Global Academy of Business Studies (GABS)
ISSN: 3123-6871 Vol 2, No 4, 2026, 277-287 https://doi.org/10.35912/gabs.v2i4.4045

Methods for Assessing Factors Affecting the Efficiency of Small Businesses

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Article History
Received on 27 February 2026
1st Revised on 9 March 2026
2nd Revised on 13 March 2026
Accepted on 16 March 2026

Abstract
Purpose: To analyze and evaluate methods for assessing factors that influence the efficiency and performance of small businesses, particularly in terms of resource utilization, productivity, and their contribution to regional economic development and employment.
Research Methodology: This study applies a mixed-methods approach combining qualitative and quantitative analysis. Data were collected through structured questionnaires, semi-structured interviews, and secondary financial data from small enterprises. Analytical techniques included descriptive statistics, correlation analysis, multiple regression, and thematic qualitative analysis.
Results: The results indicate that the efficiency of small businesses is influenced by several internal and external factors, including financial management practices, human resource productivity, operational processes, market orientation, and institutional conditions. The findings highlight that relying solely on financial indicators is insufficient, and a multidimensional assessment approach is necessary to evaluate performance effectively.
Conclusions: The study concludes that evaluating small business efficiency requires an integrated framework that links resource productivity, operational efficiency, financial performance, and strategic outcomes. Such an approach enables better managerial decision-making and supports effective policy formulation for small business development.
Limitations: The research is limited by the use of self-reported data and a cross-sectional design, which may restrict the ability to observe long-term causal relationships.
Contributions: This study provides a comprehensive framework for assessing small business efficiency and offers practical insights for policymakers, entrepreneurs, and researchers in improving productivity, competitiveness, and sustainable economic growth.

Keywords: *Cash Flow, Employment and Exports, Gross Domestic Product, Labor Productivity, Small Business*

How to Cite: Nematjonovich, M. R. (2026). Methods for Assessing Factors Affecting the Efficiency of Small Businesses. *Global Academy of Business Studies (GABS)*, 2(4), 277-287.

1. Introduction

Small businesses act as a "quick-response link" in the economy in terms of employment, income, market penetration, innovative initiatives, and maintaining regional balance. Therefore, the issue of assessing the activities of small businesses is not only "measurement for reporting", but also serves such tasks as determining the efficiency of resource use, economically justifying management decisions, managing risks, attracting credit and investment resources, and checking the impact of state policy (Nurcahyo, 2025).

The economic basis of the assessment is manifested at three levels: (1) at the micro level - the sustainability of the enterprise is determined through the use of resources, cash flow, and profitability; (2) at the meso level - the share and quality indicators of small businesses in a region or sector indicate the composition of economic activity; (3) at the macro level - shares in GDP, employment, and exports

provide the "signals" necessary for targeted planning of small business development measures. In particular, the economic logic is consistently revealed, and the mechanisms of influence of the results of the assessment on management decisions are summarized.

In the economic sense, assessment is the measurement and explanation of how the resources of the enterprise (labour, capital, material and information) are transformed into results. Therefore, assessment is not limited to "whether there is profit": questions such as how profit is formed, how stable it is, which processes are inefficient, whether cash flow can cover risks - also form the internal logic of assessment (Nudurupati, Garengo, & Bititci, 2021). Small businesses play a pivotal role in modern economies, serving as engines of innovation, employment generation, and local economic development. According to global statistics, micro, small, and medium-sized enterprises (MSMEs) account for over 90% of all enterprises worldwide and contribute approximately 50% of employment and 40% of national GDP in most countries. In the context of developing economies, including Uzbekistan, small businesses are particularly crucial for ensuring economic diversification, reducing dependence on a few dominant industries, and stimulating entrepreneurial culture at the local level (Audretsch, Belitski, & Caiazza, 2021).

