume of the subsample.

In accordance with the results of calculations, 8 observations (Fig. 1) have a negative payback period of equity capital, i.e. investing to ensure their viability is impractical. These are the options for the contractors' work, which were achieved in Ltd CD №12. However, not all enterprises that have a positive payback period of equity capital are characterized by high financial sanitation capacity, as the considerable value of the ratio (1) indicates a significant delay in obtaining the economic effect of reorganization investments.

Since the studied indicator must vary within certain reasonable limits, not all values of quartiles (Fig.1) are suitable for the development of instrumental support mechanism for controlling the resilience of the system of anti-crisis potential of the

construction company in the long run. In particular, the first quartile, which separates 25% of observations with minimum values, is -0.17 years and delimits the options for contractors with low financial sanitation capacity. However, these are not all the cases of inefficient equity management listed above. The second quartile, of course, is the median, it divides the sample in half according to the level of manifestation of the sign. The median payback period of equity capital of the studied sample (Fig. 1) was 2.44 years, but this result should not be considered as a benchmark for the effectiveness of crisis management of the construction business. After all, this result is caused by a significant number of negative values of the studied indicator, which is unacceptable. And only the third quartile separating the quarter of observations with the maximum value equals 12.5 years and is informative for anti-crisis resilience control capabilities. It should be considered the limit value of the financial sanitation capacity of the construction business. It is doubtful that a rational investor will expect a return on investment for more than 12.5 years.

Similar calculations were performed for the whole set of enterprises, without taking into account the crisis horizon, but with the division of the sample into crisis and crisis-free subgroups. The results of calculations of the payback period of equity capital were much worse because of a number of circumstances. Enterprises in crisis, in particular, most of which were in liquidation, rapidly reduced the volume of their activity or even stopped it, as a result, the net income was close to 0 or negative. Usually the result of the formula (1) will be excessively high or negative, which is unacceptable to ensure remediation capacity. As the period under review of most crisis-free enterprises coincides with the periods of economic decline of the country, many enterprises of the crisis-free group operated at a loss, or reflected understated income and financial results in their financial statements. Therefore, the indicators of financial sanitation capacity in this subgroup significantly exceed the above-mentioned limits of financial sanitation capacity of the construction business.

In our opinion, the dependence of the payback period of equity capital on other factors should be studied in the dynamics, since the decisive role in making an investment decision is played by forecast indicators. After all, it is important for the investor to assess possible changes in the efficiency of investment in the period following the investment costs, taking into account the functional module of digitalized economic management of the enterprise [9-10].

The dynamic aspect of the influence of the factors on the result is reflected in the lag, or autoregressive stochastic model, i.e. such a dependence in which the explanatory and explanatory variables belong to different periods. This study used a lag model, the factor variables of which are one year ahead of the effective. The choice of such dependence was made taking into account the considerable uncertainty of the economic environment of construction companies and the desire of investors to return the capital as soon as possible [14, 16, 21, 23, 30]. Thus, in the case of reducing the profitability of a business project, it is natural to decide on premature disinvestment in order to avoid much greater losses. In our opinion, among the factors influencing the future growth of the payback period of invested capital should

be those that are crucial for the implementation of advanced anti-crisis diagnostics, as evidenced by previous studies [2, 3, 12-22, 25-30].

However, we should not neglect the well-known financial indicators used in the diagnosis of bankruptcy and anti-crisis capacity. Based on the above considerations, we formulated the initial set of factor indicators, which should influence the change in the payback period of equity capital in the one-year perspective. Due to the heterogeneity of financial ratios both in the entire sample and in the context of individual subgroups, the construction of a multifactor model was preceded by numerous experiments. First, they concerned the refinement of the studied set of observations for the presence of "emissions", i.e. such variants of economic activity, whose characteristics have too high or excessively low quantitative values compared to the rest. Secondly, it was necessary to ensure the unbiasedness and efficiency of the model coefficients, first, by achieving a sufficient density of stochastic relationship between the factor and result variable, while avoiding high correlation in the middle of a set of explanatory variables.

To ensure the homogeneity of the original array of analyzed data, we removed observations of the penultimate year of some bankrupt enterprise operations from it, as well as data of those entities whose capital, assets, income, expenses exceed the 90th percentile or were less than the 10th percentile. As a result, the input array was formed according to 16 construction companies. Since the dependent variable of the model corresponds to the next period, i.e. moved by a year, compared to independent, three options are considered for each company. After all, the data for the last year before (for the crisis subgroup) exit from the market cannot be used, as there is no information about changes in return on equity capital in the future.

The criterion for substantiating the feasibility of including explanatory variables in multifactor models is the coefficient of pairwise correlation with the resultant variable. In this case, along with the numerical value of the coefficients, their statistical significance is taken into account, which is taken at the level of 0.05. The relevant indicators are underlined. According to the calculations, a priori justified factors are suitable for use in models together with factors important for advanced crisis diagnosis. In particular (Table 1), changes in the payback period of equity capital can be explained by last year's fluctuations in liquidity, quick liquidity and coverage, characteristics of the capital structure, defined by us as specific features of anti-crisis potential of construction companies, and return on working capital net income. The density of the correlation is different, depending on whether it is calculated for the entire sample, or for individual subgroups. Due to their different size, there are differences in the statistical significance of the correlation coefficients (table 1).

Construction of multi-factor linear regressions was carried out in a software environment Statistica 8.0 method Backward Stepwise, which provides consistent building of equations, where a set of inputs is decreased by removing the least significant for explanation of variations in the independent variable.

Table 1

The value of the coefficients of pairwise correlation between the indicators of the financial condition of construction companies and the payback period of their equity capital in a year

Factor variable	Coverage ratio	Quick liquidity	Multiplier	Capital consumption	RCA.
The whole sample	0.38	0.34	-0.43	0.67	0.12
Crisis-free group	0.70	0.89	0.71	-0.69	0.11
Crisis group	-0.37	-0.42	-0.53	0.45	-0.61

Finally, the regression formulas constructed for different subgroups, as well as the entire sample, differ in the composition of the explanatory variables, and the size of the coefficients around them:

$$\hat{y} = 44,9x_1 + 28x_2 - 4,6x_3 + 58,6x_4 - 125,8 \quad (1),$$

$$\hat{y} = 23,8x_1 + 22,3x_2 + 160,6x_4 - 149,2 \quad (2),$$

$$\hat{y} = -22,4x_1 + 18,2x_2 - 2,3x_3 - 168,7x_5 - 3,8 \quad (3),$$

where, x_1 - Coverage ratio; x_2 - Owners' capital consumption level; x_3 - Capital multiplier for current liabilities; x_4 - Quick liquidity; x_5 - Return on current assets.

Indicators of statistical significance of equations (1 - 3), given the performance of multiple determination (R-squared) and calculated based on these values Fisher criterion (F), that the higher probability in the corresponding table 0.05 can be considered dependence (1 - 3) regular, not accidental. The values of standard errors of all models do not exceed 30 years, which is acceptable given the considerable scope of variation in the payback period of equity capital.

The analysis of the coefficients for variables in the formulas (1 - 3) showed the following:

- Factors of change of financial sanitation capacity differ significantly depending on the level of anti-crisis potential - in number, in direction, and in intensity of influence;
- Perhaps the most important factor for the anti-crisis diagnosis, the return on current assets, affects only the variation in the payback period of the owners of crisis subgroups, while non- crisis ones are less vulnerable to changes in such profitability, since the variable x_5 is available only in the model (3);
- Coverage and quick liquidity ratios, which are "traditional" for anti-crisis diagnostics, vary, causing changes in the payback period of equity capital in the annual perspective only for those enterprises that are not facing the threat of financial crisis. The directions of change are the same: the growth of liquidity indicators postpones the payback period of the owners' capital, as the coefficients for variables x_1 and x_4 in the formulas (1, 2) are positive. That is, the earliest possible return on investment in the construction business is not possible without the use of aggressive policies for the establishment of current assets;

- The burden of owners' capital on operating costs, or the level of consumption of owners' capital, has a direct impact on the payback period of equity capital, i.e. increasing the ratio of the main positive components of equity to operating costs increases the dependent variable for all analyzed enterprises, regardless of their crisis potential. This conclusion is made taking into account the positive values of the coefficients at x_2 in the formulas (1-3);
- The multiplier of capital on current liabilities was a stimulating factor to accelerate the return on owners' investment in the construction business, as increasing the ratio of accumulated current liabilities to total assets reduces the value of the productive variable throughout the sample of enterprises and crisis subgroup. The inverse dependence of the payback period of equity capital is manifested through the negative values of the coefficients around x_3 in the formulas (1, 3).

Regarding the quantitative impact of the studied factors on the payback period of equity, it is advisable to dwell in more detail on the parameters of the formulas (1-3).

Throughout the sample of surveyed enterprises, the value of the dependent variable should be expected to increase by 44.9, 28.0 and 58.6 years, respectively, in the case of an increase in the coverage ratio, the level of consumption of owners' capital and quid liquidity per unit. However, such a rapid growth of all these factors is unlikely, modern construction companies should expect them to increase by no more than 0.1, or 10 percentage points. Therefore, it is more probable to assume a possible increase in the payback period of equity capital by 4.5, 2.8 and 5.9 years, respectively, due to the use of conservative financial policy as a means of crisis management. Thus, in order to manage the anti-crisis potential, it is reasonable to alternate the priority periods of conservative and aggressive working capital management policy. The first one is aimed at the current financial stabilization and elimination of the shortage of cash resources in the short term, but it does not allow obtaining a sufficient amount of net profit, which would accelerate the payback period of investment in the construction business. The application of the second type of policy is justified by high profitability, but it cannot be applied on a regular basis due to the threat of loss of solvency by the construction company. Given the level of significance of each of the coefficients of the model (1), determined by the t-testing, it should be noted that crucial indicators for determining the remediation capacity are the coverage ratio and the level of capital consumption of owners in which p-significance does not exceed 0.05. It should also be noted that these factors are characterized by the strongest influence, expressed in standard deviations: with an increase in x_1 and x_2 per sigma, the payback period of equity capital will increase by 0.4 sigma.

The value of the free constant in the formulas (1-3) reflects the dependence of the performance variable on other factors of the internal and external environment of business systems that were not included in the models. Thus, for the entire analyzed sample, factors not taken into account by the dependence (1) lead to a reduction in the payback period of equity capital by 125.8 years. This effect is explained by the presence of a large number of unprofitable enterprises in which equity capital and its

payback period have become negative. With regard to the value of R^2 , we can conclude that the dependence 1 explains variation payback period of equity capital in 56 cases out of 100.

The dependence of the financial sanitation capacity of crisis-free enterprises on the change of anti-crisis potential is approximated by the formula (2). According to its right part, the payback period of the capital of construction companies, which are not threatened by liquidation in the near future, is affected by fewer factors, because in the model (2) there are no variables x_3 and x_5 . However, all three independent variables present in this formula with their growth only lead to a decrease in financial sanitation capacity. In particular, an increase by 1 of the ratios of quick liquidity, coverage and level of consumption of owners' capital will increase the payback period of equity by 160.6, 23.8 and 22.3 years, respectively. If the increase in financial indicators (x_1, x_2, x_4) will be only 0.1 times, or 10 percentage points, which is more likely, you should expect an increase in payback period of the owners' capital in addition to 2-16 years. The obtained indicators of the quantitative impact of the factors on the financial sanitation capacity confirm the inexpediency of applying only a conservative policy of financing the current assets of construction companies. Given the values of the coefficients for the variables in model (2), it can be argued that the preference for conservative fiscal policy in the management of crisis-free enterprises will negatively affect their investment attractiveness. After all, a considerable payback period of the capital invested in the construction business will not stimulate new investments in technical renovation, despite the lack of cash shortages and solvency problems. Since, according to dependence (2), only the free constant is negative, stimulators of investment attractiveness of crisis-free construction companies are factors other than the level of liquidity, solvency or the ratio of a positive part of equity to operating costs. Independent variable formulas (2) are characterized by different levels of statistical significance, and, as for the entire sample, the decisive influence on the financial sanitation capacity of crisis - free enterprises is exerted by only two factors. These are liquidity ratios - quick liquidity ratio and coverage ratio. In the case of variation of the respective independent variables (x_1 and x_4) in the amount of one standard deviation, the payback period of equity capital will change by 0.264 and 0.760 of their standard deviations, respectively. In this case, the direction of change of the performance indicator will coincide with the direction of change of factors. Thus, among the most significant factors in both empirical dependences, only one, coverage factor, coincided, but its influence, expressed in standard deviations, in the crisis-free subsample is slightly smaller: 0.264 sigma versus 0.389 sigma. The model of financial sanitation capacity of crisis-free subsample (2) is characterized by a higher approximation reliability than the model for all observations (1), because the corresponding values of R^2 differ significantly. Thus, the formula (2) can explain 84 out of 100 cases of variation in the payback period of equity capital.

The model of financial sanitation capacity for the crisis subsample (3) is slightly different from the rest of the factor set; it is the only one that contains an independent variable that characterizes the profitability of the construction business: x_5 , which we

used to mark the return on current assets. In general, in terms of the set of independent variables, this empirical formula is more similar to the model (1), built on the whole sample, than to the model of crisis-free enterprises (2). In (3) there are also four factor variables, three of which are the same as in (1): coverage ratio (x_1), level of consumption of owners' capital (x_2), capital multiplier for current liabilities (x_3). The increase in the values of all factors, except x_2 , has a positive effect on the reorganization capacity of the subsample, as it reduces the payback period of equity capital. Of course, construction companies in crisis should not expect increases in liquidity, profitability, the ratio of components of the capital structure in the amount of more than 10 percentage points or 0.1 times. Accordingly, with such effectiveness of crisis management, a reduction is most likely to happen in the payback period of equity capital by 16.9 years in the case of an increase in return on working capital by 10 percentage points, by 2.2 years if the coverage ratio increases by 10 percentage points, or by 0.23 years in the case of an increase in the capital multiplier for current liabilities. Instead, under conditions of increasing the ratio of the positive part of equity to operating expenses, the payback period of the owners' investments will increase by 1.8 years out of every 10 percentage points. Factors not included in the model (3) contribute to the growth of financial sanitation capacity, as their impact reduces the payback period of equity capital by almost 3.8 years. The influence of independent variables, expressed in standard deviations, is noticeably weaker than for the model (1), as evidenced by the values of Beta-coefficients. Moreover, in dependence (3) the smallest of all is the indicator of the reliability of approximation, but its value exceeds 0.5, giving grounds to conclude that this formula is not accidental.

Discussion. Based on the above, the Author considers it necessary to clarify and supplement the concept of the "anti-crisis potential of a construction company". The Author's definition of the "anti-crisis potential of a construction enterprise" can be presented as a combination of all the possibilities of the construction business to resist a crisis, combining identification, analytical, protective, neutralizing subsystems, the coordinated functioning of which allows eliminating external and internal threats to economic security with continuous updating and digital support of the information control unit.

Conclusion. The correspondences obtained as a result of econometric modeling (1-3) can be used to predict the financial sanitation capacity of enterprises as a functional module of digitized economic management of the enterprise, provided that the independent variables are within the same limits as in the original samples. Its effectiveness is determined by the ability to quickly accumulate, process and apply information about threats to the enterprise's activities, largely depends on the degree of informatization of activities.

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CHAPTER 2

DEVELOPMENT OF FINANCE, ACCOUNTING AND AUDITING

DEBT MANAGEMENT AGENCY IN UKRAINE: A COMPREHENSIVE APPROACH TO THE CREATION AND OPERATION

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Abstract. *The article considers a comprehensive approach to the formation and operation of a debt agency in Ukraine based on international experience. Ensuring the full functioning of the Public Debt Management Agency of Ukraine in accordance with international best practices in order to increase the effectiveness of debt policy aimed at reducing the debt burden and reducing the cost of public debt service is one of the most important tasks of Ukraine's strategic development. Analysis of international experience shows that the creation of a debt agency, as a new structure, does not automatically guarantee increased efficiency of external public debt management. It depends on the qualifications of the staff, the structure of the country's public debt and the degree of influence of the agency's staff on the change in the debt burden. Quite a wide resonance in society on the creation of a debt agency in Ukraine, incomplete regulatory support of this process necessitates the definition of approaches to the creation of a debt agency of Ukraine and justification of its functional capacity, which is associated with: creating favorable conditions for the newly created debt agencies of Ukraine; introduction of mechanisms for monitoring and control over its activities and strengthening the interaction of various government agencies within the general government sector; increasing the efficiency and productivity of the debt agency.*

Keywords: *comprehensive approach, debt agency, public debt management, monitoring, efficiency, public debt service.*

JEL Classification: H63

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Introduction. The decision to establish a debt agency in Ukraine was made by the Verkhovna Rada of Ukraine in November 2019 in the framework of the Law of Ukraine "On Amendments to the Budget Code of Ukraine" № 293-IX of 14.11.2019. In pursuance of this decision, the Resolution of the Cabinet of Ministers of 12.02.2020 № 127 "On the Establishment of the Public Debt Management Agency of Ukraine" (hereinafter - the Agency) approved its establishment as a central executive body implementing state budget policy in the field of public debt management and state-guaranteed debt, the activities of which are directed and coordinated by the Cabinet of Ministers of Ukraine through the Minister of Finance.. Also, the resolution approved the Statutory Regulations on the Public Debt Management Agency of Ukraine (hereinafter – the Debt Agency).

However, the full-fledged "launch" of the Debt Agency of Ukraine has been postponed by the Law of Ukraine "On Amendments to the Law of Ukraine" On the State Budget of Ukraine for 2020 "№ 553-IX of 13.04.2020. Thus, until the agency starts operating, the authority to implement the debt policy remains with the Ministry of Finance of Ukraine. We will consider further the approaches and factors that will affect the functional capacity and effective functioning of the newly created Debt Agency in Ukraine, taking into account international experience.

Literature review. Problems of public debt management in crisis and post-crisis conditions are covered in the works of M. Asha, E. Baldassi, A. Baum, N. Budina, A. Weber, S. Gupta, M. Kanjiano, F. Casselli, T. Kindi, T. Curristin, M. Lazarus, T. Lana, E. Lipper, S. Pennings, R. Pollin, W. Reinhart, K. Reinhart, K. Rogoff, F. Roser, T. Herdon and others [1–10]. The theoretical foundations of public debt and issues related to its management are covered in the works of such Ukrainian scientists as: V. Lisovenko, L. Bench and O. Betz [11], the works of T. Bogdan are devoted to macroeconomic risks that arise in the process of public debt management [12–14] and others.

Aims. The purpose of the article is to theoretically substantiate the effective organizational and economic tools to the formation and operation of a Debt Agency in Ukraine based on international experience and to develop practical recommendations for its implementation.

Methods. The authors used the methods of static and logical comparison, systematization and generalization, which made it possible to achieve the goal of the study.

Results. Below we consider the main approaches and factors that will affect the functionality and effective operations of the newly established Debt Agency in Ukraine, taking into account the results of the analysis of international experience in this area in the following areas:

- **subordination and accountability.** A study of public debt regulation systems in different countries [15–30] showed that there is no single institutional structure for debt policy. In some countries there are debt management departments within government agencies, in others there are independent agencies (Table 1), while the relative autonomy of debt agencies provides for strict accountability of such agencies to the Ministry of Finance (or Government) and coordination of their actions with other ministries and departments.

Positive arguments in favor of creating a debt agency are mainly reduced to the *independence of the agency* (including political one) from various structures that would lobby their interests. Meanwhile, the main argument in favor of the model by government agencies is high importance of coordination of external debt management policy with fiscal and monetary policies. However, the decision-making process within a multi-level bureaucratic structure in this case is often too time-consuming and may not keep pace with changes in the financial market.

In Ukraine, a comprehensive approach has been applied, according to which the functions of establishing strategic guidelines in the formation of the debt portfolio management have been transferred to the Ministry of Finance of Ukraine. Other

functions related to accounting, responsible storage, technical work on debt management are transferred to an independent authority.

Table 1

Institutional structures for public debt management

Institutional structures	Countries
Central bank	Denmark, Iceland, Angola, Barbados, China, Jordan, Lebanon, Russia, Malawi, Uganda, Zambia, Zimbabwe.
Treasury	Australia, Belgium, Finland, France, Luxembourg, Holland, USA, Turkey, Brazil, Latvia, Malta, Papua New Guinea.
Ministry of Finance	Canada, Chile, Czech Republic, Israel, Japan, Korea, Mexico, New Zealand, Norway, Poland, Slovenia, Spain, Switzerland, Afghanistan, Albania, Argentina, Bosnia and Herzegovina, Bulgaria, Costa Rica, Croatia, Cyprus, Ecuador, Egypt, Estonia, Ethiopia, Georgia, Fiji, Ghana, Hong Kong, India, Indonesia, Kenya, Lesotho, Lithuania, Macedonia, Maldives, Mauritius, Moldova, Morocco, Nicaragua, Pakistan, Paraguay, Philippines, Romania, Rwanda, Serbia, Singapore, Solomon Islands, Sri Lanka, Tunisia, UAE, Vietnam, Uruguay.
Debt management agencies	Austria - Austrian Federal Financing Agency; Germany - German Federal Republic Finance Agency GmbH; Hungary - Hungarian Government Debt Management Agency; Ireland - National Treasury Management Agency; Portugal - Portuguese Debt Agency; Sweden - Swedish National Debt Office; Slovakia - Slovakian Debt and Liquidity Management Agency; United Kingdom - UK Debt Management Office.

Source: World Bank Group [<https://data.worldbank.org/>]

In this case, the public debt management body is separate, but always accountable to the Government and the Ministry of Finance of Ukraine, which determine the debt management strategy and evaluate the work of the Debt Agency;

- **purpose and objectives of creation.** The main purpose of creating debt agencies is to effectively manage public debt with minimal costs for its maintenance. The tasks of the functioning of debt agencies vary depending on the subordination of this body and the peculiarities of the debt situation in the country.

In Ukraine, the main tasks of the Debt Agency are:

1) implementation of state budget policy in the field of public debt management and state-guaranteed debt; 2) submission to the Minister of Finance of proposals for the formation of state budget policy in the field of public debt management and state-guaranteed debt [31].

Within the framework of these tasks, the implementation of activities that previously belonged to the sphere of competence of the Ministry of Finance of Ukraine is determined.

A novelty in the list of tasks of the Debt Agency of Ukraine, compared to its counterparts in other countries, is that the Debt Agency was determined *to be an issuer of government debt securities of Ukraine, including government bonds, treasury bonds and government derivatives of Ukraine*. The right to perform analysis, placement and active operations with government derivatives will belong to the state represented by the head of the Debt Agency in accordance with the decisions of the

Cabinet of Ministers of Ukraine. Expenditures on payments on government derivatives will be made by the Debt Agency regardless of the amount of funds provided for this purpose in the law on the state budget of the year, because according to world standards of debt accounting, derivatives are not part of debt instruments and are not included in government debt.

It should be noted that Ukraine's government derivatives currently in circulation were issued during the external debt restructuring in 2015 in the amount of USD 3.2 billion. These are GDP warrants, which are equity securities for Ukrainian creditors. Under the terms of the restructuring agreement, they were entitled to 15-40% of Ukraine's nominal GDP growth rate if economic growth rates exceed 3 and 4% per year. As of August 14, 2020, Ukraine bought about 10% of warrants (about 275 million US dollars) on the open market.

Since the conditions of issuance and servicing of government derivatives inevitably affect the welfare of all citizens of the country and the expenditures of the state budget in future periods, it is desirable to consolidate the authority to issue government derivatives by the Verkhovna Rada of Ukraine. In turn, Debt Agency has to prepare proposals on the parameters and conditions of placement of government derivatives, calculate the estimated costs of their maintenance and assess the associated fiscal risks.

Another novelty in the list of tasks of the newly created Debt Agency is its liquidity management of the single treasury account (SCR) and foreign currency accounts of the state budget, including the placement of temporarily free funds of the single treasury account and foreign currency accounts of the state budget in agreement with the Minister of Finance in line with the Strategy for reforming the public financial management system for 2017–2020, which was approved by the order of the Cabinet of Ministers of Ukraine dated 24.05.2017 № 415-r, for the first quarter of 2020.

This will integrate liquidity and debt management functions to better coordinate strategies for issuing debt instruments and investing free cash balances.

However, it is clear that this would require prior introduction of an information exchange system and the harmonization of debt issuance plans with forecasts of cash flows in the single treasury account and government currency accounts on an ongoing basis;

- **functions and structure.** In the world practice, institutional structures of public debt management include three elements: *market operations department* (front office), which ensures the implementation of agreements to attract sources of funding; *analytical department* (middle office), which provides an in-depth analysis of macroeconomic trends; *back office* with the function of external debt operational management. A more detailed division of functions between these units allows for a clear division of powers between employees and to achieve higher qualifications in individual segments of the implementation of debt policy.

At the same time, it should be noted that the management of global debt agencies includes debts that are inherently market in nature, and the management of debt obligations resembles the management of a portfolio of securities.

The functionality of the Debt Agency of Ukraine should have peculiarities due to "nuances" in the structure of public debt.

For example, the most important place in the structure of Ukraine's external public debt is played by the debts to international financial organizations and government agencies of other countries. Thus, as of July 31, 2020, the structure of Ukraine's public external debt was as follows:

- loans for securities issued on the foreign market – 56%;
- loans from MFIs, IMF and government agencies of other countries – 41%;
- loans from foreign commercial banks and other financial institutions – 3%.

Such debt structure shows that the solution to Ukraine's debt burden is in the area of intergovernmental agreements and is poorly maneuverable with the tools available to employees of other foreign agencies.

It should also be noted that Ukraine's public debt has an imbalance in instruments and the ratio of external and internal components. First of all, we are talking about:

low share of domestic debt in total public debt (in the range of 35.6-35.8%), the total amount of domestic debt as of 31.07.2020 amounted to UAH 882.62 billion (38% of the total amount of public and state-guaranteed debt), which signals the imperfection of state regulatory mechanisms and weak institutional capacity of the domestic financial market. Attempts to significantly increase domestic debt financing of the state budget by increasing the volume of foreign currency government bonds, increasing the share of non-resident investors in the portfolio of hryvnia government bonds, giving preference to short-term borrowings with very high yields on both hryvnia and foreign currency domestic debt instruments form the risk of outflow of foreign capital from the country, intensification of devaluation processes and inflation, increasing the risks of debt refinancing and dependence on external creditors;

a large share of public debt in foreign currency, which increases the sensitivity of the economy to external shocks, increases currency risks, the cost of borrowed resources and their maintenance. Formed both by borrowing on foreign capital markets and preferential financing by IFIs, and by placing foreign currency government bonds on the domestic market, the share of foreign currency debt at the end of 2017 was 70.0% of its total, at the end of 2018 – 70.9%, and at the end of 2019 – just 63.4% (according to the IMF methodology, for developing countries, the critical limit of this indicator is 60%);

the risk of making additional payments on VRI-instruments in the medium term (under the terms of the external debt restructuring conducted in 2015), the estimated total amount of which, according to experts, may be from 5 to 84 billion US dollars. This will lead either to the need to "cut" certain items of budget expenditures, or to the implementation of additional borrowings for payments on them.

The relatively high degree of autonomy of the Debt Agency in Ukraine should be based on an effective system of interaction between various public institutions within the general government sector and an effective system of control and accountability of autonomous institutions.

In the macroeconomic context, Ukraine's economy is not sufficiently diversified, so it is often affected by financial shocks, which worsen the balance of the public sector. In addition, the degree of connection of public debt management policy with the parameters of fiscal and monetary policy in Ukraine is relatively high. For example, an increase in the budget deficit or the uncontrolled accumulation of contingent liabilities may offset all the efforts of debt managers by increasing the risk of default. Thus, the issuance of debt instruments, the yield of which depends on inflation or the exchange rate, determines the sensitivity of debt service costs to the consequences of monetary policy of NBU.

The outlined macroeconomic conditions, as well as high dependence of the results of public debt management on the course of monetary and fiscal policy, complicate the task of creating a viable Debt Agency with independent status. It is difficult to require such an agency to achieve performance targets if their actual values are partly due to the work of other government bodies and partly reflect changes in the macroeconomic environment.

Discussions. Therefore, the Debt Agency should systematize all information flows that are retransmitted from various government agencies. This would allow to quickly monitor the latest global trends in the macroeconomic sphere, especially changes in those indicators that have a direct impact on the solvency of the state in the short- and medium term.

International experience also shows that all actions of the debt agency should be subject to monitoring and control by other government agencies. Moreover, the higher the degree of independence of the agency, the more regulated should be the control system (to reduce moral hazard in the system of relations "principal-agent").

Conclusions. Analysis of the situation with the creation of the Debt Agency and the peculiarities of the current debt situation in the country makes it possible to outline the following areas of improving its functionality, taking into account the best international experience in this area:

- ***creation of favorable conditions for the functioning of the Debt Agency***, to ensure which it is necessary to finalize and approve the Medium-Term Strategy of the Ministry of Finance of Ukraine for 2021-2023, where in terms of public debt management, provide tasks regarding the following:

- reducing the debt-to-GDP ratio to 55% by 2023;

- successful completion of the existing IMF Stand-by Program, conclusion of an Extended Financing Agreement (EFF) with a gradual transition to fully market-based budget financing on attractive terms;

- reducing the country's risk as an issuer of securities (reducing the credit spread to 300 bp in 2023) and bringing the country's international credit rating closer to investment level indicators;

- reduction of currency risks due to an increase in the share of the national debt denominated in the national currency (up to 50% in 2023);

- increase in the share of domestic government borrowing and government domestic debt;

complete the introduction of an information exchange system and harmonize debt issuance plans with forecasts of cash flows in the single treasury account and the government's foreign currency accounts on a permanent basis;

- ***introduction of mechanisms for monitoring and control over the activities of the newly created Debt Agency*** and strengthening the interaction of various government agencies within the general government sector by amending the Resolution of the Cabinet of Ministers of 12.02.2020 № 127 "On the establishment of the Public Debt Management Agency of Ukraine" with the following:

split of powers on issuance and placement of government derivatives between the Verkhovna Rada of Ukraine (determination of the amount of government derivatives) and the Debt Agency (should prepare proposals on parameters and conditions of placement of government derivatives, calculate estimated costs for their maintenance and assess fiscal risks);

determination of performance criteria (KPI) and targets for the work of the Debt Agency and evaluation of its activities;

definition of mechanisms for monitoring the activities of the Debt Agency, which will include: reporting on a regular basis to the Minister of Finance on a set list of indicators, preparation of annual reports of the Verkhovna Rada, internal and external audit, publication of regular reports to the public;

The Ministry of Finance of Ukraine together with the Ministry of Economic Development, Trade and Agriculture of Ukraine, the National Bank of Ukraine (NBU), the Public Debt Management Agency of Ukraine should consider the possibility of creating a unified system for detecting and overcoming macroeconomic imbalances. , planned actions of the government and the NBU in the foreign exchange market, public debt movements, etc. in terms of their likely effects on macroeconomic stability and financial stability;

- ***increasing the efficiency and productivity of the newly created Debt Agency***, which would require to:

provide for the formation of the organizational structure of the Debt Agency appropriate unit, which would implement the function of coordination and coordination of measures to implement public debt management policy with the parameters of fiscal and monetary policy by coordinating positions within the working groups, joint commissions, strategic sessions, etc.;

ensure compliance with international standards of accounting and reporting on public debt; equipment of automated workplaces for personnel, providing access to the database of public administration bodies, international news agencies and financial organizations;

form, in the Debt Agency, a single information database on debt obligations and macroeconomic parameters, on the state of world financial markets, credit ratings, new programs of international financial organizations, etc.;

take measures for training or retraining, setting the salaries of agency employees depending on the effectiveness of their public debt management activities;

form of a single information database in the agency on debt obligations and macroeconomic parameters, on the state of world financial markets, credit ratings, new programs of international financial organizations, etc.

