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**ABSTRACT**

The object of the study is the economic security of the enterprises of the hotel and restaurant business in Ukraine. To achieve certain goals, methods of theoretical generalization, analysis and synthesis, logical generalization, analogies, comparison, grouping, the method of taxonomic analysis, and system analysis were used.

Analyzed the current state of development of hotel and restaurant enterprises in Ukraine. The application of the taxonomy method for diagnosing the economic security of hotel and restaurant enterprises is substantiated. The indicators of economic security of enterprises in the hotel and restaurant industry are identified, grouped in key areas: production, market, intellectual and personnel, investment, material and technical and financial. The interpretation of the values of the integral taxonomic indicator of the economic security of hotel and restaurant enterprises in Ukraine is substantiated. In accordance with the value of the integral indicator, a division into five levels of economic security of enterprises is proposed, which correspond to certain strategies and management decisions for their implementation. An integral indicator of the economic security of hotel and restaurant enterprises was calculated using the taxonomy method for 2015–2020. Based on the results of the calculations, a conclusion was made about the uneven development of the hotel and restaurant industry in Ukraine and the existing problems in ensuring the economic security of domestic hotel and restaurant enterprises. The strategy for ensuring the economic security of hotel and restaurant enterprises is substantiated and managerial decisions for its implementation for the future period are proposed.

The applied nature of the proposed methodology is justified by its practical application according to the actual data of the enterprises of the hotel and restaurant business in Ukraine for 2015–2020.

**KEYWORDS**

Economic security, taxonomic analysis, hotel and restaurant business, economic security strategy.

**8.1 BRIEF DESCRIPTION OF THE CURRENT STATE OF DEVELOPMENT OF HOTEL AND RESTAURANT  
ENTERPRISES IN UKRAINE**

The current stage of development of hotel and restaurant enterprises is characterized by the growth of internal and external threats, which are complemented by both local and global challenges. The COVID-19 pandemic, the difficult socio-economic conditions of operation, the deployment of

a military conflict, the reduction in tourist flow and other negative factors lead to the problem of ensuring the survival of hotel and restaurant enterprises. However, the reasons for the economic danger of hotel and restaurant enterprises are due not only to modern socio-economic and geopolitical challenges, but also to strategic mistakes in enterprise management. The above actualizes the problem of finding optimal models for assessing the level of economic security of hotel and restaurant enterprises and finding adequate management practices to ensure it.

The object of the study is the economic security of the enterprises of the hotel and restaurant business in Ukraine.

The aim of the study is to analyze the level of economic security of enterprises in the hotel and restaurant business and substantiate, on this basis, a strategy for ensuring the economic security of the enterprises under study for the future period.

To achieve the goals of the study, the following scientific tasks are defined: analysis of the dynamics of the main indicators of the activities of enterprises in the hotel and restaurant business; development of a conceptual descriptive model for taxonomic analysis of the economic security of enterprises in the hotel and restaurant business; formation of a data sample on the economic security of the enterprises of the hotel and restaurant business in Ukraine for 2015–2020; calculation of an integral indicator of the level of economic security of enterprises in the hotel and restaurant business using the taxonomy method; interpretation of the results of the analysis of the integral indicator of the level of economic security of enterprises in the hotel and restaurant business for 2015–2020; substantiation of the strategy for ensuring the economic security of the hotel and restaurant business for the future period.

The security of enterprises in the hotel and restaurant business is a multifaceted phenomenon and covers a wide range of areas: economic, fire, epidemiological, physical, etc. All areas of security are interconnected and actively interact, and the integrating core of this system is economic security. Under it, we mean the ability of an enterprise to develop and operate in a constantly changing internal and external environment that characterizes its sustainability.

The hotel and restaurant business, according to the current classification of types of economic activity of Ukraine, is identified as «temporary accommodation and catering». Therefore, the general indicators of the development of hotel and restaurant enterprises were analyzed.

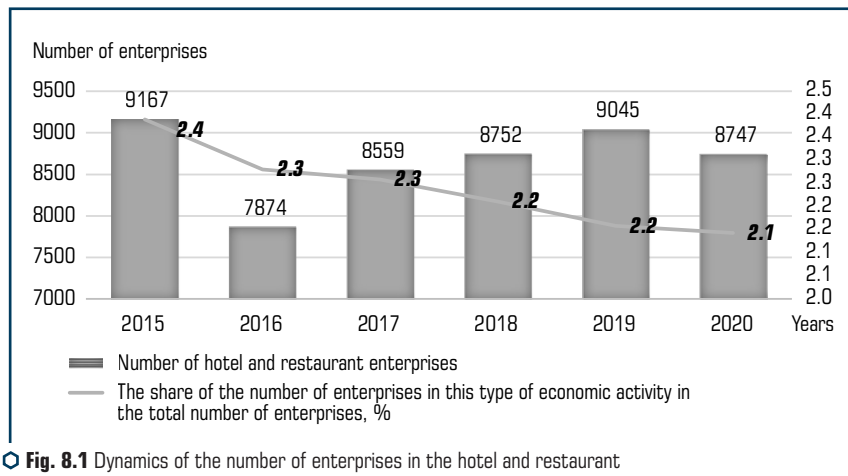
An analysis of the dynamics of the number of enterprises (**Fig. 8.1**) showed that during the study period it changed depending on external factors: military operations in the East of Ukraine, holding the Euro-2017 song contest; beginning of the COVID-19 pandemic. The share of companies in this industry slightly exceeds 2 % of the total number of companies.

According to the data in **Fig. 8.2** shows that the volumes of manufactured and sold products had a positive growth trend by 2019, after which we note a decline in work productivity due to the closure of hospitality enterprises and a decrease in demand under lockdown conditions.

