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**EVALUATION
OF THE EFFECTIVENESS
OF THE BUSINESS
MODEL IN TRADE**

Global transformations in economic relations necessitate advanced approaches to evaluating enterprise performance. Analyzing a company through the lens of its business model enables a systemic characterization within the context of complex interactions with both external and internal environments. This article critically examines three key methodological approaches to such evaluation: performance measurement and KPI systems, composite indicators, and qualitative analysis methods. The authors put forward the hypothesis that the application of KPI systems in combination with qualitative analysis provides a comprehensive assessment of the efficiency of trade enterprise (TE) business models. In contrast, composite indicators are unable to meet managerial needs in terms of the completeness of results. Using methods of comparative analysis, synthesis, induction, and deduction, the study generalizes theoretical approaches to assessing the efficiency of TE business models. Through ratio analysis, the authors examine the structure of financial and economic indicators of TEs in Ukraine in the context of B2B and B2C business models and evaluate their efficiency. The study identifies significant differences between the

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**ОЦІНЮВАННЯ
ЕФЕКТИВНОСТІ
КЛІЄНТООРІЄНТОВАНИХ
БІЗНЕС-МОДЕЛЕЙ В ТОРГІВЛІ**

Глобальні трансформації економічних відносин вимагають удосконалених підходів до оцінювання діяльності підприємств. Дослідження підприємства через його бізнес-модель дозволяє отримати системну характеристику в контексті складних взаємовідносин із зовнішнім і внутрішнім середовищем. Розглянуто три ключові методологічні підходи до оцінювання ефективності: performance measurement та система KPI, інтегральні показники і методики якісного аналізу. Висунуто гіпотезу, що застосування системи KPI у поєднанні з якісним аналізом забезпечує всебічне оцінювання ефективності бізнес-моделі ПТ на відміну від інтегральних показників, які не здатні забезпечити управлінські потреби повнотою результатів. На основі методів порівняльного аналізу, синтезу, індукції й дедукції узагальнено теоретичні підходи до оцінювання ефективності бізнес-моделей ПТ. Шляхом коефіцієнтного аналізу досліджено структуру фінансово-економічних показників ПТ України в розрізі бізнес-моделей B2B і B2C та оцінено їх ефективність. Виявлено суттєві відмінності в результативності моделей B2B та B2C, зокрема в ефективності



performance of B2B and B2C models, particularly in terms of resource utilization efficiency, solvency, and operating financing policies. The authors also substantiate the key KPIs for assessing business models. The findings demonstrate a higher level of efficiency in the functioning of the B2B model in Ukraine. The calculated industry benchmarks are proposed as a basis for conducting GAP analysis at the enterprise level. The identified patterns and trends in the development of trade business models allow for the formulation of assessment principles that constitute an integral part of the methodology. The results obtained confirm the hypothesis regarding the effectiveness of applying KPI systems in combination with GAP analysis of deviations in evaluating the efficiency of TE business models. The proposed methodological approach takes into account the specific features of the structural components of TE business models and ensures a strong managerial focus on the use of assessment results.

Keywords: business model, effectiveness, KPI system, composite indicator, performance measurement system, trade enterprise.

JEL Classification: M21, L81, L25.

Introduction

In the context of transformational changes driven by internal challenges and global trends, the trade sector in Ukraine is undergoing significant structural and functional transformations. In particular, the growth of digitalization, increased competition, the evolution of consumer preferences, changes in the purchasing power of the population, and the impact of military operations within the country are shaping new conditions for the functioning of this sector of the economy.

Under such conditions, a comprehensive approach to assessing enterprise activities, performance, and efficiency becomes increasingly important. Such an assessment can be conducted at the level of business models, as analyzing an enterprise through its business model enables a broad and structured consideration of key aspects of both its external and internal activities, while also systematizing approaches to doing business.

The concept of a "business model" has become widespread in both academic research and practice, largely owing to the work of Osterwalder and Pigneur (2017). Contemporary scholars continue to actively develop this concept. For example, Ruda and Todoshchuk (2024) summarize e-commerce business models in Ukraine, while Zybarev et al. (2025) systematize interpretations of the essence of business models. Nagara (2023) substantiates the mechanisms of business model transformation under the influence of digital technologies and increasing instability, whereas Kononov (2025) identifies the features of business model formation based on digital

використання ресурсів, платоспроможності, а також в політиці фінансування операційної діяльності Обґрунтовано основні KPI для оцінювання бізнес-моделей. Встановлено вищу ефективність функціонування моделі B2B в Україні. Розраховані галузеві значення пропонуються як основа для проведення GAP-аналізу на рівні підприємства. Виявлені закономірності і тенденції розвитку бізнес-моделей торгівлі дозволили сформулювати принципи їх оцінювання, що становлять невід'ємну частину методології. Отримані результати доводять гіпотезу про доцільність застосування системи KPI у поєднанні з GAP-аналізом відхилень в оцінюванні ефективності бізнес-моделей ПТ. Запропонований методичний підхід дозволяє враховувати специфіку структурних блоків бізнес-моделі ПТ та забезпечує управлінське спрямування використання результатів оцінювання.

Ключові слова: бізнес-модель, ефективність, система KPI, інтегральний показник, система вимірювання результативності, підприємств торгівлі.

marketing technologies. Studies by international researchers are also devoted to innovative business models. In particular, Snihur and Markman (2023) systematize the evolution of business models through innovation under the influence of competitive dynamics and sustainable development concepts.