In general, the analysis of international experience shows that in the countries where the agencies were established, it was possible to gradually softening the debt burden. If such an authority has a significant degree of autonomy from the government, it enjoys the confidence of investors in the global financial market, which expands the possibilities for the use of effective tools for public debt management.

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DETECTION AND PREVENTION OF SHADOW ACTIVITY OF ENTERPRISES IN THE MODERN ECONOMY OF UKRAINE

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Abstract. Shadow economy is a rather ambiguous and multifaceted concept. The shadow sector includes a variety of illegal activities as well as legal but unofficial or not formally recorded. The presence of shadow economic activity becomes a real problem for government regulation, especially in conditions of significant shocks, as it reduces fiscal potential, distorts development indicators and complicates any analytical conclusions about the state of the economic system. The purpose of the article is to highlight the theoretical foundations of the shadow economy, analyze the shadow sector of the Ukrainian economy and identify possible ways to minimize it. The authors used in the article historical and logical research methods that allowed us to characterize the socio-economic reasons for the emergence and scope of the shadow sector of the economy of Ukraine; abstract and concrete, which is used in the process of determining the impact of economic shadowing on certain areas of economic activity.

The issue of the influence of the shadow economy on various aspects of state development is complex and requires detailed analysis. However, perhaps the most important thing is to maintain the security of the country as a whole, including its economic component. The expansion of the shadow sector of Ukraine's economy beyond the threshold determines the need to intensify theoretical and practical studies of the nature of the process of shadowing of the economy, limiting the negative effects of this phenomenon, the introduction of leverage the direct and indirect impact on the shadow economy of Ukraine, ensuring of the theoretical achievements for the formation of vectors of shadows.

Keywords: shadow economy, economic security, money laundering, corruption.

JEL classification: E26, G32, H62

Formulas: 0; **fig.:** 1 **tabl.:** 1; **bibl.:** 17.

Introduction. The spread of such socio-economic phenomenon as the shadow economy in independent Ukraine, as well as the volume of products and financial resources that circulate in this area, are a significant obstacle to sustainable development of our country's economy. A significant problem is that the vast majority of operations that can be attributed to shadow operations can be carried out in a legal regulatory field, and evidence of the fact that shadow activities have been carried out requires considerable efforts of state authorities.

Literature review. Many scientific works of leading domestic scientists are devoted to the study of the relationship between the shadow economy and economic security of the enterprise. Among them are the scientific works of V. Bazylevych, T. Vasylytsiv, Ya. Zhalilo, L. Zuyeva, O. Dragan, H. Lyannyi, I. Pryvarnykova. Despite the large number of scientific papers on this issue, there are still relevant issues of analysis of the impact of the shadow economy on the economic security of the enterprise.

A detailed study of the scientific literature allowed to identify economic, forensic and interdisciplinary approaches to defining the essence of the concept of "shadow economy" [1, page 282].

Thus, O. Yarmolenko interprets the category of "shadow economy" as virtually uncontrolled by society production, distribution, exchange and consumption of goods and services [2, page 52].

Researcher Yu. Ivanov proposes to consider the shadow economy as "a set of deliberately hidden or distorted economic relations that arise in the implementation of legal (legally permitted) activities by violating tax, administrative, criminal, labor, sanitary or other legislation and causing damage to the state (society) in any form "[3, page 399].

Analyzing the state of the shadow economy in Ukraine, the authors of the monograph "Shadow economy: essence, features and ways of legalization" rightly note that the shadow economy is not only those areas of society that are outside the economy, such as arms trafficking, drug trafficking, prostitution and other, and, above all, violations of the law, tax evasion, which are observed in fact, in all areas of entrepreneurship" [4].

Researcher V. Ispravnikov uses the criterion of illegal activity and evasion of official registration to classify economic phenomena in the shadow sector [5, pages 8–9].

Thus, Professor V. Popovych believes that "the shadow economy is a set of socially neutral or socially positive non-taxable sources of income received from unaccounted and non-taxable economic activities, as well as a conglomeration of socially negative sources of shadow income and antisocial sources of shadow capital due to the commission of illegal criminalized and criminogenic, but non-criminalized shadow acts in certain segments of socio - economic, financial, civil law relations or relations in the field of civil turnover of things, rights, actions of the country as a whole "[6, page 101].

O. Osypenko believes that "the shadow economy is a set of economic structures alternative to socialism; illegal processes directly or indirectly related to the withdrawal of unearned income [7, page 68].

The work of P. Pushkarenko and M. Logvinenko states the following definition: "Shadow economy - a sphere of economic activity aimed at obtaining income from prohibited activities or evasion of public (state) control and the payment of taxes in legal types of economic activity" [8, page 44].

K. Ulybin believes that "... the shadow economy includes all those activities that have a negative, destructive, defective nature, which harm society and its members" [9, page 18].

A. Bekryashev, N. Bekryasheva, I. Belozerov, study the shadow economy as an economic category that reflects a complex system of economic relations [10, page 11]. T. Koryagina argued that "the shadow economy is a shadow that the official state economy has, and it is not something independent of it and can disappear with the elimination of its shortcomings or, at best, with coverage, that is taking into account and control from the law enforcement system "[11, page 110].

The "shadow economy" is now understood as the whole set of economic activities that is not taken into account by official statistics and is not included into the gross national product of the country. [12, page. 26].

The great importance for understanding the essence of such a complex phenomenon as the "shadow economy" is the study of its structure.

The traditional understanding of the essence of the shadow economy of any country consists of the following three components:

1) criminal or "black" economy, which includes the production and sale of weapons, drugs, counterfeit drugs, pimping, fraud - all those activities that result in criminal liability;

2) "gray" economy, which arises as a result of such business activities as to the production of goods and services, which is partially or completely hidden from taxation;

3) "white" or "white-collar" economy - a sector of the economy where nothing is produced, but the redistribution of income received in the form of "kickbacks" and bribes from the previous two sectors.

Yu. Vankovych, V. Melnykova in the structure of the shadow economy distinguish three types of activity [13; 14]:

- informal economy - covers legal activities related to the production of goods and services that are not recorded in official statistics;

- fictitious economy is an activity related to obtaining reasonable benefits by business entities (bribery; fraudulent methods of obtaining money);

- underground economy - that is prohibited by law economic activities (illegal production and sale of goods and services; production of weapons, drugs, smuggling; activities of persons who do not have the legal right to engage in this activity (doctors, lawyers who practice without a license). O. Bazilinska is of the same opinion regarding the components of the shadow economy, however, to the three components identified by V. Melnykova and Yu. Vankovych, she also identifies the fourth component - the hidden economy [15, 14, 13].

Aims. The purpose of the article is to highlight the theoretical foundations of the shadow economy, analyze the shadow sector of the Ukrainian economy and identify possible ways to minimize it.

Methods. The authors used in the article historical and logical research methods that allowed us to characterize the socio-economic reasons for the emergence and scope of the shadow sector of the economy of Ukraine; abstract and concrete, which is used in the process of determining the impact of economic shadowing on certain areas of economic activity.

Results. The shadow economy exists in almost all areas of socio-economic relations: from small businesses to large corporations or even central governments. Examples can be completely different. The main ones are: illegal wages (wages in envelopes) or payment of wages not under an employment contract, but under a civil law agreement (avoidance of social security contributions); cash transactions that are not accounted; concealment of income and / or exaggeration of expenses; understatement of the corporation's share price during the sale of a controlling stake;

bribes; "kickbacks"; money laundering; underground production; illegal activity; fraud; illegal markets (so-called "black markets"). This list can be extended for a long time and it is constantly updated due to the emergence of new "gaps" in the law or the ingenuity of fraudsters [16].

Thus, a detailed analysis and generalization of scientific approaches to defining the essence of the category of "shadow economy" indicates that this phenomenon is a complex socio-economic system. The shadow economy covers a significant part of social production and is determined primarily by the illegal nature of the activities of its subjects.

The development of the shadow economy in Ukraine is influenced by, Fig. 1:

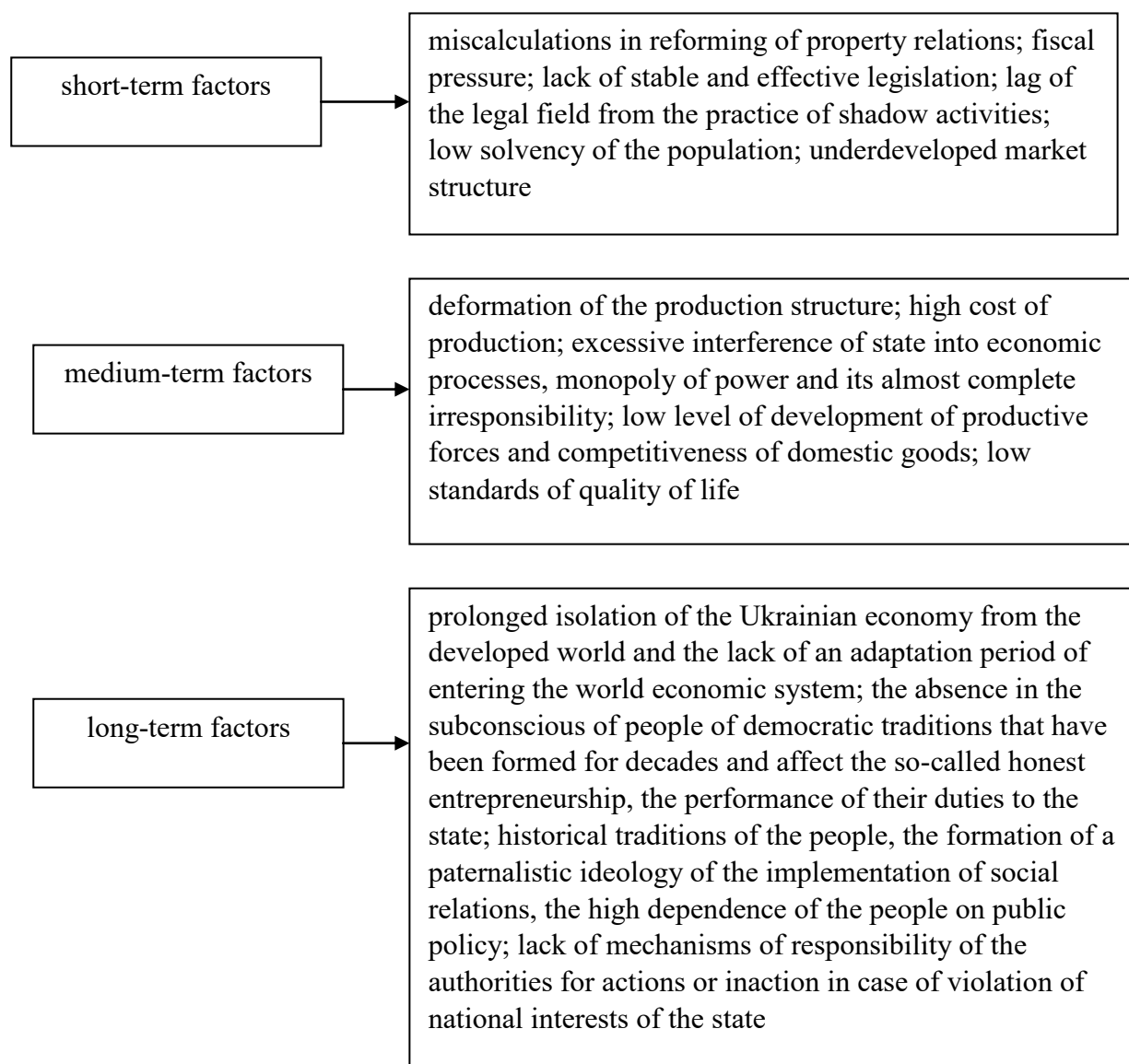


Fig. 1. Factors influencing the development of the shadow economy in Ukraine

Source: [17, page 258]

One of the most powerful sources of power for the shadow economy is the ability to easily launder and use criminal funds. Money laundering violates the interests of legitimate business and the reputation of its individual segments and

participants, undermines public confidence in the entire financial system, and is a threat to the normal functioning of the country's financial institutions.

The fight against money laundering is an integral part of the government's anti-corruption plans, which remain a serious problem at all levels in most areas.

According to the experience of public authorities, illegal revenues are mostly obtained as a result of the following violations:

- economic crimes (usually in the form of illegal manufacture, storage or sale of excisable goods and violations of business and banking procedures);
- corruption;
- tax evasion and fraud (including fraud with privatization);
- smuggling and crimes against property;
- crimes with narcotic substances.

The main methods of money laundering can be effectively used by criminals in all areas of the economy, especially in the financial sector, foreign economic activity and industry.

The use by criminals of various mechanisms and tools for laundering "dirty" funds, due to the desire to achieve certain goals, which include:

- concealment of traces of the origin of income received from illegal sources;
- creating the appearance of legality of income;
- concealment of persons who have received (receive) illegal income and those who initiate the laundering process itself;
- ensuring convenient and prompt access to funds obtained from illegal sources;
- creation of conditions for safe and comfortable use of the means received from illegal sources;
- creation of conditions for safe investment in legal business.

Therefore, money laundering schemes usually use operations to "break the chain" of transactions in the legalization scheme. This is done in order to mask the traces of illegal origin of income by changing owners, physical transfer of funds, conversion into cash.

In particular, the main offenses in the financial system of Ukraine include illegal credit transactions and fraud with the use of budget funds. As a rule, forged and falsified documentation (accounting reports, passports, etc.) is used to commit fraud, and "shell companies" are also used.

According to some estimates, 2/5 of the cash in Ukraine's shadow turnover falls on the following commercial structures:

- dummy (fictitious) - for the transfer of non-cash money into cash;
- "buffer" - real enterprises with fast and large capital turnover, which hide tax revenues due to the widespread use of illegal schemes, promissory note transactions, subcontracting schemes to simulate intermediary activities, etc.;
- financial institutions (banks, investment and insurance companies, funds, credit unions, etc.);
- gambling houses, casinos, variety shows and shows.

The incentive for companies to participate in money laundering is increased profits. As studies of the practice of implementing shadow operations schemes in

Ukraine have shown, the range of actions of criminal groups related to tax evasion is so wide that it covers almost all types of financial and economic activities. The most common modern schemes of tax evasion are systematized in table. 1, [17. page 261].

Table 1

Income tax avoidance schemes

Name of the scheme	The essence of the scheme
Scheme of illegal cash withdrawal through fictitious firms and correspondent accounts	It is implemented through overstatement of costs for the purchase of goods or services with the subsequent transfer of money to the company that converts them
VAT refund through a fictitious company	It is provided at the expense of use of fictitious firm for reception from it of falsified tax documents on payment of the specified tax.
Excise tax and VAT evasion	It is provided by falsifying the true value of goods during their importation into the territory of Ukraine
Debt paying evasion using bill payments	The debtor company for the payment of taxes to the budget pays off with suppliers of raw materials bills. Then these bills are submitted to the bank (the bank becomes a guarantor of bills and guarantees their payment). The supplier company applies to the bank with a request to pay the bill amount. The bank pays the amount specified in the bills. The money is not credited to the current account of the debtor company, but is used to repay counter-mutual claims of the bank to the company (within the avalization of the bill) and the company to the bank (within the order to sell foreign exchange earnings)
Evasion of taxes and other obligatory payments through operations with the transfer of debt	The essence of the transaction is that the currency comes from a non-resident in accordance with the agreement on debt reduction with the creditor bank to the current account of the debtor company does not come, but comes to a foreign firm
Use of loan accounts of commercial banks for tax evasion	The debtor company for the payment of taxes and other obligatory payments to the budget with the help of a number of commercial banks, opening two or more foreign currency accounts, use the available funds to make calculations related to their business activities, while these funds should be directed to repay, first of all, tax arrears
Tax evasion of income received by a resident of Ukraine from the placement of funds abroad	A resident of Ukraine enters into a conspiracy with a non-resident and enters into an agreement, the subject of which may be the purchase of goods, provision of services, etc., which will not be performed. The amount of the fictitious transaction is thus deducted from taxation
Tax evasion by drawing up documents for the purchase of goods at inflated prices through a fictitious firm	The company, using a connection with the management of manufacturing companies or other opportunities, buys inventory at inflated prices and saves them without capitalization
The movement of goods and cash during the extraction of raw materials in the current structure of state holding companies	The state holding company, which concludes contracts for the sale of raw materials on its own behalf, sets prices, terms, forms of payment, contracts for material and technical supply and receives on its current account the funds received for the delivered products. From the current account of the holding company, the company bills and salaries are paid
Tax evasion using offshore zones, namely: use of barter and bill transactions, operations with securities, transit trade	The use of offshore schemes for tax evasion is based on the universal principle of tax law, according to which those profits whose source is located in a particular state are subject to mandatory taxation. In cases where the source of income is abroad, this income is excluded from the scope of tax liability in this jurisdiction. Transactions performed in this way are deductible

Discussions. Credit and financial institutions remain especially "popular" for money laundering both in Ukraine and in the world. Basically, launderers use banks from undeveloped countries for their fraud, where legislation to combat the legalization of proceeds of crime is either absent or works only formally. Illegal finances are invested in deposits, securities and even insurance policies. Ways to export of capital may be different. This includes the physical movement of cash abroad, and the conclusion of foreign economic contracts for the import of goods, services, intellectual property rights, the use of schemes involving offshore companies. As a result, problems related to money laundering through offshore zones and illegal VAT refunds have become nationwide for Ukraine in recent years.

Thus, the shadow economy is an objective component of the socio-economic system of the enterprise, which aims to maximize profits and avoid paying taxes to budgets and state trust funds. It causes macroeconomic imbalances and structural deformations of socio-economic development, significantly affects the social processes occurring in a transformational society. The moral consequences of the shadow economy are catastrophic, as it distorts people's consciousness and generates social pessimism.

Conclusions. In the course of the study it was found that there are many definitions of the concept of "shadow economy". But, despite some differences, all experts say that it should include those activities that are not subject to control and monitoring.

Therefore, to solve the problems of counteracting the growth of the shadow economy is a priority area of economic development of the state.

To improve the investment climate in Ukraine and further develop the national economy, it is necessary to develop and implement tax reform, which provides for the expansion of the tax base, while reducing nominal tax rates and reducing overall fiscal pressure on producers. Adoption of a package of legislative acts that should ensure the civilized functioning of the banking system of Ukraine, limit the possibility of its use for tax evasion, money laundering and various manifestations of financial fraud. With the support of society, to adopt and to implement of a program of legalization of shadow capital, especially those that do not have a criminal and nationally dangerous origin, including amnesty guarantees for capital which should be returned from abroad.

The implementation of these and other measures to further de-shadow the economy will not only create a full market environment, economic development, legalization of capital, the process of democratization of the economy and society as a whole, but also significantly increase the competitiveness of the economy and eliminate real threats to national security.

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FEATURES OF MARKETING APPROACH IN FORMING INVESTMENT CLIMATE OF REGION

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Abstract. *The article covers the issues of regional investment attraction and the factors they depend on. The factors that determine the degree of risk of investments and the possibility of their effective use in the region are presented. The purpose of this research is to determine the role of marketing, its means in the process of forming the investment climate of the region. The author used the methods of static and logical comparison, systematization and generalization, which made it possible to achieve the goal of the study. Ther are named the tools and methods, which in case of using the mareting approach will lead the implementation of investment potential of the regions onto a qualitatively new level and increase the volume of investment in the regional economy. Also there are proposed the principles that underlie the concept of a marketing approach to attracting investments to the region. The peculiarities of the marketing approach of attracting investments into regional development are clearly marked.*

Key words: *investment climate, investment attraction, investment projects, region, marketing tools and methods, marketing approach, principles, regional development.*

JEL classification: E44, E60

Formulas: 0; **fig.:** 1 **tabl.:** 0; **bibl.:** 9.

Introduction. Under current conditions the investment attraction of the region depends on the decisive actions of state authorities and local self-government, as well as on the well-developed marketing strategy of the region. The prospects for implementing powerful investment projects and attracting investment resources depend on the effective positioning of the region. Foreign investment plays an important role in the country's economic development: on the one hand, it is additionally attracted capital, on the other hand, it is the receipt of the new technologies into the state. Therefore, the policy of the Ukrainian government should promote the development of regions, the implementation of investment projects and programs at the local and regional level.

Literature review. Problematic issues of attracting investment resources were actively studied by economists I. Blankom, M. Butko, V. Krakivskaya, L. Marmul, V. Geits, A. Ilyina, T. Lapenko, V. Marcin, F. Fedorenko, A. Skoropov, W. Sharp and others. At the same time, the problems and directions of the attraction of investment resources to the region are not sufficiently investigated.

Aims. The purpose of this research is to determine the role of marketing, its means in the process of forming the investment climate of the region.

Methods. The author used the methods of static and logical comparison, systematization and generalization, which made it possible to achieve the goal of the study.

Results. The investment attraction of the region is closely linked to the other areas of regional marketing, therefore investment attraction should be considered within the framework of the regional development strategy, to determine the priorities of the region's development, the positioning of the region, work with the population, and promotion of the image of the region.

The tools and methods of marketing allow to increase the awareness of the territory, to allocate its most attractive characteristics, which will increase the inflow of investment resources, improve the conditions for doing business, improve the quality of goods manufactured in the region and services rendered. The creation of strong regional brands through the use of marketing technologies will create a positive image, will improve the tourist and business attraction of the country in general.

The attraction of foreign investment, as it is showed by the world experience, has a positive effect on the country's economy. Reasonable use of foreign capital investment contributes to the increasing of the products competitiveness on the world market, production development, productivity growth, the transfer of advanced technologies, the creation of new jobs, the development of backward regions, and others.

The willingness of investors to invest in the industry of the any region depends on the investment climate existing in it. Creating a favorable investment climate is a prerequisite for increasing the inflow of foreign investment in the region's economy.

The investment climate is considered as a set of political, economic, legal, social, domestic, climatic, natural, infrastructural and other factors that determine the degree of risk of investment and the possibility of their effective use [1].

When considering the investment climate as an investment attractiveness in the dynamic aspect, it is important to note such a factor that affects investment attractiveness as a fashion image. Of course, the image is a qualitative factor that is very difficult to assess. One can only note that the image of the region is also affected by:

- active participation of the region in the international economic forums and conferences, various events in Ukraine and abroad, informal meetings of investors and businessmen;
- organization of the region's own events aimed at presenting this region to the potential investors;
- professional work with specialized media;
- available access to an internet portal with all necessary information about investments for the relevant target audiences.

Naturally, that the investment policy should be pursued not only by the state authorities, but also by the regional ones. It is at the regional governing bodies that the responsibility for creating a favorable investment climate of the territories is to attract private domestic and foreign investment.

The inflow of investments in specific regions depends on the content of the activities of local governments to create a favorable regional investment climate. The marketing approach is increasingly being applied for this.

The emergence of the concept of the marketing approach at the attracting investment is stipulated by two trends. The first one is connected with the problems of constantly increasing the level of expenses of the region for marketing and the need to control their effectiveness, taking into account the investment nature of these costs, which is a difficult task in implementing marketing programs.

The second is manifested in the fact that marketing activities require greater integration between different programs in the region. Implementation of the concept of marketing at the attracting investment determines the investment strategy as an integral part of the overall strategy of the region, considering investments as the basis of the state's economic activity and its regulatory policy as a whole, as well as a separate organization, and as the investment projects as the tools of achieving the goals. Attention to the concept of marketing at the attraction of investments is stipulated by:

- 1) the complication of the processes of scientifically-based decision-making in the field of investment;
- 2) an increase in the degree of investment risk in all stages of the investment project, its assessment, prevention or reduction;
- 3) the aggravation of competition for sources of financing of capital investments;
- 4) the need for a careful selection of the most optimal, profitable and reliable sources of financing;
- 5) the need to form a long-term investor confidence in business, and, based on this trust, to plan investment;
- 6) the need to form a balanced portfolio of investments.

Investment attraction management with the use of a marketing approach can lead to the realization of the investment potential of the regions to a qualitatively new level and increase the volume of investments into the regional economy. Tools and marketing methods allow you:

- to create the necessary infrastructure of the regional investment market and to use it effectively for making managerial decisions;
- to improve pricing for the regional investment products and increase their competitiveness;
- to form the investment attractiveness of the territories;
- to provide the optimal structure of attracted funds;
- to improve the image of the territories.

Technologies of marketing approach in the management of investment attraction provide access to information for potential investors, facilitate coordination of the management process, facilitate control, allow for timely analysis and monitoring of investment conditions. All this allows the subjects of regional investment markets to adapt to the dynamically changing conditions of the external and internal environment in the shortest possible time, and therefore, to meet the modern requirements of the management.

The marketing approach in managing the investment activity of the regions contributes to prioritizing the attraction and distribution of the investments, as well as

the determination of the points of effective application of investment capital, thus creating a positive experience and real prerequisites for the emergence of new investment projects. This is the first step towards the formation of an opened, civilized market for regional investment goods. On this basis, today it is expedient to determine the investment priorities of the regions as follows:

- at using budget investments from the point of view of the state interest in the implementation of investment projects and programs and obtaining a social effect;
- in the direction of private investment, based on the positioning and investment attractiveness of regional economies for a private investor oriented towards profit.

Since the investments are very important for any region and any country, first of all for their development, we can talk about their multi-effect: when the investment comes, the territory receives not only financial resources, but also technology, employment, qualification development as specialists, and management personnel, the image of enterprises and territories, infrastructure development, access to foreign markets.

The basis of the concept of a marketing approach to attracting investments may be the following principles [2]:

1. Full provision of resource potential for the existence of economic actors and freedom to maneuver. Ability to provide the investment process on the necessary scale and create a mechanism for transforming investment resources into investment objects.

2. Target orientation and complexity. The main thing in marketing is its target orientation and complexity, which means merging into a single investment process of all the individual elements of this activity. Complexity means that individual marketing actions taken by themselves are not able to provide the effect that can be gained by the investment marketing as a system. Complexity provides the integration:

- of four elements relevant to classical marketing: commodity, pricing, marketing and communication policies;
- of two spheres of the activity: the traditional market of goods and services and the investment market;
- the interests of all participants in the investment market and the creation of interconnected conditions for all parties involved in the investment process.

3. Multivariate and optimal marketing decisions. It is necessary to strive for the maximum expansion of the variant nomenclature, approaching the optimal solution.

4. Timeliness of realization of the investment projects. The principle is related to the need of the accurate account for a temporary factor. That displays readiness of marketing measures for practical application. Such readiness is ensured by the substantive orientation and the relatively high degree of specification of investment development, as well as the full and comprehensive consideration of the environmental factors.

It is also necessary to note the specific marketing principles: exclusiveness, consumer orientation, information waves, differentiation, focus, limitation, feedback, creativity, adaptive entrepreneurship, which provides a quick and effective response

to changes in the external environment, the unity of marketing strategy and tactics, etc.

The principles of the marketing approach of the investment attraction are offered on the Fig. 1.

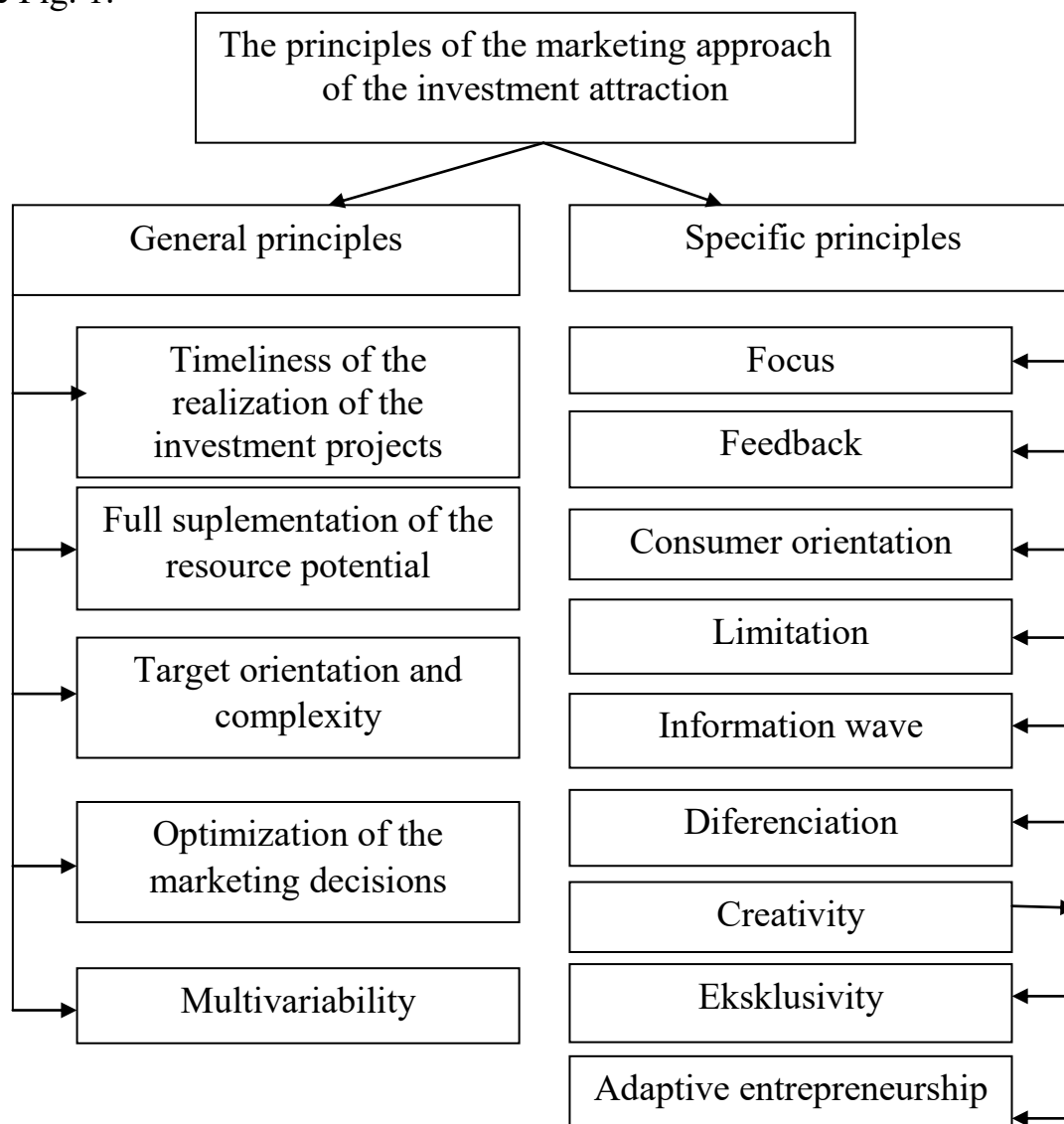


Fig. 1. The principles of the marketing approach of the investment attraction

Discussions. In addition, the features of the marketing approach to attracting investment are worth to be mentioned:

1. Investments are not the purpose by itself. This is just a tool for implementing the ideas.

2. The ideas are: the development of the regional attractiveness as a place of residence of people, as the place of origin of goods or services, as a convenient place for the transfer and use of the resources and of the tourism.

