

Linking Balanced Scorecard Perspectives, Organizational Performance, and Organizational Sustainability: Evidence from Educational Foundations

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ABSTRACT:

Purpose – This study investigates the influence of the Balanced Scorecard perspectives on Organizational Performance and Organizational Sustainability in educational organizations. Specifically, it analyzes the effects of Financial Perspective, Customer Perspective, Internal Business Process Perspective, and Learning and Growth Perspective, while also examining the mediating role of Organizational Performance in strengthening Organizational Sustainability.

Design/methodology/approach – This study adopts a quantitative causal-explanatory approach. Data were collected through a structured questionnaire distributed to respondents within educational organizations, resulting in 100 valid responses. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS. The analysis includes measurement model assessment, structural model evaluation, mediation testing, and Importance-Performance Map Analysis (IPMA).

Findings – The results reveal that Customer Perspective ($\beta = 0.267$, $p = 0.028$), Internal Business Process Perspective ($\beta = 0.209$, $p = 0.050$), and Learning and Growth Perspective ($\beta = 0.253$, $p = 0.008$) have significant positive effects on Organizational Performance, while Financial Perspective does not show a significant effect ($\beta = 0.160$, $p = 0.070$). Regarding Organizational Sustainability, Internal Business Process Perspective ($\beta = 0.159$, $p = 0.029$), Learning and Growth Perspective ($\beta = 0.219$, $p = 0.005$), and Organizational Performance ($\beta = 0.480$, $p < 0.001$) demonstrate significant positive effects. However, Financial Perspective and Customer Perspective do not directly affect Organizational Sustainability. Furthermore, Organizational Performance significantly mediates the relationship between Customer Perspective and Organizational Sustainability (β

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= 0.128, $p = 0.044$), as well as Learning and Growth Perspective and Organizational Sustainability ($\beta = 0.121$, $p = 0.015$).

Research limitations/implications – This study is limited to educational organizations and uses cross-sectional survey data, which may restrict the generalizability of the findings to other organizational contexts. Future studies are encouraged to apply longitudinal approaches, include broader samples, and examine additional variables such as leadership, organizational culture, digital transformation, and risk management to provide a more comprehensive understanding of organizational sustainability.

Practical implications – The findings provide managerial insights for educational organizations in strengthening sustainability through strategic performance evaluation. Management should prioritize non-financial strategic capabilities, particularly learning and growth, customer orientation, and internal business process improvement, as these dimensions contribute significantly to Organizational Performance and Organizational Sustainability. Financial indicators remain important for institutional stability, but they should be integrated with broader strategic and operational perspectives.

Social implications – Strengthening Organizational Sustainability in educational organizations contributes to the continuity and quality of educational services. By improving organizational performance through strategic evaluation, educational institutions can better respond to stakeholder expectations, resource limitations, governance challenges, and long-term institutional resilience.

Originality/value – This study contributes to the literature by positioning the Balanced Scorecard not only as a performance measurement tool, but also as a strategic evaluation framework for supporting sustainability in educational foundations. The novelty lies in integrating the four Balanced Scorecard perspectives with Organizational Performance and Organizational Sustainability, while also demonstrating the mediating role of Organizational Performance in translating strategic performance dimensions into sustainable organizational outcomes.

Keywords: Balanced Scorecard, Organizational Performance, Organizational Sustainability, Educational Organization, PLS-SEM, IPMA.

1. Introduction

The rapid development of technology and globalization has encouraged educational organizations to continuously adapt to environmental changes, societal demands, and stakeholder expectations. Digital transformation has significantly reshaped the education system, requiring educational institutions not only to

provide high-quality educational services but also to ensure long-term organizational sustainability. Inamorato dos Santos et al. (2023) emphasized that the integration of information and communication technology into learning processes is essential in preparing students to face future challenges.