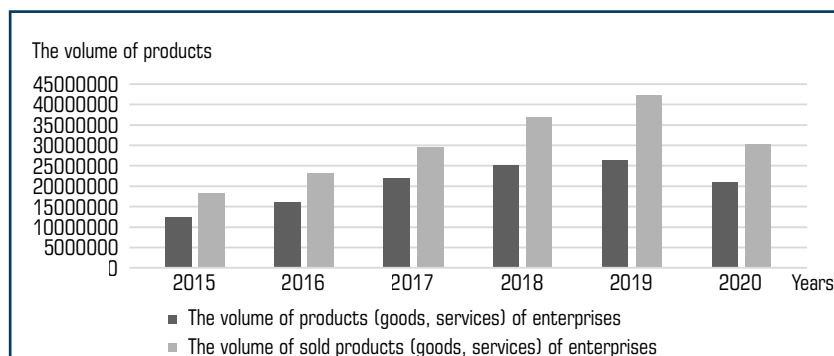
Measures to stabilize the situation on the market were not only the closure of hospitality enterprises, but also a decrease in the number of employees, reorientation to new forms of work, etc. Hotels and restaurants actively implemented new COVID security standards, vaccinated employees, and switched to contactless and takeaway services. The activities of institutions in

the face of a stalemate reduction in foreign visitors have increasingly reoriented themselves to the needs of the domestic consumer, the level of his solvency and needs.

Analysis of the dynamics of the number of employed workers at enterprises in the field of temporary accommodation and catering (**Table 8.1**) shows their growth in 2015-2020. The impact of the coronavirus pandemic led to a reduction in the number of employees in 2020 compared to the previous year by 18.1 %, which is lower even than in 2015. At the same time, there is a similar trend in labor productivity, and the reduction in 2020 was 2.3 %.



**Fig. 8.1** Dynamics of the number of enterprises in the hotel and restaurant business and their share in the total number of enterprises in Ukraine  
 Source: compiled by the authors according to the data [1]



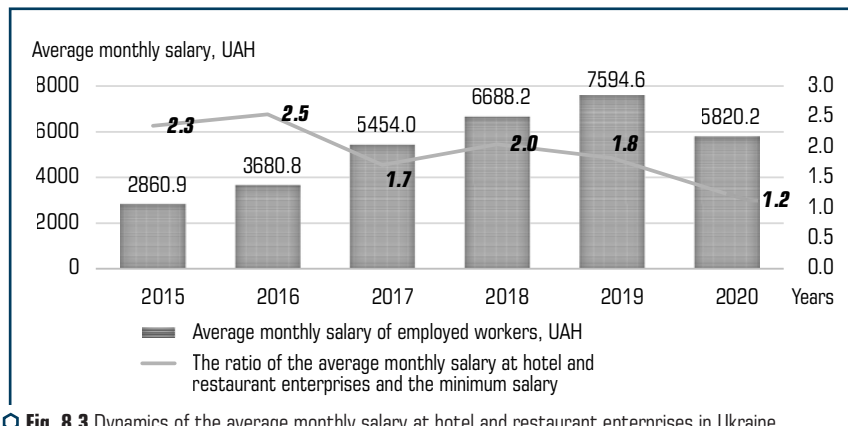
**Fig. 8.2** The volume of manufactured and sold products by hotel and restaurant enterprises in Ukraine  
 Source: compiled by the authors according to the data [1]

● **Table 8.1** Dynamics of the number of employed workers and their productivity at hotel and restaurant enterprises in Ukraine

Years	Number of employed workers at enterprises, persons	Labor productivity of employed workers, thousand UAH/person
2015	87854	140.63
2016	90264	178.47
2017	92881	236.89
2018	98721	254.04
2019	104852	250.96
2020	85861	245.27

Source: compiled by the authors according to the data [1]

The analysis of the average monthly salary at the hotel and restaurant enterprises of Ukraine is presented in **Fig. 8.3**.



● **Fig. 8.3** Dynamics of the average monthly salary at hotel and restaurant enterprises in Ukraine

Source: compiled by the authors according to the data [1]

During 2015–2019 there was an increase in the average monthly salary, while the level of wages in the industry was 1.7–2.5 times higher than the level of the minimum wage in the country. However, as a result of the coronavirus pandemic, hotel and restaurant enterprises have had to resort to cost savings, which led to a decrease in the average monthly salary by 24 % compared to the level of 2019. Given that the payroll is one of the largest expenses of enterprises, the effect.

The dynamics of the net profit of domestic enterprises in the field of temporary accommodation and catering (**Table 8.2**) indicates a negative dynamics of the indicator during 2015–2016 and in 2020. Since 2017, there has been a trend towards profit and its growth by 2.4 times in 2019.

Moreover, the decrease in the share of profitable enterprises in the industry from 71.6 % in 2015 to 70.5 % in 2019 is negative. According to the results of operations in 2020, the enterprises of the industry received a loss, and the share of unprofitable enterprises increased to 41.3 %, which is a consequence of the impact of the coronavirus pandemic.

As for the profitability of operating and all activities (Table 8.3), only in 2017–2019 it acquires positive values and grows, but in 2020 it decreased to the level of –7.9 %.

● **Table 8.2** Net profit of Ukrainian enterprises in the field of temporary accommodation and catering

Years	Total				
	net profit (loss), thousand UAH	enterprises that make a profit		enterprises that suffered losses	
		in % of the total number of enterprises	financial result, thousand UAH	in % of the total number of enterprises	financial result, thousand UAH
2015	–6874869.7	71.6	670590.8	28.4	7545460.5
2016	–1983088.8	71.4	1505475.1	28.6	3488563.9
2017	1773481.4	69.3	4034334.2	30.7	2260852.8
2018	2350861.6	71.1	3858602.2	28.9	1507740.6
2019	4245604.3	70.5	5745343.1	29.5	1499738.8
2020	–4410448.2	58.7	1841886.8	41.3	6252335.0

Source: compiled by the authors according to the data [1]

● **Table 8.3** Profitability of operating and activities of Ukrainian enterprises in the field of temporary accommodation and catering