The efficiency and sustainability of small businesses, however, depend on a multitude of internal and external factors. Internally, operational management, resource allocation, employee productivity, financial planning, and marketing strategies significantly influence performance outcomes. Externally, macroeconomic conditions, regulatory frameworks, access to finance, infrastructure, and market competition can either enhance or impede the growth of small enterprises (Belitski, Guenther, Kritikos, & Thurik, 2022). Assessing these factors systematically is critical for identifying bottlenecks, designing effective policy interventions, and promoting long-term competitiveness (Nudurupati et al., 2021).

According to Heinicke (2018), despite the recognized importance of small businesses, many enterprises struggle with suboptimal performance due to inadequate assessment and monitoring of efficiency determinants. Traditional financial indicators, such as profit margins, return on assets, and turnover, provide limited insight into underlying operational or strategic issues. Consequently, contemporary research emphasizes the need for multidimensional approaches that integrate financial, organizational, human capital, and environmental factors to evaluate the overall efficiency of small enterprises (Hermansyah et al., 2025).

Various methodological approaches have been proposed to measure and analyze small business efficiency. Quantitative techniques such as Data Envelopment Analysis (DEA), Stochastic Frontier Analysis (SFA), and regression-based models allow researchers to identify productivity gaps, compare performance benchmarks, and estimate the impact of specific factors on efficiency. Qualitative methods, including expert surveys, case studies, and structured interviews, provide deeper insights into managerial practices, organizational culture, and contextual challenges that quantitative methods may overlook (Belitski et al., 2022). Moreover, the integration of mixed-method approaches has gained traction, offered a more holistic understanding of efficiency determinants and enabled the formulation of tailored interventions for improving performance.

Given the dynamic and complex nature of small business environments, assessing factors affecting efficiency requires a comprehensive framework that considers both internal management practices and external market conditions. Such an approach not only facilitates a precise diagnosis of business performance but also informs policymakers, investors, and entrepreneurs on strategies for enhancing productivity, resilience, and growth. Therefore, this article aims to critically examine the methods for evaluating the factors influencing small business efficiency, highlighting their applicability, advantages, and limitations in contemporary economic contexts.

2. Literature Review

Scientist sees small business and entrepreneurship as the "driver" of the modern economy, emphasizing its direct connection with sustainable growth, jobs and living standards (Audretsch et al., 2021). According to the author's logic, such a role of small business in the economy requires constant

improvement of the assessment methodology: because without correctly measuring the results of small business, it is difficult to clearly see the “economic return” of incentive, support or restriction measures [1]. According to Stam and Van de Ven (2021), when assessing the effectiveness of small businesses, the issue should be approached not only by internal indicators of the enterprise, but also in the context of regional factors and conditions. He identifies three areas as the goal of determining the socio-economic effectiveness of small businesses: (1) assessing the "vitality" of small businesses, (2) characterizing their impact on the quality of life of the population, (3) determining the level of development of the area under study.

Recent international studies also emphasize that the performance and efficiency of small and medium enterprises (SMEs) are influenced by both internal managerial factors and external environmental conditions (Belitski et al., 2022). A systematic literature review conducted on MSME performance highlights that innovation capability, entrepreneurial orientation, financial literacy, and human resource competence are among the most significant internal determinants of SME performance, while government policies, financial institutions, infrastructure, and market access represent key external drivers of business sustainability. Furthermore, contemporary research indicates that SME performance should be evaluated using multidimensional indicators that go beyond financial measures. Studies on SME performance trends demonstrate that internal factors such as leadership capability, operational efficiency, and strategic orientation significantly affect firm productivity and growth, while external factors such as supply chain networks, government support, and technological adoption also play a crucial role in shaping enterprise competitiveness (Eggers, 2020).

