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MANAGEMENT OF BUSINESS RISKS OF WHOLESALE COMPANIES

This article describes the peculiarities of the formation and modeling of the enterprise risk management system in modern conditions. The main purpose of the research is further development of theoretical and methodical principles and development of practical recommendations aimed at improvement of management of business risks of wholesale enterprises. The critical analysis of literature sources and approaches to solving problems of enterprise risk management testifies to the lack of attention of scientists of the present-day to the investigated problem in the sphere of activity of enterprises of wholesale trade. The urgency of this problem is caused by the existing losses of wholesale companies due to imperfect management as a result of the influence of various business risks. The methodological basis of the research is the system of methods used to obtain the final results: theoretical generalization, scientific abstraction and comparison – to deepen the essence of the concept of “business risk”; analysis and synthesis, grouping – for classification of business risks in the sphere of wholesale trade; methods of analysis, synthesis and logical generalization – to obtain conclusions during determination of the state and problems of realization of business activity in the sphere of wholesale trade of enterprises of Ukraine; systematic approach – for improvement of system of management of business risks of enterprises of wholesale trade on the basis of commercial values. The object of the research is the business risk in the wholesale trade environment. In the article the further development of the risk-based apparatus has been made, the negative consequences of the impact of business risks on the activities of the wholesale trade enterprises have been clarified, the enterprise risk management system of the enterprises has been built, which will reflect an integrated approach to its realization, practical recommendations on the formation of a model of management of business risks of the wholesale trade enterprises on the basis of commercial values. The results of the survey can be useful for business structures, which are focused on improving the management of business risks.

Key words: *business risk, business risk management system, business risk management model, wholesale trade, enterprise.*

УПРАВЛІННЯ ПІДПРИЄМНИЦЬКИМИ РИЗИКАМИ ПІДПРИЄМСТВ ОПТОВОЇ ТОРГІВЛІ

У цій статті розкрито особливості формування та моделювання системи управління підприємницькими ризиками підприємств у сучасних умовах. Основною метою дослідження є подальший розвиток теоретико-методичних засад і розроблення практичних рекомендацій, спрямованих на удосконалення управління підприємницькими ризиками підприємств оптової торгівлі. Критичний аналіз літературних джерел та підходів до вирішення проблем управління підприємницькими ризиками підприємств свідчить про недостатність уваги вчених сучасності до досліджуваної проблематики у сфері діяльності підприємств оптової торгівлі. Актуальність даної проблеми зумовлена наявними втратами підприємств оптової торгівлі через недосконале управління як результат впливу різноманітних підприємницьких ризиків. Методологічну основу дослідження становить система застосованих для отримання кінцевих результатів методів: теоретичного узагальнення, наукової абстракції та порівняння – для поглиблення сутності поняття “підприємницький ризик”; аналізу та синтезу, групування – для класифікації підприємницьких ризиків у сфері оптової торгівлі; методи аналізу, синтезу і логічного узагальнення – для отримання висновків під час визначення стану та проблем здійснення підприємницької діяльності в сфері оптової торгівлі підприємств України; системний – для удосконалення системи управління підприємницькими ризиками підприємств оптової торгівлі на засадах комерційних цінностей. Об'єктом дослідження є підприємницький ризик в сфері оптової торгівлі. У статті набув подальшого розвитку понятійний апарат ризикології, уточнено негативні наслідки впливу підприємницьких ризиків на діяльність підприємств оптової торгівлі, побудовано систему управління

підприємницькими ризиками підприємств, яка буде відображати інтегрований підхід до її реалізації, розроблено практичні рекомендації щодо формування моделі управління підприємницькими ризиками підприємств оптової торгівлі на засадах комерційних цінностей. Результати дослідження можуть бути корисними для підприємницьких структур, які основні зусилля спрямовують на покращення системи управління підприємницькими ризиками.

Ключові слова: підприємницький ризик, система управління підприємницькими ризиками, модель управління підприємницькими ризиками, оптова торгівля, підприємство.

Introduction. The economic activity in the field of commodity turnover, which includes the purchase and sale of goods under contracts for delivery in batches for their further sale to the end consumer through retail trade or for production consumption and the provision of related services (*National Standard of Ukraine, 2005*), is one of the most important areas of entrepreneurial activity in Ukraine. Thus, as of the end of 2021, the volume of wholesale trade in Ukraine amounted to UAH 3377409.4 million, which is 70% of the total commodity turnover (*State Statistics Service of Ukraine, 2022a*). At the same time, the risks for enterprises engaged in wholesale trade are significant due to the constant changes in consumer needs and the nature of demand for products, existing threats in the conditions of unpredictable factors, significant market competition, etc. This requires specialized management of business risks capable of preventing additional losses during the conduct of such business activities, which is extremely relevant for today.