3. Types and directions of the investment are formed depending on the ideas: in infrastructure (roads, logistics, medicine, housing, hotels, trade, communication, places for events), in production (technology, innovation development, markets, increase in production volumes - the effect of scale), in tourism (entertainment, events, recreation, excursions, infrastructure).

4. The industry interests, motivation and the terms of investment are determined, depending on the type of investment, the types of potential investors.

5. It is possible to start the program of the regional attraction, having defined the idea, types and directions of investments, types of investors and their motivation.

6. Work on the attracting investments must take place within the country (region) and beyond. There is the internal work with the attracting investments personnel and with the population, also the creation of conditions for types of investors, the development of infrastructure, and support of existing investors. Beyond it there is the promotion through forums, presentations, the Internet, the image and positioning of the region, participation in joint international projects, and work through agents - embassies, exporters etc.

7. There are some points of the growth of investment potential: positioning, which means the sectoral specialization, cluster formation, education and infrastructure development in the direction of investment attractiveness.

8. The investor is interested in the profitability of the business: its size, the payback rate, the stability of obtaining, the possibility of its export, business sales.

9. It is important to understand the indicators of the perception of potential investors by the attraction of the region and the factors affecting them.

10. The concept of investment attractiveness of the region should be combined with the program of socio-economic development, realize the uniqueness of the region and perceived by the population.

11. Investments in the region, compared to investments in the enterprise, are more long-term and balanced, that's why it is not possible to overconstruct houses, roads, infrastructure, if there are no basic ideas for the development of the region (industry, tourism, processing).

12. Significant investment projects of large international companies are an important starting point for the development of investment attractiveness.

13. The competently developed and positioned program of promotion has a pivotal character, therefore it is well controlled. The promotion program includes: the creation of a region passport, forums, catalog of the opportunities, representations (agents) abroad, "background noise" of the mass media, periodic newsletter, presentations for target groups, video materials.

Conclusions. Thus, ensuring the active development of the region's economy and increasing its competitiveness can be achieved by combining the achievements of science, education, production and entrepreneurial initiative with the active state participation and the support for the model of the innovative regional development. A special role in this process is played by the necessity of using marketing tools in order to ensure the competitiveness of an individual enterprise by making it a high-tech product or providing quality services based on the latest advances in science and technology. All these areas, combined with high-quality education and rational regulatory policies, will ensure the competitiveness of the regional economy and boost regional economic development.

Author contributions. The authors contributed equally.

Disclosure statement. The authors do not have any conflict of interest.

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INFORMATION SUPPORT OPTIMIZATION OF THE AUDIT OF THE ECONOMIC SECURITY SYSTEM IN CONSTRUCTION INDUSTRY ENTERPRISES

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Abstract. The article is devoted to the study of the information support optimization for the audit of the economic security system in construction industry enterprises. The purpose of this article is to provide recommendations for information support optimizing of the audit of the economic security system in the construction industry enterprises, depending on the functional components of such a system. Research methodology: methods of comparison, analysis and synthesis are used to achieve this goal. The article highlights the debatable issues of interpretation of the definition of "information support of the audit of the economic security system." The classification of components of information support by content is considered, the problems of information support in the normative-legal aspect and by objects of audit of the system of economic security, depending on its functional components are revealed. The result of the study is the construction of an optimal system of information support to meet the needs of users in the management process.

Keywords: information support, audit of economic security system, construction industry enterprise, components of economic security system.

JEL classification: L53, L70, L74, M42, M48

Formulas: 0; **fig.:** 1 **tabl.:** 1; **bibl.:** 11.

Introduction. In modern economic conditions, the requirements for creating a system of economic security for enterprises, including enterprises in the construction industry, which, in turn, necessitates a comprehensive audit of such a system and improve the quality of its information support.

The rapid development of scientific and technological progress and the introduction of innovative technologies in the construction industry complicate the management process of such enterprises; provide timely, reliable, comprehensive information needed to make optimal management decisions. That is why, in order to effectively manage the construction business and ensure its economic security, there is an urgent need to create a system of information support during the audit of the system of economic security of construction companies.

Literature review. The improvement of theoretical and practical aspects of information support of audit in general and control in the management system of the enterprise, in particular, are devoted to the scientific works of M. T. Belukhy, F. F. Butynets, N. G. Vyhovska, O. O. Gasilo, M. V. Kyzelny, A. M. Kuzminsky, E. V. Kaluha, I. B. Markina, V. P. Panteleeva, O.A. Spy and others. Paying tribute to the scientific contribution of these scientists, it should be noted that the issue of information support of the audit of the economic security of construction companies is covered only in the context of internal control over the activities of the enterprise.

The lack of scientific substantiation of the audit of the economic security system of construction enterprises determines the need for further study of its conceptual foundations and organizational and methodological foundations, which is the scientific basis for building this type of control to optimize the activities of enterprises.

Aims. The purpose of this article is to provide recommendations for optimizing the information support of the audit of the economic security system of enterprises in the construction industry, depending on the functional components of such a system. The main objectives of the study are: to define the concept of "information support of the audit of the economic security system of construction companies"; creation of classification of components of information support on functional components of system of economic safety; detection and neutralization of threats to information support in order to create an effective system of economic security of construction companies. Research methodology: methods of comparison, analysis and synthesis are used to achieve this goal.

Results. The organization and methodology of the audit of the system of economic security of enterprises in the construction industry is determined by the appropriate information support about the business entity.

Information in the context of the audit should be considered a set of different documents on the status and content of the audited entities.

Under the information support of the audit of the system of economic security of enterprises in the construction industry can be understood in a certain orderly set of information that is formed and used at different stages of the audit process.

According to individual scientists, information support is a set of forms of documents, regulations and implemented decisions on the volume, location and forms of information organization, which circulates in the system of automated processing of economic information or in the information system "[1, p. 441].

According to other scientists, information support is the information necessary for management of economic processes which is stored in databases of information systems [10, p. 124].

A number of scientists consider information support as a set of all information, accumulation of databases, their processing and obtaining initial results in relation to the characteristics of economic entities, or as a dynamic system of obtaining, evaluating, storing and processing data created to make management decisions "[6, p. 154].

Information support can be considered as a process of providing information, and as a set of forms of documents, regulations and implemented decisions on the volume, location and forms of existence of information used in the information system in the process of its operation [4, p. 111].

Highly appreciating the scientific work of scientists in the study of "information support" it should be noted that their proposals are not alternative, serve as additions and clarifications of the essential load of this definition, and do not contradict the use of the term "information support" in the context of auditing industry.

Information support of the audit should be formed on the principles of information integrity, adequacy, flexibility, adaptability, standardization and unification, the ability to compare and verify the created databases, with which most scientists and scientists agree [2, p. 206, 4, p. 111].

The task of information support of the audit is to inform the participants of the audit process about the condition and functioning of the controlled object.

In terms of content, the components of information support for the audit of the economic security system of construction industry enterprises can be represented in Fig. 1.

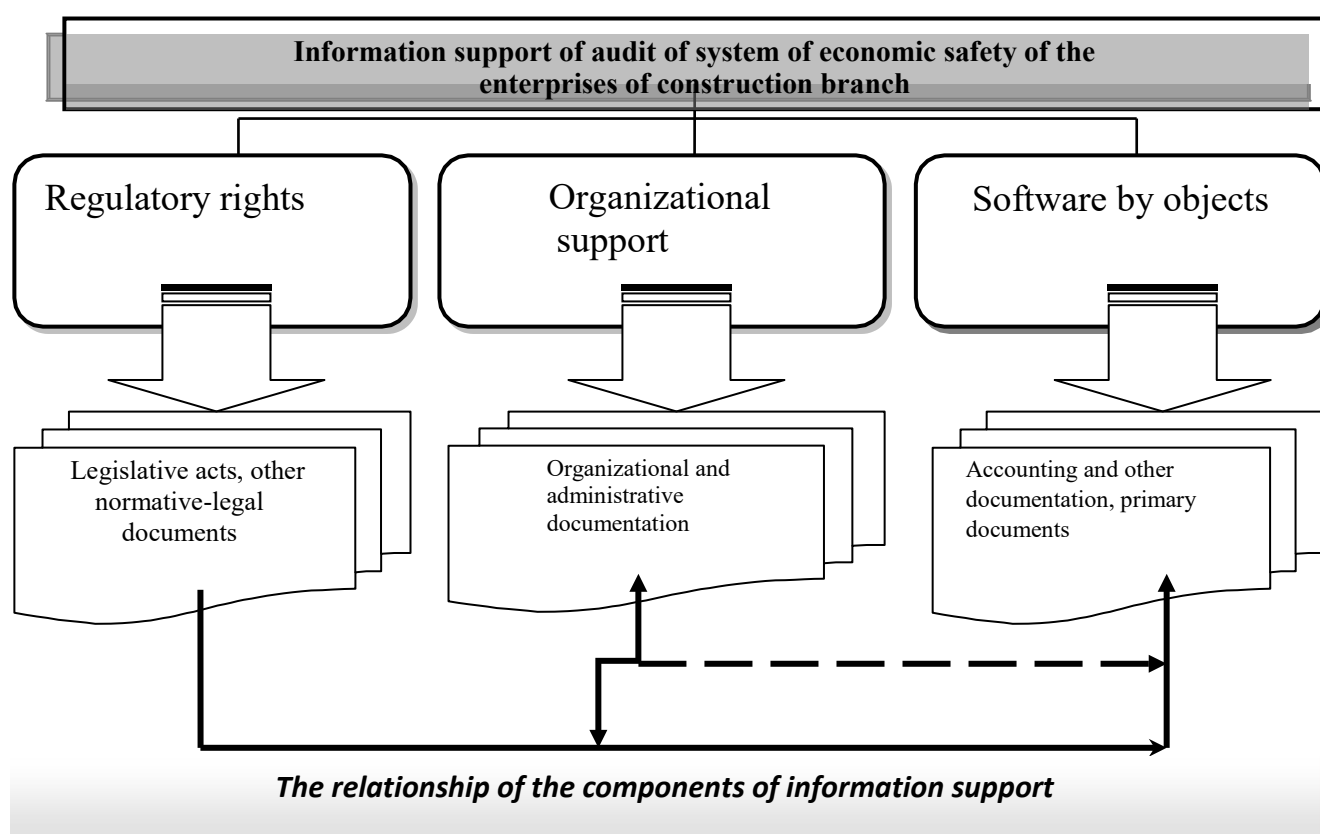


Figure 1. Classification of components of information support for the audit of the economic security system of enterprises in the construction industry

To identify the problems of information support of the audit of the system of economic security of enterprises in the construction industry, it is advisable to consider in more detail the content of information support for its components.

Thus, the legal framework for auditing in Ukraine is regulated by the Law of Ukraine "On Auditing in Ukraine", the Commercial Code of Ukraine, which contain only general requirements for auditing and aimed at creating a system of independent financial control to protect the interests of financial and other economic information, so the unresolved issue remains the legal interpretation of the audit of management activities.

Article 3 of the Law of Ukraine "On Auditing in Ukraine" defines auditing as business activities that include organizational and methodological support of the

audit, the practical implementation of audits (audit) and the provision of other audit services [3].

Thus, the definition of "audit" in the legal aspect is considered only as a verification of accounting data and financial statements in order to express an independent opinion of the auditor on the reliability of accounting and reporting in significant aspects, compliance with the laws of Ukraine, UAS or other rules (internal regulations of business entities), which does not correspond to the modern realities of economic control in the field of enterprise management in connection with the restriction of audit objects. It should be noted that there are significant contradictions between the general definition of the essence of the audit by law and such type of audit as the audit of the economic security of construction companies.

The audit of the economic security system of construction companies should be considered the process of checking and assessing the impact of external and internal threats on the activities of construction companies that negatively affect the state of their economic security system to neutralize such threats and achieve goals in the management of such enterprises. Based on the definition of the content of the audit of management activities, we can formulate its main conceptual categories.

Thus, the definition of "audit of the economic security of construction companies" has a multi-vector functional focus in contrast to the statutory term "audit", the essential workload of which is reduced to the verification of accounting data and financial statements.

It should be noted that certain tasks of the audit of the system of economic security of enterprises in the construction industry are regulated by special regulations.

Thus, the decision of the Audit Chamber of Ukraine dated 22.12.11. for № 244/14 "On the List of services that can be provided by auditors (audit firms)" approved types of audit services [9]. A review of this list of services revealed that audit services that include assurance engagements are declared as services that are not audits or reviews of historical financial information, but are essentially audited by management.

Thus, services for assessing and analyzing the efficiency of production capacity, operation of management systems, information systems (technologies), systems of material incentives and remuneration of personnel, personnel management systems, corporate governance involve checking the effectiveness of management decisions or individual business processes (operations), based on the results of which the auditor's independent opinion on the condition of the objects of assessment, the results of economic activity is expressed.

Audit activities in the field of economic control are regulated by auditing standards, that is, documents that formulate common basic requirements, methodology issues and basic principles for conducting audits.

Since January 1, 2004, the standards of auditing and ethics of the International Federation of Accountants have been adopted as national auditing standards and are subject to mandatory application by auditing entities in accordance with the Decision of the Audit Chamber of Ukraine of April 18, 2003 №122 / 2 [7].

In order to develop domestic audit and unify approaches to auditing internationally by the Decision of the Audit Chamber of Ukraine dated 30.11.06. № 168/7 "On the Application of the International Standards on Auditing of the 2006 Edition" establishes the mandatory application by the auditing entities of the International Standards on Auditing as National Standards, starting from January 1, 2007 [8]. Due to the fact that International Standards on Auditing define only general approaches to auditing, clarify the main issues of audit methodology, the issue of conceptual framework and methodological support for management audit remains unresolved.

The results of the analysis of regulatory and legal support of domestic audit (legislation → other regulations → audit standards) indicate that at the present stage the legislation on auditing needs to be improved in terms of interpretation of conceptual categories of the definition of "audit of economic security", conceptual principles and methodological support for the audit of the economic security system of enterprises, including and construction industry.

Organizational support for the audit of the economic security system of construction companies includes organizational and administrative documentation, which is formed on the basis of applicable laws and regulations, depending on the activities of the enterprise, its legal form, form of ownership and other aspects. Organizational and administrative documents of the enterprise must comply with the unified forms of documents established by state standards for documentation and other regulations that contain requirements for the construction of forms and rules for creating documents. The organizational component of information support should be focused on creating an economic structure of an innovative nature with a certain range of powers and opportunities in the field of documentary functioning.

The organizational documentation of any business entity may include statutory documents, regulations, rules, instructions and other documents that establish general requirements for the activities of the enterprise. Administrative documentation should include management resolutions, orders, instructions, instructions, orders, decisions, internal management standards and other documents that define the main functional activities of the institution, long-term plans, management systems management, regulations on units and the order of their interaction, functional powers of employees, plans for control measures and more.

Thus, organizational and administrative documentation and monitoring of its use in the decision-making process and implementation of basic management functions is a necessary component of information support in the audit of the economic security system of construction companies.

The main components of information support for the audit of the economic security system of construction companies can be classified according to its objects, which are listed in table. 1. Thus, the basis of information support for the audit of the economic security of the construction industry can be considered economic information that characterizes the financial and economic activities of the subjects of control and is documented in the accounting subsystems. Depending on the objects of audit, information support is subject to a kind of differentiation by functional

components of the system of economic security of enterprises in the construction industry.

Table 1. Components of information support for the objects of audit of the system of economic security of enterprises in the construction industry

Audit objects	Information support of audit of system of economic safety of the enterprises of construction branch	
	Semantic orientation of documentary support during the audit of the economic security system of construction companies	Source of information for the audit of the economic security system of construction companies
The system of economic security in general	Documents that allow you to check and evaluate the business of the client, the main directions, the specifics of its activities, competitiveness, economic and social policy, management decisions on ownership, forms of management, legitimacy of individual transactions, reveal the organizational structure, assess the functioning of the internal system. control, state and prospects of enterprise development, efficiency of the general management system, etc.	Statutory, other organizational and administrative documents, collective agreement, business plans, agreements with contractors, financial, statistical industry reporting, inspection reports
Safety rules	Documents that allow to check and evaluate the effectiveness of the organizational structure of the management system and its functions (including the organization of structural units, their specialization, coordination of relations between line and functional management, its level of centralization), management methods. Documents that give the right to disclose the basic style of leadership and the degree of employee participation in management, to determine the rational distribution of functions of planning, accounting, control, analysis, regulation between management and departments, and so on.	State and internal bodies, materials of mass media about kinds of activity, about the enterprise, about current economic processes in the region, branch, other information data of external sources. Questionnaires and tests of employees, etc.
Personnel security	Documents that allow to check and analyze the effectiveness of management decisions on personnel selection, remuneration and other motivation, internal standards of corporate governance, evaluate the system of staff incentives, anti-crisis measures and more. Documents that give the right to check the level of provision of workers with regulatory, reference, planning, accounting and operational-analytical information, etc.	Job descriptions, documents on education, information on advanced training, internships, characteristics of the management staff; information on the results of the units, regulations on incentives for workers, etc.
Marketing security	Documents that allow you to check the marketing process, which includes analysis of marketing strategies and opportunities, planning and implementation of marketing programs using system tools, evaluate marketing work on pricing policy, use of resources, their savings and more.	Business plans, contracts with contractors, financial, statistical industry reporting, inspection reports, materials on markets in the region, industries, data on marketing research, pricing, etc.
Management of industrial safety	Documents that allow you to check and evaluate the production management process (in the context of successive actions of management staff, including: production planning → production process → production result), evaluate productivity, production efficiency, resource use, analyze strategic and tactical functions of production management, etc.	Planning and technical and technical data related to the implementation of business plans, materials of control measurements, laboratory tests, etc., accounting data of accounting (financial, management), accounting for tax purposes, non-accounting information;
Financial security	Documents to check and assess the condition: - economic resources, liabilities and financial resources of the firm; - level of profit and expenses; - turnover of the firm and the quality of its assets; - the volume and quality of cash flows and overall financial management efficiency	Audit materials, pre-audit, ongoing production meetings, memos, correspondence with contractors, etc.

Source: compiled by the author on the basis of [1-11]

Discussion. It should be noted that due to the fact that there is no legal regulation of documentation of activities in the field of economic security and, accordingly, in the audit activities for the inspection and assessment of economic security, businesses should create such a model of accounting policy enterprise, which would take into account the requirements for the creation of special documentation for such facilities. Building such a model in modern business conditions will help:

- organization of adequate documentation of management, which will be based on the principles of normative-legal regulation of the processes of the main functions of economic security;
- unification and standardization of the documentation system;
- development of software to optimize documentary flows in accordance with the levels and objectives of management;
- creation of a system of training specialists in the field of documentary support of economic security;
- effective organization of information support for the audit of the economic security system of enterprises in the construction industry.

Conclusions. The results of the study allow us to conclude that solving the problem of information support at the legislative level and on the objects of audit of the economic security system of construction companies will create an effective information system that will meet the needs of users in performing control functions in enterprise management. To date, there are quite favorable conditions for the audit of the economic security of the construction industry to demonstrate its broad methodological capabilities and prove its need for the management system to create a powerful tool to improve the efficiency of the management process.

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THE IMPACT OF THE INVESTMENT CLIMATE ON THE ECONOMIC SECURITY OF UKRAINE

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Abstract. *The article is devoted to the study of the results of the assessment of the investment climate in Ukraine on the basis of the dynamics of the main international ratings, which are rating agencies, news agencies, research institutions and international organizations. The purpose of the article is to determine the factors that affect the investment climate of Ukraine and its economic security. The research methodology is to compare the results of the ratings of leading rating and news agencies in the dynamics over the past few years, as well as to compare their results with each other. The obtained results will allow to objectively assess the investment climate from the point of view of external stakeholders. The main results of the study are to identify the main causes of the deterioration of the investment climate in Ukraine in recent years and provide suggestions for its improvement.*

Keywords: *investment, investment climate, rating, indicator, factors of influence, threats, economic security of the state.*

JEL Classification: C43, F39

Formulas: 0; **fig.:** 0; **tabl.:** 5; **bibl.:** 17.

Introduction. Ensuring a favorable investment climate in Ukraine remains a matter of strategic importance, the implementation of which depends on socio-economic dynamics, the effectiveness of involvement in the global division of labor, the possibility of modernization on this basis of the national economy. Attracting foreign capital is one of the important tools for "resuscitation" of Ukraine's economy.

Prospects for the structural restructuring of the economy, the development of priority sectors of the economy, private business, the conquest of international markets by domestic producers, and others depend on an effective investment policy. An important place in solving the problem of stimulating investment processes is given to the country's tax system. The issue facing Ukraine as a potential recipient in the globalized space of investment flows markets is the choice of effective tools for the tax burden on businesses with foreign capital. After all, the investor is primarily interested not in the development of the state or raising the level of the population, but in the level of protection of its rights and the possibility of increasing the invested capital. It is necessary to identify the threats and opportunities of the domestic tax mechanism to compete with other tax systems in the world.

Literature review. Many foreign and Ukrainian scholars are investing in research, such as B. Hubskeyi, M. Chumachenko, A. Stepanenko, S. Kadochnykov, N. Kovtun, T. Mayorov, I. Malyi, A. Peresada, J. Keynes.

The following scientists have made a significant contribution to the study of this problem both from a theoretical and a practical point of view: I. Blank, Ye. Boyko, P. Haidutskyi, V. Heyets, B. Danylyshyn, M. Denysenko, V. Zahorskyi, V. Kravtsiv, A. Rumiantsev, I. Tkachuk and others. In the writings of scientists the peculiarities of definition of strategic goals, directions of activation of the process of attraction of investments, the current state of foreign investment in Ukraine are described.

However, a significant number of studies do not take into account the dynamics of ranking indicators in order to improve its investment climate.

Aims. The aim of the article is to assess the investment climate in Ukraine through international ratings and indicators.

Methods. In scientific research used method of comparison, the index method, analysis and synthesis, allowed to reach the goal.

Results. Currently, the economies of many countries are characterized by the presence of large public external and domestic debts. No state can do without borrowing money in the financial markets by conducting government domestic loans, which act as an effective tool to overcome the limited tax revenues to the budget and the effective conduct of monetary policy.

Economic indices and ratings of the investment climate of countries, in contrast to stock and credit indices, are determined by various rating and analytical agencies, as well as international organizations - the UN, the World Bank, the European Bank for Reconstruction and Development and more.

In our opinion, this indicates the impartiality of these subjects in the assessments and indicates the objectivity of the results.

The main independent entities that are able to analyze the situation on the world investment market are rating agencies. Table 1 shows the most influential of them and shows the forecast for Ukraine, and Annex B describes the values of the results obtained.

Table 1

Results of assessment of economic and social development of Ukraine by rating agencies

Agency ratings	Main rating (index)	2011	2012	2013	2014	2015	2016	2017	2018	2019
<i>Moody's</i>	Sovereign rating of the country	Baa	Baa	Baa	Ca	Caa	Caa3	Caa2	Caa1	Caa1
<i>Standard and Poor's</i>	Long-term rating on liabilities in national currency	B+	B	CCC	CC	C	B-/B	B-/B	B-	B
<i>Fitch Ratings</i>	Long-term issuer default rating in national currency	B	B	CCC	CC	C	B-	CCC	BBB	B

Source: compiled by the author based on information [1-3]

Moody's is one of the world's largest rating agencies. This agency operates 32 rating systems. The company assesses the credit rating of borrowers on a standardized scale, and provides estimates that correspond to the 12 levels used for investment and speculative decisions. Today, the company's share in the global market of credit ratings is about 40% [1].

Another influential financial market research firm is Standard & Poor's. The company is also known as the author and editor of the US stock index S&P 500 and the Australian S&P 200. Standard & Poor's long-term credit ratings assess the issuer's ability to meet its debt obligations. Ratings are indicated by the letters: from the highest rating AAA (only reliable issuers) to the rating D (issuers that declare

default) [2]. In addition, the company compiles short-term credit ratings, as well as corporate governance ratings and corporate information transparency ratings.

Information on the investment climate of individual countries provided by news agencies needs special attention (Table 2).

Table 2

Results of evaluation of economic and social development of Ukraine by news agencies

News agency	Main rating (index)	2011	2012	2013	2014	2015	2016	2017	2018	2019
<i>Euromoney</i> (Great Britain)	Country risk rating	89	90	91	92	94	102	104	115	124
<i>Journal Forbes</i> (USA)	Ranking of countries with the most favorable conditions for business (<i>Best Countries for Business</i>)	105	112	114	115	120	74	80	77	82
<i>Foreign Policy Journal</i> (USA)	Index of incapacitated countries (<i>Failed States Index</i>)	110	140	138	154	142	75,5	74	72.6	71
<i>Journal International Living</i> (USA)	Ranking of countries by standard of living (<i>Quality of Life Index</i>)	73	120	135	140	148	53	55	55	54

Source: compiled by the author based on sources [4-7]

One of the influential ratings of this group is the country risk rating, which is compiled twice a year by Euromoney magazine. His published results represent a list of countries located depending on the value of the integrated reliability indicator. The indicator itself is in the range from 0 to 100 and is the sum of estimates obtained by the method of expert evaluations or calculation of nine indicators. A value of 0 means the highest risk, respectively, a score of 100 means the lowest level of risk. Numerical values are translated into ten letters: from AAA to N / R [4].

Another rating that belongs to the ratings developed by news agencies is the rating of the countries with the most favorable conditions for business, compiled by Forbes journal - one of the most popular business publications in the world. This ranking assesses the business environment in 134 countries, focusing on business factors such as innovation, technological development, the tax system, property rights protection, corruption, personal and economic freedom, bureaucracy and investor protection [5].

No less well-known are the ratings compiled by research organizations (Table 3).

One of the most influential ratings is the Index of Economic Freedom, calculated by The Heritage Foundation and The Wall Street Journal.

In the rating of investment attractiveness of the countries of the world International Business Compass for 2018, published by BDO, Ukraine rise by 3 positions during the year. Ukraine ranks 131th in the ranking and is among the countries that showed the best growth for the year. In 2014, our country ranked 145th. These indices are formed by BDO together with the Hamburg Institute for

World Economy, and characterize the economic and financial attractiveness of different countries on the basis of three main indicators: economic, political and socio-cultural conditions.

Table 3

Results of evaluation of economic and social development of Ukraine by research organizations

Organization	Main rating (index)	2011	2012	2013	2014	2015	2016	2017	2018	2019
Institute of Management Development (IMD)	Competitiveness rating	57	73	84	76	79	59	54	55	54
Stock «The Heritage Foundation» and newspaper «The Wall Street Journal»	Rating according to the index of economic freedom	125	72	161	155	160	162	166	150	147
Brookings Institution Research Center	Rating of weakness of developing countries	118	112	107	105	101	85	87	87	91
Hamburg Institute of World Economy and BD	Rating of investment attractiveness of the countries of the world International Business Compass	145	134	112	109	87	130	134	131	131

Source: compiled by the author based on information [8-12]

The next group of ratings are those compiled by international organizations of economic and social development. Table 4 lists such organizations and the place occupied by Ukraine in the relevant rankings.

Table 4

International organizations that assess the economic and social development of countries

Organization	Main rating (index)	2011	2012	2013	2014	2015	2016	2017	2018	2019
The World Bank	Business rating	149	152	137	87	85	83	80	76	71
World Economic Forum in Davos	Economic Growth Competitiveness Index	87	82	86	88	92	85	81	83	85
UN Human Development Program	Human Development Index	75	69	67	59	56	84	88	88	88
Transparency International Center for Anti-Corruption Research	Corruption Perceptions Index	152	144	144	142	140	131	126	120	126

Source: compiled by the author based on information [13-16]

The information base for such ratings is macroeconomic indicators and statistics, as well as in some cases indicators calculated according to specially

developed methods, which summarize the most significant indicators and form a final value that allows to compare data for a particular country with data from other countries.

Another influential rating of this group is the Economic Growth Competitiveness Index, which is calculated by the World Economic Forum (Davos, Switzerland). The peculiarity of this rating is that it assesses the ability of the economy to maintain stable economic growth in the medium and long term. In compiling the rating, three groups of factors are analyzed:

1) basic requirements, which include institutions, infrastructure, macroeconomic indicators, health care and basic education;

2) efficiency indicators that assess the state of higher education, the functioning of commodity markets, the efficiency of the labor market, the state of the financial market, technological development;

3) innovation factors, including simplification of business procedures and application of innovation [14].

The index of competitiveness of economic growth allows to determine both the competitive advantages of the studied country and its weaknesses.

This rating is studied by the International Finance Corporation, which is part of the World Bank. The ranking assesses the conditions for starting, running and closing a business in most countries around the world, based on a survey of more than 9,600 reputable experts from the countries being evaluated.

The rating index consists of 10 sub-indices that reflect regulatory, fiscal and market constraints that complicate or facilitate doing business in the country (Table 5). Given the positive trend of improving the rating value, the analysis of individual sub-indices compared to the previous year indicates a decrease in most of them. Thus, according to the sub-index "Protection of Investors' Rights", the index increased by 9 positions from 81 to 72, which is one of the evidences of low level of legal and economic responsibility of enterprises to owners for ownership of their assets, which negatively affects the process of attracting foreign investment.

At the same time, in the Doing Business 2019 ranking, Ukraine significantly improved its position by 5 points from 76 to 71 places compared to the previous year (Table 5) [17].

Despite the general increase in the rating of doing business in Ukraine, there was a decrease in such indices as "Property Registration" (-4) and "Taxation" (-12), which negatively affected the investment climate and economic security of Ukraine as a whole. The dynamics of these indices are factors due to which foreign investors do not invest in Ukraine. Stimulating investment in the economy is a difficult problem, as it depends on the tools and the state of the environment in general, as well as the economic situation of a particular region. However, one of the important reasons is the significant fiscal orientation of the tax system of Ukraine. Despite the fact that the tax system of Ukraine in some respects meets recognized international standards, this is reflected only in the names of taxes.