Empirical research also shows that managerial experience, employee competence, and product quality are important determinants of SME growth and efficiency. Quantitative analyses using regression and statistical methods reveal that human capital quality, managerial ambition, and innovation capacity positively influence business performance, while structural factors such as firm age or rigid financial targets may negatively affect growth dynamics (Santoro, Messeni-Petruzzelli, & Del Giudice, 2021). Additionally, operational efficiency has been identified as a key factor affecting SME development. Studies examining the relationship between operational practices and business growth demonstrate that effective resource management, employment practices, and productivity improvements significantly contribute to sustainable SME expansion. These findings reinforce the importance of evaluating both financial outcomes and operational efficiency indicators when assessing the overall performance of small businesses (Alvarez-Torres, Lopez-Torres, & Schiuma, 2019).

The common point of the opinions of local scientists is that as the share and functions of small businesses in the economy expand, the evaluation system should also be multi-criteria: along with financial results (profit, profitability), resource efficiency (labor, capital, working capital), territorial impact (employment, income), and innovative activity also become the economic “pillars” of the evaluation (Yahaya & Nadarajah, 2023). In addition, the economic basis for evaluating the activities of small business entities is determined, first of all, by the need to make optimal decisions in conditions of limited resources in the economy. Since small business entities are usually smaller in terms of capital and working capital compared to large enterprises, any cost fluctuations that arise in the process of their production and service provision quickly affect the profit margin and cash flow. Therefore, the evaluation system should perform the function of identifying the factors that caused the result and giving an “early signal” to management, rather than “recording the result” in small business entities. The primary economic content of evaluation is to measure the return on resources (labor, time, capital, raw materials) (Omilovna, 2024). For example, even if sales are growing at an enterprise, if costs are rising rapidly, the result will not improve qualitatively. Therefore, in evaluation, the concepts of “growth” and “efficiency” should be distinguished: growth can often be related to market conditions or prices, while efficiency is directly determined by the quality of management.

In addition, contemporary research increasingly highlights the role of digital transformation and technological adoption in improving SME efficiency and competitiveness. The integration of digital tools such as financial management software, e-commerce platforms, and data-driven decision systems enables small businesses to optimize operational processes, reduce transaction costs, and improve

market reach. Studies indicate that digital capability not only enhances productivity but also strengthens firms' ability to adapt to rapidly changing market environments (Verhoef et al., 2021). Consequently, the evaluation of SME performance should incorporate indicators related to technological readiness, digital adoption, and innovation capacity as part of a comprehensive efficiency assessment framework (Teng, Wu, & Yang, 2022).

Institutional support and the entrepreneurial ecosystem have been identified as critical determinants of SME sustainability. Government policies, access to financing, business incubators, and support programs significantly influence the capacity of small enterprises to grow and innovate (Audretsch et al., 2021; Stam & Van de Ven, 2021). Research in emerging economies shows that SMEs operating in supportive institutional environments demonstrate higher productivity and stronger resilience to economic shocks. Therefore, the effectiveness of SMEs cannot be assessed solely at the enterprise level; it must also consider the broader institutional and policy environment that shapes business opportunities and constraints.

3. Methodology

In this study, scientific data were collected on the basis of international financial reporting standards, official regulatory legal acts, and scientific works of leading foreign and domestic scientists. The obtained data were analyzed using comparative analysis, logical generalization, and a systematic approach, and the scientific and practical aspects of the accounting treatment of goodwill and acquisition profits were assessed (Amel-Zadeh & Meeks, 2019; Satt & Chetioui, 2017). This study employs a mixed-methods approach to systematically assess the factors influencing the efficiency of small businesses. By combining both qualitative and quantitative methods, the research ensures a comprehensive understanding of key determinants affecting business performance.

The research adopts a descriptive and analytical design. The descriptive component identifies and categorizes the main factors affecting efficiency, while the analytical component examines the relationships between these factors and performance indicators, providing insight into the underlying causal mechanisms (Creswell & Creswell, 2017). The target population consists of small enterprises operating in retail trade, services, and light manufacturing across urban and semi-urban areas. According to the Ministry of Entrepreneurship and Industry Development, approximately 35,000 small businesses are registered in these regions. To ensure representativeness, a stratified random sampling technique was used, resulting in a sample of 250 small businesses. Stratification was based on industry type, workforce size, and business age, allowing for adequate coverage of heterogeneous characteristics.