Years	The level of profitability (loss) of the operating activities of enterprises					The level of profitability (loss) of all activities of enterprises				
	total	incl.				total	incl.			
		large enter- prises	medium enter- prises	small enter- prises	of which microen- terprises		large enter- prises	medium enter- prises	small enter- prises	of which microen- terprises
2015	–17.3	c	c	–13.1	–20.6	–22.6	c	c	–26.4	–44.2
2016	–0.8	c	c	–2.6	–6.4	–6.5	c	c	–11.3	–15.4
2017	7.8	c	c	–1.3	–4.3	5.0	c	c	–4.8	–8.3
2018	8.6	c	c	–0.2	–0.5	5.8	c	c	–2.3	–3.5
2019	10.1	c	c	2.4	1.5	9.3	c	c	1.1	0.3
2020	–7.9	c	c	–9.0	–8.7	–11.1	c	c	–15.2	–16.2

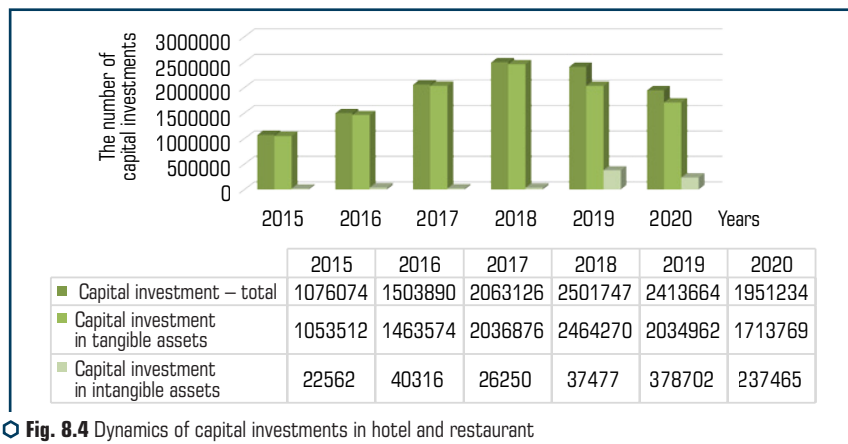
Notes: c – Data are not published in order to ensure compliance with the requirements of the Law of Ukraine On the State Statistics regarding confidentiality of statistical information

Source: compiled by the authors according to the data [1]

However, during 2015–2018 profitability indicators at small enterprises, which make up the vast majority of economic entities, remained negative. In 2019, the profitability, although positive, but in quantitative terms within 1–2 %, which is not enough for the successful functioning and development of enterprises in the industry. According to the results of 2020, the profitability of small enterprises is –9 %.

The results of the analysis of the profit and profitability of domestic enterprises in the hotel and restaurant business allow us to state the problematic nature and low effectiveness of the activities of the majority of small business entities in the industry, which constitute the majority of enterprises.

One of the means of increasing the efficiency of hotel and restaurant enterprises was the attraction of capital investments. As can be seen from **Fig. 8.4** the dynamics of capital investments in the industry until 2019 is characterized positively. The number of capital investments increased, and the main volumes were directed to tangible assets.



**Fig. 8.4** Dynamics of capital investments in hotel and restaurant

enterprises in Ukraine in 2015–2020, thousand UAH

Source: compiled by the authors according to the data [1]

For 2015–2018 the investment growth rate reached 232 %, which contributed to the increase in the number of hotels and restaurants. However, the COVID-19 pandemic had a negative impact on the overall dynamics of investments, and in 2020 they decreased to 1 billion 951 million UAH, or by 19.2 % compared to the level of 2019.

The COVID-19 pandemic contributed to a qualitative transformation of the industry manifested itself in the peculiarities of investing in tangible and intangible assets after 2019. If by 2019 almost 100 % of all investments were in construction, restructuring, equipment, that is, in tangible assets, then in the future the share of investments in intangible assets increases to 15 % in 2019 and 12 % in 2020. At the same time, the lion's share of investments was directed to the purchase of software. The structure of investments in tangible assets has also undergone transformations.

Until 2019, it was dominated by spending related to construction and restructuring. In 2019, the first place in the structure of investments in tangible assets was already occupied by the purchase of equipment and machinery, which reached 43 %.

An analysis of the regional distribution of capital investments allows to state a large share of investments in the largest cities of Ukraine (**Table 8.4**).

So, in 2020, Kyiv accounted for 53 % of all-Ukrainian investments, Dnipro – 18 %, Odesa – 7 %, Lviv – 8 %, Kharkiv – 2 %, respectively, which in total accounts for 88 % of the total capital investments of a hotel and restaurant enterprise.

● **Table 8.4** Dynamics of the efficiency of investments in hotel and restaurant enterprises by regions of Ukraine in 2020

Region name	Profit from the industry in 2020, million UAH	Capital investments at the end of 2019	Investment efficiency, %
Vinnitsia	345.2761	17267	2.00 %
Volyn	158.8665	11989	1.33 %
Dnipropetrovsk	2212.601	494265	0.45 %
Donetsk	347.2244	17806	1.95 %
Zhytomyr	291.8279	1871	15.60 %
Zakarpattia	277.1741	47498	0.58 %
Zaporizhzhia	968.6408	74237	1.30 %
Ivano-Frankivsk	436.1165	14767	2.95 %
Kyiv	2240.173	45401	4.93 %
Kirovohrad	47.6963	2080	2.29 %
Luhansk	54.4729	9614	0.57 %
Lviv	2932.573	220605	1.33 %
Mykolaiv	434.5635	27403	1.59 %
Odesa	2169.943	184561	1.18 %
Poltava	475.2808	24459	1.94 %
Rivne	147.5185	2642	5.58 %
Sumy	216.7335	1723	12.58 %
Ternopil	92.9305	31653	0.29 %
Kharkiv	1868.776	44954	4.16 %
Kherson	427.6567	16566	2.58 %
Khmelnitsky	145.9297	5963	2.45 %
Cherkasy	212.8042	4342	4.90 %
Chernivtsi	150.6578	4637	3.25 %
Chernihiv	338.3692	5215	6.49 %
Kyiv City	11754.579	1520660	0.77 %

Source: compiled by the authors according to the data [1]

An analysis of the effectiveness of investments by regions showed that the efficiency of investments in the largest cities of Ukraine was rather low and on average from 1 to 4 %. At the same time, in the Zhytomyr region, the return on investment is 15.6 %, in the Sumy region – 12 %, in the Chernihiv region – 6 %. Therefore, it can be stated that, in terms of the structure of investments, a large share falls on large cities, however, the highest return on investment was observed in other regions.