Table 5

Index values of the Doing Business of Ukraine rating

Name of indexes	2012	2013	2014	2015	2016	2017	2018	2019
Starting a business	69	76	30	70	30	20	76	71
Obtaining building permits	68	70	140	139	140	140	35	30
Connection to the power supply network	182	185	137	138	137	130	128	135
Property registration	88	59	61	64	30	20	52	56
Getting a loan	14	17	19	17	19	20	29	32
Protection of investors' rights	107	109	88	87	88	70	81	72
Taxation	157	108	107	106	107	84	42	54
Foreign trade	153	154	109	109	109	115	119	78
Fulfillment of contractual obligations	44	43	98	98	98	81	81	57
Collapse	141	142	141	141	141	150	149	145
General index	142	136	112	96	83	80	76	71

Source: [17]

Discussion. Analysis of the action of these factors in Ukraine allows us to identify the main problems that worsen the investment climate of our state, in particular:

- political problems (military actions on the territory of anti-terrorist operation, foreign policy problems);
- imperfect tax and judicial system;
- a significant share of the shadow economy;
- low level of protection of investors' interests;
- unfavorable economic conditions (unemployment, low living standards, inflation, devaluation);
- lack of a sustainable strategy for economic development;
- negative international image.

It should be noted that the external conditions of globalization lead to a high level of competition between countries in international investment capital markets.

To further improve the investment climate in Ukraine, the issue of improving the legal and organizational framework to increase the efficiency of mechanisms to ensure a favorable investment climate and the formation of a basis for maintaining and increasing the competitiveness of the domestic economy is relevant today.

Conclusions. As can be seen from the study, Ukraine ranks last in the rankings, which is a sign of an unfavorable investment climate. According to experts, the main reasons for slowing down the reform process in Ukraine to improve the investment climate can be identified as: slow pace of adoption of changes at the legislative level, unsatisfactory implementation of adopted laws, the political situation in Ukraine.

The main tasks for improving the investment climate in Ukraine in the short term are: preparation of the necessary legal and organizational framework to increase the efficiency of investment climate mechanisms and form the basis for maintaining and increasing the competitiveness of the domestic economy, as well as creating conditions for national investors to invest and use profits domestically without taking them abroad.

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CHAPTER 3

MODERN MANAGEMENT TECHNOLOGIES

RELATIONSHIP BETWEEN HUMAN CAPITAL MANAGEMENT AND EMPLOYEES' VALUE ADDED IN SOME FEW SELECTED ORGANIZATIONS WITHIN BAUCHI METROPOLIS

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Abstract. *The study was carried out in Bauchi metropolis of Bauchi state (Nigeria) to evaluate the effective role of human capital management towards organizational value added of some selected organizations in Bauchi metropolis. The research assessed some selected staffs of five (5) different organizations drawn from both public and private sectors to examine how their employees are systematically selected, retained and maintained at their best. The study also aimed at determining the human capital measurement approach by those organizations to get the workers working as money alone cannot deliver the organizational goal. The research been an empirical study was conducted using structured questionnaire distributed to Staffs of some selected organizations in the metropolis. The sampling method adopted for the study was stratified random sampling technique. The instrument used for data analysis was using SPSS Pearson Product Correlation Method to test the hypothesis. A total number of 55 questionnaires were returned and considered out of the 60 that was distributed. This paper believed that the human capital management should be designed, implemented and assessed by how well it help organization achieved its strategic results and pursue its mission. It's the overall recommendation of this paper that the long-term survival and sustainability of the organization in the fast moving world is guaranteed with investment in resources that can have different effects on human behaviors with the need to work effectively and how people pursue goals in a fast changing and multifaceted environment most affected by modernity and globalization.*

Keywords: Bauchi metropolis, Employee, Human Capital Management, Organization, Value added.

JEL Classification: D46, M21

Formulas: 0; **fig.:** ; **tabl.:** 1; **bibl.:** 11.

Introduction. As it is an established fact that, no nation or organization develops beyond the intellectual ability of its human capital. Nowadays, large organizations established Human Capital Management (HCM) structures recognizing the richness of the HCM model to put the right employee to the right job at the right time. Many academic observers of work organizations recognized that the success of human resource management is significance to the survival of the organization and therefore the complexities related with the management process in organizations are huge. Apart from setting the foundation for people management in organization and being a precondition for organizational effectiveness, human capital management leads to emergence of a new paradigm in the organization, helps organizations to

allocate resources, determine priority, coordinate control, makes better decisions and determine priorities.

As defined by Baron and Armstrong (2007: 20), human capital management (HCM) is concerned with obtaining, analyzing and reporting on data that inform the direction of value-adding people management, strategic, investment and operational decisions at corporate level and at the level of front-line management. It is, as emphasized by Kearns (2005), ultimately about value. Obviously, organizations become more proactive in anticipating the future of the organization through the human capital indicators: employee morale, applicant/acceptance ratio, development hours per employee, employee competence/flexibility measures, employee suggestions/turnover ratio. It's also leads to extensive and intensive human capital development. Generally and because of the aforementioned factors, human resources planning enhance organizational performance. This, it does through the effective and efficient pursuit and achievement of objectives.

As a matter of fact that the assenting reason of human capital management is to increase the extent of organizational success, therefore this present would supported the assertion that organizations involved in human capital management achieve better performance on the basis of various performance indicators than those that do not. But following the Nigerian scenario, the culture of human capital management is virtually absent considering the case of educational sector (i.e. ranging from the nursery, primary and secondary schools to the polytechnics and as well as the universities). With the reality on ground, Asiabaka and Odionye (2010) posited that: "available record shows that the number of academic staff in the Nigerian Federal Universities is far below that of non-academic staff. Some of the universities depend on part-time and adjunct lecturers to make up for the deficiencies in the number of academic staff. A good number of the professors are fast approaching retirement age, but there are no comparable ready replacements for them. The younger lecturers appear not to show the level of commitment for older professors exhibited, consequently, the retirement of a professor leaves a big vacuum. On another dimension, the issue of quality of the available academic staff is not adequately addressed, for that reason, Ivowi (2005) emphasized that "there is evidence that some lecturers in tertiary institutions ought not to be there by virtue of their academic background, low integrity, poor attitude to research and teaching, and discipline".

Literature review. *Human capital defined.* It's apparent that the Human capital consists of the knowledge, skills and abilities of the people employed in organizations. As Wright and McMahan (2011: 101) explained: *Each individual in the organization has characteristics that comprise human capital. He/she also engages in the processing of information, interpretation and reaction to that information in making choices about how to feel and behave. The aggregation of human capital, we propose, constitutes the organization or unit's 'human capital'.*

Human capital constitutes a key element of the market worth of a company. A research study conducted in 2003 by CFO Research Services estimated that the value of human capital represented over 36 per cent of total revenue in a typical organization. The significance of the term was emphasized by Schultz (1961) and it is

now understandable that Human Capital Theory has profound influence on employment and the employees' value added and therefore investment in human capital positively produces benefit to both individual workers and organizations. Hence, this ignites the need to analyze the roles industrial sociology in organizational work settings.

Alhaji and Shehu (2012) in their studies noted that youth unemployment is often considered as a social problem and is probably the most feared phenomenon of our times that touches all parts of society; it is also an industrial sociology issue especially as it relates to the supply of, and the demand for labour. The absorption of labour emanating from the interplay between demand and supply create certain structural balances as evidence in Moses (2010) that the Dangote has nationwide staff strength of 12,000 but on completion of on-going projects, it is expected to hit 22,000. Therefore, at this juncture, the industrial sociology is not only concerned with what goes on in an industrial setting, but also how the external socio-economic and political environment shape and reshape behavior and conduct of workers both within and outside their place of work on one hand, and on the other, how industries evaluate and react to external environment as either to continue to operate in such an environment or to relocate to a more favourable one (Alhaji and Shehu, 2012).

Approaches to people management raised by human capital theory. It is obvious that Human Capital Theory has profound influence on the study of labour market. The investment in education and training would produce benefit to not only individual but also to society entirely (Ibrahim, 2012). The return on investment for our collective life will be a skill workforce that will enable comprehensive competitiveness and economic growth, while the return on investment to the individual will be a better career path, increased earning and a better quality of life. According to Fagerlind and Shah (1989) cited in Ibrahim (2012), the notion of human 'capital' proposes that education and training raises efficiency of human resources, and thereby increases their lifetime learning capability.

An approach to people management based on human capital theory involves obtaining answers to these questions:

- What are the key performance drivers that create value?
- What skills do we have?
- What skills do we need now and in the future to meet our strategic aims?
- How are we going to attract, develop and retain these skills?
- How can we develop a culture and environment in which organizational and individual learning takes place that meets both our needs and the needs of our employees?
- How can we provide for both the explicit and tacit knowledge created in our organization to be captured, recorded and used effectively?

Human capital theory helps to determine the impact of people on the business and their contribution to shareholder value. It demonstrates that HR practices produce value for money in terms of, for example, return on investment. It also provides guidance on future HR and business strategies and data that will inform strategies and

practices designed to improve the effectiveness of people management in the organization.

The nature and concept of human capital management. Accounting for People Task Force report (2003) affirmed that Human Capital Management (HCM) involves the systematic analysis, measurement and evaluation of how people policies as well as practices create value. The report stressed that HCM should be considered as an approach to people management that deals with it as a high-level strategic issue rather than a matter to be left to Human Resource (HR). However, Wright and McMahan (2011: 102) warned that human capital should not be treated as a form of capital owned and controlled by the firm: 'To do so would miss the complexity of the construct and continue to ignore the "human" in strategic HRM.' The defining characteristic of HCM is the use of metrics to direct an approach to managing people that regards themselves as assets and emphasizes that competitive advantage is attained by strategic investments in those assets in the course of employee engagement and retention, talent management and learning as well as development programmes. HCM relates HR strategy to business strategy.

Adam Smith, cited by Schultz (1981), originated the idea of human capital (like so many other economic concepts) when he wrote that: 'The acquired wealth of nations obtains from the acquired abilities of people, that is, their education, experience, skills and health.' Individuals generate, retain and use knowledge plus skill (human capital) and create intellectual capital. Their knowledge is made better by the interactions among them (social capital) and thereby generates the institutionalized knowledge possessed by an organization (organizational capital). This concept of human capital is explained below. Scarborough and Elias (2002) commented that: 'The concept of human capital is most usefully viewed as a bridging concept – that is, it defines the link between HR practices and business performance in terms of assets rather than business processes.' They pointed out that human capital is to a large extent 'non-standardized, tacit, dynamic, context dependent and embodied in people'. These characteristics make it difficult to evaluate human capital, bearing in mind that the 'features of human capital that are so crucial to firm performance are the flexibility and creativity of individuals, their ability to develop skills over time and to respond in a motivated way to different contexts'.

It is undeniably the knowledge, skills and abilities of individuals that create value, which is why the focus has to be on ways of attracting, retaining, developing and maintaining the human capital they symbolize. Davenport (1999:7) observed that: 'People own intrinsic abilities, behaviours and personal time. These fundamentals make up human capital, the currency people bring to invest in their jobs. Workers and not organizations possess this human capital.' The choices they make include how much discretionary behaviour they are prepared to exercise in carrying out their role (discretionary behaviour refers to the discretion that people at work can keep fit about the manner they do their jobs and the degree of effort, care, innovation and productive behaviour they can display). They can also choose whether or not to remain with the organization.

The constituents of human capital. Human capital includes the intellectual, social and organizational capital as elucidated underneath:

Intellectual capital. The notion of human capital is connected with the overarching idea of intellectual capital, which can be defined as the stocks and flows of knowledge obtainable to an organization. These can be considered as the intangible resources linked with people, put together with tangible resources (money and physical assets) comprise the market or total value of a business.

Social capital. Social capital is an additional constituent of intellectual capital. It involves the knowledge resulting from networks of relationships within and outside the organization. Social capital has been defined by Putnam (1996) as the features of social life – networks, norms and trust – that enable participants to act jointly and more effectively to pursue shared objectives. It is important to take into account social capital considerations, that is, the ways in which knowledge is developed through interaction between people. Bontis et al (1999) commented that it is flows as well as stocks that matter. Intellectual capital develops and changes over time and a significant part is played in these processes by people acting together.

Organizational capital. Organizational capital is really the institutionalized knowledge possessed by an organization that is stored in databases, manuals, et cetera (Youndt, 2000). It is frequently called ‘structural capital’ (Edvinson and Malone, 1997), but the expression ‘organizational capital’ is favored by Youndt since, he argues, it conveys more clearly that this is the knowledge that the organization actually owns.

The need for human capital measurement. Human capital measurement is about finding links, correlations and, ideally, causation, between different sets of (HR) data, using statistical techniques. The role of human capital measurement is to assess the impact of HRM practices and the contribution made by people to organizational performance. Human capital measurement provides a basis for people management decision-making. It means identifying the people management drivers and modelling the effect of varying them. The recognized significance of realizing human capital advantage has led to an attention in the development of techniques of quantifying the value and impact of that capital because of these reasons: *People in organizations add value and there is a case for assessing this value to provide a basis for HR planning and for monitoring the effectiveness and impact of HR policies and practices.*

The process of identifying measures and collecting and analyzing information relating to them will focus the attention of the organization on what needs to be done to find, keep, develop and make the best use of its human capital. Measurements can be used to monitor progress in achieving strategic HR goals and generally to evaluate the effectiveness of HR practices. You cannot manage unless you measure. The need is to develop a framework within which reliable information can be collected and analyzed such as added value per employee, productivity, and measures of employee behaviour (attrition and absenteeism rates, the frequency/severity rate of accidents, and cost savings resulting from suggestion schemes).

However, the Institute for Employment Studies (Hartley, 2005) emphasized that reporting on human capital is not simply about measurement. Measures on their own such as those resulting from benchmarking are not enough; they must be clearly linked to business performance. It was established by Scarborough and Elias (2002: x), on the basis of their research, that: *Measures are less important than the activity of measuring – of continuously developing and refining our understanding of the productive role of human capital within particular settings, by embedding such activities in management practices, and linking them to the business strategy of the firm.*

As described by Nalbantian *et al* (2004) the organizational performance model developed by Mercer HR Consulting is based on the following elements: people, work processes, management structure, information and knowledge, decision-making and rewards, each of which plays out differently within the context of the organization, creating a unique DNA. The statistical tool 'Internal Labour Market Analysis' used by Mercer draws on the running record of employee and labour market data to analyze the actual experience of employees rather than stated HR programmes and policies. Thus gaps can be identified between what is required in the workforce to support business goals and what is actually being delivered.

Methods. The Bauchi metropolis served as the study area and it's the headquarters of Bauchi state of Nigeria which was chosen for this study and the choice was deliberate because the state is endowed with many public and private organizations spanning different sectors of the economy. Adaba (2006) considered that the Bauchi state is located between Latitude of 9.3 and 12.3 North of the Equator and Longitude 8.5 and 11 East of the Greenwich Meridian. The state is bordered by seven states, Kano and Jigawa states to the North, Taraba and Plateau states to the South, Gombe and Yobe states to the East, and Kaduna state to the West. It occupies a total land area of 549,259.01sq.kilometers, which signify 5.3 percent of the landmass of Nigeria.

The descriptive survey design was adopted for the study so as to get exact and full information about the major characteristics of variables associated with this study. This is because it's the suitable technique for depicting exactly the characteristics of a situation and so describes the state of affairs as it exists as of present. It also allows the unearthing of causes and effects of phenomenon even when the variables cannot be controlled (Kothari, 2004). The population for this research work comprises staffs across public and private organizations to include 27 staffs from Abubakar Tatari Ali Polytechnic at Wuntin Dada area of Bauchi metropolis, 15 from Federal Polytechnic at Gwallameji area of Bauchi metropolis, 4 staffs of Professor Iya Abubakar Community Resource Centre at Abdulkadir Ahmed Road of Bauchi metropolis, 3 staffs of Union Bank (Nigeria) PLC at Abdulkadir Ahmed Road of Bauchi metropolis, 6 staffs of the National Teachers' Institute at Federal Secretariat Complex at Bauchi metropolis, all in the metropolis and making up to a total number of 55 staffs engaged in the study. A sample is a manageable section of a population but elements of which have common characteristics. It is the elements making up the sample that are actually studied and generalization or inferences about

the population are made. This generalization of result based on the sample on the population is the major purpose of sampling and also a major concern in any specific investigation.

The instrument for collection employed for this research was indeed a structured questionnaire. A structure questionnaire asks a question and supply a number of responses options intended for the respondents to pick. An overall fifty five questionnaires was distributed and all returned. The questionnaire is of the liked type; each questionnaire 5 options, namely; Agree, Disagree, Undecided, Strongly disagree, Strongly agree of which respondents would select. The scale/score of the responses are: Strongly agree stand for 5, Agree stand for 4, Undecided stand for 3, Disagree stand for 2, and Strongly Disagree stand for 1. To analyze the data gathered in this study, the researcher uses table representations to present data and analyze using simple percentage for easy interpretation using SPSS Pearson Product Correlation Method to test the hypothesis is employed to enhance understanding.

Results and discussion. The research adopted the descriptive statistics as well as the Pearson Product Correlation Method to analyze the results and test the hypothesis so as to give the tentative prediction about the nature of the relationship between the research variables. The perception on the significant roles in hypothesis involve the following elements: people, work processes, management structure, information and knowledge, decision-making and rewards, each of which plays out differently within the context of the organization..

Hypothesis: *There are significant roles performed by human capital management towards enhancing adding value in organization across the Bauchi metropolis.*

The Table 1 below just discloses the result of the respondents' perceptions on the human capital management in relation to enhancing adding value in the study area. To measure the relationship between human capital management and value added to the organization the correlation was computed using the items on the research questionnaire and the below table results are given following the usage of SPSS statistical package.

Thus the Pearson product-moment correlation coefficient was work out using the SPSS to assess significant association between the human capital management and the organizational value added. The main HCM data used for measurement are: Basic workforce data – demographic data (numbers by job category, sex, race, age, disability, working arrangements, absence and sickness, turnover and pay). People development and performance data - learning and development programmes, performance management/potential assessments, skills and qualifications. Perceptual data - attitude/opinion surveys, focus groups, exit interviews. Performance data - financial, operational and customer: From the table above there were positive correlations between the variables as revealed in the table and Cohen (1988) established that correlation coefficient $r < 0.5$ represents a strong relationship. Given that the correlation is statistically significant at 95% confidence level, the null hypothesis (H0) is for that reason rejected and the alternate hypothesis (H1) is accepted. This indicates that there is significant relationship between human capital

management and organizational value adding sustaining the human capital monitor model of Andrew Mayo.

Table 1

Computation of Statistical Correlations

		Organization performance is directly affected by the HCM	Good HCM enhances quick responses to organization demands	HCM enhances the organizational performance	There is relationship between HCM and added value in an organization
Organization performance is directly affected by the HCM	Pearson Correlation Sig. (2-Tailed) N	1 55	.716** .000 55	.592** .000 55	.725** .000 55
Good HCM enhances Quick responses to organization demands.	Pearson Correlation Sig. (2-tailed) N	.716** .000 55	1 .000 55	.888** .000 55	.871** .000 55
HCM enhances the organizational performance	Pearson Correlation Sig. (2-tailed) N	.592 .000 55	.592** .000 55	1 .000 55	.832** .000 55
There is relationship between HCM and Organizational performance	Pearson Correlation Sig. (2-tailed) N	.725 .000 55	.871** .000 55	.832** .000 55	1 .000 55

****Correlation is significant at the 0.01 level (2-tailed)**

Therefore, Andrew Mayo (2001) has developed the ‘human capital monitor’ to identify the human value of the enterprise or ‘human asset worth’, which is equal to ‘employment cost × individual asset multiplier’. The latter is a weighted average assessment of capability, potential to grow, personal performance (contribution) and alignment to the organization’s values set in the context of the workforce environment (i.e. how leadership, culture, motivation and learning are driving success). The absolute figure is not important. What does matter is that the process of measurement leads you to consider whether human capital is sufficient, increasing, or decreasing, and highlights issues to address. Mayo advises against using too many measures and instead to concentrate on a few organization-wide measures that are critical in creating shareholder value or achieving current and future organizational goals.

He believes that value added per person is a good measure of the effectiveness of human capital, especially for making inter-firm comparisons. But he considers that the most critical indicator for the value of human capital is the level of expertise possessed by an organization. He suggests that this could be analyzed under the headings of identified organizational core competencies. The other criteria he mentions are measures of satisfaction derived from employee opinion surveys and levels of attrition and absenteeism.

Conclusion. To sum up all therefore, it should be noted that for many organizations in the study area, human capital management represents a neglected

area of opportunity. Though, it is indeed an essential factor in an organization's ability to innovate and grow profitably, and then human capital is something organization executives can no longer afford to take for granted. Human capital management has a critical role in these turbulent times of global economy where effective organization management, productivity, efficiency and performance have critical role. So do skills, knowledge and talent. Showing the employee performance added value per employee are important more than ever. This will go a long way to adds value to sustainable competitive advantage. This goes to buttress David M. Walker (2000) that earlier believed that, enhancing the value of employees is a win-win goal for employers and employees alike. Therefore the more the organization be aware of the intrinsic value of each employee, the more it make out that this value can be improved with fostering and investment, the more it knows that employees vary in their talents and motivations, that is, a variety of incentive strategies and working arrangements can be shaped to add to each employee's contributions to organizational performance, the more probable the organization will be there to appreciate the diversity of employee needs and circumstances as well as to act in ways that make sense in both business and human terms. It's therefore the overall recommendation of this paper that the long-term survival and sustainability of the organization in the fast moving world is guaranteed with investment in resources that can have different effects on human behaviors with the need to work effectively and how people pursue goals in a fast changing and multifaceted environment most affected by modernity and globalization.

Author contributions. The authors contributed equally.

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USE OF SCIENTIFIC PROFILES TO PRESENT THE RESULTS OF SCIENTIFIC RESEARCH OF UNIVERSITIES

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Abstract. *The article substantiates that the main problem of modern universities is the search for effective methods and tools to present the results of their activities in the Internet space in order to attract more applicants and, in turn, increase the position in the rankings. The study found that an equally important component of the vast majority of rankings are research results, which are calculated as the number of scientific articles published in journals indexed in Scopus / Web of Science, as well as the h-index. A study of the positions of Ukrainian universities in international rankings showed that, despite significant advances in science, they can not get into such rankings. The study found that one of the reasons for this situation is the low level of transparency of both the research conducted at universities and the results of such research. To solve this problem, it is proposed to use scientific profiles of university staff, which contribute to the dissemination of information about scientific achievements, as they contain general information about authors that can be used for grants, participation in conferences, peer review, international rankings and others. The aim of the article is to manage the information reflected in the scientific profiles of researchers to increase the position of universities in international rankings using the results of its comparison with the information used to compile these rankings. The research methodology includes: methods of analysis and synthesis, induction and deduction, method of comparing results. It is established that the main scientific profiles that universities can use to publish research results are: Author ID in Scopus, ResearcherID, ORCID, Google Scholar. Thus, the study found that the international rankings of universities, in addition to the information posted on their websites, also use the information contained in the scientific profiles of employees of these institutions. The lack of completed profiles of scientists leads to a decrease in the position of universities in international and domestic rankings.*

Keywords: university, researcher, scientific profile, transparency, publications, mechanism of information exchange, grants, competitiveness.

JEL Classification: A20, A29, I 23

Formulas: 0; **fig.:** 1; **tabl.:** 1; **bibl.:** 13.

Introduction. In the current conditions of growing competition in the international market of educational services, more and more applicants when choosing a university pay attention to its position in international rankings. In most countries of the world, the position of universities in international rankings is the basis for providing public funds to finance activities and research, as well as receiving international grants.

Unfortunately, most Ukrainian universities carry out inefficient management of the results of scientific publications of all scientific and pedagogical workers, which slows down their positioning in international rankings, which, in turn, leads to reduced competitiveness of educational institutions in the world educational space.

I believe that the solution to this problem for modern universities is to find effective methods and tools to present the results of their activities on the Internet to attract more applicants and, in turn, increase the position in the rankings.

Aims. The aim of the article is to manage the information reflected in the scientific profiles of researchers to increase the position of universities in

international rankings using the results of its comparison with the information used to compile these rankings.

Methods. The research methodology includes: methods of analysis and synthesis, induction and deduction, method of comparing results.

Results. We believe that the solution to this problem of modern universities is to find effective methods and tools to present the results of their activities in the Internet space to attract more entrants and, in turn, increase positions in the rankings [1].

According to the results of the study presented in table. 6, it was found that no less important component of the vast majority of rankings are the results of scientific activities, which are calculated as the number of scientific articles published in journals indexed in Scopus / Web of Science, as well as their citation index [2].

A study of the positions of Ukrainian universities in international rankings showed that, despite significant advances in science, most of them can not get into such rankings, and those that did - occupy a fairly low position.

It is clear that the main problem facing most universities is limited funding, but an equally important reason is the low level of transparency of both the research conducted at universities and their results.

We believe that to solve this problem it is necessary to use scientific profiles of university staff, which contribute to the dissemination of information about scientific achievements, as they contain general information about authors that can be used for grants, participation in conferences, peer review, international rankings, etc..

It is established that the main scientific profiles that universities can use to publish research results are: Scopus Author ID, ResearcherID, ORCID, Google Scholar.

Scopus AuthorID. Scopus is one of the world's largest scientometric databases, which allows you to track citations of articles that have been published in scientific journals. It is owned by Elsevier Publishing Corporation. Scopus indexes about 24,000 scientific journals from various fields of science, conference proceedings, book editions, almost 80% of which contain annotations.

Examining the features of filling and using Scopus AuthorID found that it is created automatically when there are publications in publications indexed in Scopus. This profile contains information with the author's name, place of work (affiliation), number of publications, years of publication, field of research, co-authors, the total number of citations of the author's works, the author's worst index, etc. [3].

It is possible to subscribe to a certain Scopus Author ID and track the publication activity of the scientist. Because the information is generated automatically, a scientist may have two profiles in Scopus. That is why the profile needs to be adjusted in case of change of the author's surname or its different transliteration, his place of work, or country of residence. Without appropriate adjustments, the university's indicators, which are taken into account in international rankings, will be much lower.

Researcher ID. Web of Science (WoS) is a search platform that combines abstract databases of publications in scientific periodicals and is subordinated to Clarivate Analytics. WoS presents information from all fields of knowledge, indexing

more than 12,000 journals, 120,000 different scientific conference proceedings. The vast majority of tasks to assess the effectiveness of scientific research in the world are solved on the basis of WoS data.

Scientific profile in ResearcherID (now - Publons), in contrast to Scopus AuthorID allows you to manage the publications of authors, improve the ranking of their profiles by posting information about participation in the review of publications of other authors. The peculiarity of this profile is that registration in it is available to everyone, does not require a subscription to the Web of Science or the availability of publications indexed in this database.

In addition, ResearcherID allows you to:

- create a profile of a scientist (with a combination of different spellings of the surname in Latin);
- to form a list of own publications as a whole and in the context of individual journals;
- determine their own scientometric indicators (Worse index, number of articles, number of citations of their publications indexed in the Web of Science);
- synchronize your profile with the profile in ORCID;
- to search for scientists (groups) on the topic of research and create invitations to cooperation.

The disadvantage of this profile is that Web Science automatically adds articles to the profile of the researcher, which requires you to do it yourself. Although, on the other hand, it allows to control the filling of the profile by the author and to ensure that the citation indicators created in the profile of the researcher cover all his work without omission.

ORCID. We believe that the scientific profile of ORCID is currently the most complete open source of information about the achievements of scientists, as it contains bibliographic data about the author, such as: information about education, jobs, participation in research projects and grants, publishing activity. The advantage of ORCID is the ability to fill it by importing information from other databases (Crossref Metadata Search, Research Data Australia, ResearcherID, Scopus - Elsevier, etc.), as well as further export to other profiles of the author, including ResearcherID (Publons) [6].

We believe that the main advantages of ORCID for scientists are:

- eliminates the ambiguity of the author's name by combining different spellings of the surname in Latin;
- makes it easier for reviewers to find researchers working on a particular topic;
- promotes cooperation with other researchers;
- confirms the experience of participation in research projects to attract grants;
- used by publishers to submit manuscripts and synchronize articles with profiles of authors;
- used by professional associations for membership purposes;
- interacts with other author profiles on different platforms and systems (for example, Scopus Author ID and ResearcherID).

ORCID is a universal and unique identifier that remains with the author throughout his career, regardless of affiliation with the organization.

It should also be borne in mind that information about scientific publications contained in the ORCID scientific profile is automatically displayed in the ResearchID. However, unfortunately, other information (biography, education, place of work, etc.) must be filled in separately. The information in the Scopus Author ID can also be synchronized with ORCID, which will display articles published in journals indexed in SCOPUS, which will help clarify the affiliation of the researcher.

Google Scholar. The Google Scholar profile is part of the Google search engine [5], which indexes the full text of scientific publications of all formats and areas, allows authors to track citations of their own publications or citations of a particular author, track specific topics, see your Worst Ratio, and more. In Google Scholar, the author's publishing activity is the most widely represented, as it is automatically filled in from other open sources of information.

Google Scholar Citations automatically calculates three metrics: h-index, i10-index, and total citations, and plots the number of citations of the author's documents by year.

- citation statistics - the number of bibliographic references to all publications (the second column - for the last 5 years).

- h-index - the largest value of h, at which h publications have at least h bibliographic references (the second column - for the last 5 years) (Worse index).

- i10 index - the number of publications that have at least 10 bibliographic references (the second column - for the last 5 years).

Due to the fact that the profile in Google Scholar is updated on the basis of BibTeX, it can be filled by setting up an automatic link with ORCID, which will reduce the likelihood of erroneous inclusion of articles by other authors in the profile of the researcher.

Table 1 shows the basic information that is reflected in the scientific profiles of researchers, which allows us to conclude that there is some synchronization between them.

Given the above mechanism of information exchange between scientific profiles of researchers, we present it in Fig. 1.