Data were collected through multiple methods to capture both objective and subjective information. Structured questionnaires were administered to business owners and managers to gather data on organizational practices, resource allocation, operational challenges, marketing strategies, and workforce management. Semi-structured interviews were conducted with 30 key respondents to gain in-depth insights into internal and external factors affecting efficiency. Additionally, secondary data such as financial statements, operational reports, and publicly available performance metrics were reviewed to measure efficiency objectively through indicators like revenue growth, profitability, employee productivity, and cost management. The study identifies several independent variables hypothesized to affect efficiency, including financial management practices, human resource factors, operational processes, market orientation, and external environmental conditions. Business efficiency, the dependent variable, was measured using a composite index incorporating productivity ratios, profit margins, revenue per employee, and operational cost efficiency.

Quantitative data were analyzed using SPSS and Excel. Descriptive statistics summarized the sample characteristics, while correlation analysis examined the relationships between independent variables and efficiency. Multiple regression analysis determined the relative impact of factors on efficiency, and factor analysis helped identify latent constructs such as managerial competence and market orientation. Qualitative interview data were analyzed thematically to uncover recurring patterns, challenges, and strategies affecting efficiency. Triangulation of qualitative and quantitative findings ensured the validity and reliability of conclusions.

To ensure reliability, the questionnaire was pre-tested on 20 businesses, and Cronbach's alpha coefficients for all Likert-scale items exceeded 0.80, indicating high internal consistency. Validity was confirmed through expert review and factor analysis, ensuring that survey items accurately captured relevant dimensions of small business efficiency. Ethical considerations were strictly followed. Participation was voluntary, respondents provided informed consent, and all data were anonymized to maintain confidentiality. Results are presented in aggregate to prevent identification of individual businesses.

While this mixed-methods design provides comprehensive insights, some limitations remain. Self-reported data may introduce subjective bias, and the cross-sectional nature of the study limits causal inference over time. Future research could employ longitudinal designs to track efficiency trends and examine the dynamic effects of changing business environments.

4. Results and Discussion

One of the main risks for small businesses is the increase in cost pressures (raw material prices, transport and logistics costs, energy, rent, credit interest). Therefore, in the assessment system, it is important to view costs not as a "total amount", but as a structure: which item is growing, which item provides savings, which item requires alternative supply or technological upgrades. In this case, the assessment results accelerate the "cost audit" for the enterprise, justifying decisions on maintaining margins (Eggers, 2020).

From an analytical perspective, cost structure analysis allows enterprises to identify inefficiencies in operational processes and evaluate the relationship between input costs and output value (De Loecker, Fuss, Quiller-Doust, & Treuren, 2026; Royan & Assa, 2025). For small businesses, even minor increases in operational expenses can significantly influence profitability due to their limited financial capacity and relatively narrow margins. Consequently, continuous monitoring of cost dynamics becomes essential for ensuring financial stability and operational sustainability. By systematically evaluating cost components, managers can implement strategies such as process optimization, supplier diversification, technological improvements, and better resource allocation. Such measures not only help control production costs but also strengthen the resilience and competitiveness of small businesses in increasingly volatile economic environments.

According to the approach, three basic questions are at the heart of the assessment:
(a) how much value was created,
(b) how economically were resources used to create value,
(c) is the result repeatable and sustainable.
The table below shows the "translation" of these questions into indicators (Table 1)

Table 1. Economic essence of assessment: question → indicator → management decision

Key Question	Sample Indicators	Economic Meaning	Link to Decision-Making
Was value created?	Value added, revenue growth, market share	Formation of value in accordance with market demand	Revising product/service portfolio, pricing policy
Are resources used efficiently?	Labor productivity, cost price, turnover rate	Output per unit of resource	Process optimisation, cost reduction
Are the results sustainable?	Stability of cash flow, liquidity, debt burden	Risk resilience and capacity for reinvestment	Risk management, credit policy, reserve fund
What about quality and timeliness?	Defect rate, returns, delivery time	Operational basis of competitiveness	KPIs, quality control, supply chain management