This study was carried out within the framework of the research topic “Management Innovations in the Methodology of Solving Problems of Entrepreneurship Development and Ensuring Business Excellence” (0121U108254).

Literature Review. The scientific works of many modern scientists are dedicated to the study of issues and solving problems of business risk management. Thus, a number of scientists came to the conclusion that business risk should be associated with any field of activity (*Lys and Dziurakh, 2018*), additional resource costs, potential opportunities for not receiving income or profit, conducting activities under unpredictable conditions (*Varaksina and Kruhova, 2021*). At the same time, business risk is both “an unfavorable situation that may lead to failure to obtain the planned results of the enterprise's activities, and its consequences can be quantified” (*Kovtunen et al., 2018*), and the danger of a potential loss of resources or failure to receive income (*Mykhalchuk and Verbytska, 2015; Nazarenko and Sysolina, 2018*), failures and deviations from the goal contained in selected alternatives of entrepreneurial activity (*Chupryna, 2012; Kovalska and Kryvoviaziuk, 2018*). However, the list of negative consequences of exposure to risks is open and determined by the specifics of the functioning of enterprises, depending on the type of economic activity and the set of conditions and factors affecting such activity. The concept of “business risk” should be considered as a universal category that must be closely interconnected with risk management processes (*Kostyk, 2021*), and the entrepreneur is obliged to assess risks using the available objective information, based on a subjective understanding of the situation, or combining both methods (*Hontareva, 2021*). However, unfavorable situations and the impact of various probable circumstances and conditions can provoke additional losses and other negative consequences, or additional opportunities or benefits (*Stravinska, 2019; Idobaieva, 2021*). Therefore, for more effective management of business risks, it should be considered as a systemic element that has a hierarchical structure and provides a synergistic effect for the development of the enterprise (*Voloshina-Sidei, 2021*).

The mentioned above emphasizes the need for further development of the conceptual apparatus of riskology, clarification of the negative consequences of the impact of business risks on the activities of wholesale companies, the importance of building such a business risk management system of a company that will reflect an integrated approach to its implementation, and the development of practical recommendations for creating of a business risk management model for wholesale companies.

The purpose of the article is the further development of theoretical and methodological principles and the development of practical recommendations aimed at improving the management of business risks of wholesale companies.

Methodology. The theoretical and methodical basis of the conducted research is the key provisions of risk management and entrepreneurship theories. To solve the tasks, the following methods were used in the work: theoretical generalization, scientific abstraction and comparison – to deepen the essence of “business risk” concept; analysis and synthesis, grouping – for classification of business risks in the field of wholesale trade; methods of analysis, synthesis and logical generalization – to obtain conclusions when determining the state and problems of carrying out of business activity in the sphere of wholesale trade of Ukrainian companies; a systemic method – for improvement of the business risks management system of wholesale companies on the basis of commercial values.

Results. The interpretation of the essence of business risk is multifaceted, and the analyzed approaches to defining the concept of “business risk” should be combined based on several characteristics: firstly, risk as a possible danger that negatively affects business activity; secondly, business risk is identified with events or situations that cause or may cause the occurrence of unfavorable events; thirdly, as the activities of business entities to overcome uncertainty; fourth, as the degree or probability of deviation from the planned result (Table 1).

Table 1 – Critical Analysis of the Essence of the Concept of “Business Risk”

Authors	Conceptualization	Advantages	Disadvantages
Varaksina O., Kruhova A., Mykhalchuk A.V., Verbytska K.S., Nazarenko K.M., Sysolina N.P., Hontareva I.V.	as the danger of potentially possible, probable loss of resources or non-receipt of income.	- risk is identified as a key element of business activity; - consequences of risk impact are disclosed;	- causes of risks are not established; - systemic impact of risks on the results of business activity is not determined.
Voloshyna-Sidei V.V.	as the degree or probability of deviation from the desired result through internal and external influence	- probabilistic nature of risk is indicated; - the peculiarities of risk impact are disclosed.	- causes of risks are not established.
Kovtunenکو Yu.V.	as a situation that may lead to failure to achieve planned results of activity	- relevance of quantitative determination of risk impact is indicated - consequences of risk impact are disclosed	- does not link the concept to risk management process.
Lys K.B., Dziurakh Yu.M.	as risk arising in any types of activity.	- existence of risk in any circumstances and types of activity is indicated	- narrow perception of the concept; - nature, consequences, and impact of risks are not disclosed.
Kostyk Ye.P.	as a universal category	- the cause-and-effect nature of the impact of risks is indicated; - relationship with risk management processes is disclosed.	- does not provide a clear definition of the concept; - does not specify the manifestation of risk as possible deviation of parameters from predetermined ones
Idobaieva A.L.	as a combination of circumstances and conditions that can cause negative consequences or additional benefits	- probabilistic nature of risk occurrence is indicated; - causes and consequences of risk impact are disclosed.	- does not link the concept to risk management process.