Consequently, the hotel and restaurant enterprises of Ukraine during 2015–2020 were characterized by ambiguous development trends. The global COVID-19 pandemic negatively affected the development of the hotel and restaurant industry, which was manifested in a reduction in the number of enterprises, a deterioration in their financial results, a reduction in staff and their wages, a decrease in the volume of investments and a restructuring of their structure.

## 8.2 SUBSTANTIATION OF THE METHODOLOGY FOR ASSESSING THE ECONOMIC SECURITY OF ENTERPRISES IN THE HOTEL AND RESTAURANT BUSINESS

Some issues of economic security of hotel and restaurant enterprises were considered in their scientific works by foreign and domestic researchers.

Golovko, O. argues that «the economic security of the hotel and restaurant business is the state of protection of the vital interests of buildings from internal and external threats (sources of danger), formed by the administration and the hotel staff or the relevant restaurant services through the implementation of a system of legal, economic, organizational, engineering, technical and socio-psychological character» [2].

Ribun, M. analyzed the security of hospitality enterprises as an object of scientific research [3]. Gadetska, Z. concretizes modern approaches to the creation of a security system in hotels in Ukraine and the Cherkasy region [4]. Gavlovskaya, N. in her research lays the theoretical basis for the system of economic security of enterprises in the hotel and restaurant sector [5]. Rogovoy's, A. research is devoted to solving the problem of forming the content of the project of organizing a security system in the hotel business [6].

Bievets, A. studied the factors of the emergence of threats to economic security in the hotel and restaurant business and proposed a comprehensive provision of economic security at the macro, meso and micro levels [7].

Yashchuk, V., Gladyshev, T. in the study [8] they emphasize that «a feature of the system of economic security of hotel and restaurant enterprises is that it must ensure the protection of the enterprise in all areas and areas of activity.» Thus, the system of economic security of hotel and restaurant enterprises includes the following security subsystems: financial, intellectual and personnel, market, product, information, power, legal, technical and technological.

In [9], a strategic direction for improving economic security of hotel and restaurant business and measures for the implementation of conceptual foundations of economic security was proposed.



Wolff, K., Larsen, S. and Øgaard, T. (2019) [10] in their scientific work explore the perception of tourists of risks that threaten their security during the planning and implementation of a tourist trip, and prove the inappropriateness of considering the risk perceived by tourists as the estimated probability of its implementation.

An analysis of the scientific literature [2–12] showed that there are various approaches to assessing the economic security of enterprises: using evaluation indicators, resource-functional, program-targeted management and development, using a matrix of dynamic financial equilibrium, the approach of a comprehensive assessment of the economic security of an enterprise and normative plural values of financial and economic indicators. A thorough analysis of existing approaches to assessing the economic security of enterprises of various industries has made it possible to establish that today there is still no single approach that would allow researchers to perform a comprehensive assessment of the security of a selected enterprise. The existing methods offer a different composition of indicators; they do not contain guidelines for an integral indicator of the level of economic security, which complicates analytical and management procedures. Uncertainty in determining the composition of the evaluation criteria for economic security, their gradation and interpretation is problematic.

Therefore, there is an objective need to develop and further improve the methodological base for assessing the economic security of enterprises in the hotel and restaurant business.

For the purpose of a comprehensive assessment of the level of economic security of hotel and restaurant enterprises, it is advisable to use the methods of mathematical analysis, in particular taxonomic analysis. The advantage of the taxonomic method is the standardization of indicators, as a result of which the properties of the object, described by different qualitative and quantitative indicators, are converted into a single standardized measurement system.

The taxonomy method is used in the works of foreign and domestic scientists to study various aspects of strategic management, including in the hospitality industry. Yes, in the work of Bowen, D. T. [13] used taxonomic analysis to formulate the marketing strategy of hotel and restaurant establishments. The authors created regression models for each of three different grouping methods (taxonomic, policy, and industry) that used ROI as the dependent variable.

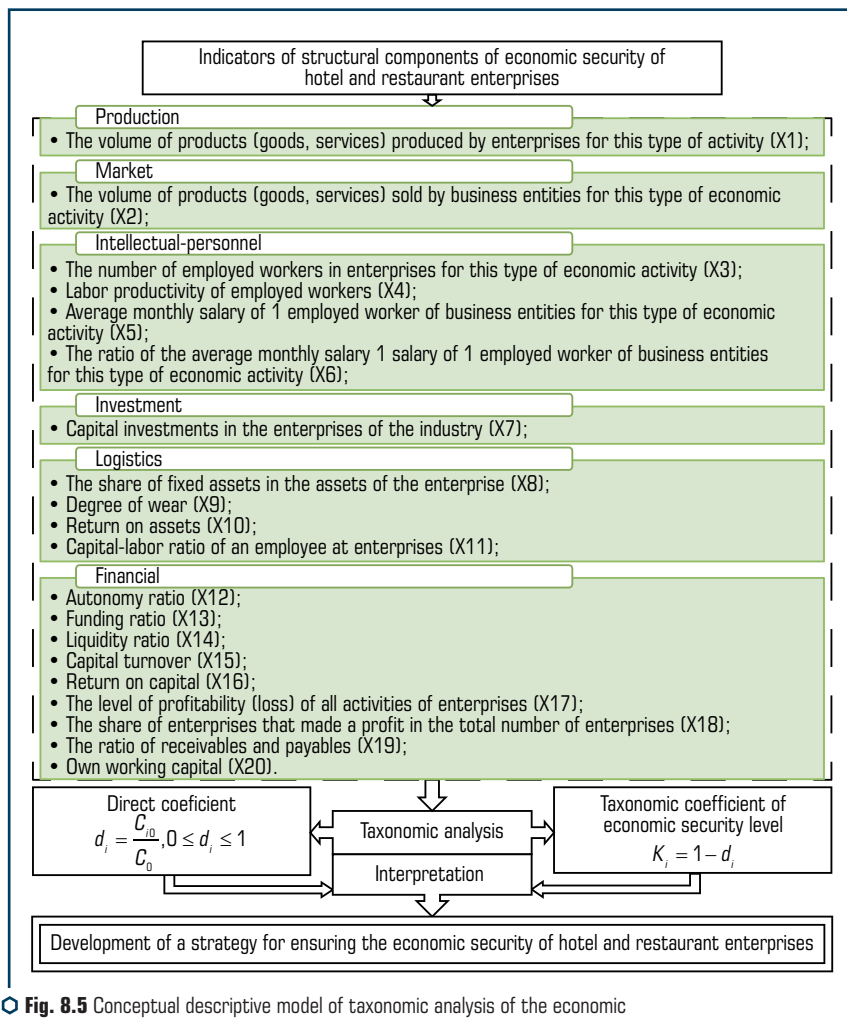
The work [14] presents a taxonomic analysis that includes seven practical indicators and a decision tree to measure the application of Revenue Management for various enterprises.