The economic essence of the assessment is explained not as a "list of indicators", but as a "language of decisions". That is, the choice of indicators is directly related to the needs of management: whichever problem is relevant for the enterprise, the assessment system allocates indicators that measure and explain this problem. In practice, this approach helps to connect the assessment result to operational management: for example, if "resource efficiency" is low, process mapping, cost analysis and strengthening production discipline become a priority; if the "sustainability" block is weak, the cash flow forecast and debt limits are revised.

Furthermore, the interpretation of these indicators should be carried out in an integrated manner rather than separately. Each indicator reflects a specific aspect of enterprise performance, but a comprehensive understanding emerges only when they are analyzed collectively (Subačienė et al., 2025). For instance, revenue growth may indicate successful market expansion; however, if it is accompanied by declining labor productivity or rising operational costs, the overall efficiency of the enterprise may deteriorate. Therefore, the evaluation system should balance growth indicators with efficiency and sustainability indicators in order to provide an accurate picture of business performance (Carlsson & Nevzorova, 2025; Yahaya & Nadarajah, 2023).

Another important aspect of the assessment framework is its role in supporting managerial decision-making and strategic planning. By continuously monitoring productivity, cost efficiency, and financial stability indicators, enterprises can identify potential inefficiencies at an early stage and take corrective actions before these issues escalate into serious operational challenges (Dauerer, 2025; Kostyshyna & Zhyliakov, 2025). In this sense, the evaluation system functions not only as a measurement tool but also as a strategic management instrument that supports continuous improvement and long-term business sustainability.

Finally, the use of indicator-based evaluation also enables enterprises to conduct benchmarking against industry standards and competitors. Through such comparisons, firms can identify productivity gaps, inefficiencies in resource utilization, and weaknesses in operational processes. As a result, managers can implement targeted improvements such as technological upgrades, better resource allocation, and improved operational practices, ultimately strengthening the competitiveness and resilience of small businesses in dynamic economic environments.

The first economic basis for the need to assess small businesses is their significant role in the overall economic structure. If the share of the small business segment in the economy is high, it reflects not only the flexibility of the sector but also its contribution to employment creation and regional economic activity (Gherghina, Botezatu, & Hosszu, 2020). At the same time, a high share may also raise questions regarding the quality of economic growth, particularly in terms of productivity, export potential, and innovation capacity. Therefore, evaluating the performance of small businesses requires not only measuring their quantitative contribution but also analyzing qualitative indicators that reflect the efficiency and sustainability of their activities.

In this regard, a comparison of the dynamics in 2020–2024 across the Republic of Uzbekistan and the regions of the Fergana Valley demonstrates the importance of establishing an effective assessment system for regional economic policy (Table 2).

Table 2. Share of small businesses in gross domestic product 2020-2024 in percent

Area	2020	2021	2022	2023	2024
Republic of Uzbekistan	57.5	56.9	54.6	54.3	54.3
Fergana region	73.3	72.4	71.6	72.2	73.2
Andijan region	72.7	74.6	69.5	68.6	69.5
Namangan region	76.3	76.2	74.6	74.3	73.4

The results show that the share of small businesses in the gross domestic (regional) product at the republican level decreased from 57.5% in 2020 to 54.3% in 2024, i.e. the decrease was 3.2 percentage

points. In the Fergana Valley regions, the share was much higher, and in the Fergana region in particular, the share was almost maintained (73.3% in 2020, 73.2% in 2024). In Andijan and Namangan regions, the dynamics of the decline were stronger: although the decline in the share stabilized in Andijan after 2021, a significant difference remains in the comparison of 2020–2024; in Namangan, the share, despite being high, gradually decreased. Such differences indicate the incorrectness of using the "share" indicator as the sole criterion in the assessment system: a high share does not in itself guarantee high productivity or export. Therefore, in the next stage, the assessment indicators should reveal not only the "quantity" of the share, but also its "quality" aspects and opportunities for productivity, financial stability, innovation and market penetration (Coad, Segarra, & Teruel, 2016). To quickly understand the dynamics of shares, a "trend map" (diagram-map) was developed. In this table, the values for 2020 - 2024 and the difference (Δ) are shown in one place (Table 3).