Source: compiled by the author on the basis of (Varaksina and Kruhova, 2021; Voloshyna-Sidei, 2021; Hontareva, 2021; Idobaieva, 2021; Kovtunenکو and others, 2018; Kostyk, 2021; Lys and Dziurakh, 2018; Mykhalchuk and Verbytska, 2015; Nazarenko and Sysolina, 2018; Stravinska, 2019).

Taking into account the identified advantages and disadvantages of the essence of the researched concept, we propose considering business risk as the the conscious possibility, acknowledged by the subject of business activity, of threats to the loss of resources, income, or profit. This possibility is associated with the probability of disruptions in its operation as a result of circumstances and conditions, the consequences of which are uncertain and are reflected in deviations of management parameters from the basic values.

Considering the drawbacks in defining the species structure and classification of entrepreneurial risks, as well as the need for their further systematization based on defined characteristics, we propose our own classification (Table 2).

Table 2 – Classification of business risks in the wholesale trade sector

Classification Feature	Risk Group	Types of entrepreneurial risks
By sources of occurrence	Internal Risks	Associated with deficiencies in management systems, organization of functioning of trade companies
	External Risks	Associated with the behavior of counterparties and changes in the influence of economic factors
By duration of impact	Permanent Risks	Risks that have a constant threat
	Temporary Risks	Risks that occur for a certain period of time
By scale of impact	Local	Trade system risks
	Industry	Risks associated with the specific of industry development
	Regional	Risks that cover the mesoeconomic level
	National	Risks that cover the macroeconomic level
	International	Global-level risks
By influencing factors	Informational	Risks of accumulating and transfer of data on the state of the market
	Organizational	Risks of concluding and implementing supply contracts
	Technical	Risks of supporting a supplier, retail or commercial customer
	Investment	Risks of uninterrupted investment support for the goods movement process
	Logistical	Risks of inadequate logistical support for the goods movement process
	Customer	Risks of loss or redistribution of the customer base
By risk carriers	Conjunctural	Risks of changing demand for products, external environment, competitive pressure
	Supplier	Risks of selling goods to wholesale buyers
	Intermediary	Risks of transferring goods through intermediary channels
Depending on the type of loss	Retail trade	Risks of selling goods to retail traders
	Material	Risks of resource loss
	Sales	Risks of income shortfall
	Financial	Risks of profit loss
	Management	Risks of not achieving planned performance results

Source: developed by the author

The occurrence of situations that carry risks can lead to both unfavorable (such as losses, missed opportunities) and favorable outcomes (for example, profits) (Chupryna, 2012). The consequences of such impact of business risks in the wholesale trade sector (Table 3) directly depend on the effectiveness of the company’s response to the factors that caused their occurrence and spread.

The only reliable means to avoid the emergence of causes and the occurrence of consequences of business risks in the wholesale trade sector is the implementation of effective risk management. The process of risk management in modern business conditions should be based on an integrated approach, which focuses attention on creating sustainable competitive advantages for the company, provides optimizing risk management costs and improving task execution (Strelbytska and Bondar, 2011). Ensuring proper integration of the risk management system into the management system of wholesale companies is also an important aspect, which requires a corresponding identification of their risks (Kuchmieiev, 2021). Automation of such a system ensures the optimization of business risk management, which enables the creation of a

structured list of typical risks, conducting of their analysis, determining risk response measures, and implementing risk management methods (Kalach and Panchenko, 2021).

Table 3 – Negative Consequences of the Impact of Business Risks on Wholesale Companies

Consequences for Product Manufacturers – Suppliers	Suppliers Consequences for Product Buyers
Emergence of product shortages or surpluses	Problems in planning procurement processes
Reduction in sales volume	Reduction in purchasing volume
Increase in transportation costs	Increase in logistics costs
Increase in storage costs	Reduction in purchasing volume due to lack of own funds
Limited opportunities for providing additional services	Deterioration in customer service
Financial problems in the activity	Deterioration in product policy
Delayed market information dissemination	Additional expenses for acquiring information
Decrease in demand for suppliers' products	Reduction in customer base

Source: summarized by the author

For this purpose, we suggest the use of such a system of managing business risks of a company, which will reflect an integrated approach to its implementation (Fig. 1).