XYZ Foundation is a non-profit educational organization in Indonesia that manages primary, secondary, and higher education

institutions. As a Non-Profit Organization (NPO), XYZ Foundation focuses on achieving social and educational objectives rather than maximizing profit. Salamon & Anheier (1998) explained that non-profit organizations are characterized by formal structures, private status, self-governance, voluntary participation, and non-distribution of profits. In addition, Law of the Republic of Indonesia Number 16 of 2001 concerning Foundations defines a foundation as a legal entity established for social, religious, and humanitarian purposes without having members (Indonesia, 2001). Nevertheless, XYZ Foundation is affiliated with a State-Owned Enterprise, which brings a strong corporate governance culture and a more performance-oriented managerial mindset. As a result, although the foundation remains mission-driven, revenue generation, financial sustainability, and organizational performance have become central concerns in its strategic management practices. This condition creates a unique organizational context in which social and educational missions must be balanced with business-oriented performance expectations to support long-term sustainability.

Rafiq et al. (2020) emphasized that organizations need strategic management systems capable of maximizing resource effectiveness to support long-term success. In educational foundations, effective financial management is needed to maintain educational quality, competitiveness, and sustainable organizational development. To respond to dynamic environmental changes, organizations require a performance evaluation system that can translate vision and strategy into measurable indicators. One widely adopted strategic management approach is the Balanced Scorecard (BSC), introduced by Kaplan & Norton (1992). The BSC integrates financial and non-financial performance measures into four perspectives: financial perspective, customer perspective, internal business process perspective, and learning and growth perspective. Kaplan & Norton (2004) further stated that the BSC functions not only as a performance measurement tool but also as a strategic management and communication system.

The implementation of the BSC in educational organizations is considered effective in balancing financial and non-financial objectives. Punniyamoorthy & Murali (2008) argued that the BSC provides a comprehensive framework for evaluating and improving organizational performance through integrated strategic indicators. Similarly, Soysa et al. (2018) found that the BSC can serve as a strategic dashboard for non-profit organizations to improve accountability and organizational effectiveness.

At XYZ Foundation, organizational strategies are translated into targets and Key Performance Indicators (KPIs) through a BSC-based management contract system. This system is implemented to ensure alignment between organizational units and the foundation's vision, mission, and strategic objectives. Historical performance data from 2021–2025 show that XYZ Foundation consistently achieved overall organizational performance scores above 100 percent. However, several KPIs still failed to achieve their targets, particularly in the financial, customer, and internal business process perspectives. This indicates that high aggregate performance does not necessarily reflect balanced achievement across all strategic perspectives.

This condition highlights the importance of comprehensive and sustainability-oriented performance evaluation. Dwivedi et al. (2021) stated that comprehensive performance measurement helps organizations evaluate strategies, identify corrective actions, and improve competitive advantage. Srivastava & Sushil (2014) also emphasized that organizational adaptability and continuous evaluation can improve the effectiveness of BSC implementation.

In modern organizations, sustainability is not only related to environmental or social aspects, but also to the ability to maintain strategic performance over time. Mu et al. (2024) explained that organizational sustainability is reflected in strategic business performance, including the ability to achieve long-term objectives, maintain competitiveness, innovate, and adapt to environmental changes. Therefore, organizational sustainability can be

viewed as the outcome of effective strategic and performance management.

Despite the broad implementation of the BSC across various sectors, empirical studies on its application in non-profit educational organizations remain limited. De Jesus Alvares Mendes Junior & Alves (2023) highlighted that research on BSC implementation in the education sector still needs further development, particularly regarding its relationship with organizational sustainability. Based on these phenomena and empirical gaps, this study aims to analyze the influence of BSC perspectives on Organizational Sustainability, with Organizational Performance as an intervening variable at XYZ Foundation. This research is expected to contribute theoretically to strategic management studies in educational organizations and practically to improving performance evaluation effectiveness and strengthening long-term organizational sustainability.