Table 3. Trend map of the share of small businesses in GDP 2020-2024

Area	2020, %	2024, %	Δ (pp)	Description
Republic of Uzbekistan	57.5	54.3	-3.2	Share decline: It is necessary to analyze in depth the relative growth of large segments or changes in the composition of the calculation.
Fergana region	73.3	73.2	-0.1	The share is almost stable: small businesses are the backbone of the economic structure, but it is necessary to check with qualitative indicators (productivity/exports).
Andijan region	72.7	69.5	-3.2	The decline is significant: the composition of the sector and the share of large-scale production may change; the assessment requires a cause-and-effect analysis.
Namangan region	76.3	73.4	-2.9	The share is high, but the trend is low: there is a need to strengthen resource efficiency and market access indicators.

Table 3 shows the clearly answers the question "where is the change stronger?" Even if the regions are in the same macro environment, the dynamics of the share are different. Therefore, the assessment methodology should be adapted to the regions not according to the "same template", but taking into account the territorial composition, industry specialization and access to markets. At the same time, it once again shows that the share itself is not enough: a stable share is a positive signal, but it may not provide real income growth if productivity is low (Surya et al., 2021).

According to Faggio, Silva, and Strange (2017), the economic basis for the assessment is employment. Small businesses are often the main source of new job creation, acting as a "pillar" in the regional labor market. However, employment itself cannot be the final criterion for assessment: the important question is how productive the jobs created are, that is, what is the growth in value added and income per job. Therefore, in the assessment system, employment indicators should be analyzed in a package with productivity and financial stability indicators (Table 4).

Table 4. General trend in the share of small businesses in employment 2020-2024

Area	2020	2024	Description
Republic of Uzbekistan	≈ 74,5% 2020-2024 Stable around	≈ 74,5% Stable	The stability of the share indicates a strong role of small businesses in the labor market; quality (productivity) indicators are mandatory in the assessment.
Fergana region	78,4%	80,4%	An increase in the share of employment indicates the strength of small businesses in the regional labor market; now the assessment result should also show the effectiveness of jobs.

Table 4 shows the share of small businesses in employment remains high at the national level, and in Fergana region, the share has increased from 78.4 percent in 2020 to 80.4 percent in 2024. This situation further reinforces the need for assessment: if the main part of employment is in small businesses, then labor productivity remains low-, and real-income growth may slow down. Therefore, employment indicators are assessed in a package with "quantity" (how many jobs) and "quality" (income per job and value added). As a result, the assessment system combines the social task (employment) with the economic result (productivity and sustainability).

As additional information indicating the need for assessment in the territorial section, it is noted that by the end of 2024, the number of small business entities in Fergana region reached 31,840, and 1,246.9 thousand of the employed population were operating in this segment. This scale reinforces the need to link the assessment results to regional management and support programs. Interpreting the assessment only through final results (profit, share, export) leads to methodological risks, since the result is often determined by causal factors (resource efficiency, process quality, institutional conditions). Therefore, a conceptual model in the form of a pyramid is proposed, dividing the assessment indicators into layers in the logic of "result-cause". The idea of the model is that strategic results at the upper level rely on causal indicators at the lower level; the assessment system, in addition to recording the result, should also indicate the factors that explain it (Figure 1).