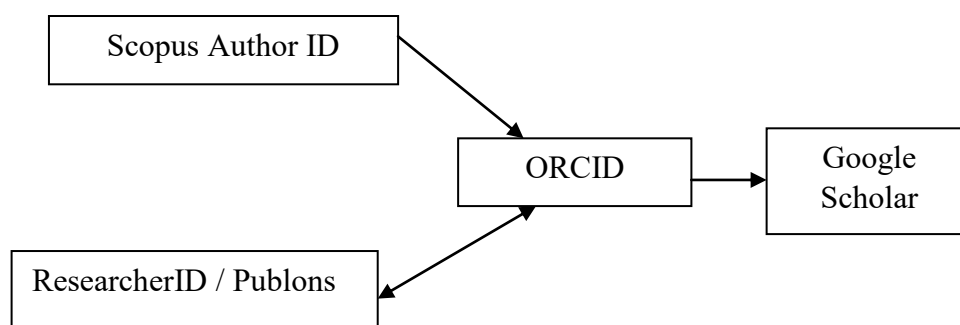


Fig. 1. The mechanism of information exchange between scientific profiles of researchers

Source: developed by the author

Table 1

Comparison of information in scientific profiles of researchers

Information about the author	Scopus Author ID	ResearcherID / Publons	ORCID	Google Scholar
Different variants of the name and surname (including transliteration)	-	+	+	-
Country	+	+	+	+
Research interests	+	+	+	+
Links to other profiles	+	+	+	-
Autobiography	-	+	+	-
Education	-	-	+	-
Work experience, position	-	-	+	-
Affiliation	+	+	-	+
Part-time work, honors and awards	-	-	+	-
Membership in international organizations	-	-	+	-
Funding of research projects (grants) and awards (prizes)	-	-	+	-
List of publications	+	+	+	+
Citation	+	+	-	+
h-index	+	+	-	+
Systematization of publications by journals	-	+	-	-
Subscription to the work of other authors	+	+	-	+

Source: developed by the author

Thus, in Fig. 1, the main scientific profile that generates most of the information about the researcher is ORCID, the information from which is imported into Google Scholar and ResearcherID / Publons. In this case, mutual information can be exchanged with ResearcherID / Publons, and Scopus Author ID can be combined with ORCID to identify the author of the article.

Comparing the information used by international rankings and the information provided by scientific profiles of researchers, the matrix "international rating-scientific profile" was developed, which will promote a more responsible attitude of both researchers and university management to fill scientific profiles and transparency in them (Table 3).

Table 2

Matrix "international rating-scientific profile"

	ARWU	QS	Scopus	THE	Webometrics	SCImago
Scopus Author ID	+	+	+	+	-	+
ResearcherID / Publons	+	+	-	+	-	-
ORCID	-	-	-	+	-	-
Google Scholar	+	+	-	+	+	-

Source: developed by the author

The developed matrix indicates a rather low level of use of ORCID in the calculation of international rankings, however, its role in the management of scientific profiles, their content and synchronization should not be underestimated.

I believe that the completeness of filling scientific profiles and their settings also depends on the international recognition of individual researchers and the university as a whole, as well as its positioning in international rankings.

Conclusions. All in all, the study found that the international rankings of universities, in addition to the information posted on their websites, also use the information contained in the scientific profiles of employees of these institutions. The lack of completed profiles of scientists leads to a decrease in the position of universities in international and domestic rankings.

Scientific profiles and identifiers initiated by publishers (Scopus, ResearcherID) allow journals to see all publications of authors, to contact them, to understand the level of citation of a particular author or individual article. Publishers send information about a particular author's publications to the ORCID database. These profiles are useful for universities, because they allow you to track information about research and teaching staff, to generate reports on research activities. For libraries, the cataloging process by authors is simplified. Grant organizations have the opportunity to see a list of publications by a particular author and the grants he has received. Scientific communities can see the publishing activity of their members or potential conference participants. In addition to scientific identifiers, it is possible to maintain scientific profiles.

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ADULT EDUCATION: BENEFITS, OBSTACLES, PRIORITIES

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Abstract. *One of the challenges of the 21st century is changing the requirements for adult education. The system of adult education becomes especially relevant because the quality of human capital is on the agenda, development of personality, man as the center of development of society, which must constantly develop and improve. The aim of the article is to identify the advantages and prospects of adult education. Methods of research: scientific analysis and synthesis, semantic analysis in combination with the use of Google Trends and Ahrefs search tools, comparative analysis, expert method. Adult education is a phenomenon characteristic of the highly developed countries of the world. The expediency of its development is a well-known fact, as the vast majority of countries in some sense owe their technological, socio-cultural, and economic progress to adult education. Adult education is an important civilized (non-violent, humanistic, and democratic) factor in the harmonization of relations. The fundamental role of adult education in increasing economic capacity and strengthening democratic values must be recognized at all levels. From here there is a need to identify the advantages, obstacles, and prospects of adult education in Ukraine.*

Keywords: *adult education, benefits, obstacles, priorities, quality, criteria, Lifelong learning.*

JEL Classification: A23, I 21.

Formulas: 0; **fig.:** 3; **tabl.:** 0; **bibl.:** 12.

Introduction. One of the challenges of the 21st century is changing the requirements for adult education. All components of the process of continuing education are focused on the formation and enrichment of knowledge, skills, abilities, competence for further employment, ensuring its competitiveness in the labor market, productive employment, reducing unemployment, and overcoming poverty. At the same time, adult learning is integral, but at the same time a well-known problem of part of the lifelong learning process. The main task of adult education is to continuously improve the skills (retraining) of adult citizens to fully meet their educational needs and ensure their competitiveness in the labor market. The country's competitiveness depends significantly on human capital, in particular on training and education.

Continuing education in the modern cultural and educational context is the idea, the principle of learning, the quality of the educational process, the condition of human development. Today, the period of "half-life" of competence, ie its reduction by 50% due to new information, shows that in many professions this period occurs in less than 5 years, ie about our system of higher education before graduation. The solution is to move to lifelong learning, where basic education should be periodically supplemented by additional education programs and organized not as a final, completed, but only as a basis, a basis that is supplemented by other programs. This requires that the graduate, in addition to the knowledge gained in the narrow profession, must develop his ability to learn throughout his professional life, develop communication skills, adaptability, self-improvement, organizational and group effectiveness and a number of other qualities.

Literature review. Deterrents are characteristics that explain why adults respond in negative manners to participate in education and learning. Deterrents faced by adults are multifaceted, including both external and internal factors. However, cost and time have been remained as the most frequently reported deterrents. Large sampled (nationwide and international) surveys on barriers to participation such as a study of National Center for Education Statistics (NCES) of the US, IALS and Eurobarometer indicated that time and cost were the main deterrents for adults [12, 3, 9] Moreover, some empirical studies discovered time and cost as the most cited deterrents through studying various groups of adults [2].

Cost includes tuition fee of a programmer as well as extra expenditures for learning such as clothes, food, transportation and other school necessities (textbooks and stationaries) [1]. It is well known that adults less educated, low-skilled and unemployed are less likely to participate in education/learning. Adults tended to say that they were busy with their daily routines. Apart from cost and time deterrents, family and job commitments are other most commonly cited deterrents [11].

Adults feel they do not have time to learn because they are busy at work and home. Thus, the time barrier should be considered in line with family and job commitments. After above-mentioned deterrents, another mostly reported deterrent is irrelevant and inadequate supplies of trainings/activities. In other words, AE programs and courses do not always suit the needs of adult learners. It, therefore, is also important for educational planners to recognize that AE opportunities available may not always suit the learner's need. Moreover, perceived deterrents are differentiated into social groups. Johnston and Rivera found that older adults faced more dispositional barriers such as low self-confidence and too late for being learners. Also, younger adults and women were more experienced with situational barriers such as cost and child care arrangements. Among the less educated, one's low-confidence regarding the learning ability could be the main deterrent [4].

Aims. The aim of the article is to identify the advantages and prospects of adult education.

Methods. There are methods: scientific analysis and synthesis, semantic analysis in combination with the use of Google Trends and Ahrefs search tools, comparative analysis, expert method.

Some terms are used to define the concept of continuing education. In modern literature, you can find the following stable combinations: "adult education" (adult education); "Continuing education"; "Further education"; "Periodic education" as lifelong learning by alternating learning with other activities, mainly work; "Continuing education"; "Lifelong learning"; "Throughout life." Each of these terms emphasizes a certain side of the phenomenon, but the idea of lifelong incomplete adult education is general. The issue of continuing education can be divided into two main areas. The first is related to the construction of a system of continuing education as part of social practice (socio-educational aspect of continuing education), the second - to the process of learning a new life, social, professional experience. That is why in the second half of the 90s of the twentieth century in the field of adult education was proclaimed a combination of the principle of continuity of education

with the principle of lifelong learning and the formation of a knowledge society. Thus, an attempt was made to consolidate in the public consciousness and understanding the mutual responsibility of society, the state and the individual for the development of educational processes.

Among the functions of continuing education are: developing (meeting the spiritual needs of the individual, the needs of creative growth); compensatory (filling gaps in basic education); adaptive (operational training and retraining in a changing production and social situation); integration into an unfamiliar cultural context; resocialization function (resocialization).

In the content of continuing education, there are three main significant components related to adult learning: literacy training in a broad sense, including computer, functional, social, etc.; vocational training, which includes vocational training, retraining, advanced training (job qualification); general cultural additional education not related to employment (life qualification).

The American researcher Malcolm Sh. Knowles [10] gives, for example, the following main life tasks of adults of different ages (adults from 18 to 30 years, from 30 to 65 years, from 65 and older), which they tried to solve by studying in the adult education system according to the following criteria:

- profession and career,
- home and family,
- personal development,
- use of free time,
- health,
- collective life.

J. Johnston's research on the goals of adult education depending on gender and social status is interesting. According to him, organizational adult education should consist of five main blocks: consumer (educational needs of students); information and management; structural; content-methodical; personnel, and scientific support [8].

Lifelong learning is a concept that links the most fundamental aspects of learning to specific life contexts. It is founded on the notion that people learn in different ways. Universities are endowed with the human, technological and financial resources necessary to promote and sustain lifelong learning. Shirley Walters, a leading adult learning and lifelong learning scholar in Africa, noted that lifelong learning is a multi-dimensional concept that can be used to organize all education and training throughout life to nurture individuals' and societies' core skills and competencies. It includes learning behaviors, gaining knowledge, understanding of attitudes and values required for personal growth, spiritual, social, and economic well-being, democratic citizenship, cultural identity, and employability. Thus, the only way that universities can remain relevant is by offering a holistic education for life and work [6].

Economic Benefits of Adult Education. Adult learning can improve employability and income, which is a key pathway to realizing a range of other benefits. For example it enables people to some extent, to choose and shape the

context in which they live and work and even increase their social status. The existing studies focus on the economic return to work-based training and to employer provided training, which indicates that this can have significant impact on earning and the employment situation of individuals, for example reduce the risk of unemployment.

In the UK (Feinstein et al., 2004) it was found that that work-related training gives a clear wage gain of 5-10 percent. A study in Austria (OEIB, 2008) among participants in vocational training found that those who attended a course earned 11 percent more than they did before attending the course.

Also the German Expert Commission on the Financing of Lifelong Learning (Timmermann, 2010) referred to significant income returns for training participants aged 20 to 44 years in Germany.

In particular, individuals less likely to be in employment (migrants, women from ethnic minorities, etc.) may benefit economically from their participation in Adult Education.

In regard to employment opportunities it was found that adult and further learning significantly reduces the risk of unemployment (Sabates, 2007) Also Jerkins et al. (2003 in Ferrer and Riddel, 2010) analyzed the impact of education on employment and wages and their findings revealed that episodes of Adult Education, in particular vocational training, have positive effects on employment (but limited effects on wages) [6].

Results. The market of adult education services in Ukraine is in the process of formation and development. Traditional staff retraining is part of the broader concept of "continuous education". The list of types of education, based on the current legal framework, includes preschool; complete general average; professional achievements; higher; out of school; postgraduate. The Ministry of Education and Science of Ukraine pays attention to such types of education first of all. But this list of types of education does not fully cover the full range of "continuing education", ignoring adult education, its non-formal, and informal forms, inclusive education, distance education, self-education.

Adult education is a practice of adult education and training that takes place after an adult enters the labor market, and can apply to both vocational training and public, cultural, etc. education.

Empirical data have shown that the mental demand for adult education in Ukraine has not yet been formed. In particular, this is evidenced by the fact that search queries for the phrase "advanced training" and "training" significantly exceed the frequency of queries for the phrase "adult education" in Ukraine, even during the last 5 years. Moreover, the demand band has significantly increased during the equipped half-year. Surprisingly, the demand for training lags behind training (Fig. 1).

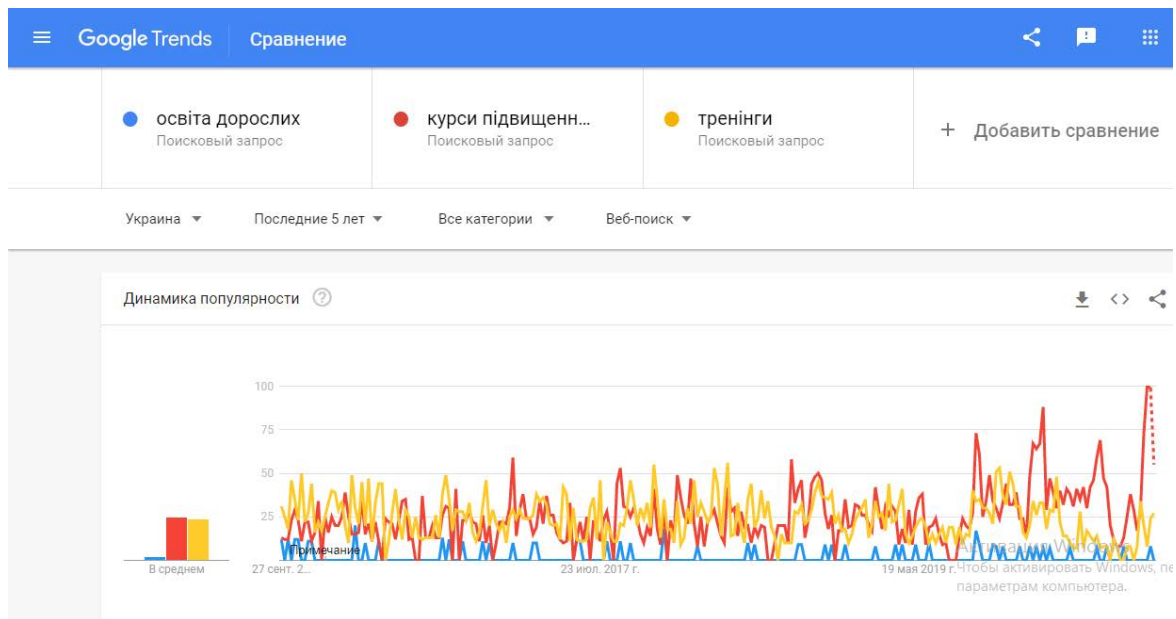


Fig. 1. Frequency of search queries for the phrases "adult education", "training", "training" in Ukraine over the past 5 years

Source: created by the author

However, there is a problem with the increase in qualification - it is very specialized and mainly applies to school teachers. The training also concerns mainly with educators (Figs. 2 and 3).

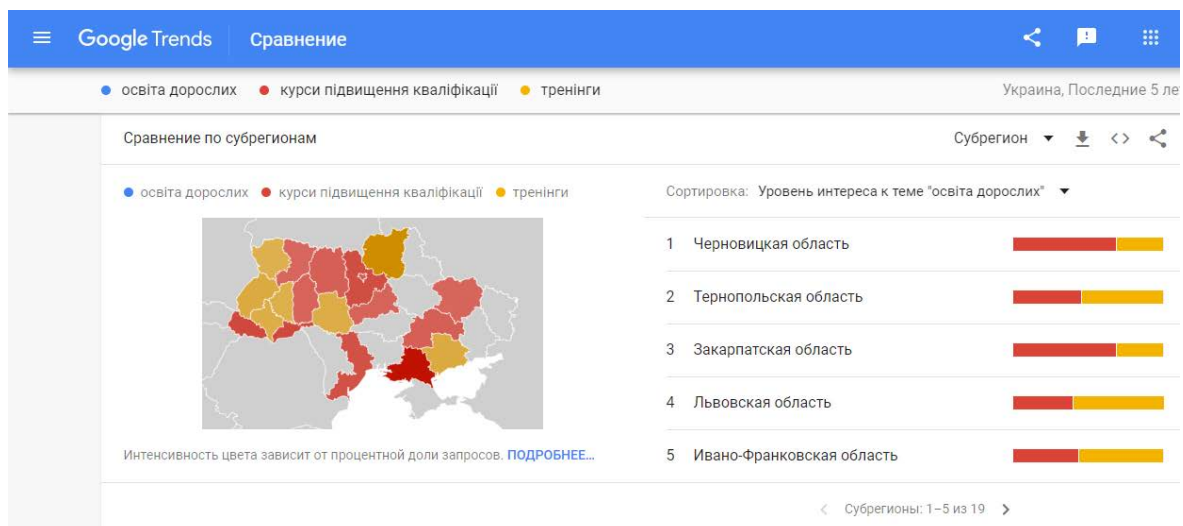


Figure 2. Comparison of the frequency of search queries for the phrases "adult education", "training", "training" in the regions of Ukraine over the past 5 years

Source: created by the author

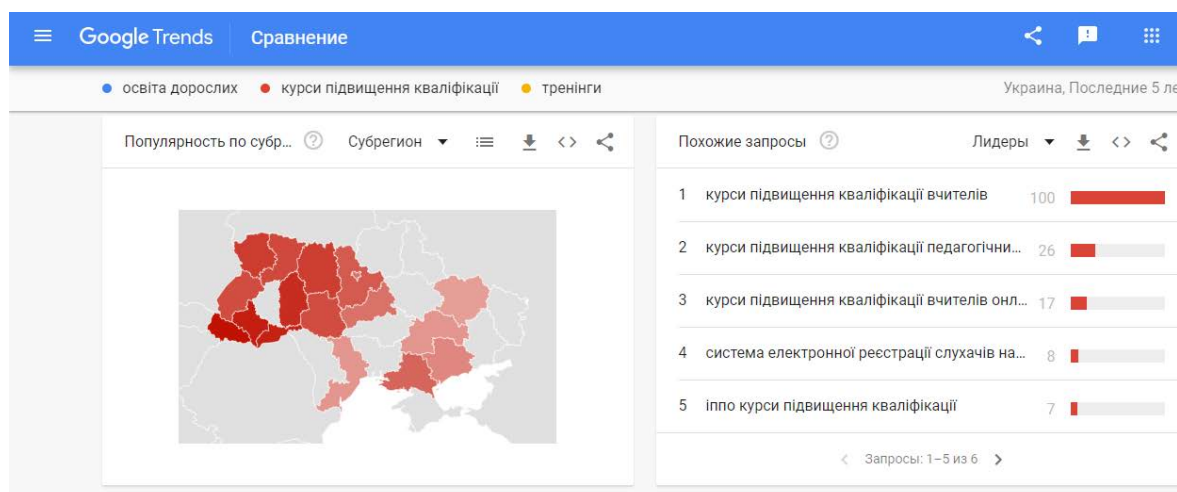


Fig. 3. The content of the search query for the word "increase in qualifications" in Ukraine over the past 5 years

Source: created by the author

Google Trends (<http://trends.google.com>) is a powerful publically accessible website that allows individuals to examine longitudinal population-level variation in the relative frequency with which people use specific Google search terms. Data are updated in real-time and can be examined worldwide or by nation, state, metro region, or city. Google Trends analyses have been used to predict important societal outcomes.

Discussion. Currently, the Ministry of Education and Science of Ukraine is proposing a draft Law of Ukraine "On Adult Education" for public discussion. The main objectives of the draft law are:

- to create conditions for the development of adult education based on a comprehensive understanding of its social value and significance;
- to identify priority areas of adult education, which would, in particular, ensure the formation of key competencies in adults, recommended by the European Union for lifelong learning;
- streamline the adult education system;
- to determine the principles of cooperation between the state, local governments, and adult education providers;
- to lay the legal foundations for the activities of new institutions in the field of adult education.

There are the following main provisions of the draft Law of Ukraine "On Adult Education":

- directions, principles of adult education, principles of state policy in the field of adult education;
- main components of the adult education system;
- the term "adult education provider";
- requirements for quality assurance of adult education providers;
- the establishment of the National Council for Adult Education is envisaged - an advisory body that will have a significant impact on the formation of state policy in the field of adult education;

- legal basis for financial support of adult education, including the activities of the Adult Education Support Fund, the main purpose of which is to provide financial support to providers and applicants for adult education on a competitive basis;
- basic principles of public-private partnership and international activities in the field of adult education.

The draft law also defines the legal mechanisms of interaction between formal and non-formal adult education, aimed at expanding the access of adults to formal education and establishing convenient and flexible rules for adults to receive formal, non-formal, and informal education [5].

Conclusion. There are priority areas of adult education in Ukraine, which are aimed at forming:

- new and in-depth professional competencies that meet modern and future needs of the labor market;
- personal, communicative and social competencies, ability to carry out interpersonal and social interaction, resolve conflicts, communicate constructively with other people;
- learning competencies, ability to learn and self-improvement throughout life;
- civic competencies, the ability to responsibly and fully participate in public life, understanding of social, economic and political processes, patterns and trends;
- health and environmental competencies, the ability to plan activities and act in a way that is conducive to human health, the social environment and the environment;
- digital competencies, ability to use digital technologies for personal needs, professional activities and training;
- entrepreneurial competencies, skills of critical and creative thinking, the ability to be proactive and persistent, the ability to work with other people to solve common problems, project planning and management, use opportunities to implement ideas;
- cultural self-awareness and self-expression, understanding and perception of universal values, the ability to tolerant behavior in a multicultural world.

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EVALUATION OF COMPLEX INDICATOR OF ID-PROFILES OF ENTERPRISE STAFF: ECONOMIC APPROACH

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Abstract. *The article presents the author's method of estimating the complex indicator of ID-profiles of the company's personnel, developed on the basis of the economic approach. It is proved that the concept of "personnel security" is a process of identifying and neutralizing the impact on the economic security of the enterprise of various risks and threats associated with the actions and / or inaction of staff. It is established that the "personnel security system" is a set of interrelated relations between staff and owners (managers) to neutralize threats to the economic security of the enterprise. The concept of "personnel security management" is proposed, which should be understood as management actions of owners (management) to identify and neutralize the impact on the economic security of the enterprise of various risks and threats associated with the actions and / or inaction of staff. The own scheme of a technique of estimation of a complex indicator of ID-profiles of personnel of the enterprise which consists of four stages is offered that allowed to give offers on improvement of stages of an estimation of interdependence of the personnel enterprise which is built on set of departments of the enterprise. Developed adequate methods for assessing and modeling indicators of the personnel security system of the enterprise, in terms of structure and dynamics of personnel, wages and productivity, social indicators, level of education and qualifications, job organization and labor process and indicators related to the personnel component information security.*

Keywords: *personnel security, personnel of the enterprise, management, ID-profile of the personnel, indicators of the profile of the employee.*

JEL Classification: J01, J50

Formulas: 10; **fig.:** 2; **tabl.:** 0; **bibl.:** 15.

Introduction. Businesses must be able to withstand the negative factors of the market environment and recover from their onset. Therefore, the profitable economic activity of the enterprise involves the creation and establishment of an effective system of various measures of economic security, special attention in this process should be paid to staff.

Personnel security is a component of economic security of the enterprise, which should be considered as the impact of negative conditions under which dangerous factors affect the personnel management system and the level of profit. The personnel security system of the enterprise is focused on the detection of possible internal and external threats, as well as their minimization, such as the detection of conflicts, cases of bribery, incompetent performance of professional duties by employees. Note that to manage the personnel security system of the enterprise, it is necessary to develop a methodology for its evaluation. Therefore, this problem is relevant and needs further study.

Literature review. Overview publications of domestic scientists I. Blank, S. Vasilchenko, A. Lupus, P. Haidutsky, M. Kamface, A. I. Mihus and foreign authors: D. Artemenko, A. Bocciarov, B. Rayzberg, V. Senchagov, I. Tkachuk, A. Shavayev - showed a superficial study of the problem of management personnel

security. However, despite the large number of scientific papers devoted to the issues of personnel security of the enterprise, the issues of estimating the complex indicator of personnel ID-profiles remain almost unexplored.

Aims. The purpose of the article is to develop and characterize the method of estimating the complex indicator of ID- profiles of the company's personnel based on the economic approach.

Methods. The author used the methods of static and logical comparison, systematization and generalization, which made it possible to achieve the goal of the study.

Results. The main productive force of any enterprise are employees of the enterprise (personnel), who create tangible and intangible benefits.

Under the term "personnel security" we understand the process of identifying and neutralizing the impact on the economic security of the enterprise of various risks and threats associated with the actions and / or inaction of staff.

Instead, the "personnel security system" is a set of interconnected relations between staff and owners (managers) to neutralize threats to the economic security of the enterprise.

The term "personnel security management" is proposed to mean the managerial actions of owners (management) to identify and neutralize the impact on the economic security of the enterprise of various risks and threats associated with the actions and / or inaction of staff.

Based on the study, the main elements of the personnel security system of enterprises were systematized, which include: facility (staff); subjects of personnel security; decision-making mechanism in the personnel security system of enterprises.

Planning of organizational and technical development and further functioning of the whole enterprise should be based on the following principles:

- practicality;
- high scientific potential;
- comprehensive approach to evaluation;
- continuity of application of the offered mathematical device.

The introduction of advanced technologies, scientific methods or algorithms, automation of production and activities includes measures to implement advanced scientific and technological methods, new modern equipment, integrated automation of production, the concept of personnel security of the enterprise [2; 4].

The introduction of modern scientific methods and approaches includes measures to apply and improve the division and cooperation of labor, organization and maintenance of jobs, the introduction of best practices and methods of work, personnel evaluation system, improving rationing and remuneration.

The combination of the personnel of the enterprise in the labor process in time is provided by various forms of assessment of the complex indicator of ID-profiles of the personnel of the enterprise, the organization of service of workplaces, establishment of rational modes of work.

Research and development, scientific modern methods and approaches are planned called ' connection with the development of new technologies, equipment,

highly efficient means of production automation and building ID-profile staff and its divisions or departments, processes, forms of production and labor, as well as new products.

There is a clear relationship between personnel and organizational development, which is complemented by the effectiveness of economic, environmental, social, labor and regulatory areas at several stages of enterprise development.

Having studied the works [3; 5; 6; 7; 10; 11], it is established that the main modern trends in personnel development are:

- acceleration of individual (deconcentration cooperation, conversion, diversification) and strengthening vzayemopov related economic, environmental, social, labor and regulatory areas, providing demopolizatsiyu ID-profile staff and its divisions or departments, competition performance market, multiplier efficiency of enterprises ;

- development and application of collective (departments or divisions) forms of organization and pay staff that, subject to the acceleration of enterprise development, quality improvement and complication of logistics enterprises is about ' objectively necessary and economically feasible;

- strengthening the continuity and flexibility of staff assessment in many industries through the widespread use of modern scientific methods and approaches, automated systems and flexible production systems that minimize the loss of time and labor, repeatedly increase its productivity, significantly accelerate product upgrades, manufactured at the enterprise;

- formation of new types of modern scientific methods, approaches and their elements in the process of enterprise, science and production, application of methods of evaluation of ID-profiles of personnel and its divisions or departments on the basis of joint intersectoral and interstate enterprises, scientific and technical developments, created human resources , increasing the efficiency of human resources;

- improving the organization of divisions or departments on the basis of joint intersectoral and interstate enterprises, the transition of the latter to market economic relations with the state and other counterparties, which increases responsibility for the final results of personnel, competitiveness in global and national markets, financial stability and profitability;

- activation of the human factor through the use of methods for assessing the ID-profiles of personnel and its units or departments on the basis of joint intersectoral and interstate enterprises, which meets modern requirements for proper selection of managers at all levels, increasing their competence, efficiency and responsibility; requirements for further development and management of production, ensuring proper organization and executive discipline.

At the present stage of development of the personnel security system of the enterprise, the limited economic, environmental, social and labor and regulatory means of satisfying the interests of the staff are supplemented by the limited methodological basis for assessing the complex indicator of ID-profile in the company's staff.

The problem of evaluating the ID-profiles of staff and its divisions or departments on the basis of joint intersectoral and interstate enterprises to determine possible ways to improve it, because the desired positive staff is of great importance for any company. Strong staff becomes a necessary condition for the company to achieve sustainable and long-term business success.

To date, there is no universal clear methodology for evaluating the ID-profiles of staff and its units. For example, the effectiveness of the activities of the formation of social interdependence bonds is estimated in several ways: counts the number of proposed ads; the coefficient of advertising application of the volumes of published data is estimated; the number of publications dedicated to the company or individual employee of the enterprise is counted.

The method of assessing the complex indicator of ID-profiles of the company's staff is based on a comprehensive analysis of personnel security indicators to identify potential threats to personnel security at the company and can be used by ministries (eg, Ministry of Economy of Ukraine) and individual departments for integrated assessment of personnel security. in general by economic factors and by separate spheres (directions) of activity of the enterprise.

Terms [8; 9; 12; 13; 14; 15], used in the method of estimating the complex indicator of ID-profiles of the personnel of the enterprise, have the following meanings:

- personnel security is a state of the enterprise's economy that allows to maintain resilience to internal and external threats to the staff and is able to meet the needs of the enterprise; is the most important functional component of the system of economic security of all enterprises, neglect of which can not only cause significant damage to their activities, but also destroy it; is one and the components of economic security (along with others - financial, power, information, technical, technological, legal, economic and etc.).

- threats to personnel security is a set of existing and potentially possible phenomena and factors that create a danger to the realization of personnel interests in the economic sphere;

- criteria of personnel security are real statistical indicators, which are used to assess the state of the personnel of the enterprise , in terms of ensuring its sustainable development;

- indicators of personnel security - are real statistical indicators of staff development of the enterprise, which most fully characterize the phenomena and trends in the functioning of the components of the economic security system of any enterprise;

- optimal values of indicators are an interval of values within which the most favorable conditions for reproducible processes in the field of functioning of components of system of economic safety of any enterprises are created;

- threshold values of indicators are quantitative values, violation of which causes unfavorable trends in the functioning of the components of the economic security system of any enterprise;

– limit values of indicators are quantitative values, violation of which causes threatening processes in the field of functioning of the components of the economic security system of any enterprises.

Based on previous studies of available methods and techniques [2; 14; 15] , in fig. 1 the author presents his own scheme of methods for estimating the complex indicator of ID-profiles of the personnel of the enterprise.

Stage 1. Definition of individual indicators, which are the basis for calculating the general indicators of the structure and dynamics of personnel, wages and productivity, social indicators, level of education and skills, job organization and labor process and indicators related to the personnel component of information security of ID-profiles of the personnel of the enterprise.

Stage 2. For certain indicators of the structure and dynamics of personnel, wages and productivity, level of education and qualifications associated with the personnel component of the ID-profiles of personnel of the enterprise, it is necessary to calculate their actual values from enterprises for which laws have been defined distribution and ranges of their values.

Stage 3. Calculation of individual performance parts business for components of the structure and dynamics staffing, pay and its performance, social indicators, education and training, and workplace safety and process indicators fu ' related to information security personnel component ID-profiles personnel of the enterprise.

To calculate the overall performance of the structure and dynamics of staffing, pay and its performance, social indicators, education and training, workplace and labor process and indicators full related to human resources component of information security ID-profile staff of the enterprise , it is appropriate to use indicative-geometric method proposed by Kavun S.V. [1].