2. Literature Review and Hypothesis Development

2.1. Financial Perspective and Organizational Performance

The financial perspective reflects the organization's ability to manage financial resources effectively to support strategic objectives and operational continuity. In the Balanced Scorecard framework, the financial perspective remains important because it indicates whether organizational strategies and resource allocation contribute to improved performance. In the context of non-profit organizations, financial performance is not primarily viewed as profit maximization, but as the organization's ability to ensure financial stability, accountability, and sustainable support for its mission. Greiling (2010) emphasized that the Balanced Scorecard is relevant for non-profit organizations, although it needs to be adapted to their mission-oriented characteristics.

Previous studies have shown that financial measures play an important role in strengthening organizational performance. (Rafiq et al., 2020) found that Balanced Scorecard perspectives contribute to organizational performance and sustainable development, although financial and non-financial measures need to be integrated to

provide a more comprehensive understanding of performance. Similarly, Rukhviyanti (2025) found that the financial perspective significantly affects higher education institutional performance. Camilleri (2021) also emphasized that financial and non-financial measures in the Balanced Scorecard are useful for assessing institutional performance in higher education. Therefore, the following hypothesis is proposed:

H1: Financial Perspective (FIN) positively influences Organizational Performance (OP).

2.2. Customer Perspective and Organizational Performance

The customer perspective focuses on the organization's ability to meet stakeholder expectations through service quality, satisfaction, trust, and loyalty. In educational organizations, customers may include students, parents, partners, and other stakeholders who directly or indirectly evaluate the quality of educational services. Therefore, the customer perspective is important because stakeholder satisfaction and trust can strengthen institutional reputation and improve organizational performance.

In the Balanced Scorecard framework, the customer perspective represents a key non-financial measure that links organizational strategy with stakeholder needs. Rafiq et al. (2020) emphasized that Balanced Scorecard perspectives, particularly non-financial measures, contribute to organizational performance and sustainable development. Similarly, Camilleri (2021) showed that the Balanced Scorecard can be used in higher education institutions to assess institutional performance through financial and non-financial perspectives, including the customer perspective. In the non-profit context, Soysa et al. (2018) also highlighted stakeholder satisfaction as an important dimension in evaluating strategic performance. This is supported by Valeau et al. (2019), who found that stakeholder involvement contributes to mission-based strategic planning and organizational effectiveness in non-profit organizations. Thus, the following hypothesis is proposed:

H2: Customer Perspective (CUS) positively influences Organizational Performance (OP).

2.3. Internal Business Process Perspective and Organizational Performance

The internal business process perspective reflects the organization's ability to manage operational activities, improve service delivery, and ensure that internal processes support strategic objectives. In educational organizations, effective internal processes are important because they influence the quality of academic services, administrative efficiency, innovation, and the organization's ability to respond to stakeholder needs. Kaplan (2010) emphasized that organizations with effective internal processes are more capable of delivering value to stakeholders and achieving strategic goals.

Previous studies have shown that the internal business process perspective is an important component of organizational performance. Rafiq et al. (2020) found that Balanced Scorecard perspectives contribute to organizational performance and sustainable development, indicating the importance of both financial and non-financial measures in strategic management. Camilleri (2021) also highlighted that the Balanced Scorecard can be used in higher education institutions to assess institutional performance through internal, customer, organizational capacity, and financial perspectives. In the non-profit context, (Soysa et al., 2018) developed a performance measurement model for non-profit organizations that includes processes as one of the key dimensions of strategic performance. Similarly, Click or tap here to enter text. emphasized that the Balanced Scorecard framework is relevant for non-profit organizations because it links mission, strategy, and organizational processes to stakeholder outcomes.

Therefore, the internal business process perspective is expected to positively influence organizational performance because efficient and innovative internal processes can strengthen service quality, improve productivity, and support strategic execution.

H3: Internal Business Process Perspective (IBP) positively influences Organizational Performance (OP).

2.4. Learning and Growth Perspective and Organizational Performance

The learning and growth perspective focuses on employee development, organizational learning, innovation, and knowledge management. In educational organizations, this perspective is important because human resources, learning culture, and innovation capabilities determine the organization's ability to adapt to environmental changes and improve institutional performance.