Layer 5: Strategic Outcome	(market share, export penetration, competitiveness)
Layer 4: Financial performance	(profit, profitability, cash flow stability)
Layer 3: Operational efficiency	(costs, turnover, quality, time)
Layer 2: Resource productivity	(labor productivity, capital return, technology efficiency)
Layer 1: Institutional and market conditions	(access to finance, infrastructure, procedures, risks)

Figure 1. Pyramid of economic bases of assessment

The pyramid model presented in Figure 1 illustrates the hierarchical structure of factors that determine the efficiency and sustainability of small businesses. The model emphasizes that strategic outcomes observed at the upper level are influenced by several underlying causal factors located in the lower layers. Therefore, the assessment system should not only record final results such as market share or export performance but also identify the operational, resource, and institutional conditions that explain these outcomes (Malesios et al., 2018).

At the first layer, institutional and market conditions represent the fundamental environment in which small businesses operate. These conditions include access to finance, quality of infrastructure, regulatory procedures, and market risks. If these institutional factors are unfavorable, they may restrict investment opportunities, limit business expansion, and increase operational costs (Wang, Xiang, & Han, 2023). The second layer refers to resource productivity, which reflects how effectively businesses utilize their core resources such as labor, capital, and technology. Indicators such as labor productivity, return on capital, and technological efficiency help determine whether enterprises are able to transform available resources into valuable outputs (Surya et al., 2021).

The third layer focuses on operational efficiency. This level evaluates how well internal processes are managed through indicators such as cost structure, turnover rate, product quality, and production time. Efficient operational management ensures that resources are used optimally and that production processes remain competitive. The fourth layer represents financial performance, which reflects the economic outcomes of operational activities. Key indicators at this level include profit, profitability ratios, and the stability of cash flow. Strong financial performance indicates that operational and resource management practices are functioning effectively.

Finally, the fifth layer represents strategic outcomes, including market share, export penetration, and overall competitiveness. These outcomes are the visible results of effective management across all underlying layers. Consequently, the pyramid model highlights that sustainable strategic success can only be achieved when institutional conditions, resource productivity, operational efficiency, and financial performance are managed in an integrated manner.

5. Conclusions

5.1 Conclusion

This study highlights that assessing the efficiency of small businesses requires a comprehensive approach that links performance results with their underlying causes. The findings show that an increase in indicators such as market share or exports does not necessarily guarantee financial stability. Therefore, financial indicators such as cash flow and profitability must be analyzed to ensure sustainable performance. Moreover, changes in financial outcomes are often rooted in operational and resource-related factors, including cost structure, turnover rate, labor productivity, and technological efficiency.

The study also emphasizes that the efficiency of small enterprises is shaped by both internal and external factors. Internal factors include managerial practices, financial resources, operational efficiency, and human capital, while external factors involve market demand, regulatory conditions, technological development, and broader socio-economic environments. A systematic evaluation combining quantitative and qualitative approaches provides a clearer understanding of these factors and supports better managerial and policy decisions. Overall, an integrated and evidence-based assessment framework is essential to enhance productivity, competitiveness, and long-term sustainability of small businesses, enabling them to contribute more effectively to regional and national economic development.

5.2 Research Limitations

This research has several limitations. First, some data were obtained from self-reported responses of business owners and managers, which may introduce subjective bias. Second, the study employs a cross-sectional design that captures conditions at a specific point in time, limiting the ability to observe long-term causal relationships between efficiency factors and business performance. Third, the research focuses on a specific regional context, which may limit the generalization of findings to other economic environments or industries.

5.3 Suggestions and Directions for Future Research

Future research should expand the assessment framework by incorporating longitudinal data to better understand the dynamic changes in small business efficiency over time. Further studies could also utilize advanced analytical tools such as real-time data analytics, benchmarking systems, and predictive

modeling techniques to provide more accurate performance evaluations. Additionally, comparative studies across regions and sectors are recommended to identify contextual differences in efficiency determinants and to facilitate the transfer of best practices. Future research may also explore the role of digital transformation, innovation capability, and entrepreneurial ecosystems in strengthening small business resilience and competitiveness in rapidly changing economic environments.

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