However, the issue of assessing the effectiveness of business models across specific groups of enterprises or sectors of the economy remains insufficiently explored. Among Ukrainian scholars, the work of Shostak et al. (2025) is noteworthy, as it generalizes approaches to business model evaluation, including both quantitative and qualitative methods, as well as approaches to identifying and describing business models. The study by Shulga and Omelenchuk (2022), which focuses on business models in the banking sector, is also important; the authors cluster banks according to their business models and evaluate each cluster. Leppänen et al. (2021), based on an analysis of 169 companies, examine the relationship between business model novelty and enterprise performance, concluding that novelty influences performance only in combination with other factors. Zhang (2024), based on a review of 445 scholarly publications, identifies key components of successful business models: novelty, efficiency, sustainability, scalability, and value co-creation.

Therefore, the issue of evaluating the effectiveness of business models of retail enterprises (REs) is highly relevant under current conditions. It is important to generalize and systematize scientific developments related to theoretical, methodological, and practical approaches to assessing business effectiveness and efficiency. Since a business model represents a set of structural elements and the system of relationships among them, its evaluation should be based on a comprehensive approach to ensure meaningful and reliable results.

Methodological approaches to business evaluation can be broadly classified into three groups: quantitative, qualitative, and mixed. Due to advances in digital technologies and artificial intelligence (AI), many qualitative approaches have evolved into mixed ones, as certain qualitative indicators are increasingly being quantified. At the same time, quantitative approaches can be divided into two main categories: evaluation based on key performance indicators (KPIs) and evaluation based on composite (integral) indicators. Both approaches have established their respective roles over decades of theoretical development and practical application. However, since the evaluation of enterprises through the prism of business models remains methodologically underdeveloped, it is advisable to critically examine each approach.

The aim of the research is to develop a methodological approach to evaluating the effectiveness of business models of trade enterprises based on a comprehensive analysis and generalization of quantitative and qualitative methods for assessing enterprise performance.

It is hypothesized that the use of KPI systems in combination with qualitative analysis provides a comprehensive and management-oriented

assessment of the effectiveness of trade enterprise (TE) business models, compared to the use of composite indicators, which are unable to provide sufficiently complete results for managerial decision-making.

The methodological basis of the study includes general scientific methods such as analysis and synthesis, induction, and deduction, used to generalize theoretical approaches to assessing the effectiveness of TE business models. Methods of systematization, comparative analysis, and scientific generalization are employed to analyze the literature. Statistical and comparative methods are applied to examine the dynamics and structure of financial and economic indicators of TEs in Ukraine in the context of B2B and B2C business models.

The assessment of business model effectiveness is carried out using ratio analysis of key performance indicators in combination with qualitative evaluation of performance outcomes. The main body of the article consists of four sections. The first section examines quantitative approaches to assessing business effectiveness and efficiency, while the second focuses on qualitative approaches, with particular attention to those widely applied in practice. The third section presents a dynamic analysis of the effectiveness and efficiency of B2B and B2C business models in Ukraine based on statistical data. The fourth section proposes theoretical and methodological approaches to evaluating business model effectiveness in the trade sector.

1. Quantitative approaches to evaluating business models: comprehensive indicator vs. KPI system

In foreign academic and educational literature, the approach to the comprehensive assessment of enterprise performance based on groups of indicators began gaining popularity in the mid-20th century. The most influential approaches, developed in the 1990s, have achieved widespread practical application and remain relevant today.

Performance Measurement System (PM). A significant contribution to the development of enterprise evaluation systems based on indicators was made by the British scholar Neely, whose work synthesized the results of many years of research conducted by a group of British scientists (Neely, 2002). Performance Measurement is defined as a comprehensive system for evaluating enterprise effectiveness, ensuring alignment among financial, operational, and strategic dimensions. This approach goes beyond purely accounting functions and involves the use of indicators as tools for management, control, and strategic feedback. A key feature of Performance Measurement systems is their multidimensionality, which allows for the consideration of different time horizons and sources of value creation. This enhances the adaptability of evaluation systems to the specifics of an enterprise's business model and increases their practical relevance in performance management.

KPI System (Key Performance Indicators). The emergence of the concept of a KPI system does not have a clearly defined origin in the literature; however, its modern interpretation is primarily associated with Parmenter (2007), who developed the idea of linking enterprise goals with key results. Since then, KPIs have become widely used in both theory and practice. The KPI system is based on the principle of multidimensional performance measurement, according to which enterprise success cannot be adequately captured by a single aggregate indicator. Within this framework, each indicator serves a specific analytical function and reflects a particular aspect of the implementation of a strategy, business model, or business process. A fundamental advantage of KPI systems is their managerial orientation: indicators not only record performance outcomes but also function as tools for monitoring, control, and decision-making adjustment. It is useful to distinguish between key performance indicators (KPIs) and key result indicators (KRIs). KPIs typically reflect the efficiency of operational or functional processes and are predominantly short-term and tactical in nature. In contrast, KRIs focus on evaluating the achievement of strategic outcomes and reflect the aggregated results of business model or strategy implementation.