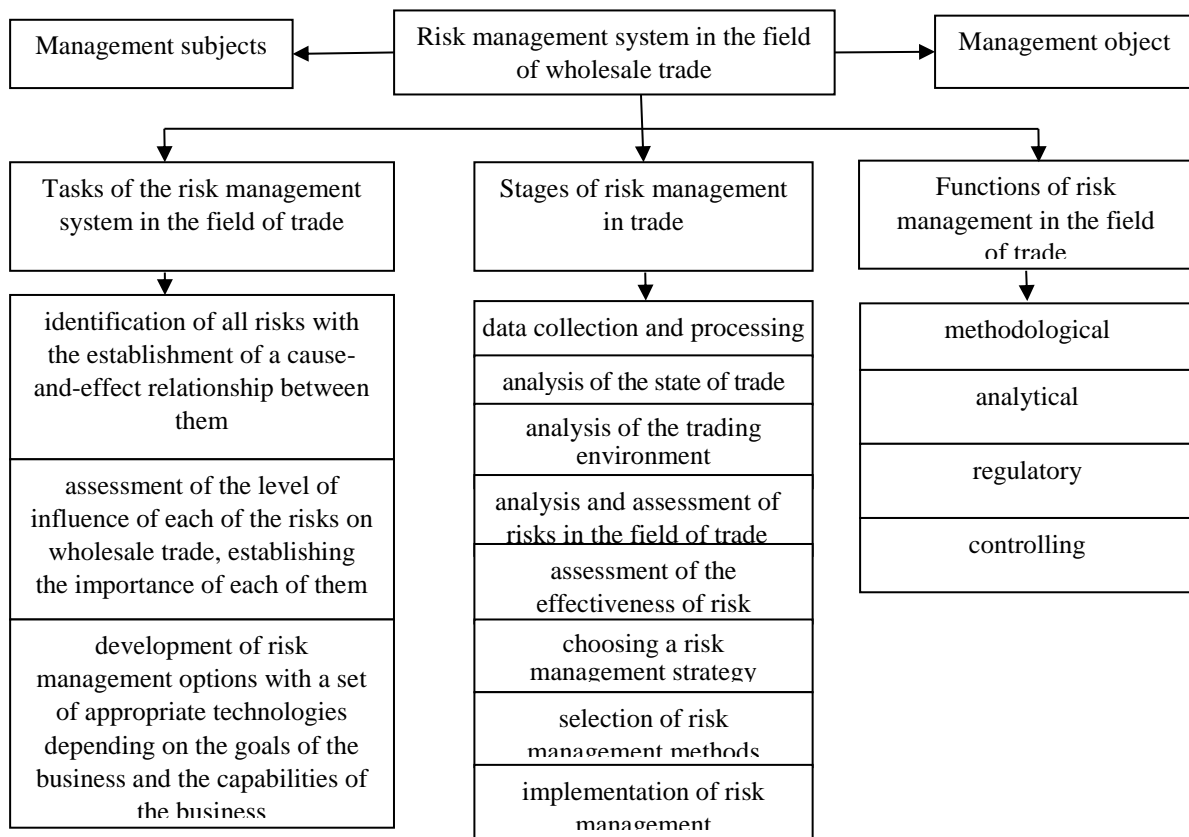


Fig. 1. Business Risk Management System in the Wholesale Trade Sector

Source: created based on (Kryvoviazuk and others, 2018; Kryvoviazuk, 2022, a)

Such a system should be interconnected with the strategy and tactics of the enterprise that implements activities in the field of wholesale trade, it should be based on the main statements of IES 31010:2019 Risk Management – Risk assessment techniques (ISO, 2019).

Further research was conducted on the materials of Ukrainian wholesale companies. An analysis of the state of their business activity in the period 2014–2021 revealed: a gradual slowdown in the development of wholesale trade from 2015 (the growth rate was 25.9%) to 2019 (4.8%); minor changes in the structure of turnover of wholesale companies (Table 4). It was

established that the current state of business activity in the field of wholesale trade in the conditions of the spread of the COVID-19 pandemic revealed the growth of turnover volumes at a much faster rate compared to previous years (by 6.0% in 2020 and 28.0% in 2021). This is explained by the growing need for faster delivery of essential goods to consumers (*Kryvoviazuk, 2022, b*).