In the article by Shikina, O. [15] considered the application of taxonomic analysis as a method for assessing the competitiveness of small hotels in Odesa.

In the work of Nikolaichuk, O., Pryimak, N., Nykyforov, R., Romanykha, O. [16] application of taxonomy method for diagnosing the development strategy of hotel and restaurant industry has been substantiated.

The taxonomic indicator is calculated according to the classical method of taxonomic analysis [17]: formation of the observation matrix, standardization of the values of the observation matrix parts, identification of the reference vector, determination of the distance between individual observations and the reference vector, calculation of the taxonomic coefficient.

When substantiating the components and indicators of the structural components of the economic security of hotel and restaurant enterprises, the existing scientific approaches to the composition of the components and indicators of economic security, the information base for analysis that is available in the public domain and the ability to measure indicators (**Fig. 8.5**) are taken into account.



**Fig. 8.5** Conceptual descriptive model of taxonomic analysis of the economic security of enterprises in the hotel and restaurant business  
Source: built by the authors

Taking into account the indicators of dominant areas that affect the economic security of hotel and restaurant enterprises, we have proposed a conceptual descriptive model for a taxonomic analysis of the economic security of enterprises in the hotel and restaurant industry, shown in **Fig. 8.5**.

The reduction of a number of indicators with different characteristics to a single generalizing indicator makes it possible to determine the difference between the achieved state and the comparison base for the group of indicators as a whole.

### 8.3 ASSESSMENT OF THE ECONOMIC SECURITY OF ENTERPRISES IN THE HOTEL AND RESTAURANT BUSINESS

On the basis of the conceptual descriptive model of taxonomic analysis proposed by us, the taxonomic coefficients of the level of economic security of the hotel and restaurant business enterprises were identified by structural components.

Data sample for 2015–2020 are presented in **Table 8.5**.

Obtained from the **Table 8.5** data allowed us to determine the reference vector: for stimulating factors – the maximum value of the standardized indicator; for dissimulators – the minimum value. According to the selected indicators-determinants of the economic security of the hotel and restaurant business, all factors are stimulants, with the exception of the financing ratio and the depreciation ratio of fixed assets.

According to **Table 8.6**, it is possible to conclude that the indicators for 2015, 2018 and 2019 serve as the most standard. The largest number of indicators corresponds to 2019, the reference indicators here are the following: the volume of products (goods, services) produced by business entities for this type of economic activity (X1); the volume of products (goods, services) sold by business entities for this type of economic activity (X2); the number of employed workers in enterprises for this type of economic activity (X3); return on assets (X10); autonomy coefficient (X12); capital turnover (X15); return on equity, (X16); the level of profitability (loss) of all activities of enterprises (X17).

Based on the obtained reference values of key indicators of economic security of hotel and restaurant enterprises for 2015–2020, the distance between individual observations and the reference vector ( $C_n$ ) and the deviation of the first year indicators from the reference were determined.

At the next stage, taxonomic coefficients of the level of economic security of hotel and restaurant enterprises for 2015–2020 ( $K_j$ ) were calculated according to the one shown in **Fig. 8.5** scheme (**Fig. 8.6**).

The values of the taxonomic indicator take values from 0 to 1. The values of the taxonomic indicator close to 0 indicate an unsatisfactory state relative to the optimal indicators. Conversely, if the value of the taxonomic indicator is close to 1, this indicates a positive situation in a certain period compared to others. The calculation results are given in **Table 8.7**.

● **Table 8.5** Initial data for calculating the taxonomic indicator of the level of economic security of the enterprises of the hotel and restaurant business in Ukraine

Characteristics	Year	Year							Mean value	Standard deviation
		2015	2016	2017	2018	2019	2020			
1		2	3	4	5	6	7	8	9	
The volume of manufactured products (goods, services) of enterprises, thousand UAH	X1	12355016.9	16109079.0	22002535.2	25079282.2	26313931.7	21059143.8	20486498.13	5970096.66	
The volume of sold products (goods, services) of enterprises, thousand UAH	X2	18250036.6	23083768.0	29548159.7	36699962.5	42201850.0	30214988.9	29999794.28	9745067.41	
Number of employed workers in enterprises	X3	87854	90264	92881	98721	104852	85861	93405.5	6871.25	
Labor productivity of employed workers, thousand UAH/person	X4	140.63	178.47	236.89	254.04	250.96	245.27	217.71	50.31	
The average monthly salary of employed workers, UAH	X5	2860.9	3680.8	5454.0	6688.2	7594.6	5820.2	5349.8	1986.0	
The ratio of the average monthly and minimum salaries	X6	2.35	2.54	1.70	2.04	1.82	1.23	1.95	0.35	
Capital investments of enterprises, thousand UAH	X7	1076074	1503890	2063126	2501747	2413664	1960740	1919873.5	609842.8	
Share of fixed assets in property, %	X8	52.66	46.81	40.20	39.55	41.56	41.09	43.6	5.5	