Calculation of individual indicators of the structure and dynamics of staffing, pay and its performance, social indicators, education and training, workplace and labor process and indicators full related to human resources component of information security ID-profile staffing company, was based on relevant reporting of enterprises.

Due to a small sample of enterprises, to confirm the statistical sufficiency and ensure the representativeness of the processed data, the number of studies (or experiments) in modeling on real enterprise data was increased, which will confirm the adequacy of the model used.

The general logical direction of optimization is the choice of the best (the rule "the greater the value - the better") and further rating of the remaining indicators, ie sorting in descending order. In mathematical interpretation, we have the direction of many indicators of the structure and dynamics of personnel:

That same e, orientation set of indicators pay and its performance:

$$F_1\{X_{i,j}\} \equiv opt \rightarrow max, \forall i = \overline{1,14}, j = \overline{1,18}, \quad (1)$$

where: i - the number of indicators of the structure and dynamics of personnel; j – is the number of enterprises (in this case, the number of departments selected as the average - 18).

Thus, the focus of many indicators of wages and its productivity:

$$F_2\{X_{i,j}\} \equiv opt \rightarrow max, \forall i = \overline{1,19}, j = \overline{1,18}; \quad (2)$$

orientation of many social indicators:

$$F_3\{X_{i,j}\} \equiv opt \rightarrow max, \forall i = \overline{1,22}, j = \overline{1,18}; \quad (3)$$

orientation of many indicators of level of education and qualification:

$$F_4\{X_{i,j}\} \equiv opt \rightarrow max, \forall i = \overline{1,20}, j = \overline{1,18}; \quad (4)$$

the orientation of many indicators of the organization of jobs and the labor process:

$$F_5\{X_{i,j}\} \equiv opt \rightarrow max, \forall i = \overline{1,15}, j = \overline{1,18}; \quad (5)$$

orientation of the set of indicators related to the personnel component of information security ID-profiles of the personnel of the enterprise:

$$F_6\{X_{i,j}\} \equiv opt \rightarrow max, \forall i = \overline{1,20}, j = \overline{1,18}. \quad (6)$$

For more about subjective assessment indicators should determine their orientation optimization in terms of both internal and external environment. Will depend on, normalized or correlated indicators. For indicators with the rule "the more - the better", the rationing of values is used to bring them to a single physical nature, in this case to dimensionless coefficients.

For indicators with the rule "the less - the better", the correlation is performed, as their logical orientation does not coincide with the direction of functional optimization. This full connected with the fact that their logical orientation is different from the general direction, which, in return, subject to the rule "the more - the better" [3; 4; 6].

Therefore, it is appropriate to compare the correspondence of the general logical optimization (in this case it is maximization) and the direction of optimization of each indicator in terms of internal and external environment of the enterprise. Thus for some defined indicators it is necessary to correlate their values. For all other indicators, we will also normalize.

$$\begin{aligned}
 X_{i,j}^c &= \frac{(1 - X_{i,j}^N)}{m-1} \left| \text{opt}\{X_{i,j}^N\} \neq \text{opt} F\{X_{i,j}^N\} \Rightarrow F\{X_{i,j}^N | X_{i,j}^c\} \equiv F\{X_{i,j}^N\}, \right. \\
 &\quad \forall \{X_{i,j}^N\} \Rightarrow \exists \{X_{i,j}^c\}, \{X_{i,j}^c\} \equiv \{X_{i,j}^N\}, \{X_{i,j}^c\} \subseteq \{X_{i,j}^N\}, \\
 &\quad \{X_{i,j}^N\} \cup \{X_{i,j}^c\} \subseteq \{X_{i,j}\}, \forall i = \overline{1, n}, j = \overline{1, m} \\
 &\quad \sum_{j=1}^m X_{i,j}^c = 1, \sum_{j=1}^m X_{i,j}^N = 1, X_{i,j}^N = \overline{0, 1}, X_{i,j}^c = \overline{0, 1}.
 \end{aligned}
 \tag{7}$$

Next, petal diagrams (in which the number of petals corresponds to the number of indicators of each of the components in terms of interests of participants in internal and external business processes) for each department of the enterprise for each of the six components: structure and dynamics of staff, pay and productivity, social indicators, education and training, and workplace safety and process indicators related to information security personnel component ID-profile staffing company. For example, one of the obtained diagrams is presented (Fig. 1).

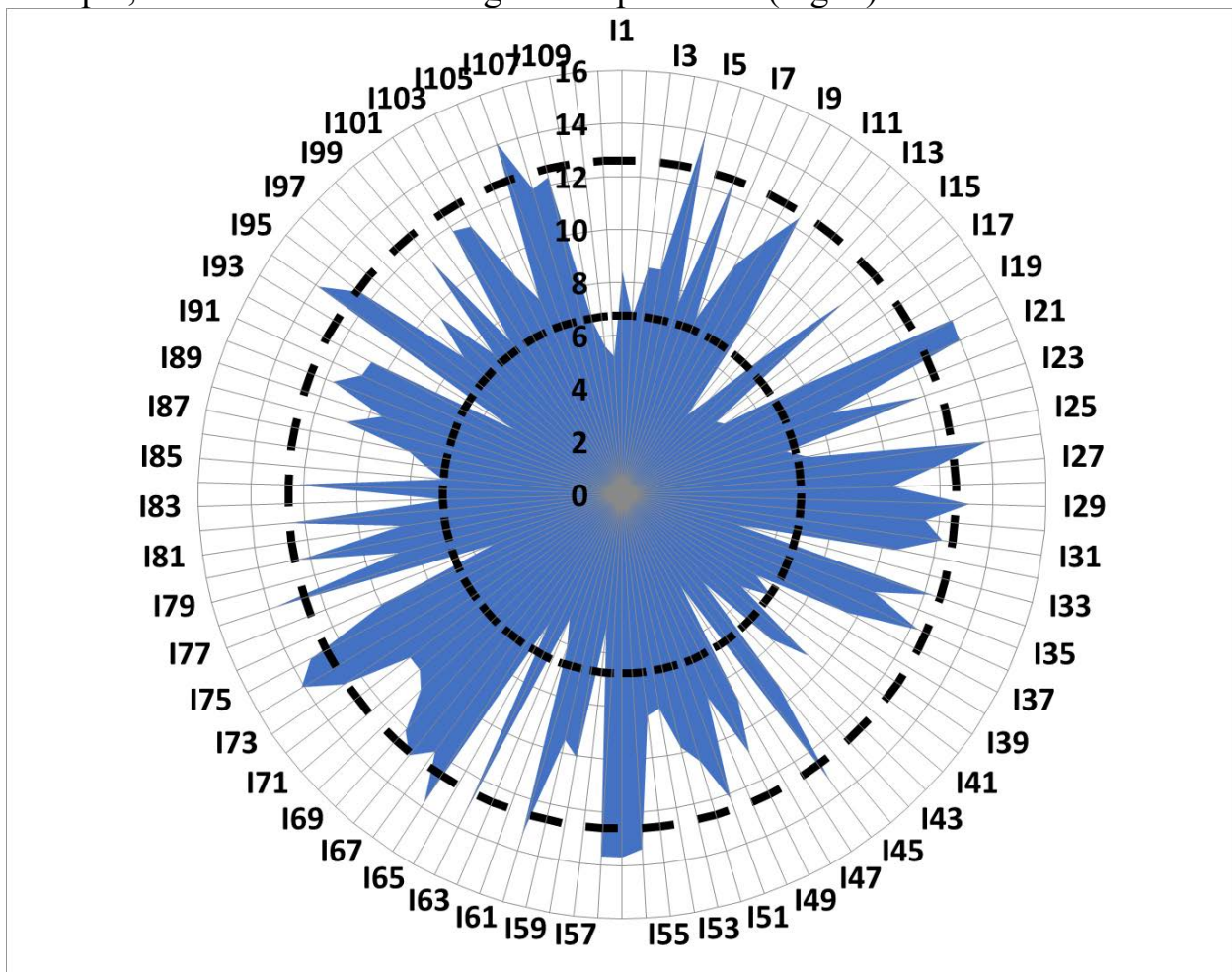


Fig. 1. Petal diagram for one of the departments of the enterprise in terms of all indicators (ID-profile of the department for the month)

In fig. 1 dashed lines show the minimum and maximum values of the limits, which will allow to detect exits beyond the allowable limits of the current values. This will not make it possible to timely form appropriate recommendations for the selected unit of account (department).

Stage 4. Calculation of the areas of the received polygons which values will form the general value of a complex indicator of ID-profiles of personnel of the enterprise.

In order to calculate ratios taking into account interests of internal and external business processes components of the structure and dynamics of staffing, pay and its performance, social indicators, education and training, workplace and labor process and indicators full related to human resources component information security ID-profiles of the personnel of the enterprise, it is necessary to calculate the area of polygons. The indicative-geometric method was used for this purpose [1].

Based on the defined area polygons will be calculated indicators of the structure and dynamics of staffing, pay and its performance, social indicators, education and training, workplace and labor process and indicators full related to human resources component of information security ID-profile staff enterprises. The area j -th polygon is the sum of squares i -th triangles – $S_{i,j}^{\Delta}$, that his form. The number of triangles is equal to the number of individual indicators.

$$S_{i,j}^{\Delta} = \frac{1}{2} \{X_{i,j}^N | X_{i,j}^C\} \times \{X_{i+1,j}^N | X_{i+1,j}^C\} \times \sin \frac{360}{n}, \forall i = \overline{1, n}, j = const \quad (8)$$

The only exception is the last triangle, the area of which is equal to:

$$S_{n,j}^{\Delta} = \frac{1}{2} \{X_{n,j}^N | X_{n,j}^C\} \times \{X_{1,j}^N | X_{1,j}^C\} \times \sin \frac{360}{n}, j = const. \quad (9)$$

then the area of the j -th polygon is defined as:

$$S_j^P = \sum_{i=1}^{n-1} \left(\frac{1}{2} \{X_{i,j}^N | X_{i,j}^C\} \times \{X_{i+1,j}^N | X_{i+1,j}^C\} \times \sin \frac{360}{n} \right) + \frac{1}{2} \{X_{n,j}^N | X_{n,j}^C\} \times \{X_{1,j}^N | X_{1,j}^C\} \times \sin \frac{360}{n}, \forall i = \overline{1, n}, j = \overline{1, m}. \quad (10)$$

Therefore, the calculated areas of polygons for each of the components, taking into account the interests of participants in internal and external business processes are the initial data for calculating the value of a complex indicator of ID-profiles of personnel of the enterprise. Given that the company invests its own funds and resources in order to increase the level of a comprehensive indicator of ID-profiles of the company's staff, and the result is obtained from the outside, the calculation of components will be carried out consistently.

Thus by the ratio of the coefficients of consideration of the interests of the participants of internal and external business processes, the value of the complex indicator of ID-profiles of the personnel of the enterprise for each of its departments is determined (Fig. 2).

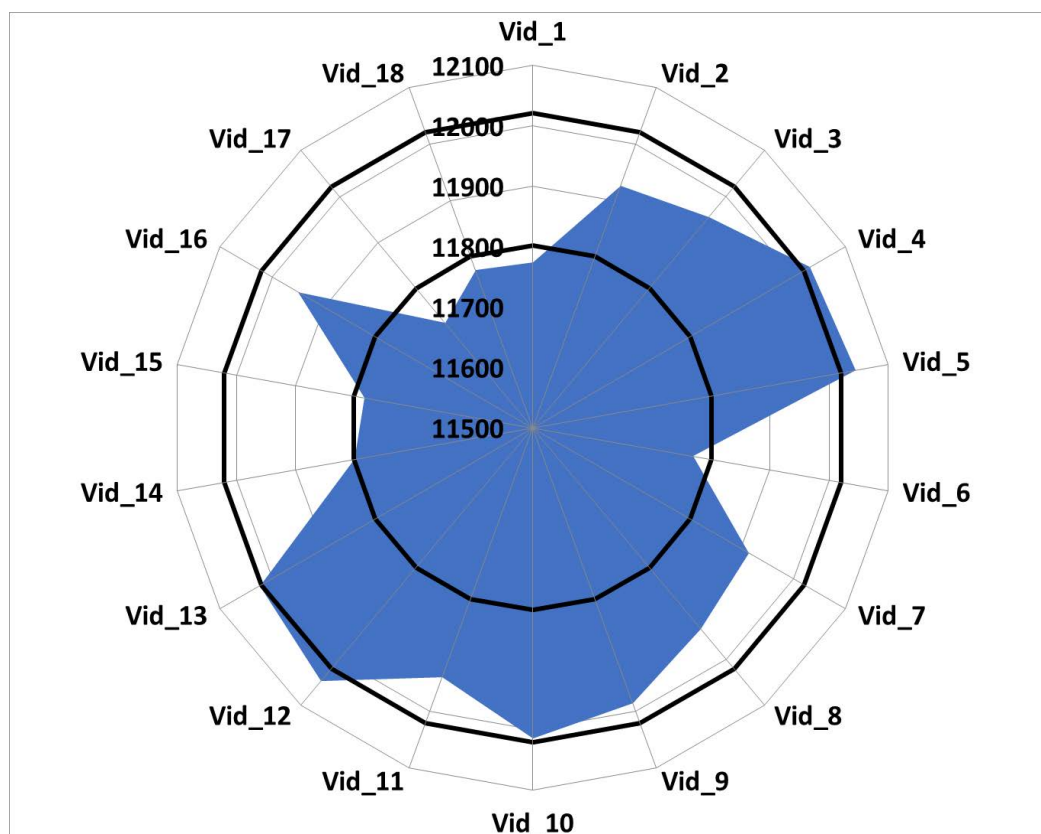


Fig. 2. The value of the complex indicator of the ID-profile of the personnel of the enterprise for each of its departments

Each side of the enterprise is increasingly under the scrutiny of the world community and all states. This applies to enterprises in all forms of ownership, any field of activity, regardless of their geographical location. Tom in, in today's economy more and more companies are beginning to focus attention on the problems of assessment of complex index ID-profile staff of the company, prepare reports of their activities and to assess the level of staffing your company and competitors.

Discussion. So, for whole Indicator ID-profile staff of the enterprise consists of 110 common indicators of structure and dynamics of staff, wages and productivity, social indicators, education and training, workplace and labor process and indicators full related to personnel component of information security of ID-profiles of personnel of the enterprise. General indicators are calculated on the basis of individual indicators selected by the expert method, according to the interests of participants in internal and external business processes of the enterprise. The calculation of general indicators is based on the indicative-geometric method. The coefficient of assessment of the point of view of interests of participants of internal business processes and the coefficient of assessment of the point of view of interests of participants of external business processes are determined. This ratio full connected with the fact that the company operates only getting results from the external environment, that is satisfying the interests of the participants not only internal business processes (managers, employees), but also external (shareholders, customers, suppliers, local community, state).

Given that there are more participants in external business processes, they are a priority for the company.

Conclusions. The term "personnel security management" is proposed to mean the managerial actions of owners (management) to identify and neutralize the impact on the economic security of the enterprise of various risks and threats associated with the actions and / or inaction of staff.

The own scheme of a technique of estimation of a complex indicator of ID-profiles of personnel of the enterprise which consists of four stages is offered, that has allowed to give offers on perfection of stages of an estimation of interdependence of the personnel enterprise which is built on set of departments of the enterprise.

The own scheme of a technique of estimation of a complex indicator of ID-profiles of personnel of the enterprise which consists of four stages is offered:

Stage 1. Definition of individual indicators which are a basis for calculation of the general indicators of structure and dynamics of personnel, payment and productivity.

Stage 2. Determination of indicators of structure and dynamics of personnel, remuneration and productivity, social indicators, level of education and qualification, organization of jobs and work process and indicators related to the personnel component of information security of ID-profiles of personnel of the enterprise.

Stage 3. Calculation of individual indicators of departments of the enterprise by components of the structure and dynamics of personnel, wages and productivity, social indicators, level of education and qualifications, organization of jobs and labor process and indicators related to the personnel component of information security ID-profiles personnel of the enterprise.

Stage 4. Calculation of the areas of the received polygons which values will form the general value of a complex indicator of ID-profiles of personnel of the enterprise.

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HUMAN RESOURCES AND FUNCTIONS OF THE MANAGEMENT OF THE EDUCATIONAL ORGANIZATION

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Abstract. Modernization and reform of the Ukrainian education system requires a change in approaches to the management of educational institutions, ie the application of the concept of pedagogical management. The main productive force of the educational organization is the scientific and pedagogical staff, which provides quality services for the training of young professionals and creates intellectual products of scientific and technical creativity, and for this it must be effectively managed. In the conditions of market relations there are certain threats in the personnel management system of the educational institution: loss of results of scientific and technical developments, conflicts of personnel, mistakes in the performance of professional duties, corruption, theft. The purpose of the article is to clarify the essence of personnel security of higher education and characterize the management function of the educational organization. The security of the higher educational institution is characterized, which is a set of organizational and managerial measures aimed at creating comfortable and safe conditions for the implementation of educational and scientific activities by participants in the educational process. It is established that the financial and economic security of the educational organization is a system of effective tools of managerial influence on the teaching staff, aimed at the effective use of scientific, material, financial resources to ensure the quality of educational services. It is proved that personnel security of a higher education institution is the creation of a system of measures to counteract the negative threats of the educational environment, using administrative, organizational, socio-psychological management methods to protect the labor interests of research and teaching staff and promote creative activity. The article identifies and characterizes the practical application of the functions of pedagogical management of higher education: management decisions, planning, organization, motivation, control, coordination and regulation.

Keywords: personnel security, economic security, institution of higher education, pedagogical management, functions of pedagogical management.

JEL Classification: I20, J01

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Introduction. The issue of modernizing the management of the higher education system remains relevant at the stage of Ukraine's integration into the single European educational space. In particular, the reform in the field of educational management, in parallel with the Bologna Process, is of great importance for the future economic development of Ukraine. In the theory and practice of educational management, the purpose, tasks, content of management of educational systems are changing, the structure and style of management is changing, the responsibility of heads of educational institutions for the consequences of decisions is increasing.

A significant role in this process is given to the managers of educational institutions, the purpose of which is to ensure the economic efficiency of the organization and provide quality educational services to students.

Literature review. Problems of ensuring the personnel security of the enterprise were studied by domestic and foreign scientists: O. Arefieva, V. Alkem, A. Kibanov, G. Kozachenko, J. Kryl, N. Shvets and others.

An integral element of the economic security of the organization is the personnel security of the enterprise.

The problem of economic security of the enterprise is considered in the works of the following scientists: O. Arefeva, S. Lobunska, N. Podluzhna, V. Ponomarenko, I. Tsyhylyk and others.

However, the personnel security of the educational organization is almost unexplored, which leads to further searches to solve this problem.

Aims. The purpose of the article is to clarify the essence of personnel security of higher education and characterize the management function of the educational organization.

Methods. Methods of scientific researches which were used in the given work are: general scientific – analysis, static and logical comparison, systematization and generalization, which made it possible to achieve the goal of the study.

Results. The system of Ukrainian higher education is a very vulnerable sector and, first of all, requires systematic and well-thought-out reforms that should strengthen it. Education and science should become the locomotive of economic development of the country: to train personnel with high-quality professional training and to create new intellectual products of scientific and technical creativity.

Scientific and pedagogical staff is the main productive force of the educational organization, as it provides the development of an intellectual product (know-how, patents, inventions, etc.) and the provision of quality training services for young professionals.

However, in the conditions of dynamic market development, certain threats in the personnel management system of an educational institution are possible. Various reasons can contribute to this: the outflow of scientific and pedagogical staff in search of higher wages, loss of results of scientific and technical developments, staff conflicts, errors in the performance of professional duties, corruption, theft.

The personnel security management system significantly increases the efficiency of economic activity of the enterprise, promotes the growth of trust on the part of business partners, controlling government agencies and investors.

According to A. Kibanov, personnel security is a general direction of personnel work, ie a set of principles, methods, forms of organizational mechanism for developing goals, objectives aimed at preserving, strengthening and developing human resources, creating a responsible and highly productive team capable of timely respond to ever-changing market requirements taking into account the development strategy of the organization [9, p. 214].

First of all, it is necessary to determine the essence of the safety of educational activities.

The security of a higher education institution is a set of organizational and managerial measures aimed at creating comfortable and safe conditions for the implementation of educational and scientific activities by participants in the educational process.

It should be noted that such security can be provided by the administration, technical and service staff, teachers and scientists of the institution, because they

provide educational services and create comfortable conditions for student learning. It is important for an educational institution to select competent and highly qualified scientific and pedagogical staff, able to provide not only quality knowledge, professional skills and abilities, but also to create intellectual property products (author's pedagogical methods, educational developments, know-how, inventions, utility models, etc.). Safe conditions for training are also formed by service (methodologists, secretaries, laboratory assistants) and technical staff (cleaners, security guards, cooks, commandants), their role in this process cannot be underestimated.

Therefore, the priority for managers of higher education institutions is personnel security.

Personnel security is a type of economic security, the purpose of which is to ensure stable and stable operation of the enterprise, regardless of various negative subjective or objective factors.

Our survey of 15 heads of higher education institutions in the Kirovohrad region in Ukraine made it possible to identify and characterize a number of threats in personnel management.

The main threats to personnel security for higher education institutions can be summarized as follows:

- Low staff motivation - leads to an outflow of scientific and pedagogical staff in search of higher wages (due to the economic crisis in the education sector in the country), deteriorating quality of education for students, brain drain abroad, reduced productivity.
- Conflicts within the workforce, as well as between students - lead to violations of labor discipline and work schedule of the institution, violations of moral and ethical norms of behavior.
- Violation of the principles of academic integrity - causes plagiarism, compilation and pseudo-scientific developments, low quality of educational and methodological developments.
- Outdated material and technical base - leads to a decrease in the quality of practical and laboratory classes, a decrease in the number of acquired professional skills and abilities of students, low results of research and development.
- Official negligence - the appearance of errors in the performance of professional duties, errors in official documents, poor quality of teaching materials, loss of results of scientific and technical developments, corruption, theft of property.

In our opinion, personnel security of a higher education institution is the creation of a system of measures to combat negative threats to the educational environment, using administrative, organizational, socio-psychological management methods to protect the labor interests of research and teaching staff and promote creative activity.

First of all, in the first place in this process is the problem of economic security of higher education institutions (HEIs), to which managers should pay special attention.

The essence of financial security of the enterprise OV Lysa characterizes "as such state of finances of the enterprise which allows to resist the identified and potential threats by effective management of formation and use of the capital, and also risks in the course of the activity" [12, p. 60].

Financial security is defined as the ability of a higher education institution to maintain its independence from changes in the financial market, the degree of independence from creditors. Financial stability is laid in the process of making management decisions on the choice of sources of funding for the institution [5, p. 806].

The condition of financial stability of the organization is the presence of assets that in composition and volume meet the objectives of its long-term development, and reliable sources of their formation, which, although subject to inevitable and not always favorable effects of external factors, but have sufficient strength. The level of financial stability of a higher education institution is characterized by the maturity of debt on current liabilities, the speed of response to changing market conditions and the ability to finance new programs. In the long run - the immobilization of financial reserves to attract highly qualified teachers, staff training, improving the material and technical base, which reduces the level of financial stability [5, p. 806].

Scientist EP Kartuzov provides conditions for ensuring the financial security of the enterprise:

- high degree of harmonization and coordination of financial interests of the enterprise with the interests of the environment and the interests of its staff;
- the presence of a threat-resistant financial system at the enterprise, which is able to ensure the implementation of: financial interests, missions and tasks;
- balance and complexity of financial instruments and technologies used in the enterprise;
- constant and dynamic development of the financial system (subsystem) of the enterprise [6, p. 174].

Note that the educational organization does not create a material product, but provides educational services, creates intellectual capital (patents, developments). The educational environment of a higher education institution interacts with the information environment. Researcher SV Severina concludes that "without proper protection of the information environment of the enterprise it is impossible to ensure its economic security" [11, p. 160].

O.B. Cherevko recommends to prevent the loss and leakage of classified data at the enterprise to use the following means of its protection: physical, hardware, software, hardware and software, legislative, cryptographic and organizational methods [1, p. 159].

In particular, this applies to the loss of intellectual property, the results of theoretical and applied research, discoveries, which leads to economic losses (losses or lost profits).

Thus, the financial and economic security of the educational organization is a system of effective tools of managerial influence on the teaching staff, aimed at the

effective use of scientific, material, financial resources to ensure the quality of educational services.

According to OV Sardak [15], "the process of anti-crisis personnel management in market conditions should consist of the following stages: analysis of the problem situation and state of the enterprise, diagnostics of human resources, development and implementation of measures for personnel marketing, development of anti-crisis personnel strategy and marketing support system, anti-crisis design personnel policy, development and organization of implementation of anti-crisis personnel decisions, development of measures to overcome and prevent conflicts, determination of measures for personnel risk management, control over the implementation of anti-crisis personnel decisions "[15, p. 143].

The specifics of education management, according to V. Kryzhko, lies in the features of the subject (subject of management, ie the head of the educational institution), the product of labor (information about the educational process), tools (word, language) and performance education manager (level of literacy, upbringing and development of students) [7, p. 30].

According to V. Luhov, education management is a purposeful change of its state. Usually management actions are aimed at achieving strategic priority goals of functioning and development of education. Modern educational priorities are: increasing the coverage of the population with education; providing lifelong learning; equal access to quality education; strengthening the role of the state in guaranteeing justice in education; humanization and democratization of education; increasing the professional competence of teachers; formation of state and public education management; dissemination of information on the quality of educational services; efficient and effective use of education expenditures [4, p. 944 –945].

The concept of "pedagogical management", which according to V. Kryzhko is a set of principles, methods, organizational forms and technological methods of managing the educational process, aimed at improving its efficiency [8].

Management of the education system is a complex process that has its own specifics compared to the management of other social systems. The implementation of basic management functions in this area is due to legislative and regulatory documents, elements of organizational culture that has developed in institutions and educational institutions, government agencies at all levels [11, p. 184].

Educational institution management - the activity of the control subsystem, aimed at creating prognostic, pedagogical, psychological, personnel, material and financial, organizational, legal, ergonomic, medical conditions necessary for the normal functioning and development of the educational institution [2, p. 8].

Management functions - the direction of management activities to achieve a certain goal [2, p. 8].

Based on the analysis of sources [1; 3; 4; 5; 7; 14; 16; 17; 18], it is possible to allocate and characterize the functions of pedagogical management in higher education institutions.

Table 1

Functions of pedagogical management in higher education institutions

Function name	The content of the function of pedagogical management
Making management decisions	Holding meetings and meetings of teachers of departments, meetings of the staff in order to make important decisions regarding the work of the educational institution and their individual structural units. Preparation of orders, decisions, instructions, instructions. Work and meetings of the student committee.
Planning	Forecasting and development strategy of educational institution. Drawing up curricula and working curricula based on higher education standards. Drawing up work plans of departments and deans' offices. Preparation of research programs and cultural and educational activities for students.
Organizing	Distribution of rights and responsibilities, delegation of powers to teachers. Consolidation of actions and performers. Building an organizational structure for the management of an educational institution. Carrying out planned educational, research and cultural-educational activities. Carrying out educational and extracurricular work with students: preparation for participation in scientific and sports Olympiads, competitions, holidays, management of student scientific circles, course and diploma projects, etc.
Motivation	Salaries, bonuses, allowances, surcharges (for teaching experience, for scientific degree and title, for class management, etc.). Certificates, announcements of gratitude, gifts, inscription on the board of honor. Persuasion and coercion to work, orders to perform actions and measures.
Control	Preparation of reports on the work done by deans and departments, presentation of the results of the implementation of individual work plans of teachers. Checking the quality of educational and methodological support of disciplines assigned to each teacher. Conducting open classes, mutual attendance of classes.
Coordination and regulation	Directing the work and efforts of teaching staff in the right direction. Explanations and remarks on the content of scientific and pedagogical work. Repair, adjustment and elimination of errors in the operation of equipment (office equipment, laboratory devices).

Source: generated by the author

Functions of pedagogical management first of all influence process and result of work of scientific and pedagogical personnel and students

The task of pedagogical management is to improve the quality of work (provision of educational services) as one of the components of personnel security.

The Law of Ukraine "On Higher Education" [10] provides an interpretation of the quality of higher education and the quality of educational activities.

The quality of higher education is a set of qualities of a person with higher education, which reflects his professional competence, value orientation, social orientation and determines the ability to meet both personal spiritual and material needs and the needs of society [10].

Quality of educational activity - a set of characteristics of the higher education system and its components, which determines its ability to meet the established and anticipated needs of an individual or (and) society [10].

The leading place among the functions of pedagogical management of a higher education institution belongs to objective quality control.

PAS. Mikhnenko [13] considers control in the management system of the organization. "Control is one of the functions of management, which is to compare the results of work with plans, norms and standards, as well as - to eliminate deviations. Control is a fundamental element of the management process. Control is a quantitative and qualitative assessment and accounting of the results of the organization "[13, p. 25].

The formation of economic security of higher education institutions, according to OI Dragan and LV Maznyk, is important for the formation and development of the entire educational system of the country in a highly competitive environment in the market of educational services. Consequences of the financial crisis, imperfect legislation, incomplete government reforms on higher education, use of morally and physically obsolete fixed assets and technologies, low level of protection of intellectual property, plagiarism, financial dependence on public funding, insufficient staff motivation - all these factors are reflected on the functioning of the university of the enterprise in general and on the state of its economic security in particular [3, p. 79].

Discussion. Thus, personnel security is the main important core of economic security of the university and directly depends on the correct management decisions and the successful application of the functions of pedagogical management. The interaction of personnel services and internal security of the educational institution will create conditions for effective work and personal safety of research and teaching staff and students.

Conclusions. Pedagogical management of a higher education institution is a system of principles, functions, methods and forms of management of educational, cultural, educational and research processes in an educational institution aimed at providing quality educational services to students.

It is established that the financial and economic security of the educational organization is a system of effective tools of managerial influence on the teaching staff, aimed at the effective use of scientific, material, financial resources to ensure the quality of educational services.

It is proved that personnel security of a higher education institution is the creation of a system of measures to counteract the negative threats to the educational environment, using administrative, organizational, socio-psychological management methods to protect the labor interests of research and teaching staff and promote creative activity.

The functions of pedagogical management of a higher education institution are defined and characterized: managerial decision - making, planning, organization, motivation, control, coordination and regulation.

Prospects for further research in this direction may be to build a management model of personnel security of higher education.