Table 4 – Structure of Wholesale Turnover in Ukrainian Wholesale Trade Enterprises

Metrics	2014	2015	2016	2017	2018	2019	2020	2021
1. Wholesale turnover, mUAH	987957.0	1244220.8	1555965.7	1908670.6	2215367.4	2322176.9	2462558.8	3153187.3
- Food products	194669.3	224268.9	252771.0	314047.6	356102.8	392139.9	437577.3	490576.1
- Non-food products	793287.7	1019951.9	1303194.7	1594623.0	1859264.6	1930037.0	2024981.5	2662611.2
2. Share in wholesale turnover, %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
- Food products	19.7	18.0	16.2	16.5	16.1	16.9	17.8	15.6
- Non-food products	80.3	82.0	83.8	83.5	83.9	83.1	82.2	84.4
3. Share of goods sold produced on the territory of Ukraine, %	48.5	46.9	44.5	43.7	42.0	44.1	42.9	43.3
- Food products	71.4	75.2	76.4	76.8	77.2	75.1	72.6	71.6
- Non-food products	42.9	40.7	38.3	37.2	35.3	37.8	36.5	38.1

Source: summarized by the author based on (State Statistic Service of Ukraine, 2022, b)

The analysis and assessment of risks in business activity using the method of integrated evaluation have revealed that the greatest threats during the studied period are external risks such as the emergence of new waves of the COVID-19 pandemic worldwide, significant price increases in global energy markets, external financing deficits, limited access to international capital markets, and intensified hybrid threats to Ukraine's national security. Additionally, internal risks include a potent second wave of COVID-19 in Ukraine, the persistence of high levels of corruption, slow progress in reforms, and the continued low credit activity of commercial banks in the real sector. The evaluation of the effectiveness of risk management in wholesale companies has shown uneven changes in the efficiency level. It was low in 2016, moderate in 2017 and 2018, high in 2019, and low again in 2020–2021. This phenomenon was caused by the increasing negative impact of external risks, which led to a deterioration in the financial performance of wholesale trade enterprises in 2020–2021 compared to 2018–2019. As a result, urgent management actions are required to minimize the negative impact of risks on business activity in the wholesale trade sector.

The emergence of new risks and threats capable of undermining the performance of wholesale trade companies has necessitated the improvement of risk management systems in business activity. It is recommended to carry out such management on the basis of commercial values, in particular, focusing on the final result and applying tactics and strategies of active adaptation to the requirements of potential buyers with simultaneous purposeful influence on them in unity and interrelationship.

As the practice of functioning of wholesale companies shows, when searching for ways to improve it, it is important to take into account the following:

1. The effect of economic laws (competition, cost, growth of needs, unity of commodity and monetary circulation, correspondence of demand and supply, etc.) bears its mark on the system of formation of economic relations of wholesale market participants (consumers, competitors, intermediary structures, suppliers and contact audiences). Failure to comply with laws increases business risks.

2. In order to ensure the best results of the activities of wholesale companies for the optimization of the trade process, it is important to integrate the efforts of specialists in logistics,

trade, marketing, controlling, standardization and certification, and management. This will allow to optimize the risk management system of business activity.

3. Management of the commercial activity of wholesale companies should be carried out on the basis of value priorities, planning in detail the system of measures and actions aimed at achieving the established results of commercial activities, ensuring the formation of an effective system of relations with the participants of the wholesale market.

The tasks set before the company risk management system of wholesale company simultaneously act as value benchmarks for them. Wholesale companies, like no other subjects of trade business, are interested in the most effective management of commercial activities.

The model of business risk management of wholesale companies allows to balance the complex of management decisions at each stage of management, distinguishing the functions, principles and methods of diagnosing the risks of activity of wholesale companies (Fig. 2).

The introduction of the developed model of the business risk management system of wholesale companies based on commercial values, built on the specified principles, will ensure a timely response to risks and form the prerequisites for preventing their occurrence in the future.

Conclusion. The increasing volatility and uncertainty of the economic environment in which wholesale companies operate has led to significant growth in the risks associated with their business activity. This caused the need to deepen scientific research in the direction of improving the management of business risks.

Business risk is proposed to be interpreted as the conscious possibility perceived by the subject of business activity of encountering threats of resource loss, income reduction, or profit decrease, which are associated with the probability of disruptions in their operations as a result of circumstances and conditions, the consequences of which are uncertain and are reflected in changes in management parameters from their baseline values. The development of a species structure and classification of business risks in the wholesale trade sector ensures a better understanding of the negative consequences of their impact on suppliers and buyers of goods. It was determined that in order to avoid or minimize the impact of business risks, it is necessary to form a system of managing business risks in the wholesale trade sector that is adequate to the existing circumstances and conditions. It should have proper functional, organizational, and methodological support, be based on the main provisions of the National Standard of Ukraine on risk management.

The analysis of the state of business activity in the field of wholesale trade revealed a gradual slowing down of its development rates. It is caused by the strengthening of the negative impact of external and internal risks, among which the spread of the COVID-19 pandemic, rising prices on global energy markets, a shortage of external financing, a high level of corruption should be highlighted, strengthening of hybrid threats to the national security of Ukraine. In order to minimize the negative impact of risks on business activity in the field of wholesale trade, a model of business risk management of wholesale companies based on commercial values is proposed. It is aimed at balancing the complex of management decisions at each stage of management, distinguishing functions, principles and methods of risk diagnosis.