Kaplan (2010) explained that learning and growth capabilities are fundamental drivers of long-term organizational success. Rafiq et al. (2020) also emphasized that non-financial measures in the Balanced Scorecard, including learning and growth, contribute to organizational performance and sustainable development. This is supported by Gupta & Chopra (2018), who explained that knowledge management practices are closely related to organizational performance through the Balanced Scorecard perspectives. In addition, Pradana et al. (2022) found that organizational culture and innovation positively affect organizational performance.

Therefore, organizations with strong learning and growth capabilities are expected to improve employee competence, strengthen innovation, and enhance overall organizational performance.

H4: Learning and Growth Perspective (LG) positively influences Organizational Performance (OP).

2.5. Balanced Scorecard Perspectives and Organizational Sustainability

Balanced Scorecard perspectives collectively support organizational sustainability by integrating financial and non-financial strategic objectives. Sustainability is commonly understood as a long-term goal that balances economic, social, and environmental dimensions. Barbier (1987) introduced sustainability through three interconnected pillars, namely economic, social, and environmental sustainability, which were later emphasized by Purvis et al. (2019).

In the context of educational foundations, organizational sustainability is not only related to financial continuity, but also to stakeholder trust,

service quality, operational effectiveness, innovation, and organizational learning. Therefore, sustainability requires the use of appropriate strategies and management tools to create long-term value. Talbot et al. (2021) emphasized that sustainability can be supported through strategies, business models, investments, and management tools that are oriented toward sustainable development. In this regard, the Balanced Scorecard is relevant because it provides a comprehensive framework for aligning financial resources, stakeholder needs, internal processes, and learning capabilities with long-term institutional development.

Rafiq et al. (2020) found that the Balanced Scorecard as a strategic management system has a positive influence on sustainable development, with organizational performance acting as a partial mediator. This finding indicates that sustainability can be strengthened when organizations are able to manage financial resources, stakeholder relationships, internal processes, and learning capabilities in an integrated manner. Similarly, Hardani et al. (2025) examined the effect of the four Balanced Scorecard perspectives on organizational performance and sustainable development, showing that BSC is relevant for explaining sustainability outcomes. In higher education contexts, Camilleri (2021) emphasized that the Balanced Scorecard is useful for assessing institutional performance through both financial and non-financial measures. This is also supported by Sinen et al. (2024) who showed that financial performance, customer satisfaction, internal process efficiency, and learning and growth are important components in evaluating university performance and future strategic improvement.

Thus, the following hypotheses are proposed:

H5: Financial Perspective (FIN) positively influences Organizational Sustainability (OS).

H6: Customer Perspective (CUS) positively influences Organizational Sustainability (OS).

H7: Internal Business Process (IBP) Perspective positively influences Organizational Sustainability (OS).

H8: Learning and Growth Perspective (LG) positively influences Organizational Sustainability (OS).

2.6. Organizational Performance and Organizational Sustainability

Organizational performance reflects the organization's ability to achieve strategic objectives effectively and efficiently. High organizational performance enables organizations to maintain competitiveness, adaptability, service quality, stakeholder trust, and resource continuity, which are essential for long-term sustainability. In the context of educational foundations, organizational performance is not only measured by financial outcomes, but also by the organization's ability to deliver educational services, manage internal processes, develop human resources, and create value for stakeholders.

Rafiq et al. (2020) found that organizational performance acts as a partial mediator between the Balanced Scorecard as a strategic management system and sustainable development. This indicates that sustainability can be strengthened when organizations are able to transform strategic management practices into better organizational performance. Similarly, Mu et al. (2024) stated that strategic business performance significantly contributes to organizational sustainability and long-term value creation. Recent studies also show that organizational performance is positively associated with organizational sustainability and may serve as an important mechanism linking organizational resources, innovation, and sustainability outcomes. Therefore, organizations with stronger performance are more likely to maintain long-term continuity and achieve sustainable institutional development.

Thus, the following hypothesis is proposed:

H9: Organizational Performance (OP) positively influences Organizational Sustainability (OS).