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FORMATION OF PROFESSIONAL COMPETENCE OF THE SCHOOL DIRECTOR - GUARANTEE OF SUCCESSFUL ACTIVITIES OF THE EDUCATIONAL INSTITUTION

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Abstract. *The article analyzes the essence and principles of formation of competencies of the head of a modern educational institution in the conditions of constant reforms of the educational process in Ukraine. The aims of article to disclosure of the content of professional competence of the school principal, on the basis of which to propose a system of comprehensive measures and monitoring of the formation of professional competencies of the head of the educational institution, as well as outline the main directions of development of the professional competence of the head of the educational institution. The methodology of conducting theoretical and empirical research included: analysis and synthesis, induction and deduction, abstraction and concretization, and systematic analysis, which allowed to achieve the goal of the study. The components of the professional competence of the school principal are considered. A system of complex measures and monitoring on the formation of professional competencies of the head of the educational institution is proposed. The main directions of development of the system of formation of professional competence of the head of the educational institution are outlined.*

Keywords: *management of the organization, human capital, professional competence of the head, standard of education of the head of school, managerial potential.*

JEL classification: I21, I28

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Introduction. Trends in the development of Ukraine on the way to a socially oriented democratic state in an information society, necessitated the deployment of innovative processes in the education system. Such activities are characterized by the development and implementation of new concepts, scientific principles, modernization of content, forms and methods of their implementation, so the head of the educational institution must constantly grow professionally. The modern head of the educational institution is obliged to have proper theoretical and practical training, to combine pedagogical practice and scientific work, vision of pedagogical problems, to have creative imagination and managerial skills of realization of innovative decisions. In other words - the high formation of managerial (professional) competence of the head.

The essence of these requirements is revealed in the normative documents of the national level: the Laws of Ukraine "On Education" [1], "On Higher Education" [2] and the National Strategy for Education Development in Ukraine for 2012 - 2021 [3]. The development of such a strategy for the development of education is due to the need for radical changes aimed at improving the quality and competitiveness of education, solving strategic challenges facing the national education system in the

new economic and sociocultural conditions, its integration into the European and world educational space.

Literature review. Many researches as domestic scientists A. Alekseyuk, I. Bekh, V. Grigory, V. Demchuk, M. Yevtukh, G. Yelnikova, I. Zyazyun, etc. are devoted to growth of level of professional competence of heads of all links and increase of administrative culture. and foreign G. Emerson, A. Fayol, F. Herzberg, A. Maslow, F. Taylor and others. [4]. In works of theoretical and methodological nature, the term "professional competence of the head of the educational institution" is interpreted quite broadly and in many ways. T. Sorochan considers this concept as the unity of psychological, theoretical and practical readiness for management in accordance with specific requirements and tasks [5]; O. Pometun - as a performance characteristic of the education of the head [4]; N. Davydova - as an integral quality of personality, which has its own structure that allows the leader in the most effective way to carry out their activities, as well as self-development and self-improvement both in the system of professional development and in the process of independent work [6]. Under such approaches, the growth of professional competence of the head of the educational institution involves: entering the specialty; mastering the norms and methods of professional activity and communication; Certification training; creativity as an individual contribution to professional experience; formation of the motivational sphere of the leader's activity.

Researchers believe that professionalism is an integral set of individual, personal and subjective activities that enable the maximum level of success to solve typical tasks for a particular activity and is considered an essential characteristic of the head of any management [7].

Aims. Disclosure of the content of professional competence of the school principal, on the basis of which to propose a system of comprehensive measures and monitoring of the formation of professional competencies of the head of the educational institution, as well as outline the main directions of development of the professional competence of the head of the educational institution.

Methods. Conducting theoretical and empirical research, the authors used such research methods as: analysis and synthesis, induction and deduction, abstraction and concretization, and systematic analysis, which allowed to achieve the goal of the study.

Results. The urgency of the issue of professional competence of the director of a modern school is determined by the needs of society in advanced education and professional and personal development of school principals - leaders of the main level of school education, as active subjects of culture, socio-historical process. These requirements are due to a set of reasons:

- changing structure of the needs of society as a whole and its social institutions;
- technical progress, which determines the need to have a complex set of knowledge, skills and abilities in professional and social activities;
- increasing information load, against which knowledge tends to become obsolete quickly;

- the need to be able to "work in a team", to show a willingness to cooperate and independently navigate in related fields;
- the need for such qualities as the ability to take responsibility, the ability to think and act independently.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) proposes to move from the classic concept of "human resources" to the concept of "human competence". This concept provides for a comprehensive consideration of human interests: the acquisition of professional competence, knowledge, skills and abilities necessary for the protection and improvement of health, cultural development, environmental protection, competitiveness in the labor market. The Concept of Education Development of Ukraine for the period 2015-2025 states that the education system should prepare people who can not only live in civil society and the rule of law, but also create them. The processes of democratization of society actualize the problem of human readiness for choice and independent, responsible action in political, economic, professional and cultural life. The development of a new economy, in which the main resource is mobile and highly skilled human capital, requires improving the quality of mass education, which is impossible without increasing flexibility, efficiency, consumer orientation of the entire education system. The quality of professional development and personal development of school leaders largely determines the nature and fate of the modernization of school education, helping to bring it into line with modern life needs of the country.

Today, management is seen as a phenomenon of the objective world, inherent in highly organized dynamic systems. Its essence is the implementation of purposeful interaction of control and managed systems on the basis of a special signaling and information program. Management is a special type of activity in the organization, necessary to formulate an idea and achieve the goal of the organization. Management of the organization is directly responsible for achieving high performance, ie achieving the goals of the organization through efficient and productive use of resources. For management to become a reality, the organization must have a certain category of people who carry out management work - leaders (managers). In Western practice, a manager is a subject of management in the organization, a professional leader who realizes that he is a representative of a particular profession, and not just an engineer or economist engaged in management. In domestic practice, special training of professional managers has just begun, so it is necessary with some caution to equate the concepts of "head of the organization" and "manager of the organization", although in reality they perform the same management activities. Training of professional managers is one of the essential conditions for reforming our society and its entry into the international space.

Features of modern school management determine the logic of the analysis of the content of professional competence of the school principal. First, in its essence and structure, the professional competence of the school principal includes components that are closely related to the main structural elements of the management process, ie it is to some extent a reflection of this process and its

transformation into key indicators of leadership (motives, knowledge, skills, habits and personal qualities).

Secondly, such competence is not just a mechanical reflection of the management process, but is closely related to the image of "I", "I - the concept" of the school principal - a set of his ideas about himself, attitudes to himself (reflection). Especially important is the relationship between the real "I" (the way the director sees himself at the moment, it seems to himself in reality) and the ideal "I" (which he set out to be, what he aspires to). The ideal "I" is a guide for personal and professional growth of the leader and his self-improvement, which includes three main interrelated components: self-knowledge, self-control and self-regulation, self-development.

Based on this, in the structure of professional competence of the head of the school in each of the main components are two groups of entities:

- a) related to the "real" management process;
- b) associated with the self-improvement of the head and, accordingly, with the possible improvement of the management process in the future.

The concept of "human competence" arises from the concept of development, which assigns the individual the role of the subject of social change and improvement, able to understand the complex dynamics of development processes and influence their course. The abilities, knowledge and skills needed by people to actively participate in different activities should also be diverse. They cover not only the sphere of material production and consumption, but also such aspects as preservation of traditions and cultural identity, quality of communications and interactions of individuals and groups, formation and development of active citizenship, creative use of leisure, ensuring and maintaining good health (moral, psychological, physical).

The concept of "competence" implies a set of physical and intellectual qualities and characteristics (properties) of man, necessary for independent and effective resolution of various life situations to create better conditions for themselves in constructive interaction with others. Thus, "competence" means the ability and willingness to interact with other people in different situations, including conflict, skills of creative mastery of intellectual and physical tools, knowledge of various aspects of human life.

The professional competence of the school principal is an integral professional and personal quality that has a complex structure and includes functionally interconnected components:

- motivational - a set of motives adequate to the goals and objectives of management;
- cognitive - a set of knowledge required for management;
- operational - a set of skills and abilities of practical problem solving;
- personal - a set of important personal qualities for management;
- reflexive - a set of abilities to anticipate, evaluate their own activities, choose a strategy of behavior.

The formation of professional competence of the head of the school is seen as a synthesis of three components: the basic (managerial) activities of the subject,

innovation (perceived from the outside or the result of their work), and the ability to responsibly choose innovation. Thus, the formation of competencies is presented as a hierarchy of three levels of holistic behavior of the school principal. The first level is the level of functioning. At this level of professional competence formation, the manager performs daily basic (managerial) activities regulated by the external regulatory framework. At this level, the manager is interested in the quality of process technology in accordance with certain standards. The second level is the level of innovation. Mastering external or developing one's own innovation presupposes the presence of motivations that motivate the leader to creativity, and the ability of the leader to determine the strategic goal of his development. The third level is the level of values. This level is a value guideline for the formation of professional competence of the leader: on the one hand, stimulates the emergence of the motive of development and development of innovations, and on the other - selects acceptable for the subject of innovation. The analysis of practice shows that only the synthesis of these three levels in the professional activity of the school head ensures the formation of his professional competence. In general, the concept of "professional competence" is considered as a dynamic, developing category, determined by the specific historical situation in which the professional activity is carried out.

The professional competence of the director includes value-motivational, prognostic, content-functional, organizational-technological elements. The value-motivational element is provided by the orientation of the head on self-development of professional qualities, his subjective position in relation to own professional competence. The prognostic element allows to ensure continuity between primary competencies and acquired in the process. The content-functional element presupposes the presence of levels of professional competence. The head of the school in the process of forming professional competence "increases" his managerial potential. Organizational and technological element includes technologies, forms of interaction (collective and mutual learning, active methods, pedagogical workshops), procedures for selecting variable educational routes, etc.

There are basic principles of organizing the formation of professional competence of managers. The principle of subjective orientation means focusing on the development of the personality of the leader. The content of education is determined primarily by its goals. If the purpose of education is the development of the leader as a subject of professional activity, then the basis of the content of education should be the mastery of the means and methods of self-education and professional self-development. Accordingly, the standard of education of the head of the school can be considered as a set of abilities, ways of behavior and activities in design, resource provision and self-analysis of management (ability to set goals, programming and planning, reflection, etc.). The principle of variability creates conditions for individually oriented learning. The content of education of school principals should help individuals to find different ways of understanding and mastering knowledge in a changing world and to expand the possibilities of a reasonable choice of a person's life and professional path. The principle of personal pedagogical interaction involves problematization as a means of activating and

becoming a subject of the student in the educational process. Personalization, that is, the rejection of role positions and the inclusion of real personal experience. Individualization - focus on the dynamics of individual development of students. The content of education of school principals should help individuals to find different ways of understanding and mastering knowledge in a changing world and to expand the possibilities of a reasonable choice of a person's life and professional path.

Discussion. The existence of a system of work on the formation of professional competence of school leaders causes positive changes in school life. Positive changes in the activities of educational institutions can be tracked by the following indicators:

- increasing the focus of the teaching staff, determining the strategy of school development (feedback from teachers; the presence of the school development program and the degree of its implementation; setting larger goals, etc.);
- increasing the rational organization of team work (improving the management system; information system; methods of leadership and control; increasing the efficiency of pedagogical councils of the school, etc.);
- improving the style and methods of management (democratization and humanization of pedagogical communication; the use of active methods in working with the team; reduction or absence of interpersonal or intergroup conflicts in the teaching staff of the school, etc.);
- improving the psychological climate in the teaching staff (feedback from teachers, students, parents; the results of psychological testing, etc.);
- improving the effectiveness of the educational process of the school.

Successful formation of professional competence of school principals is possible as a result of introduction of special system of pedagogical conditions:

- determining the content of professional training of school principals on management issues;
- taking into account the specifics of typical management situations of different categories of school principals and their modeling in the training process;
- differentiation of content and organizational forms of education for different categories of school principals;
- organization of active management interaction for the formation of the main components of professional competence.

The implementation of such pedagogical conditions became possible as a result of the use of special pedagogical tools:

- creation of a system of training courses (programs, manuals) for professional training of school principals on management issues;
- study and systematization of typical management situations of different categories of leaders, as well as their design in the process of training school principals;
- use of active methods and forms of learning (problem lectures, management workshops, "brainstorming", analysis of managerial situations, educational role-playing and business games, socio-psychological training, video training) to form the main components of professional competence.

As probable main directions of development of the system of formation of professional competence of the director can be defined:

- development of a mechanism for coordinating the activities of institutions of the system of postgraduate education of school principals of different levels in the formation of professional competence of school principals;
- research and description of the theoretical foundations of the use of educational complexes with computer support of independent work of school principals in the process of obtaining education or training in order to form their professional competence;
- development of a system for monitoring the quality of activities of institutions of the postgraduate education system of different levels in the formation of professional competence of school principals;
- improvement of the educational and methodical complex of the educational program of advanced training of school principals in the system of postgraduate education.

Conclusion. Thus, the managerial competence of the head of a secondary school is a complex characteristic of a manager-professional, which includes knowledge, skills, psychological characteristics and certain personal qualities. It is formed gradually. The growth of professionalism of managerial activity, and hence the level of managerial competence occurs: as a result of social maturity, when a person has gone through life's trials and learned to act with maximum dedication; when she has intellectual, psychological, communicative, as well as general abilities to manage; when a person has an intrinsic motivation for professional activity, when the experience of successful managers is studied and adopted and successful strategies for the development of personal qualities are modeled.

The role of the head of the educational institution in the renewal of modern school education is one of the key problems in the reform of general secondary education. Therefore, the search for ways to optimize management work, the introduction of new approaches to school management is important for modern pedagogical science. The problem of the spiritual crisis of modern society actualizes the problem of the value approach in school management. Therefore, further study of the new organizational culture of management will also enrich the theory and practice of school management.

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THE ROLE OF CORPORATE GOVERNANCE IN ECONOMIC DEVELOPMENT

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Abstract. *With the increasing interest in the concept of governance, this research aims to draw attention the role of corporate governance for modernization the companies administration and its impact on the development of the economy. especially that the concept of good governance is of great importance, especially in view of the transformations and developments that have afflicted the states and societies in recent decades, through a set of reforms that have affected many areas and that aim to Modernization and development administration in institutions, which suffers from a set of problems and which constitute an obstacle to achieving the objectives of the public service to raise the quality of services and development of the economy. The results showed that that applying the concept of good governance as a tool or a system for the modernization administration and development of economy , will inevitably have an effective impact on modernizing of corporate administration and achieving economic development, by making the administration impartial and at the service of society.*

Keywords: governance, administration, economy, development, institutions

JEL Classification: L53, M10, M14

Formulas: 0; **fig.:** 2; **tabl.:** 0; **bibl.:** 18.

Introduction. Corporate governance is one of the most prominent and important issues in regional and international institutions and organizations, and interest in this topic has grown in many advanced and emerging economies over the past years, especially after a series of different financial crises that occurred in many companies in East Asia, Latin America and Russia. In the nineties of the last century, which was triggered by financial corruption, mismanagement, and its lack of control, expertise and skill, in addition to the lack of transparency, as these crises and collapses led to many shareholders suffering heavy material losses, which prompted many investors to search for companies that apply the concept of corporate governance. The importance of governance has increased as a result of the tendency of many countries of the world to shift to capitalist economic systems in which it relies heavily on private companies.

As a result of all this, interest in the concept of corporate governance has increased, and it has become one of the basic pillars on which economic units must be based.

With the increasing interest in the concept of governance, many institutions have been keen to study and analyze this concept. The most important of these institutions are the International Monetary Fund and the Organization for Economic Cooperation and Development.

Therefore, this article came to present and analyze the concept, importance, determinants, advantages and objectives of governance and its impact on economic development.

Information and studies indicate that the collapse of many economic units has led to the loss of the rights of current investors and the loss of confidence of new investors in these companies, so the interest in applying the concept of corporate governance was the best, safest and fastest solution to address these negatives that accompanied the

collapse of many economic units, for all of these Reasons The interest of many economic researchers, writers, analysts and others in addressing these matters.

Literature review. Exploring the issue of corporate governance, the author will study the basic definitions (Jalal Al-Abd, 2008), standards (Mohamed Hassan Youssef, 2007) and corporate governance rules (Khaled Ismail Ali (2008)). Particular attention should be paid to the work on establishing the relationship between Corporate Governance and Entity Management (Kerie Kerstetter, 2018). Equally important are papers on the features of corporate governance in the stock market (Muhammad Ahmad Ibrahim Khalil, 2011) and in banking institutions (Muhammad Hatamleh, 2007).

Aims. The research aims to: -

- identify the positive aspects and advantages of corporate governance and how to benefit from them in order to improve the quality of companies;
- learn about the concept and concept of corporate governance, its characteristics and determinants;
- identify the elements and principles of corporate governance in banks;
- provide appropriate suggestions and recommendations in this field.

The importance of the research is evident from the importance of adress the subject of corporate governance, and this research contributes scientifically to resolving deficiencies in some aspects in order to enhance the role of corporate governance in companies. The research is also concerned with highlighting the importance of expanding the application of the concept of corporate governance in the local economic environment.

Methods. The researcher relied on the general descriptive, analytical and approach based on the reality of information, publications, studies, scientific periodicals, and available electronic information sources (Internet).

Results. In view of the importance of the research, the research was divided into three sections. The first one included a presentation of the definition, concept, determinants, importance and objectives of corporate governance, while the second topic reviewed governance in the banking system through the elements and principles of governance in the banking system in addition to the role of banks in promoting the principles of governance. The third topic covered the role of governance in economic development and economic reform. Then included findings, recommendations and references.

I. Definition, importance and objectives of the concept of corporate governance. The concept of free economy adopted by most countries of the world, the emergence of globalization and the liberalization of financial markets led to companies achieving high profits and creating new investment opportunities and job opportunities in the countries in which these companies operate. In order for these companies to maintain their distinction, they are working to create perfect governance structures that guarantee A certain level of transparency, fairness and financial accuracy.

Definition and concept of corporate governance. Corporate governance is one of the most important and comprehensive terms that have spread globally during the last two decades, and interest in governance has increased in most emerging and developed

economies due to its connection to organizational, accounting, financial, economic, social and environmental aspects.

It should be noted that at the global level there is no unified definition agreed upon by all economists, jurists, analysts, writers and researchers of the concept of governance. Rather, there are several definitions and concepts according to the interests of these writers, researchers, analysts and others, some of which we will mention (Hussein Dahdouh, 2007).

The concept of governance is:

- A set of laws, rules, regulations, standards and procedures aimed at regulating the nature of the relationship between the management of the company and the owners to reach the achievement of quality and excellence in performance.
- It is a set of incentives followed by the company's management to increase the size of profits for the benefit of shareholders.
- It is an integrated system for financial and non-financial control.
- Shareholders are allowed to appoint a board of directors for the company to manage it.
- It is a number of rules, instructions, incentives and control aimed at serving shareholders.

Governance is a set of systems, decisions, and policies that the company follows in order to achieve quality and excellence in choosing effective methods capable of achieving the company's goals, It is about managing and controlling the company's resources in the financial and administrative side, Achieving transparency, independence, justice and integrity as guarantees against corruption and mismanagement.

It is a specific system according to which the company's work can be managed and monitored in order to enhance and develop the principle of disclosure, transparency and accountability in order to achieve maximizing the company's profits.

The importance of corporate governance. Some view governance from a legal perspective to regulate the forms and types of dealings between the parties of the company with each other, and others view governance from an economic angle to achieve profits, and there are those who look at it from an ethical point of view in the nature and form of the different parties of the relationship within the company.

After the expansion that occurred in the investment base and the increase in the number of owners of the same company, corporate governance emerged to address the conflict of the relationship between the management of companies and investors, that is, the separation between the management of the company and its ownership, by adding non-executive managers to the board of directors.

Activating corporate governance practices ensures the integrity of the relationship between investors and companies through financial control and voting rights for owners regardless of the amount of their shares, and despite the additional financial burdens that corporate governance adds, it has a major role in the results and activities of companies.

In general, the existence of corporate governance has been linked to reforming and improving the financial market and operating companies in most countries of the world, and it is considered a factor that attracts and attracts foreign investment.

The relationship between governance and management. Why governance is important to management?

Governance : is the processes that ensures the effective and efficient use of IT in enabling an organization to achieve its goals, Governance supports management in several basic aspects:

Business Management : Empowering the business to know what to deliver, why it is important and the value to the business.

Change Management : The process to manage enhancements, prioritization and utilization of resources.

Release and quality Management : Ensuring the highest quality Through organized processes.

Support Management: The ability to provide Subject Matter Expertise, responsiveness and education.



Fig. 1. Governance is the centre of management

Source: developed by author

Therefore, what can be concluded from this proposed idea is that it is not possible to talk about good governance in the absence of the concept of governance and its relationship to administrative development.

It's meaning that governance means setting the controls and means of control that ensure the proper management of the company. On the other hand, it ensures that the management improves the utilization of the company's resources and seeks to maximize the profitability and value of equity in the long term. It also reflects the administration's interest in the basic interests of society in the areas of public health, human resource development, and environmental protection.

In general, it can be said that the governance system constitutes a guide to self-control, that is, how the company's management behaves when no one is monitoring it. Governance is also considered one of the most important means aimed at achieving economic development and community well-being, establishing the values of democracy and justice, equality of opportunity, transparency and disclosure that guarantee integrity of transactions, strengthening the rule of law, and drawing the boundaries between

private and public interests and preventing the abuse of position and influence. Governance is the reconciliation of conflicting interests. (Kerie Kerstetter, 2018)

It is worth noting that it is not enough to formulate a elaborate system and comprehensive rules for governance, but rather what is important is that this system be effectively practiced. The recent global financial and economic crisis has demonstrated the absence of governance even in developed countries as a practice despite the existence of integrated systems and comprehensive rules. This crisis demonstrated the existence of a significant failure in the practice of governance, weak compliance with its provisions, and the absence of ethical standards in management behavior.

Objectives and advantages of corporate governance. *Good corporate governance achieves many goals, the most important of which are:*

- achieving transparency and justice and protecting the rights of shareholders in the company. this is done by creating rules, regulations and controls aimed at achieving transparency and justice;
- create controls, rules and administrative structures that grant the right to hold the company's management accountable before the general assembly and guarantee the rights of shareholders in the company;
- developing investments and their flow by deepening investor confidence in the financial markets;
- work to develop savings, maximize profitability, and create new job opportunities;
- working on good financial performance by holding management accountable to shareholders;
- imposing good and effective control over the performance of economic units to develop and improve the competitiveness of economic units;
- work to combat unacceptable behavior, whether on the material, administrative or moral side;
- providing new job opportunities;
- attracting investments, whether foreign or local, and limiting the flight of national capital abroad;
- transparency in accounting and financial auditing procedures to reduce and control corruption in the company;
- developing, improving and assisting decision-makers such as managers and boards of directors to build an advanced strategy that serves the company's administrative and financial competence;
- work to stimulate the workforce in the company, improve their production rates, and deepen their confidence in the company;
- increased information, experience and skills as a result of working with governance.

In the end, it must be noted that one of the most important goals of corporate governance is to work to hold accountable, accountable, and combat administrative and financial corruption in the company in all its forms, as well as work with all available means to attract local and foreign investments, whether by legislation or laws and privileges granted to investors, in addition to applying the principle of good morals. Good and humanitarian and economic dealings between corporate dealers. The ethical

aspects of corporate work are the most appropriate to support good and successful governance. (Amer Al-Husseini, 2008)

Determinants of corporate governance. There are two sets of determinants on which the level of quality and good implementation of corporate governance depends. The following are two groups presented. (Mohamed Youssef, 2007).

a) External determinants:

The presence of such determinants ensures the implementation of laws and rules that help in the proper management of the company, and this group includes:

- the general environment for investment that organizes economic activities in the country, such as laws, legislations, and procedures regulating the labor market and companies;
- regulating competition and preventing monopolistic practices and bankruptcy;
- the efficiency of the existence of the financial sector that provides the necessary funds for the establishment of projects and the efficiency of the regulatory agencies in the provisions of supervision of companies;
- the existence of some self-regulating institutions such as professional associations and companies operating in the stock market;
- the existence of private institutions for liberal professions such as law firms and investment financial advisory offices.

b) Internal determinants. These determinants include:

- the rules, instructions and principles that determine the type and form of decisions within the company;
- distribution of powers and tasks between the general assembly, the board of directors and the executive directors, in order to reduce the conflict between the interests of these parties;
- governance ultimately increases confidence in the national economy;
- increasing and deepening the labor market to mobilize savings and raise investment rates;
- work to ensure the rights of the minority and small investors;
- work to support and encourage the growth of the private sector, especially its competitiveness;
- assisting projects in obtaining financing for their projects and making profits;
- job creation.

Governance Standards. Many institutions have been keen to set specific standards for the application of governance, and in this topic some governance standards will be reviewed through the perspective of these institutions' point of view as follows: -

1. Organization for Economic Cooperation and Development (OECD) standards. The Economic Cooperation Organization defined five standards in 1999 and then issued an amendment to them in 2004, and these standards are:

- The existence of effective corporate governance frameworks that guarantee efficiencies, transparency and effectiveness of markets, and clearly define the distribution of responsibilities between the various regulatory and executive authorities.
- Preserving the rights of all shareholders such as:

- a. Transfer of ownership of shares.
- b. The right to choose a board of directors.
- c. Obtaining dividend returns and reviewing financial statements.
- d. The right to participate in the company's general assembly meetings.
- e. The right to vote.

f. Equality among all shareholders, meaning equality between shareholders, whether national or foreign, in terms of voting in the General Assembly, in addition to their right to be informed and know everything related to transactions.

- Creating a legal mechanism that allows shareholders to participate in the effective control of the company and to obtain the required information, and this means the owners of banks, employees, bondholders and customers.
- Applying disclosure and transparency in a timely manner about all the company's business, including the financial situation, performance and ownership, where the disclosure is done in a fair manner among all shareholders.
- Determine the tasks and duties of the Board of Directors, the method of selecting them, their tasks and their role in supervising the management of the company.

2. *Standards of the Basel Committee on International.* In 1999, the Basel Committee developed instructions and guidelines related to governance in institutions. The most important of these instructions are:

- Establish pacts of honor between institutions to achieve and implement good behavior between these institutions.
- Establishing a strategy for the company with the participation and contribution of individuals.
- Determine and distribute responsibilities and decision-making centers among council members.
- Creating a system that includes internal and external audit functions and an independent department.
- Creating formulas and mechanisms showing the type and form of cooperation between the Board of Directors and the auditors.
- Create a kind of monitoring for risk centers such as (major shareholders and senior management).
- The application of justice and equality when distributing material and administrative incentives, whether among managers or employees, whether the incentives are material, promotions or administrative.
- Ensure the provision and flow of appropriate information.

3. *Standards of the International Finance Corporation.* In 2003 the International Finance Corporation of the World Bank set rules, foundations, and financial and administrative standards aimed at supporting governance within institutions. The most important of these principles are [2]:

- Practices must be good and acceptable.
- Finding new steps that guarantee new good judgment.
- Key contributions to developing and improving good governance locally.
- Good driving (Ibrahim Al-Essawi, 2003).

II. Governance in the banking system. As a result of rapid developments in financial markets, globalization of financial flows, progress, technology, competition between banks and non-banking establishments, and the growth of financial markets, the focus and interest in applying the principles of corporate governance in banks came.

Governance in the banking system means protecting the rights of shareholders and depositors, as well as monitoring the performance of the activities of the boards of directors and the upper management of banks, and applying governance to public, private and joint banks.

1. Elements of governance in the banking system. The most basic elements of the governance process are represented in two groups as following:

The first group includes:

- Shareholders of the company.
- The Company Board of Directors.
- The company's executive board of directors.
- Company's internal controllers and auditors.

The second group consists of:

- Persons deposited in the company.
- Deposit Insurance Fund.
- The media side.
- Credit rating companies.
- Legal, regulatory and supervisory aspects

2. Principles of corporate governance in banks:

The Basel Committee issued a report on the role of corporate governance in banks in 1999, then it issued an amended version of this report in 2005, and in 2006 the Basel Committee issued an updated and amended version of the previous report, and the most important of what was mentioned in this copy are the following principles (Basel committee on banking supervision, 2014).

1) Members of the corporate boards of directors must be qualified and able to manage the bank's business and responsible for the performance and integrity of the financial position and the creation of a strategy for the bank's work or be able to take corrective decisions on all occasions.

2) The Board of Directors must monitor and manage the strategic objectives of the bank, taking into consideration the interests of shareholders and depositors, in addition to their responsibility to provide adequate protection for workers who prepare reports on illegal or unethical practices from any direct or indirect disciplinary measures.

3) Creating an integrated administrative structure that encourages accountability and defines the responsibilities of the board of directors, senior management, managers and workers in the bank.

4) The bank officials possess the necessary and important skills, experience and information to manage the bank in accordance with the policies and directions laid down by the board of directors.

5) The independence of auditors and internal control as they are the essence of governance in the bank, because effective internal and external audit and control are very important to the bank's long-term safety. The board of directors and senior

management of the bank must ensure that the financial statements represent the bank's financial position in all its aspects.

6) Remuneration and remuneration policies conform to the objectives of the bank's long-term strategy.

7) The principle of transparency is important and necessary for sound governance, as general disclosure is necessary for banks registered on the stock exchange to achieve discipline in the market, and the disclosure must be timely, through the bank's website and in international reports.

8) The board of directors and senior management must structure the bank's operations and the legislative environment in which it operates. (Governance in banks, website).

3. The effect of implementing corporate governance in banks: -

There is no doubt that the banks' implementation of good governance will lead to multiple and different positive results, and the following are the most important of these advantages:

- Increasing the bank's financing opportunities.
- Low investment costs made by the bank.
- Governance encourages financial market stability.
- Work to fight corruption in all its forms.

When banks commit to implementing governance standards, it contributes to encouraging companies that borrow from them, to implement these rules, the most important of which are disclosure, transparency and good governance.

The companies' application of the principles of corporate governance leads to a decrease in the degree of risk when dealing with banks.

4. The role of banks in promoting the principles of corporate governance: -

Banks are the main source for meeting the financing needs of economic activities in general, including companies. These needs play an important role in the work of companies to achieve their profit goals.

The role of banks in enhancing corporate governance can be clarified through two axes, namely :

- ***The first axis.*** Banks are considered pioneers in adopting the principles of corporate governance as a public joint stock company, and on this basis, the principles of corporate governance reduce the size of the risks that banks may be exposed to.

Promoting the principles of sound governance practices in banks must pass in two directions: the first direction is led by the central banks as they are responsible for monitoring and regulating the banking system, and the second direction is led by the banks themselves.

As for the most important reforms required in this field, they are separating, as much as possible, between ownership and management, and enhancing the role, functions and powers of these councils, whether in appointing directors or forming committees. In addition, re-evaluation and strengthening of the audit process.

- ***The second axis.*** Enhancing the role of banks in applying the principles of corporate governance as the main financier for companies.

One of the main pillars of a sound stock market and the corporate sector is the existence of a sound banking system that provides credit and liquidity.

The interest of banks in corporate governance gives credit to customers, whether in the field of borrowing or interest rates granted to customers.

The review of credit policies at banks shows the needs of these policies for the existence of corporate governance principles within the objectives of the bank itself. The existence of a corporate governance culture within the cultural concepts prevailing among credit managers is considered an imperative.