Further research development should be aimed at consolidating efforts in such areas of business risk management as customers, product portfolio, sales, management, marketing, personnel, suppliers, competitors, price. This requires, during the implementation of the business risk management strategy of wholesale companies, taking into account value priorities, focusing attention on accelerating the sale of goods with minimal costs and ensuring the achievement of the main economic goal – obtaining profit from commercial trading activities. During the implementation of the risk management strategy for wholesale companies, it is necessary to consider value priorities, focusing attention on accelerating the sale of goods with minimal costs and ensuring the achievement of the main economic goal – generating profit from commercial trading activities.

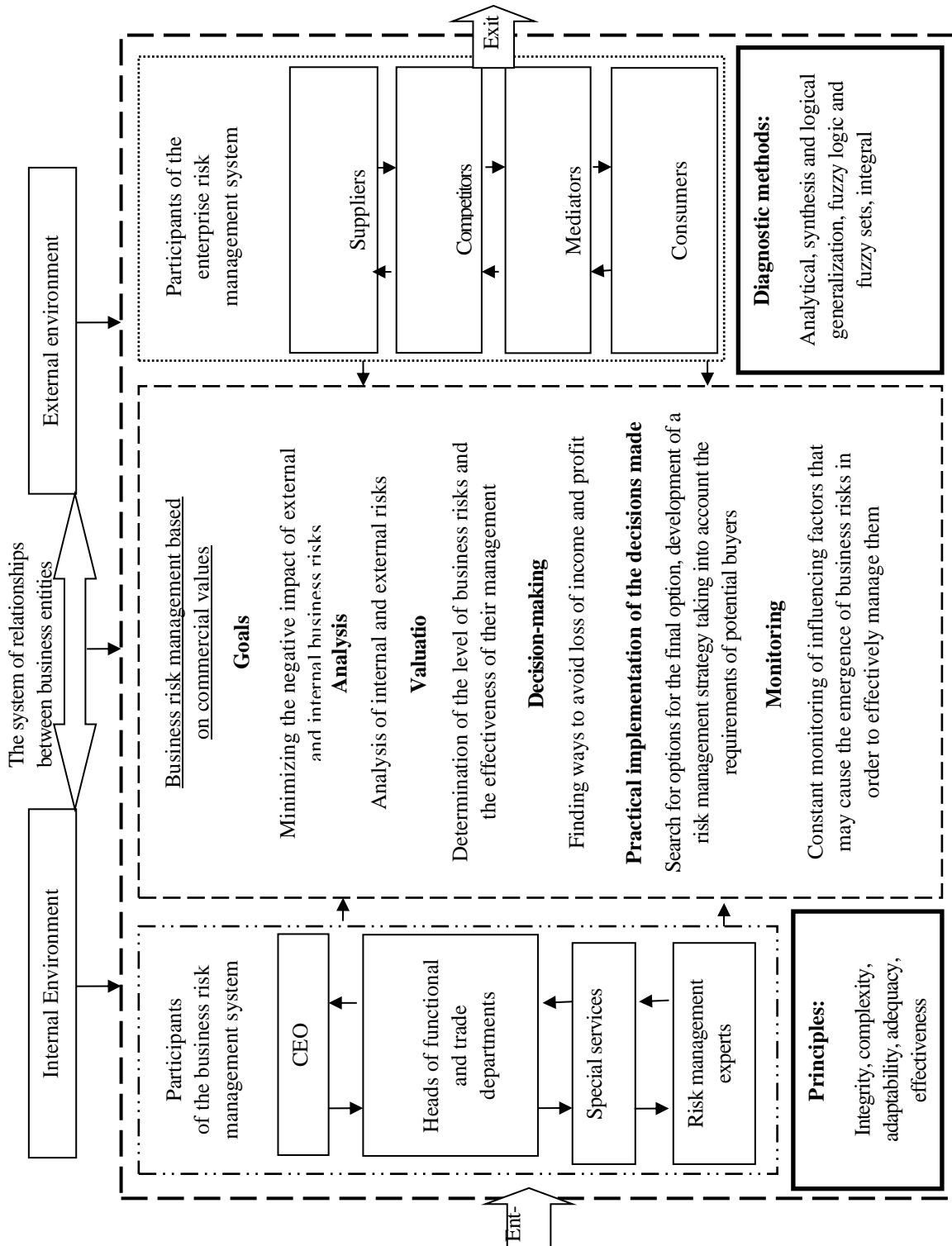


Fig. 2. Model of business risk management of wholesale company based on commercial values

Source: summarized by the author based on (Kryvoviazziuk and Referda, 2022, a)

Author contributions:

Conceptualization: Kryvovyazyuk Igor
 Data storage: Kryvovyazyuk Igor
 Formal analysis: Kryvovyazyuk Igor
 Acquisition of financing: Kryvovyazyuk Igor
 Investigation: Kryvovyazyuk Igor
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 Supervision: Kryvovyazyuk Igor
 Confirmation: Kryvovyazyuk Igor
 Visualization: Kryvovyazyuk Igor
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References:

1. Varaksina, O., & Kruhova, A. (2021). Sutnist pidpriemnytskoho ryzyku v hospodarskii diialnosti pidpriemstva. *Ekonomika ta suspilstvo*, 24 [in Ukrainian]. DOI: <https://doi.org/10.32782/2524-0072/2021-24-35>.
2. Voloshyna-Sidei, V.V. (2021). Analiz otsinky ryzykiv yak instrument staloho rozvytku pidpriemnytstva v umovakh hlobalnykh vyklykiv ta koronakryzy. *Pryazovskyi ekonomichnyi visnyk*, 2 (25), 72-76 [in Ukrainian]. DOI: <https://doi.org/10.32840/2522-4263/2021-2-13>.
3. Hontareva, I.V. (2021). *Pidpriemnytstvo*. Kharkiv: KhNU im. V.N. Karazina [in Ukrainian]. URL: <http://dspace.univer.kharkov.ua/handle/123456789/16637>.
4. Derzhavna sluzhba statystyky Ukrainy (2022, a). Optovyi ta rozdrubnyi tovaroorobot pidpriemstv optovoi ta rozdrubnoi torhivli v 2021 rotsi. URL: <http://www.ukrstat.gov.ua> (Accessed: 05.03.2023).
5. Derzhavna sluzhba statystyky Ukrainy (2022, b). Struktura optovoho tovaroorobotu pidpriemstv optovoi torhivli. URL: <http://www.ukrstat.gov.ua> (Accessed: 06.03.2023).
6. Idobaieva, A.L. (2021). Sutnist ta ryzyky v diialnosti promyslovykh pidpriemstv. *Investytsii: praktyka ta dosvid*, 1, 71-76 [in Ukrainian]. DOI: 10.32702/2306-6814.2021.1.71.
7. Kalach, H.M., & Panchenko, R.S. (2021). Optyimizatsiia systemy upravlinnia ryzykamy pidpriemnytskoi diialnosti. *Fundamental and applied research in the modern world: Abstracts of VI International Scientific and Practical Conference (20–22 January 2021)*. Boston, USA. URL: <https://sci-conf.com.ua/wp-content/uploads/2021/01/FUNDAMENTAL-AND-APPLIED-RESEARCH-IN-THE-MODERN-WORLD-20-22jan2021.pdf>.
8. Kovalska, L.L., & Kryvoviazuk, I.V. (2018). *Pidpriemnytstvo i torhivlia*. Kyiv: Vydavnychiy dim «Kondor».
9. Kovtunenکو, Yu.V., Levynska, K.O., & Mambetov, Yu.V. (2018). Upravlinnia ryzykamy v systemi zabezpechennia finansovo-ekonomichnoi bezpeky pidpriemstva optovoi torhivli. *Pidpriemn. model ekonomiky ta upr. rozvytkom pidpriemstva: tezy I Mizhnarod. nauk.-prakt. konf. (8–9 lystop. 2018 r.)*. Zhytomyr: Derzhavnyi universytet «Zhytomyrska politekhnika» [in Ukrainian]. URL: <https://conf.ztu.edu.ua/wp-content/uploads/2018/12/576.pdf> <https://conf.ztu.edu.ua/wp-content/uploads/2018/12/576.pdf>.
10. Kostyk, Ye.P. (2021). Poniattia i sutnist ryzyku u pidpriemnytskii diialnosti ta shliakhy yoho znyzhennia. *Actual trends of modern scientific research. Abstracts of the 8th International scientific and practical conference (16 bereznia 2021)*. Munich: MDPC Publishing. URL: <https://sci-conf.com.ua/viii-mezhdunarodnaya-nauchno-prakticheskaya-konferentsiya-actual-trends-of-modern-scientific-research-14-16-marta-2021-goda-myunhen-germaniya-arhiv/>.
11. Kryvoviazuk, I.V., Smerichevskyi, S.F., & Kulyk, Yu.M. (2018). *Ryzik-menedzhment lohistychnoi systemy mashynobudivnykh pidpriemstv*. Kyiv: Vydavnychiy dim «Kondor» [in Ukrainian]. URL: <https://core.ac.uk/download/pdf/286628329.pdf>.
12. Kryvoviazuk, I.V., & Referda, Ya.V. (2022). Upravlinnia ryzykamy pidpriemnytskoi diialnosti pidpriemstv optovoi torhivli na zasadakh komertsiiynykh tsinnostei. *The latest problems of modern science and practice. Proceedings of the I International Scientific and Practical Conference (January 11-14, 2022)*. Boston, USA. DOI: 10.46299/ISG.2022.I.I.
13. Kryvoviazuk, I.B. (2022). *Systema upravlinnia ryzykamy pidpriemnytskoi diialnosti v sferi optovoi torhivli. Pidpriemnytstvo i torhivlia: tendentsii rozvytku: materialy V Mizhnar. nauk.-prakt. konf. (19-20 travnia 2022 roku)*. Odesa: Derzhavnyi un-t «Odeska politekhnika» [in Ukrainian]. URL: https://www.researchgate.net/publication/361091934_Sistema_upravlinna_rizikami_pidpriemnickoi_diialnosti_v_sferi_optovoi_torghivli.
14. Kryvoviazuk, I.B. (2022). Stan i problemy zdiisnennia pidpriemnytskoi diialnosti v sferi optovoi torhivli Ukrainy. *Multidisciplinary academic notes. Science research and practice. Proceedings of the The KhV International Scientific and Practical Conference (April 19-22, 2022)*. Madrid, Spain. DOI: 10.46299/ISG.2022.I.15.
15. Kuchmieiev, O.O. (2021). *Metodychni zasady upravlinnia ryzykamy pidpriemstv optovoi torhivli. Science and education: problems, prospects and innovations. Abstracts of the 5th International scientific and practical conference (February 4-6, 2021)*. Kyoto, CPN Publishing Group. URL: <https://sci-conf.com.ua/v-mezhdunarodnaya-nauchno-prakticheskaya-konferentsiya-science-and-education-problems-prospects-and-innovations-4-6-fevralya-2021-goda-kioto-yaponiya-arhiv/>.
16. Lys, K.B., & Dziurakh, Yu.M. (2018). *Ryzik yak element pidpriemnytskoi diialnosti ta metody yoho minimizatsii. Upravlinnia ekonomichnymy protsesamy na makro- i mikrorivni: problemy ta perspektyvy vyrishennia: materialy III*