● Continuation of Table 8.5

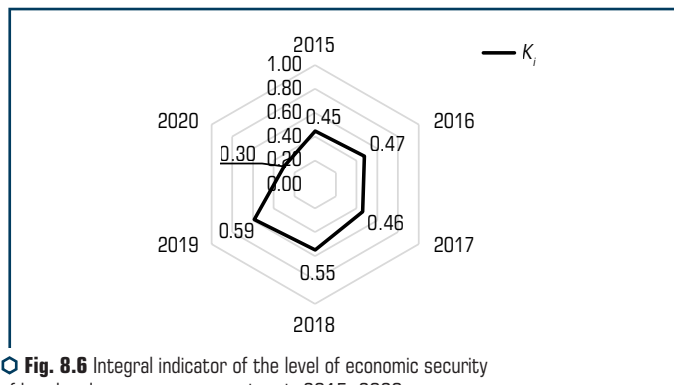
1	2	3	4	5	6	7	8	9
FA wear coefficient, %	X9 32.49	34.94	36.49	34.86	36.15	37.02	35.3	1.6
Capital productivity, thousand UAH/UAH	X10 1.17	1.44	1.87	2.01	2.09	1.34	1.7	0.4
The capital-labor ratio, thousand UAH/person	X11 177.95	177.54	170.34	184.61	192.96	262.59	194.3	8.5
Autonomy ratio	X12 -0.10	-0.18	-0.07	0.06	0.13	0.10	0.0	0.1
Debt to equity ratio (financing)	X13 -10.52	-6.52	-15.51	15.38	6.89	9.17	-0.2	12.8
Liquidity ratio	X14 1.78	1.59	1.64	1.57	1.55	1.66	1.6	0.1
Capital turnover	X15 0.61	0.67	0.75	0.80	0.87	0.55	0.7	0.1
Return on equity, enterprises %	X16 -23.16	-5.79	4.51	5.10	8.72	-8.04	-3.1	12.9
The level of profitability (unprofitability) of all activities of enterprises, %	X17 -22.6	-6.5	5.0	5.8	9.3	-11.1	-3.4	13.1
Share of profit-making enterprises in the total number of enterprises, %	X18 71.6	71.4	69.3	71.1	70.5	58.7	68.8	0.9
Share of profit-making enterprises in the total number of enterprises, %	X19 0.29	0.33	0.33	0.33	0.31	0.32	0.3	0.0
Own working capital, thousand UAH	X20 -23075788.9	-28201335.8	-27314116.1	-26708705.1	-24275239.3	-29654664.7	-26538308.3	2154342.1

Source: compiled by the authors according to the data [1]

● **Table 8.6** Matrix of standardized characteristics

	Year						Reference ( $Z_{0j}$ ) (stimulator – max; stimulator – min)
	2015	2016	2017	2018	2019	2020	
X1	-1.36	-0.73	0.25	0.77	0.98	0.10	0.98
X2	-1.21	-0.71	-0.05	0.69	1.25	0.02	1.25
X3	-0.81	-0.46	-0.08	0.77	1.67	-1.10	1.67
X4	-1.53	-0.78	0.38	0.72	0.66	0.55	0.72
X5	-1.25	-0.84	0.05	0.67	1.13	0.24	1.13
X6	1.14	1.68	-0.69	0.27	-0.36	-2.04	1.68
X7	-1.38	-0.68	0.23	0.95	0.81	0.07	0.95
X8	1.63	0.57	-0.62	-0.74	-0.38	-0.46	1.63
X9	<b>-1.81</b>	-0.24	0.74	-0.30	0.53	1.08	-1.81
X10	-1.23	-0.54	0.54	0.91	1.10	-0.79	1.10
X11	-1.92	-1.97	-2.82	-1.14	-0.16	<b>8.01</b>	8.01
X12	-0.75	-1.35	-0.46	0.58	1.10	0.88	1.10
X13	-0.81	-0.49	<b>-1.20</b>	1.21	0.55	0.73	-1.20
X14	<b>1.60</b>	-0.50	0.12	-0.69	-0.86	0.33	1.60
X15	-0.95	-0.35	0.42	0.88	1.59	-1.59	1.59
X16	-1.55	-0.21	0.59	0.63	0.91	-0.38	0.91
X17	-1.47	-0.24	0.64	0.70	0.97	-0.59	0.97
X18	<b>3.04</b>	2.86	0.58	2.52	1.85	-10.85	3.04
X19	-1.57	0.73	0.56	0.76	-0.30	-0.18	0.76
X20	<b>1.61</b>	-0.77	-0.36	-0.08	1.05	-1.45	1.61

Source: compiled by the authors according to the data [1]



⬢ **Fig. 8.6** Integral indicator of the level of economic security of hotel and restaurant enterprises in 2015–2020

Source: built by the authors

● **Table 8.7** Determination of the distance between the indicator and the standard

Year	$\sum_{i=1}^m (Z_{ij} - Z_{0j})^2$	$C_{i0}$	$C_0$	$d_i$	$K_i$
2015	165.80	12.88	12.34	0.55	0.45
2016	149.09	12.21	12.34	0.53	0.47
2017	158.00	12.57	12.34	0.54	0.46
2018	110.13	10.49	12.34	0.45	0.55
2019	92.43	9.61	12.34	0.41	0.59
2020	264.55	16.26	12.34	0.70	0.30

Source: calculated by the author from the data [1]

The obtained values of the integral indicator of the level of economic security of hotel and restaurant enterprises indicate its unstable state. During 2015–2017 the value of the indicator fluctuated within 0.45–0.47. These trends are explained by the complication of the functioning of hotel and restaurant enterprises due to the fall in the tourist flow as a result of the annexation of Crimea, military events in the East of the country and the difficult socio-economic situation.