2.7. Indirect Effect of Balanced Scorecard Perspectives on Organizational Sustainability Through Organizational Performance

The Balanced Scorecard perspectives are expected to influence organizational sustainability not only directly, but also indirectly through organizational performance. This assumption is based on the view that strategic management practices may first improve organizational effectiveness, service quality, stakeholder satisfaction, internal process efficiency, and learning capability before producing long-term sustainability outcomes.

Rafiq et al. (2020) found that organizational performance partially mediates the relationship between the Balanced Scorecard as a strategic management system and sustainable development. This finding indicates that BSC implementation contributes to sustainability through the improvement of organizational performance. In addition, Figge et al. (2002) explained that the Sustainability Balanced Scorecard links sustainability management with business strategy by integrating economic, social, and environmental aspects into a strategic management system. (Silva et al., 2025) also emphasized that the Sustainability Balanced Scorecard is useful for aligning sustainability objectives with organizational strategy and performance measurement. Therefore, the BSC framework can support organizations in translating strategic objectives into improved organizational performance and long-term sustainability outcomes.

Therefore, in the context of educational foundations, effective financial management, stakeholder orientation, internal process improvement, and learning and growth are expected to enhance organizational performance, which subsequently strengthens organizational sustainability. Based on this explanation, the following hypotheses are proposed:

H10: Financial Perspective (FIN) positively influences Organizational Sustainability (OS) through Organizational Performance (OP).

H11: Customer Perspective (CUS) positively influences Organizational Sustainability (OS) through Organizational Performance (OP).

H12: Internal Business Process Perspective (IBP) positively influences Organizational Sustainability (OS) through Organizational Performance (OP).

H13: Learning and Growth Perspective (LG) positively influences Organizational Sustainability (OS) through Organizational Performance (OP).

2.8. Conceptual Framework

Based on the theoretical and empirical foundations discussed above, this study develops a conceptual framework that examines the relationship between Balanced Scorecard perspectives, organizational performance, and organizational sustainability. The four Balanced Scorecard perspectives, namely financial perspective (FIN), customer perspective (CUS), internal business process perspective (IBP), and learning and growth perspective (LG), are used as measured constructs in this study to evaluate how strategic performance management contributes to organizational outcomes.

Organizational performance (OP) is positioned as an intervening variable that links the Balanced Scorecard perspectives with organizational sustainability (OS). This framework explains that effective management of financial resources, stakeholder relationships, internal processes, and organizational learning can improve organizational performance and support long-term sustainability in educational foundations. Figure 1 presents the conceptual model of this study.

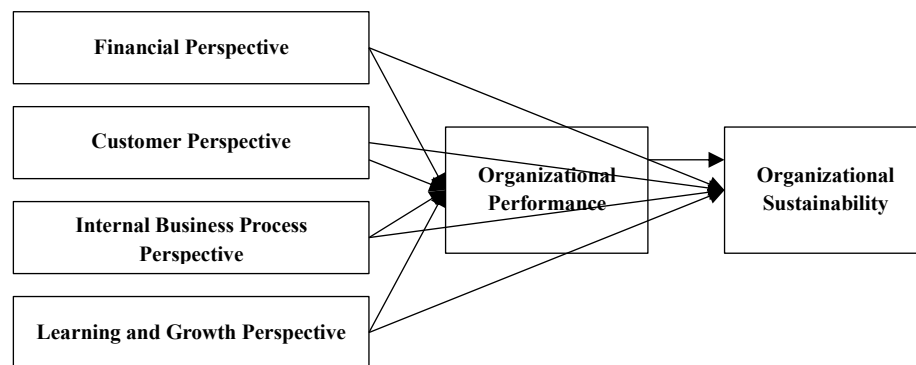


Figure 1. Conceptual Framework Integrating Balanced Scorecard Perspectives, Organizational Performance, and Organizational Sustainability

Source(s): Created by authors

3. Research Methodology

3.1. Research Design

This study employs a quantitative research approach with a descriptive and causal-explanatory design to examine the relationships among Balanced Scorecard perspectives, Organizational Performance, and Organizational Sustainability in the context of non-profit educational organizations. The quantitative approach is appropriate because this study uses numerical data to test hypothesized relationships among latent constructs (Hair et al., 2021) through statistical analysis techniques (Sugiyono, 2017; Sekaran & Roger, 2016; Creswell & Creswell, 2018).