The Balanced Scorecard (BSC) system was developed in 1992 by D. Norton and R. Kaplan. It evaluates enterprise performance across four perspectives: financial, customer, internal processes, and learning and growth. Kaplan (2009) traces the 17-year evolution of the Balanced Scorecard from a performance measurement tool to a comprehensive strategic management system integrating financial and non-financial indicators. He emphasizes the growing importance of intangible assets, the need for long-term strategic objectives, and the value of a multidimensional performance assessment system. A central element in the evolution of the BSC is the introduction of strategy maps, which formalize cause-and-effect relationships among investments, internal processes, customer value propositions, and financial outcomes. Thus, the BSC has evolved from a set of independent metrics into an integrated KPI system aligned with enterprise strategy.

The practical effectiveness of the BSC is confirmed in the study by Madsen and Stenheim (2015), which synthesizes over 20 years of research on the Balanced Scorecard. The authors highlight that the BSC has significantly expanded both conceptually and in terms of application. Today, it increasingly functions not as a "pure" measurement tool but as a hybrid system for performance management and strategy implementation. The effectiveness of BSC implementation depends largely on the appropriate selection of indicators and the establishment of meaningful relationships among them and with strategic objectives.

The described systems of enterprise performance evaluation should not be viewed as mutually exclusive but rather as complementary. Performance Measurement represents a general conceptual framework

encompassing the principles, approaches, and methods of evaluating performance. It defines what should be measured and for what purpose, but does not prescribe specific indicators or tools.

The KPI/KRI system is an applied instrument of Performance Measurement that enables multidimensional assessment through the selection and use of specific indicators without requiring a rigid strategic architecture.

The Balanced Scorecard, in turn, is a formalized management system that integrates Performance Measurement and KPI/KRI systems into a unified, strategy-oriented framework. Its distinctive features include clearly defined perspectives, explicit cause-and-effect relationships among indicators, and a strong focus on strategy implementation rather than merely performance measurement.

Contemporary academic and practical research on indicator systems primarily focuses on their application in specific fields and areas of activity (Ghahremani-Nahr & Nozari, 2021; Gorobets, 2025; Dipura & Soediantono, 2022; Shaleva, 2024), as well as on improving KPI systems in the digital economy (Setiawan & Purba, 2020; Mulissa & Abdul-Kader, 2025). Ukrainian scholars Tsalko and Nevmerzhytska (2019) identify the most common KPI groups as financial performance, business processes, customer activity, and personnel management. Semenenko (2023) emphasizes the role of KPIs in performance evaluation and outlines the stages of their implementation. Shumilo et al. (2024) also describe implementation stages and provide a list of widely used business indicators.

In contrast to indicator-based systems, composite (integral) indicators are widely used in enterprise evaluation. The most well-known include bankruptcy prediction models (e.g., the Tereshchenko model, 2025), competitiveness indices (e.g., global indices), and indicators of financial and economic condition (Andrenko et al., 2023; Mykhaylik, 2023). In Ukraine, integral indicators are also used to assess creditworthiness and investment attractiveness (Cabinet of Ministers of Ukraine, 2016; Ministry of Finance of Ukraine, 2016). Andrenko et al. (2023) classify methods of integral assessment into expert evaluation methods, multidimensional statistical analysis (which underpins many popular models), and data mining techniques. The development of artificial intelligence (AI) significantly contributes to the expansion of economic and statistical integral models for business evaluation and data-driven decision-making. However, such models are not always necessary for practical management purposes.

Both foreign and domestic studies widely use integral indicators for ranking, benchmarking, and forecasting. However, their applicability in operational management is limited due to the loss of analytical detail. Making management decisions regarding business model changes based solely on an integral indicator requires decomposing it to identify the strengths and weaknesses of individual components, which calls into question the practicality of its use.

In our view, when evaluating the effectiveness of business models of retail enterprises, it is advisable to apply Performance Measurement and KPI/KRI systems without necessarily implementing the full Balanced Scorecard architecture. Avoiding the aggregation of indicators into a single composite index prevents the loss of information about internal cause-and-effect relationships, enables evaluation at the level of individual business processes and responsibility centers, and allows the assessment system to be adapted to the specific characteristics of retail business models.

2. Qualitative approaches to evaluating the effectiveness of business models

Among the methodological approaches primarily aimed at qualitative assessment and used to analyze an enterprise's business model, the SWOT analysis should be highlighted first. It is traditionally regarded as a strategic planning tool in business. SWOT analysis enables the evaluation of both the internal and external environments of a company, which is critical for developing an effective business strategy. It helps organizations formulate strategies by identifying key internal and external factors that influence the achievement of business objectives. This provides a foundation for analyzing competitiveness and preparing for potential challenges in the business environment. The assessment of these factors supports informed decision-making and facilitates the adaptation of strategies to changing market conditions. However, SWOT analysis is largely a preliminary diagnostic tool on the basis of which a company develops or adjusts the design of its business model.

PESTLE analysis, as an extended and more structured form of environmental analysis, focuses on the external environment, particularly market conditions, but does not include an assessment of the company's internal processes.

Another tool applicable to the qualitative assessment of an enterprise's business model is the Accountability Scorecard (ASC), first introduced in 2000. It is designed to achieve a balance of interests between the enterprise and its stakeholders by analyzing the interrelationships among them (Rich, 2013).