- Mizhnarodnoi nauk.-prakt. internet-konf. molodykh uchenykh (24-25 kvitnia 2018 r.). Lviv: Vydavnytstvo Lvivskoi politekhniki [in Ukrainian]. URL: <https://ena.lpnu.ua/collections/f698fb21-32f8-46bd-a3a0-662519c26b5b>.
17. Mykhalchuk, A.V., & Verbytska, K.S. (2015). Pidpriemnytskyi ryzyk: funktsii, metody otsinky ta shliakhy znyzhennia ryzyku. «Visnyk ZhDTU»: Ekonomika, upravlinnia ta administruvannia, 2(72), 162-168 [in Ukrainian]. DOI: [https://doi.org/10.26642/jen-2015-2\(72\)-162-168](https://doi.org/10.26642/jen-2015-2(72)-162-168).
18. Nazarenko, K.M., & Sysolina, N.P. (2018). Ryzyky u pidpriemnytskii diialnosti (11 kvitnia 2018 r.). Kropyvnytskyi: TsNTU [in Ukrainian].
19. Natsionalnyi standart Ukrainy (2005). Rozdribna ta optova torhivlia. Terminy ta vyznachennia poniat. DSTU 4303:2004. Kyiv: Derzhspozhyvstandart Ukrainy [in Ukrainian]. URL: https://dnaop.com/html/61145/doc-%D0%94%D0%A1%D0%A2%D0%A3_4303_2004.
20. Stravinska, K. (2019). Pidpriemnytskyi ryzyk: prychny, naslidky ta upravlinnia. Pryrodnychi ta humanitarni nauky. Aktualni pytannia: mater. II nauk.-tekhn. konf. Ternopil: TNTU [in Ukrainian]. URL: https://elartu.tntu.edu.ua/bitstream/lib/28524/2/SNT_2019_Stravinska_K-Entrepreneurial_risk_377-378.pdf.
21. Strelbytska, N.Ie., & Bondar, D.I. (2011). Intehrovanyi ryzyk-menedzhment – suchasnyi pidkhid do upravlinnia ryzykamy. Upravlinnia proektamy ta rozvytok vyrobnytstva, 4 (40), 111-118 [in Ukrainian].
22. Chupryna, I.V. (2012). Poniattia ta klasyfikatsiia ryzykiv v pidpriemnytskii diialnosti. Zbirnyk naukovykh prats VNAU. Serii: Ekonomichni nauky, 4, 187-193 [in Ukrainian].
23. ISO (2019). IEC 31010:2019. Risk Management – Risk assessment techniques. Switzerland: ISO.

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