Since 2018, there has been a gradual increase in the integral indicator of the economic security of hotel and restaurant enterprises in Ukraine. The highest value of the taxonomic indicator was recorded in 2019 – 0.59, however, it indicates an unsatisfactory level of economic security of the enterprises under study. In 2020, as a result of the coronavirus pandemic, the taxonomic indicator of the level of economic security decreased to 0.3, which is the minimum level of the indicator during the entire study period.

#### 8.4 RATIONALE FOR CHOOSING A STRATEGY TO ENSURE THE ECONOMIC SECURITY OF ENTERPRISES IN THE HOTEL AND RESTAURANT BUSINESS

The use of economic and mathematical methods made it possible to determine a comprehensive indicator of the level of economic security of hotel and restaurant enterprises in 2015–2020.

The interpretation of the values of the integral indicator of the economic security of hotel and restaurant enterprises is given in **Table 8.8**.

Thus, five main strategies for ensuring the economic security of enterprises in the hotel and restaurant industry have been identified, namely:

- a support strategy that meets an absolutely safe level of economic security. Therefore, the main management decisions are measures aimed at maintaining the achieved level of economic security, monitoring the results of activities and preventing the emergence of possible threats to the economic interests of the enterprise;
- strengthening strategy that meets a safe level of economic security and is aimed at taking measures to strengthen one of the indicators of the economic security component of the enterprise;

- adaptation strategy – aimed at carrying out measures to adapt the components of the economic security of enterprises to changes in the external environment;
- a transformation strategy that corresponds to a dangerous level of economic security and provides for changes in the type of activity, market transformation, involving the use of innovations, new technologies, the development of new activities, as well as making the necessary changes to the economic security components of enterprises. Taking into account the specifics of the economic security factors of each enterprise, it is advisable to form the directions of transformation processes based on the monitoring of individual components and the general level of its economic security;
- a recovery strategy associated with the implementation of measures aimed at increasing the level of economic security to the desired level for the enterprise and strengthening all components of the economic security of the enterprise.

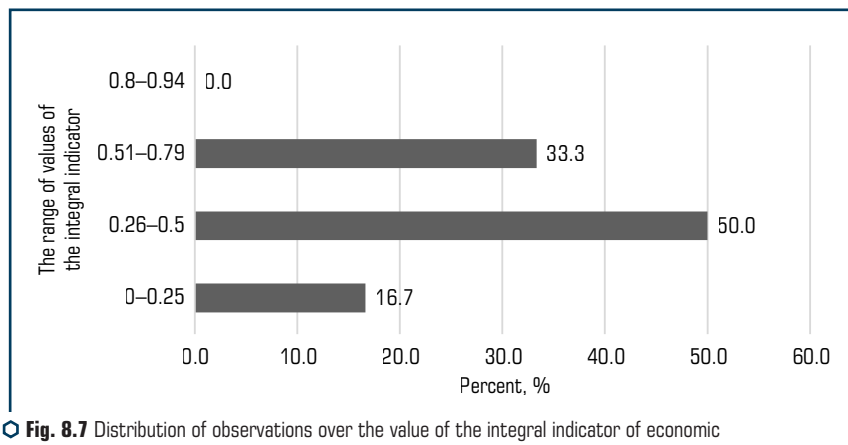
● **Table 8.8** Interpretation of the values of the integral indicator of economic security of hotel and restaurant enterprises in Ukraine and the corresponding strategy for its provision

The value of the integral indicator	Degree of compliance of economic security determinants with reference values	The level of economic security of hotel and restaurant enterprises in Ukraine	Appropriate economic security strategy	Management decisions to ensure the economic security of enterprises
0.95–1	Parameters approaching maximum values	Absolutely safe	Support strategy	<ul style="list-style-type: none"> <li>– maintaining the achieved level of economic security;</li> <li>– control over the results of activities;</li> <li>– measures to prevent the emergence of possible threats to the economic interests of the hotel and restaurant enterprise</li> </ul>
0.8–0.94	Most of the parameters are at the level of sufficiently high values	Safe	Amplification strategy	<ul style="list-style-type: none"> <li>– holding events for strengthening one of the indicators of individual components of the economic security of the hotel and restaurant enterprises</li> </ul>
0.51–0.79	Most of the parameters are at a satisfactory level, some indicators may correspond to a sufficient level	Safe enough	Adaptation strategy	<ul style="list-style-type: none"> <li>– measures to adapt the components of the economic security of a hotel and restaurant enterprise to changes in the external environment</li> </ul>
0.26–0.5	Most indicators are low level	Dangerous	Transformation strategy	<ul style="list-style-type: none"> <li>– carrying out market transformation changes;</li> <li>– holding necessary changes to strengthen the unsatisfactory components of the economic security of enterprises</li> </ul>
less than 0.25	All indicators are low level	Crisis	Recovery strategy	<ul style="list-style-type: none"> <li>– measures aimed at increasing the level of economic security and strengthening all components of the enterprise's economic security</li> </ul>

Source: built by the authors



According to the proposed in **Table 8.8** approaches to identifying the level of economic security and the corresponding strategy for its provision, the distribution of observations over the value of the integral indicator of economic security of hotel and restaurant enterprises in Ukraine was carried out (**Fig. 8.7**).



**Fig. 8.7** Distribution of observations over the value of the integral indicator of economic security of hotel and restaurant enterprises in Ukraine for 2015–2020

*Source: built by the authors*

The largest share is occupied by observations that correspond to the dangerous state of economic security of hotel and restaurant enterprises – 50 %. In second place with a specific weight of 33.3 % are observations corresponding to a fairly safe state of economic security of enterprises. The smallest number of observations falls on periods with a crisis state of economic security (only 16.7 %). At the same time, during the entire study period, there is by no means a safe state of economic security of hotel and restaurant enterprises.