The Gap Analysis Model is an important component of effective business management, as it provides a systematic basis for identifying and addressing discrepancies between the current state of an organization and its desired future state. This comprehensive approach considers various factors, including market trends, customer needs, internal capabilities, and the competitive environment. By comparing the current position with desired outcomes, the model identifies gaps across different dimensions of activity, such as product and service offerings, operational efficiency, customer satisfaction, and employee competencies. Its structured nature enables organizations to objectively evaluate their performance and identify specific areas requiring improvement. As a result, managerial efforts can be more

effectively directed toward closing these gaps and achieving strategic objectives (Gupta, 2020, p. 2954).

Summarizing the analysis of qualitative methodological approaches, it can be concluded that most of them perform an auxiliary or preparatory role in assessing an enterprise's business model. SWOT and PESTLE analyses should be viewed as diagnostic tools for evaluating the external and internal environment, providing an information base for designing or adjusting business models rather than directly assessing their effectiveness. The Accountability Scorecard (ASC), in turn, emphasizes the balance of stakeholder interests, which is important from a corporate governance perspective but does not directly evaluate business model performance. Accordingly, the most appropriate qualitative tool to combine with key performance indicator systems is the Gap Analysis Model, as it provides a logical transition from measuring current results to identifying strategic and operational gaps between the actual and desired states of a business model. Therefore, integrating KPI systems with Gap Analysis makes it possible not only to assess the effectiveness of a trade enterprise's business model but also to identify directions for its further improvement.

The proposed approaches to evaluating the effectiveness of trade enterprise (TE) business models require further empirical validation using available statistical data. At the macro level, official statistics allow analysis of trade enterprise performance only in aggregated terms, distinguishing between wholesale (B2B) and retail (B2C) models. Given the significant differences in business operations, revenue structures, and value creation mechanisms between these models, further analysis focuses on the dynamics of selected statistical indicators (KPIs) for wholesale and retail trade in Ukraine. The results obtained form an empirical basis for developing a system for assessing the effectiveness of trade enterprise business models.

3. Analysis of key indicators of Ukrainian retail business models

To assess the effectiveness of trade enterprise (TE) business models, it is essential to examine the current state of the trade sector as a whole, taking into account the dynamics of macroeconomic indicators, changes in the regulatory environment, and the division of trade into two main categories based on business models—wholesale (B2B) and retail (B2C). A comprehensive analysis of the current state of the trade sector in Ukraine is necessary both for a scientific understanding of the relationships and processes that drive the prevalence of specific business models and for the development of improved trade business models that are aligned with contemporary conditions.

Trade accounts for more than one-third of total economic turnover in Ukraine, and its share has remained relatively stable over the past six years. Specifically, the share of wholesale and retail trade in the total volume of

goods and services sold in Ukraine fluctuated between 36% and 38% during the period 2019–2024. The structural dynamics of TE sales are presented in *Figure 1*.

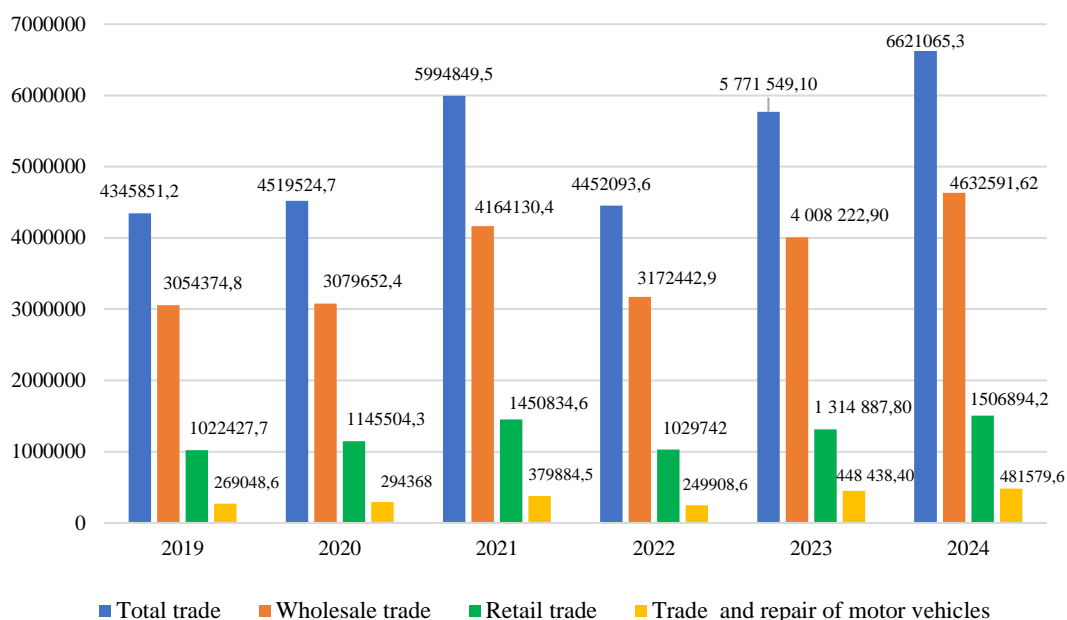


Figure 1. Structural trends in the volume of products sold by retail enterprises, 2019–2024, in millions of hryvnias

Source: Compiled by the authors based on data from the State Statistics Service of Ukraine (n. d.).