From this standpoint, banks must adopt governance as one of the elements of a credit decision, and obligate customers to practice governance for the concept of the best customers.

It also requires educating investment managers in banks about the concept of corporate governance.

III. The role of governance in economic development and economic reform.

Interest in the concept of corporate governance has grown in most developed and emerging economies during the previous decades, especially after the economic collapses and financial crises that occurred in some countries. And supervision, lack of experience and competence, and from this standpoint many experts, analysts and economists talked about the effects of corporate governance on economic and social aspects and achieving comprehensive development in both emerging and developed countries alike, and in this topic will address the economic, legal and social importance of the concept of corporate governance.

Multiple studies indicate that commitment to applying the conceptual concept of corporate governance reflects well on the performance of economic units in its various financial and operational dimensions and continued growth. The importance of corporate governance for achieving both economic development, legal immunity, and social welfare for economies and societies has grown considerably (Duncan Green, 2015).

1. The importance of corporate governance in achieving economic development.

There is no doubt that corporate governance works greatly on the efficient use of economic resources and supports companies' competition between markets, and governance is working to attract more sources of funds (local and international financing) to enhance the company's growth.

In this regard, Winkler emphasized the importance of corporate governance in achieving economic development and avoiding falling into financial crises.

Corporate governance also works to ensure the rights of shareholders in addition to the competitiveness of companies in global financial markets.

2. The economic importance of implementing corporate governance standards and rules and relation to management. The need for corporate governance has emerged in the Arab world in particular and in developing countries in general after the economic reform that began at the beginning of the new century in this country, in addition to giving the role of the private sector in implementing development policy in these countries.

It is well known that companies prepare their final accounts at the end of each year and the disclosure and transparency they require when preparing these accounts, because following sound and clear principles of corporate governance will lead to creating the necessary precautions to fight and combat administrative and economic corruption.

In this regard, we will shed light on the most important principles of corporate governance rules, and the following are the most important of these principles:

- The board of directors shall set the formulas, mechanisms, instructions and systems that ensure the companies respect and adhere to the applicable laws and regulations and their commitment to disclose essential information to shareholders, creditors and other stakeholders.
- Board members must consider themselves representatives of all shareholders.
- That the technical expertise and skills be available in non-executive board members when selecting and appointing them.
- Attention to meeting minutes, records and notebooks.
- The annual report presented to shareholders must include the company's business, its financial position, and the future outlook for the company's activity (Khaled Ismail, 2008).
- Finding formulas and methods that allow shareholders to express their opinions and enable them to make sound and thoughtful decisions.
- The necessity of having audit committees affiliated with the Board of Directors to follow up on economic units.
- The Internal Audit Committee undertakes the preparation, study and efficiency of the internal control system and the financial statements before submitting them to the Board of Directors.
- Audit committees play a vital role in ensuring the quality of financial reports and the correctness of accounting information when they are involved in preparing internal and external auditing processes and resisting management pressures and interference.
- Disclosure and transparency in the presentation of financial and non-financial information is one of the principles underlying corporate governance.
- The necessity of clarity in the announced policies, especially with regard to what the company intends to do in terms of developing or changing the size, training and programs of manpower, in addition to credibility and keenness to maintain the confidentiality of the financial and commercial information of the company (Muhammad and Chandra, 2020).

Governance of the economy means working to close every loophole through which corruption may seep into economic institutions, whether private or public.

3. *Corporate Governance and Social Welfare.* There is a comprehensive concept of corporate governance that goes beyond economic companies such as companies owned by the public or private sector, whose production is linked to goods or services that have an impact on the well-being of members of society, and there is a common saying that if the company is reformed as the core of the economy as a whole and if corrupted, its influence extends to harm large numbers of categories of the economy And society. In light of this trend, corporate governance has an impact on individuals, institutions and

society as a whole, as it provides individuals with the guarantee of achieving a measure of profits and ensuring the stability and progress of markets, economies and societies.

We can say that companies affect and are affected by public life, especially on jobs, incomes, savings, living standards and other matters of concern to the lives of individuals and institutions, and given the fundamental importance of corporate governance in the progress of countries' economies, these countries have been concerned with consolidating the rules and regulations that lead to the stability of their economic markets.

The following fig. 2, illustration shows the role of governance in the developing the economy and impact for society.



Fig. 2. The role of governance in the developing the economy and impact for society

Source: <https://www.scoop.it/topic/lf-governance>

4. *Corporate Governance and Legal Immunity.* Legal interest in corporate governance because it works to ensure the rights of multiple parties in the company, such as shareholders, boards of directors, managers, workers, lenders, banks and other stakeholders.

Laws, legislations, laws and regulations governing the work of companies are the backbone of the relationship between the concerned parties in the company and the economy as a whole.

Among the most important of these laws are corporate, financial and banking laws, accounting, auditing, prevention of monopoly, taxes, labor and others. In this regard, the

International Finance Corporation emphasized in 2002 the need to pass legislation for corporate governance and focus on two important pillars: disclosure and sound accounting standards.

Despite the multiplicity of laws, instructions and procedures related to corporate governance among countries, these regulations and laws are a safety valve to ensure good corporate governance.

The standards of disclosure, transparency and accounting standards are also the backbone of corporate governance principles.

Results. Despite the importance of corporate governance, it is still an area of disagreement and disagreement among researchers and academics in this matter, as many of the terms used appeared, but the common and most used term in the academic and research field is Corporate Governance.

In recent years, interest in the concept of corporate governance has increased dramatically and clearly, and it has become one of the main pillars on which the various economic units must be based.

The application of corporate governance is the way out and the effective solution to ensuring the rights of stakeholders within companies, especially investors.

Demonstrate the influence and importance of the concept of corporate governance for the benefit of individuals, institutions and societies in many economic, legal and social aspects.

Good corporate governance in the form of disclosure of financial information reduces the cost of capital for institutions.

Good corporate governance helps attract investment, whether foreign or domestic, and helps to limit capital flight and combat corruption.

Commitment to implementing the intellectual aspects of corporate governance reflects well on the performance of the economic, social, financial units.

Researchers, academics and professional organizations should pay more attention to the issue of governance in order to properly establish the principles of governance, by holding seminars, conferences and meetings.

Working to increase disclosure and transparency in companies.

Developing the awareness and awareness of those in charge of companies regarding the importance of governance for their companies, through seminars, meetings and conferences.

Trying to Issuing a unified vision for the concept and functioning of corporate governance.

Enacting and developing many legislations, regulations and laws to improve the performance of boards of directors, directors and shareholder rights within the company.

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SCIENTIFIC AND METHODOLOGICAL APPROACH TO THE FORMATION OF MARKETING-LOGISTICS SUPPORT OF ENTERPRISES IN PRODUCTION AND TRADE CHAINS

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Abstract. *The purpose of the article is to develop a scientific and methodological approach to the formation of marketing-logistics support of enterprises in production and trade chains. It is established that the starting point in the development of scientific and methodological approach is the content, direction and purpose of such support. Modern views on the essence of marketing-logistics support of enterprises were considered. It is argued that the starting point in the development of scientific and methodological approach to the formation of marketing-logistics support of enterprises in production and trade chains is the perception of such support as the creation and implementation of conditions that ensure effective interaction of marketing and logistics to create and provide value to consumers. production and trade chains, based on the actions of organizational structures of the enterprise, providing marketing and logistics, to promote the efficient operation of the enterprise on the basis of ensuring the development of the business core. The expediency and methodical approach to the assessment of marketing and logistics of enterprises using the method of analysis of hierarchies is proved. The evaluation algorithm is based on a double marketing and logistics mix 5PR, which allows you to determine both the level of security and the rating of enterprises. Based on the manifestation of belonging to the pushing or extracting systems, a scientific and methodological approach to the identification and streamlining of enterprise processes in production and trade chains is proposed. It is recommended to assess the growth based on financial condition, as a reflection of the creation and provision of value to consumers. It is proposed to choose strategies for directing actions of organizational structures systems that provide marketing-logistics support to enterprises in production and trade chains, based on the developed matrix "SCE & SCR / level of demand certainty", which promotes effective interaction of marketing and logistics. As a result, an environment for identifying effective ways of marketing-logistics support of enterprises in creating conditions to improve the efficiency of their activities based on the development of the business core.*

Keywords: *marketing, logistics, support, enterprises, production and trade chains, indicators, evaluation*

JEL Classification: M30, M31, M39

Formulas: 0; **fig.:** 2; **tabl.:** 1; **bibl.:** 15

Introduction. The perception as a factor in improving the enterprises efficiency of their marketing-logistics in production and trade chains makes it relevant to research, development and evaluation of elements of the latter. The starting point is the perception of such support as the creation and implementation of conditions that ensure effective interaction of marketing-logistics that can create and provide valuable commodities to consumers in production and trade chains based on the actions of organizational structures providing marketing-logistics support in enterprises effective work.

Literature review. Studies of the process of marketing-logistics support business support among domestic scientists are found in the works of S. Kovalchuk, E. Krykavsky, N. Chukhray, Z. Andrushkevich, O. Ogorodnik, N. Trishkina and others, but no scientific and methodological approach to the formation of such a

process.

Aims. The purpose of the article is to establish a scientific and methodological approach to the formation of marketing-logistics support in production and trade chains.

Methods. The author used the methods of logical comparison, systematization and generalization, which made it possible to achieve the goal of the study.

Results. The basis for the development of a scientific and methodological approach to the formation of marketing-logistics support in production and trade chains is content, focus, and purpose.

The term "marketing-logistics support" is used by researchers and specialists in different contexts to describe marketing and logistics activities, but does not have a definite, consistent meaning that is perceived equally by all. This can be seen from the generalization of the definitions available in the economic literature of the category "marketing and logistics support of the enterprise", which contains table. 1.

Table 1. Definition of the category "marketing-logistics support of the enterprise" in scientific research

Direction	Definition	Author
Creation and implementation of conditions for effective interaction of marketing and logistics to ensure the effective operation of the enterprise	...as the marketing-logistics support of the enterprise, we will understand the creation and implementation of conditions that ensure the effective interaction of marketing and logistics with certain organizational structures to ensure the effective operation of the enterprise.	Kovalchuk (2012)
	..."marketing-logistics support of the enterprise" is interpreted as the creation of conditions and implementation of measures that ensure effective interaction of marketing and logistics to create and provide value to consumers and increase the efficiency of the enterprise.	Andrushkevich (2011)
An attribute of an integral management tool	...marketing-logistics support - is an integrated management tool that helps to achieve strategic, tactical or operational goals of the business organization through effective (in terms of reducing overall costs and meeting the requirements of end users to the quality of products and services) management of material and service flows, and also accompanying flows of information and funds	Ogorodnik (2016)

As the marketing-logistics support of the enterprise as a whole to create and implement conditions that ensure effective interaction of marketing and logistics to ensure the effective operation of the enterprise with a goal, namely: to create and provide value to consumers, and how to achieve: organizational structures are taken as the basis of scientific and methodological approach to the formation of such support for enterprises in production and trade chains.

The creation and provision of value to consumers occurs in the processes occurring in the production and trade chains.

In order to ensure the effective operation of the enterprise, marketing-logistics support should be focused on promoting actions that meet the needs of sustainable development of enterprises and be characterized by a certain focus on achieving the

goal of enterprises. While it is impossible to take into account all the variety of theories, concepts, methods, ways and directions that underlie the sustainable development of enterprises, the marketing and logistics of enterprises in production and trade chains is to focus on raising the core of the business - the so-called business core. This justification is based on the concept of sustainable development management of the company, which is based on the idea that the basis of sustainable development of the enterprise is to ensure the integrity and maximum efficiency of the core business (Zuk, 2007).

Thus, marketing-logistics support of enterprises in production and trade chains is the creation and implementation of conditions that guarantee effective interaction of marketing and logistics complexes to create and provide value to consumers in production and trade chains based on the actions of organizational structures of enterprises, what implementing marketing-logistics support, to promote the efficient operation of the enterprise on the basis of ensuring the development of the business core.

As follows, the scientific and methodological approach to the formation of marketing and logistics support of enterprises in production and trade chains is aimed at: streamlining the processes of enterprises in production and trade chains in creating and providing value to consumers; clarification of action strategies of organizational structures that provide marketing and logistics of enterprises; improvement of marketing and logistics support of enterprises for their effective activity on the basis of ensuring the development of the business core.

The principled schematic diagram of the scientific and methodological approach to the formation of marketing-logistics support of enterprises in production and trade chains is shown in Fig. 1.

Therefore, there is a primary need to solve the first two tasks of the theoretical and methodological approach to marketing-logistics support of enterprises in production and trade chains, as: 1) streamlining processes in production and trade chains of enterprises in creating and providing value to consumers and 2) definition and refinement strategies of organizational structures that provide marketing and logistics of enterprises.

The solution requires basing the theoretical and methodological approach to marketing-logistics support of enterprises in the production and trade chains on the main elements, which are: the state of processes in the production and trade chains of enterprises; circumstances of marketing activities; atmosphere of logistics activities.

However, first of all, within the economic activity before each enterprise there is a task of estimating the level of its marketing-logistics support in production and trade chains to increase the efficiency of functioning in the management system.

Existing methods of such assessment can be found in the economic literature, but they are rather limited and are summarized as follows:

1) determining the level of enterprises marketing-logistics based on the planning state of enterprises marketing and logistics activities and judgments on the relationship of such support with the presence (absence) of relevant marketing and logistics departments (or both) (Andrushkevich, 2011). Taking into consideration

recommendations that support certain creating type of organizational structure of marketing and logistics departments to perform marketing and logistics functions with the greatest economic effect, it should be indicated on incomplete assessment of enterprises marketing-logistics, carried out by this method;

2) study of criteria and indicators for assessing the marketing-logistics of the production and trade chain and the formation of indicators a system for assessing the effectiveness of marketing and logistics activities (Trishkina, 2017). However, the assessment of the production and trade chain of enterprises (and not enterprises in production and trade chains) is carried out here, so it is not possible to formulate criteria for assessing the enterprises marketing-logistics support.

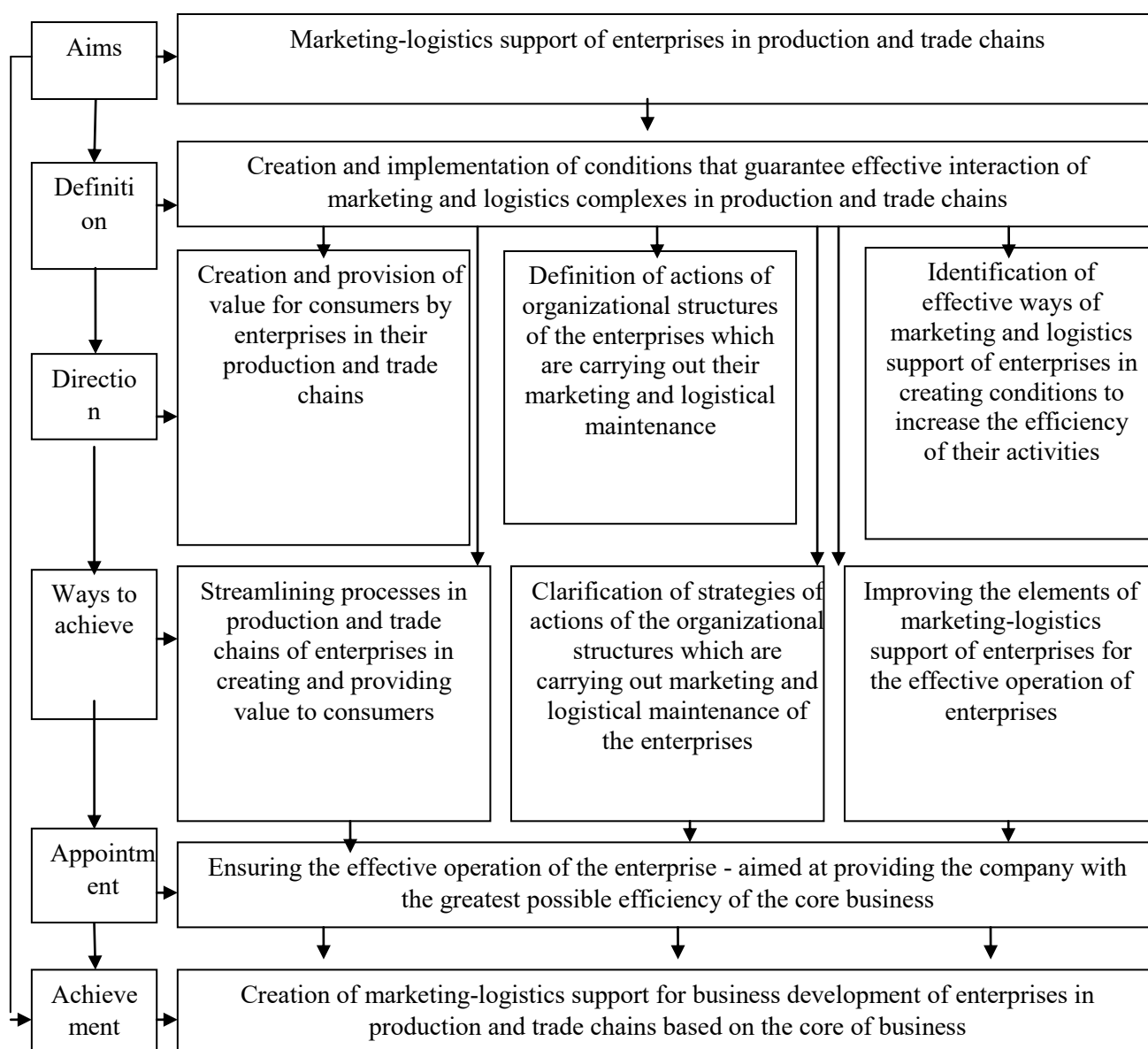


Fig. 1. Principled schematic diagram of the theoretical and methodological approach to the formation of marketing-logistics support of enterprises in production and trade chains

**Source: developed by author*

The complexity of enterprises marketing-logistics support of in production and trade chains as an object of evaluation requires a method that will eliminate these contradictions, lack of data in its definitions and remove the likelihood experts' errors in assessments.

From these positions, it is advisable to use the method of analysis of hierarchies (also known as ANP - Analytical Hierarchy Process) as means of multidimensional evaluation.

According to the algorithm of the AHP method, detailed in works of T. Saati (Saaty, 2008) and his followers (Konoplyannikova, 2020), its stages are developed and adapted to the content and criteria for assessing enterprises marketing-logistics in compliance with all requirements for application of the specified method.

To assess the level of enterprise marketing-logistics we formed the base that is grounded on the marketing mix 4P and logistics mix 7R double marketing and logistics mix (double mix) 5PR, which has the appropriate advantages for considering the state of enterprises marketing-logistics, noted in (Semenov, 2016). Besides, the criteria of marketing and logistics of the enterprise we have defined in the composition: required quality commodity of required quantity for a certain consumer; commodity price at minimum costs; promoting of required quality commodity at required time; commodity promotion with minimum costs at required time; commodity promotion in required place for required consumer.

To assess the enterprise marketing-logistics for each criterion it is allocated the appropriate sub-criteria:

- to the criterion "Goods of the required quality in the required quantity to a certain consumer": the corresponding quantity of goods; required product quality; defined consumer of goods;
- to the criterion "Price of goods at minimum cost": the level of prices for goods and services; price incentives; value for money;
- to the criterion "Promotion of goods of the required quality at the right time": advertising activity; promotion strategy; defined period of delivery time;
- to the criterion "Promotion of goods with minimal costs at the right time": sales area; sales forms; forms of payment;
- to the criterion "Promotion of the goods to the necessary consumer in the necessary place": commitment to the buyer; guaranteed availability of the product in the distribution channels; sales promotion.

According to the method of AHP on the basis of the formed algorithm of an estimation of marketing and logistical maintenance of the enterprises it was possible to carry out both an estimation of its level, and to define a rating of the investigated enterprises on such sign.

The philosophy of close integration with suppliers and consumers in the achievement of additional market successes and benefits dominates in the enterprises marketing-logistics in production and trade chains.

Proposed criteria for identifying enterprise processes in production and trade chains (based on the formation of enterprises marketing-logistics in these chains as the essence of the study), is considered as the choice of such basic indicators that are

common to both marketing and logistics activities, as well as to enterprise processes in the production and trade chains.

Under such conditions, the processes of enterprises in production and trade chains are proposed to identify on the basis of allocation in both logistics and marketing activities, two basic principles of material flow management, as:

- pushing, which is the basis of the “Push-system”;
- pulling, on which the “Pull-system” rests.

First of all, it is necessary to underline the relevant indicators as criteria for identifying of enterprises processes in the production and trade chains. For the formation of such assessment, it is important to keep in mind the following features of enterprises processes in production and trade chains:

- general enterprises processes represent a closed cycle of the capital expanded cycle of the corresponding enterprise;

- enterprises processes embody material and cash flows, that simultaneously implement the processes of commercial, operational, financial, marketing, logistics and other activities;

- enterprises use all the resources that are logically and consistently implemented functions of labor objects transformation in accordance with the laws of their transformations through labor itself and means of labor into finished products for certain consumers.

The following characteristics are also important for assessment formation:

1) the basis for the identification and comparison of the enterprises processes in the production and trade chains should be objective information about the consequences of production, economic and financial activities of enterprises;

2) the sources of such information should be indicators of the relevant generally accepted forms of enterprises reports;

3) assessment of the enterprises processes in production and trade chains should take into account the most important indicators of property and financial conditions of these enterprises, the efficiency of their production, economic and market activities.

Based on the above justification, it is proposed to carry out such an assessment using indicators that characterize enterprise financial condition. For criteria that identify the enterprises processes in the production and trade chains such groups of indicators are selected:

- liquidity and solvency - the enterprises ability for fast conversion assets into cash and their ability to meet to creditors obligations over a period of time. These criteria are particularly important for the “Pull-system”, in which key questions are the relationship with suppliers regarding solvency in settlements with them, showing the enterprise ability to meet current obligations;

- profitability - efficiency of activities in relation to the enterprises processes in the production and trade chains; the factor that affects the efficiency of both the pulling and pushing systems, but is of less importance because it reflects the retrospective;

- business activity - characterizes the efficiency of invested funds used in the

enterprises processes in the production and trade chains and determines the enterprise assets that can increase the activities efficiency; a criterion that is more characteristic of the “Push-system”, as fuzzy tracking of demand requires the obligatory stocks and reserves of insurance;

- financial stability - the ability to carry out economic activities in the enterprises processes in production and trade chains in conditions of entrepreneurial risk and changing business environment in order to strengthen competitive advantages, taking into account interests of state and society; factor that matters both of the systems;

- property potential - characterizes the enterprises composition and capital structure, the state of fixed assets, the type of their reproduction and efficiency; it influences on both (Push- and Pull-systems) alternatives.

Since the study of enterprise performance is conducted at the current time, the solution of the problem occurs under conditions of certainty. Thus, a model of linear programming of decision-making under conditions of certainty is built (Saaty, 2008), (Ilyin, 2015), (Sergeev, 2006).

Since the objective function tends to the maximum, therefore, the system with the highest coefficient will be optimal.

Thus, the enterprise processes formation in production and trade chains according to the system in which the combined weighting factor is higher, and is optimal for the enterprise with the available indicators.

Research and direction of organizational structures actions system that provide enterprises marketing-logistics in production and trade chains, considered to be of great importance in researches of the optimal relationship (“power balance”) between marketing and logistics. And it is in the processes conditions in production and trade chains that are characterized as internal supply chains and logistics chains, we propose to use terms that are widely applied in management of these chains, namely (Egorov, 2012), (Sergeev, 2006):

- Supply Chain Responsiveness (SCR) - a characteristic of the supply chain that reflects the ability to respond quickly to environment changes;

- Supply Chain Efficiency (SCE) - certification, which reproduces the level of total costs in the supply chain from product development to consumer delivery and after-sales service.

The characteristics of the above categories reflect the diversity of marketing and logistics activities (Egorov, 2012), namely:

- marketing tends to “reactivity” in determining the material flows composition in production and trade chains and the distribution of such flows,

- logistics tends to be “efficient” in the material flows management in production and trade chains and customer service.

Thus, the “balance of power” between marketing and logistics activities in the study and direction of the system of organizational structures that provide marketing and logistics to enterprises in production and trade chains, is revealed in the reactivity ratio and efficiency of business strategy.

To determine the strategic compliance area in coordinates of the two above analyzed cases, scientists propose to build a graph in which the predicted areas of

change in SCE / SCR parameters depending on the third parameter, namely: “estimated uncertainty of demand” (Sergeev,2006), (Puzanova, 2012). At the same time, the relationship between the parameters of “SCE / SCR” and the degree of demand certainty opens the possibility of choosing and using different supply chain strategies (Puzanova, 2012); the latter, in our opinion, it is advisable to use in organizational structures that provide enterprises marketing-logistics in production and trade chains.

Adapting the development of organizational structures strategies that provide of enterprises marketing-logistics in production and trade chains, we propose a combination of supply chain strategy model (Puzanova, 2012) and the schedule of its strategic area identification (Sergeev,2006), (Puzanova, 2012) in the proposed matrix, that can be named “SCE&SCR/level of demand certainty” (Kovalchuk, Semenov, 2020) (Fig. 2).

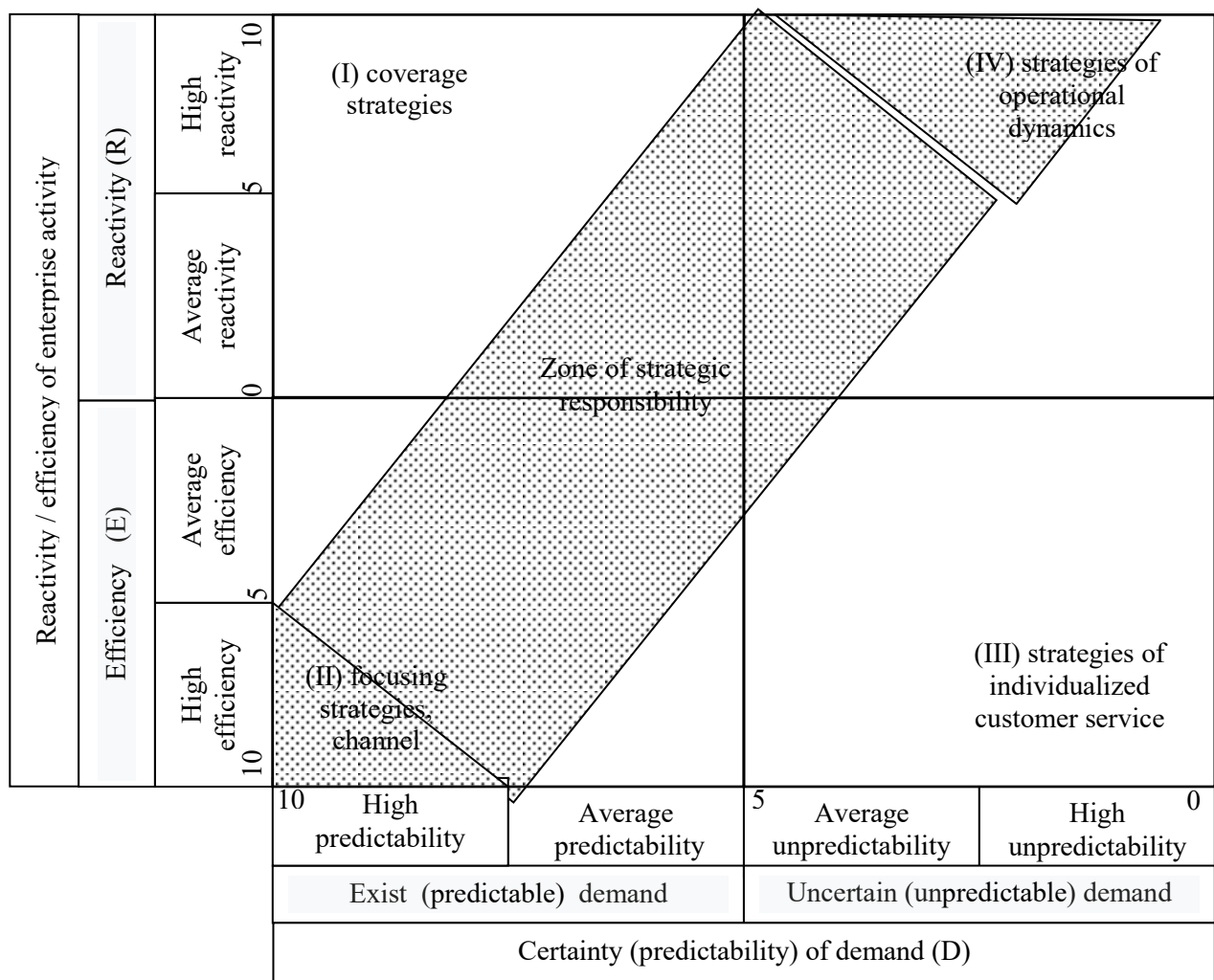


Fig. 2. The basic structure of the matrix "SCE & SCR / level of certainty of demand", proposed for the positioning of enterprises in the direction of the system of actions of their organizational structures that provide marketing and logistics support in production and trade chains

**Source: developed by author*

The possibility of organizational structures to choose the appropriate reactive and effective business strategies for the matrix (adequate to the enterprises positioning in the matrix) is coincided financially attractive for the use of the matrix "SCE&SCR/level of demand certainty", which are: coverage strategies (I); channel (II) focusing strategies; strategies of individualized customer service (III), strategies of operational dynamics (IV) and their application to improve the enterprises marketing-logistics in production and trade chains.

Discussion. The results show that the activities of enterprises in a market environment should be based on their appropriate marketing and logistics in production and trade chains: the latter contributes to the formation of opportunities to expand markets and enter new ones, increase the interest of current consumers and attract potential, ensure competitiveness.

Using scientific and methodological approach to the formation of marketing-logistics support of enterprises in production and trade chains leads to the improvement of the latter for the effective operation of enterprises based on ensuring the development of the business core.

Conclusions. The developed theoretical and methodological approach to the formation of marketing-logistics support of enterprises in production and trade chains includes substantiation of the sequence and assessment of marketing-logistics support of enterprises in production and trade chains; establishing a method of identification and assessment of the development of enterprise processes in production and trade chains; developing an approach to directing the system of actions of organizational structures that provide marketing-logistics support to enterprises, to improve it. The choice of assessment of marketing-logistics support of enterprises in production and trade chains on the basis of the developed double marketing and logistics mix (double mix) 5PR using the ANR method was explained and argued. It is proved that the basis for the identification and comparison of enterprise processes in production and trade chains is objective information about the consequences of production, economic and financial activities of enterprises, which allows to assess these processes. The advantage of the proposed matrix "SCE & SCR / level of certainty of demand" is the ability to assess both the level of efficiency (ie, the state of logistics) and reactivity (ie, the state of marketing activities) of units involved in marketing-logistics support of enterprises in production and trade chains.

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