The worst state of economic security was observed in 2020, which actualizes the need to develop management decisions to ensure the economic security of hotel and restaurant enterprises in Ukraine.

It should be emphasized that the strategy for ensuring the economic security of hotel and restaurant enterprises should be adequate to the economic situation in the country and consistent with the country's security strategy.

In view of this, it is necessary to take into account the impact of the russian war against Ukraine on the development of tourism and hospitality both at the global level and at the level of Ukraine.

According to the WTTC, in 2019 tourism accounted for 6.3 % of the Ukrainian economy and 6.9 % of total employment with international visitor spending, which accounted for 3.7 % of total exports (WTTC, 2022) [18].

Russia's military offensive in Ukraine represents a downside risk for international tourism. This should extend to general low prices and vehicles, accelerated uncertainty and led to the destruction of trade in European Europe [19].

Analysis of previous wars, such as the Gulf War and the Balkan conflict of the 1990s, suggests that the war in Ukraine will only have a short-term impact on global tourism. However, in the event of a prolonged war or its spread beyond Ukraine, global tourism can expect a sharper and longer recovery from the fall, more like the post-9/11 period. In the short term, the war will contribute to the sector's uneven recovery from the pandemic and Omicron. The key channels through which the war could affect global tourism are air space restrictions and security concerns and higher fuel prices.

As for the situation in the tourism and hospitality industry in Ukraine, according to World Bank forecasts, as a result of the war with Russia, inbound tourism to Ukraine will be seriously affected and will probably continue to suffer until the conflict is completely over. As in other post-conflict states, Ukraine's tourism and hospitality sector is likely to take years to recover from the military conflict [18, 19].

Taking into account external dangers, the operating conditions of hotel and restaurant enterprises are likely to worsen; therefore, strategic decisions to restore the economic security of these enterprises are especially relevant.

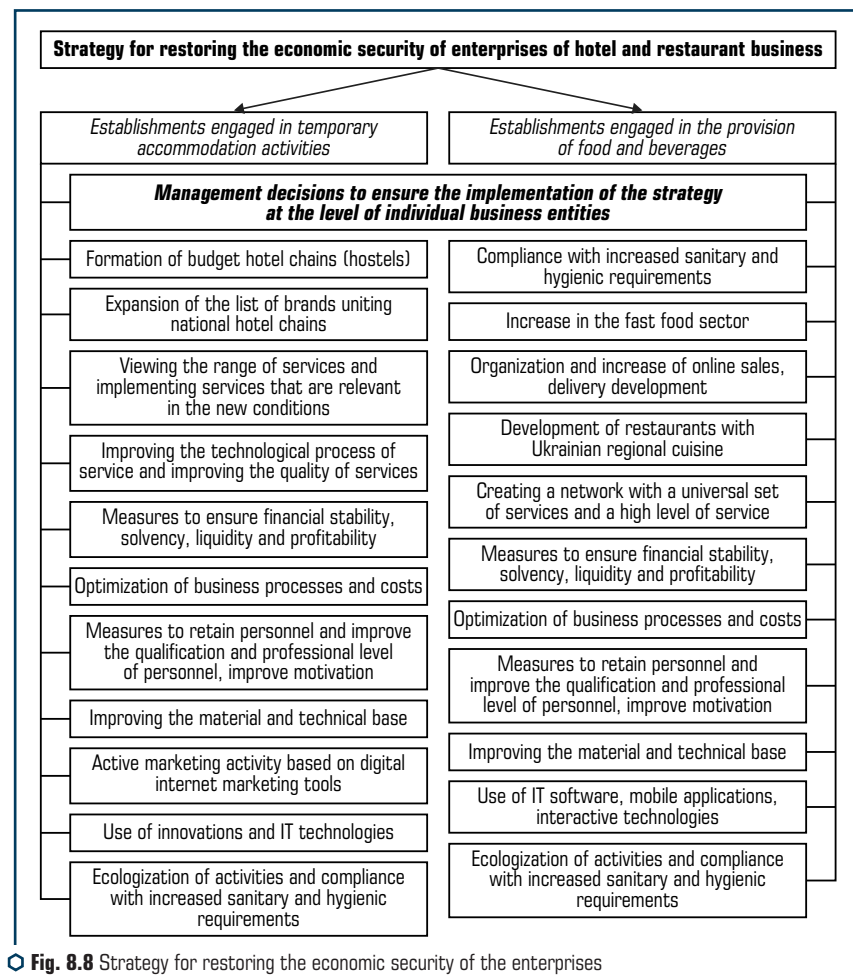
The proposed management decisions as part of the implementation of the strategy for restoring the economic security of hotel and restaurant enterprises are shown in **Fig. 8.8**.

The main strategic priorities for restoring the economic security of hotel and restaurant enterprises are: the development of new establishments, the expansion of the range of products/services, the improvement of the quality of services based on compliance with international service standards, the use of innovations, active marketing activities based on digital Internet marketing tools, the improvement of qualification and professional level of personnel, improvement of the motivational mechanism, optimization of business processes, improvement of the material and technical base, cost reduction, restoration of solvency, liquidity and ensuring profitable activities.

The implementation of the proposed strategy will increase the level of economic security of hotel and restaurant enterprises, will contribute to their transformation into modern ones based on innovations and IT technologies, optimal use of resources and greening of activities.

The scientific novelty of the results obtained lies in the improvement of the approach to the development of a strategy for ensuring the economic security of hotel and restaurant enterprises, which, unlike the existing ones, takes into account the level of economic security of enterprises, which will make it possible to form a set of recommendations for choosing a strategy for ensuring economic security, taking into account the economic state of the enterprise.

Directions for the implementation of these recommendations may be the subject of further scientific research. The results of the study can be used by domestic hotel and restaurant enterprises in the development and selection of a strategy for ensuring economic security.



**Fig. 8.8** Strategy for restoring the economic security of the enterprises of the hotel and restaurant business in Ukraine

Source: built by the authors

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