As shown in *Figure 1*, the volume of sales in the wholesale and retail trade sector in 2023 increased by 32.81% compared to the base year 2019, and by a further 12.6% in 2024. In 2022, this indicator declined significantly, falling back to approximately the 2019 level. Prior to the outbreak of full-scale hostilities, trade in Ukraine demonstrated a relatively rapid recovery following the COVID-19 crisis, as evidenced by the 2021 data. Although the full-scale war slowed the growth dynamics of the trade sector, by 2024 the volume of goods and services sold reached its highest level over the entire period under analysis. Thus, in 2022, the volume of sales in the wholesale and retail sector declined to nearly the 2020 level. Nevertheless, a positive aspect is that businesses were able to adapt to crisis conditions: by 2024, sales volumes had increased by 48.7% compared to 2022 and by 14.7% compared to 2019. It should also be noted that the growth rate in 2023 exceeded that of 2024. The slowdown in 2024 may be attributed to negative expectations among businesses and the population regarding the duration and outcome of the war, the migration of Ukrainians abroad, and other war-related factors. An analysis of the dynamics of wholesale and retail trade separately does not reveal significant structural imbalances. Their growth patterns are largely similar and correspond to broader market trends, including declines in 2020 and 2022, rapid growth in 2023, followed by a slowdown.

The structure of the trade sector is dominated by wholesale trade, whose share fluctuated between 68% and 71% over the period under study, while retail trade accounted for approximately 22–26%. The remaining share (5–7%) consists of wholesale and retail trade in motor vehicles. In particular, enterprises operating in the B2B segment account for significantly higher sales volumes than those operating under the B2C model. This pattern persists both during crisis periods and in phases of economic recovery (Figure 2).

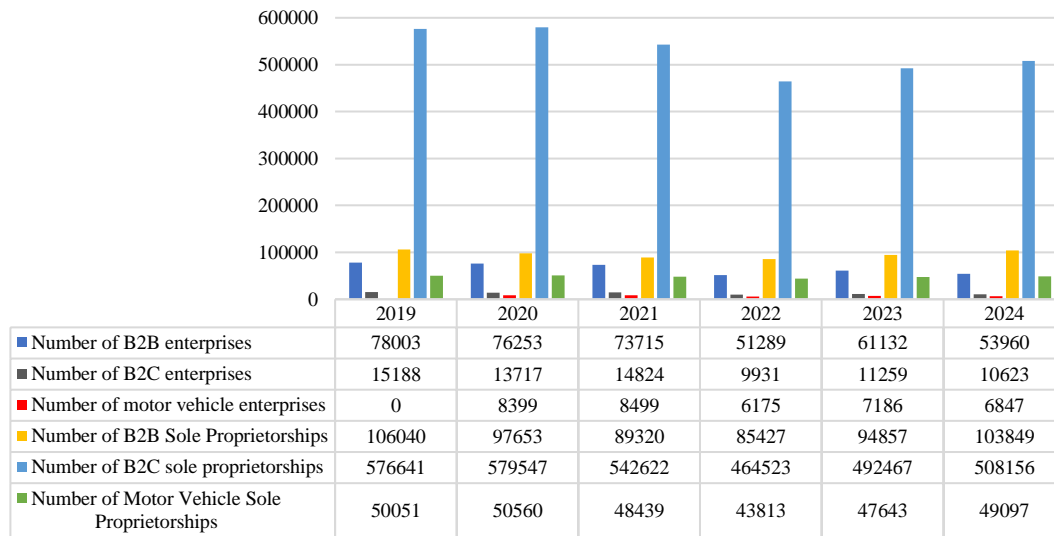


Figure 2. Structural dynamics of the number of business entities in trade for 2019–2024

Source: compiled by the authors based on data from the State Statistics Service of Ukraine (n. d.).

The data presented in Figure 2 indicate that over the analyzed period (2019–2024), the number of enterprises steadily declined, except in 2023, when a post-shock recovery was observed. Overall, over the six years, the number of enterprises decreased by 29.6%, or nearly 30 thousand. This decline was primarily driven by a reduction in the number of wholesale trade enterprises, which decreased by approximately 24 thousand units during the period under study. The share of trade enterprises (TEs) in the total number of enterprises remained relatively stable throughout 2019–2024, fluctuating within the range of 25–26%.

The reduction in the number of business entities can be attributed to several factors. These include increased competition, leading to the market exit of less competitive and less efficient firms, as well as the displacement of small and medium-sized enterprises by larger retail chains and facilities. While the COVID-19 pandemic had a limited negative impact, the decisive factors behind the decline were armed aggression, territorial occupation, and heightened security risks. However, in 2023, a revival of business activity was observed, with the number of trade enterprises increasing by 18.01%.

At the same time, the positive dynamics in the number of sole proprietors in the trade sector, which began in 2023, have been characterized by relatively slow growth. This is due to the high number of business closures compared to the registration of new sole proprietors. The share of sole proprietors in the trade sector remains higher than that of private enterprises, reaching 39.7% in 2024, although this represents a decrease of 7.9 percentage points compared to 2019.

Unlike corporate enterprises, the majority of sole proprietors operate in retail trade. Their share remained relatively stable over the analyzed period, accounting for 77–80% of the total number of sole proprietors in the trade sector. This indicates a clear preference for the B2C business model among individual entrepreneurs. The number of sole proprietors engaged in the trade and repair of motor vehicles is somewhat lower than the number of enterprises operating in these activities; however, their overall share within this segment is similar for both enterprises and sole proprietors.

In terms of business model effectiveness, the trade sector as a whole remains profitable, as evidenced by the data presented in *Figure 3*.

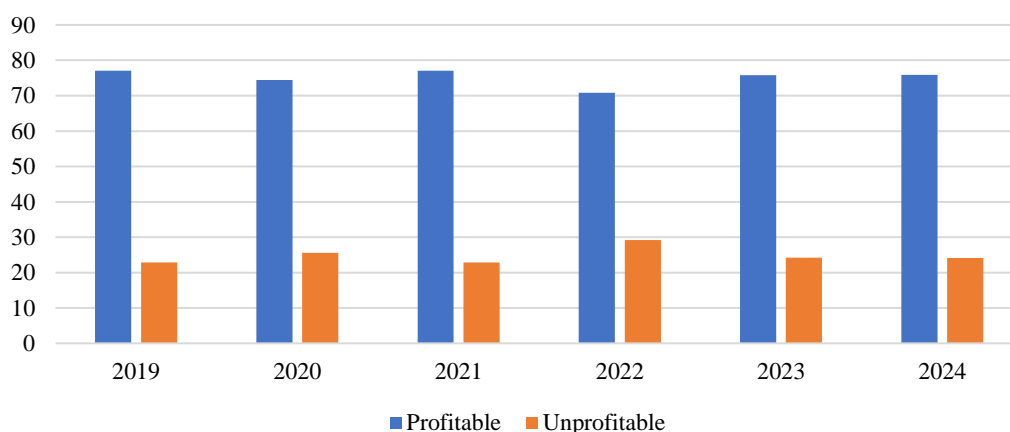


Figure 3. Share of profitable and unprofitable wholesale and retail trade enterprises in Ukraine for 2019–2024, %

Source: compiled by the authors based on data from the State Statistics Service of Ukraine (n. d.).

The trade sector has demonstrated considerable resilience over the past six years, with the share of profitable enterprises consistently exceeding 70%. Even in 2022, this indicator remained higher than the national average for Ukraine (66.1%). Despite the downturns observed during the crises of 2020 and 2022, the sector has shown a strong capacity for rapid recovery. In particular, profitability increased significantly in 2021 compared to 2020, and in 2023 it rose by a further 5 percentage points. This trend reflects the existence of internal reserves for business growth, which have been supported, among other factors, by state preferential lending programs. A detailed statistical analysis of the efficiency parameters of the relevant business models is presented in *Tables 1–3*.

Table 1

Dynamics of operating and overall profitability of enterprises, %

Type of activity	Profitability of enterprises	2019	2020	2021	2022	2023	2024
Total Ukraine	Operating	10.2	6.2	12.6	3.3	8	5.7
	General	7.6	0.9	10.1	-3.2	4.5	5.8
Total trade	Operating	25.3	16.2	17.9	17.2	29.1	26.3
	General	16.4	3.6	14.8	3.1	15.2	13.7
Wholesale	Operating	27.9	17.5	17.3	18	35	31.5
	General	18.2	4.3	16.3	3.3	17.2	15.5
Retail	Operating	16.8	12.9	14.6	11	13.2	12.1
	General	11	0.8	8	-1.6	6	4.9
Trade and repair of motor vehicles	Operating	39.8	19.2	44.9	47.8	68.8	64
	General	20.9	9.1	31.8	29.9	46	47.1

Source: compiled by the authors based on data from the State Statistics Service of Ukraine (n. d.).

As shown in *Table 1*, the profitability of trade enterprises throughout the analyzed period, across all trade business models, is higher than that of enterprises in Ukraine overall. At the same time, in the fields of wholesale trade and the trade and repair of motor vehicles, this difference is quite significant. Over the six-year period, a decline in profitability was observed in 2020 and 2022, coinciding with the COVID-19 pandemic and the onset of the full-scale invasion. Thus, in the crisis year of 2020, very low financial performance became characteristic of trade enterprises (TEs), which led to reduced overall profitability. However, starting from 2021, the situation improved, with increases in both overall and operating profitability. Notably, the decline in profitability in 2022 in certain sectors was less pronounced than in 2020. The overall operating profitability of trade in 2022 was 17.2%, compared to 16.2% in 2020. It should also be noted that, unlike the profitability of all activities, operating profitability did not exhibit a sharp decline in either 2020 or 2022. In 2020, this indicator decreased by 9.06 percentage points (p.p.), or approximately 36%. By comparison, the profitability of all activities declined by 12.87 p.p., or about 78.5%. The rapid recovery of the trade sector after the COVID-19 pandemic indicates its high adaptability and efficiency.

The operating profitability of motor vehicle trade and repair in 2022 nearly doubled compared to 2020. The war, which significantly increased both the volume of purchases and the demand for vehicle repairs, had a positive effect on the efficiency of business models in this sector.

During the analyzed period, 2019 was the most profitable year for trade enterprises; however, by 2024, B2B enterprises in motor vehicle trade and wholesale trade exceeded 2019 levels in terms of operating profitability. The profitability of the B2C model, although higher than the national

average, lagged significantly behind other trade business models and trade overall. This trend is rather atypical and requires further research.

Based on the aggregated statistical data, it is possible to calculate the key performance indicators (KPIs) of wholesale and retail enterprises in Ukraine separately.

Table 2

Dynamics of KPIs for B2B trade enterprises for 2019–2024

Metrics	2019	2020	2021	2022	2023	2024
Turnover, UAH million	3 054 375	3 079 652	4 164 130	3 172 443	4 008 223	4 632 592
Net profit, UAH million	81 840	20 349	87 047	19 229	99 953	103 068
Non-current assets (NCA), UAH million	227 351	225 256	253 667	260 495	266 514	312 384
Current asset turnover ratio	1 713 158	1 863 903	2 039 005	2 134 271	2 442 442	2 841 526
Current assets (CA), UAH million	1 661 202	1 774 311	1 905 054	1 984 434	2 186 958	2 424 549
Current liabilities (CL), UAH million	138 701	183 127	258 634	259 905	357 938	422 153
Equity (E), UAH million	1.03	1.05	1.07	1.08	1.12	1.17
Current ratio	1.57	1.47	1.82	1.32	1.48	1.47
Current Asset Turnover Ratio	1.78	1.65	2.04	1.49	1.64	1.63
Net Working Capital (NWC), UAH million	-88 650	-42 133	4 967	-590	91 424	109 769
Working Capital (WC - Payables), UAH million	51 956	89 592	133 951	149 836	255 485	416 977
Return on Working Capital, %	59.0	11.1	33.7	7.4	27.9	24.4
Return on Assets, %	4.22	0.97	3.80	0.80	3.69	3.27
Return on Sales, %	2.68	0.66	2.09	0.61	2.49	2.22
Financial Leverage (Assets/NWC)	14.00	11.41	8.87	9.22	7.57	7.47

Source: compiled by the authors based on data from the State Statistics Service of Ukraine (n. d.).

The operating profitability of the motor vehicle trade and repair almost doubled in 2022 compared to 2020. The war, which significantly increased both the volume of purchases and the demand for car repairs, had a positive impact on improving the efficiency of business models in this sector. During the analyzed period, 2019 was the most profitable year for PT. However, in 2024, B2B enterprises in the motor vehicle trade exceeded the 2019 level in terms of operating profitability. Although the profitability of the B2C model surpassed the overall average profitability in Ukraine, it significantly lagged behind other trade business models and the trade sector overall. This trend is quite atypical and requires further research.

Based on the aggregated statistical data, it is possible to calculate the key integrated KPIs for wholesale and retail enterprises in Ukraine separately.

Table 3

Trends in KPIs for B2C retail companies for 2019–2024

Metrics	2019	2020	2021	2022	2023	2024
Total Revenue, UAH million	1 022 428	1 145 504	1 450 835	1 029 742	1 314 888	1 506 894
Net Profit, UAH million	19 378	1 569	17 786	-3 977	17 573	17 457
Non-current Assets (NCA), UAH million	102 898	125 602	120 489	150 411	164 602	180 310
Current Assets, UAH million	346 123	334 132	380 118	393 940	485 287	519 728
Current Liabilities, UAH million	331 730	325 759	377 084	387 546	473 026	517 242
Equity (E), UAH million	24 985	21 103	13 458	31 673	54 307	59 816
Current Ratio	1.04	1.03	1.01	1.02	1.03	1.00
Asset Turnover Ratio	2.28	2.49	2.90	1.89	2.02	2.15
Current asset turnover ratio	2.95	3.43	3.82	2.61	2.71	2.90
Net working capital (NWC – NA)	-77 914	-104 499	-107 031	-118 737	-110 295	-120 493
Working capital (WC – CL)	14 393	8 373	3 034	6 394	12 261	2 485
Return on equity (ROE), %	77.6	7.4	132.2	-12.6	32.4	29.2
Return on assets (ROA), %	4.31	0.34	3.55	-0.73	2.70	2.49
Return on sales (ROS), %	1.90	0.14	1.23	-0.39	1.34	1.16
Financial leverage (A/NWC)	17.98	21.79	37.20	17.19	11.97	11.70

Source: calculated by the authors based on data from the State Statistics Service of Ukraine (n. d.).

An analysis of the dynamics of key financial indicators of B2C trade enterprises for 2019–2024 indicates a high dependence of retail trade on changes in consumer demand and overall macroeconomic instability. These dynamics reflect the sensitivity of the B2C model to crisis phenomena and fluctuations in household income. At the same time, in 2023–2024, a recovery in profitability can be observed; however, the level of profitability remains below pre-crisis values. The asset structure of B2C trade enterprises is characterized by a relatively higher share of non-current assets compared to B2B enterprises, which is explained by the need to maintain retail space, equipment, and infrastructure. Current assets have grown at an accelerated pace since 2022, reflecting the recovery of inventories and working capital amid a revival in consumer demand.

The current liquidity ratio throughout the period remains close to the minimum acceptable threshold (1.00–1.04), indicating a limited solvency margin. A consistently negative value of own working capital, combined with a positive but low level of net working capital, suggests a moderate yet controlled dependence of B2C enterprises on liabilities. Indicators of asset turnover and current asset turnover in the B2C segment exceed those of B2B trade, confirming a higher intensity of resource utilization in retail.

Financial leverage in B2C trade remained extremely high in 2019–2021, indicating a significant level of financial risk. Its subsequent

decline in 2023–2024 is associated with growth in equity; however, the overall level of debt burden remains substantial.

An essential element of the business model of trade enterprises is the structure of resource provision, which determines both the potential for scaling operations and the level of financial risk. A generalized analysis of financing sources among Ukrainian trade enterprises indicates the persistent dominance of current liabilities in the capital structure. This is a characteristic feature of the national business financing model and explains the low liquidity ratios and negative values of own working capital observed in both B2B and B2C segments. At the same time, in 2023–2024, a positive trend toward a gradual increase in the share of equity and a reduction in dependence on current liabilities—primarily accounts payable—is observed, particularly in B2B trade.

Overall, the results confirm that the effectiveness of the B2B trade business model is determined not so much by absolute financial results—which exhibit more stable dynamics compared to B2C—but by the ability to maintain liquidity, turnover, and a manageable capital structure under conditions of high external instability. The B2C business model is characterized by a higher asset turnover ratio compared to the B2B segment, but is less efficient in terms of profitability. High volatility of financial results and a strong dependence on short-term liabilities contribute to increased financial vulnerability of the B2C model. In contrast, B2B trade, despite a high reliance on borrowed resources, demonstrates a gradual increase in equity, indicating potentially greater financial stability of this business model in the medium term.

The conducted assessment of the effectiveness of PT business models, based on a system of key performance indicators combined with qualitative analysis, provides a multidimensional view of business model performance and makes it possible to identify the specific features of its individual components, which are clearly revealed in the comparison of B2B and B2C models.

This approach makes it possible to determine the sources of the achieved level of effectiveness in terms of turnover, profitability, and financial stability, which is fundamentally important for effective business model management.

Reducing the assessment of business model effectiveness to a single integral indicator is methodologically limited, as aggregation obscures differences between individual components.

4. Methodological approaches to developing a KPI system for evaluating the effectiveness of business models in the retail sector

The results of the analysis of statistical indicators of the development of wholesale (B2B) and retail (B2C) trade in Ukraine reveal the heterogeneity of dynamics across key performance parameters, which confirms the limitations of using a single integral indicator to assess business model effectiveness. Based on these findings, as well as the theoretical approaches substantiated in the previous sections, there is a need to develop a methodology that accounts for the

specifics of different business models and enables interpretation of results oriented toward improving management quality.

To develop methodological approaches to assessing the effectiveness of PT business models—based on a combination of key performance indicators and the qualitative identification of strategic and operational gaps—it is necessary to complement the evaluation methodology with additional theoretical components. In particular, alongside the methods outlined above, a set of evaluation principles is proposed as the foundation for a system for assessing the effectiveness of trade enterprise business models.

These principles include:

- The principle of business model alignment, according to which the selection of key performance indicators is carried out concerning the logic of value creation in wholesale (B2B) and retail (B2C) trade. This prevents the use of universal indicators that fail to capture the real differences between models.

- The principle of relevance, which implies the use of indicators that can be directly interpreted in the decision-making process. Within this framework, the evaluation system is focused not only on measuring performance but also on identifying problem areas and opportunities to improve business model efficiency.

- The principle of completeness, implemented through the integration of a KPI system with the GAP analysis model. This combination enables comparison of actual results with target benchmarks and facilitates the identification of strategic and operational gaps in business model performance.

- The principle of dynamism, which involves assessing business model effectiveness over time rather than at a single point. This allows for consideration of changes in the external environment, stages of the business model life cycle, and the outcomes of management decisions implemented in previous periods.

The implementation of these principles establishes a methodological foundation for developing a comprehensive system for assessing the effectiveness of trade enterprise business models, capable of providing a holistic view of their functioning.

Conclusions

Managing a company through its business model corresponds to modern requirements and allows for the formation of a systemic view of operational and other processes, as well as the company's internal and external relationships. Effective management should be based on measuring the business performance of the company's business model implementation, which necessitates the development of an appropriate methodological approach. The extensive methodological toolkit for assessing company performance, developed by economic theory and practice, should also be applied to business models, taking into account their conceptual and structural characteristics. The study has demonstrated that integral indicators—whose essence lies in the mathematical aggregation of multiple indicators into a single value—do not meet the requirements of a comprehensive and multidimensional assessment and, therefore, should not be applied at the business model level.

It is advisable to assess the effectiveness of a trading enterprise's business model using the Performance Measurement approach, which serves as a methodological framework and conceptual foundation for comprehensive evaluation. This approach should be implemented through a system of key performance indicators without reduction to a single integral index, thereby allowing for the consideration of the specific features of wholesale (B2B) and retail (B2C) models. The obtained results confirm the hypothesis that the proposed evaluation system should rely on a limited set of indicators that directly reflect business model performance and are relevant for managerial decision-making. Industry-level indicators derived from statistical data may serve as KPI benchmarks at the level of an individual enterprise.

To complement the quantitative assessment and enhance the practical value of the results, it is advisable to apply GAP analysis models, which enable the identification of areas for improving the business model by comparing actual KPI values with target benchmarks.

The proposed approach involves combining a system of key performance indicators with a qualitative interpretation of results. This makes it possible to assess the effectiveness of a trading enterprise's business model while taking into account the specifics of its individual components and providing practical guidance for managerial decision-making.

The authors see prospects for further research in deepening the methodology for assessing business model effectiveness, particularly through the application of modern information tools and artificial intelligence technologies.

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