The descriptive design is used to provide a systematic overview of the research variables, namely Financial Perspective, Customer Perspective, Internal Business Process Perspective, Learning and Growth Perspective, Organizational Performance, and Organizational Sustainability. Meanwhile, the causal-explanatory design is used to explain both direct and indirect effects among variables, particularly the mediating role of Organizational Performance in the relationship between Balanced Scorecard perspectives and Organizational Sustainability.

Data were collected through a structured questionnaire under non-contrived field conditions, where respondents provided perceptions based on actual organizational practices and performance management implementation within their respective institutions without experimental manipulation.

The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), which is suitable for testing complex structural models involving multiple latent variables and mediation effects (Hair et al., 2021).

3.2. Population and Sampling Strategy

The population of this study consists of employees involved in performance management, strategic planning, monitoring, and evaluation activities within XYZ Foundation and the educational institutions under its management. The total population comprised 111 respondents, including 48 respondents from foundation-level management units, 6 respondents from higher education institutions, and 57 respondents from primary and secondary education institutions.

This study employed a purposive sampling technique, as respondents were selected based on their direct involvement and understanding of Balanced Scorecard implementation and organizational performance management. Purposive sampling is appropriate when participants are chosen according to specific criteria relevant to the research objectives (Sekaran & Roger, 2016; Sugiyono, 2017).

The adequacy of the sample size was assessed using G*Power, a statistical power analysis program widely used to determine sample requirements based on effect size, significance level, statistical power, and the number of predictors (Faul et al., 2007; Faul et al., 2009). Following (Cohen, 1988) recommendation, this study applied a

significance level of 5% ($\alpha = 0.05$), statistical power of 80% (0.80), medium effect size of 0.15, and five predictors as the largest number of predictors in the structural model. Based on these criteria, the minimum recommended sample size was 92 respondents.

Therefore, the 100 valid responses obtained in this study exceeded the minimum sample requirement and were considered adequate for further analysis using PLS-SEM. The sample is expected to represent respondents who have relevant knowledge and involvement in organizational performance management within XYZ Foundation.

3.3. Data Collection Procedure

Data collection was conducted between Mei 2026 using online and direct questionnaire distribution methods. Primary data were collected through structured questionnaires distributed to respondents involved in organizational performance management within XYZ Foundation.

Before completing the questionnaire, respondents were informed about the academic purpose of the study, voluntary participation, anonymity, and confidentiality of responses. Respondents were also informed that they had the right to withdraw from the study at any stage of the data collection process.

In addition to primary data, this study also utilized secondary data collected from organizational performance reports, strategic planning documents, management contracts, organizational regulations, books, scientific journals, and other relevant literature related to Balanced Scorecard, Organizational Performance, and Organizational Sustainability.

3.4. Operationalization of Variables

This study examines six latent constructs consisting of four independent variables, one intervening variable, and one dependent variable. The independent variables include Financial Perspective (FIN), Customer Perspective (CUS), Internal Business Process Perspective (IBP), and Learning and Growth Perspective (LG), which are adapted from the Balanced Scorecard framework

developed by Kaplan & Norton (1992) and previous studies by Rafiq et al. (2020)

Organizational Performance (OP) is positioned as the intervening variable representing the organization's ability to achieve strategic objectives effectively and efficiently. Meanwhile, Organizational Sustainability (OS) is positioned as the dependent variable and is adapted from Mu et al. (2024). In this study, OS is proxied through Strategic Business Performance, reflecting the long-term sustainability of the organization from economic and social dimensions, particularly within the context of educational non-profit organizations.

Measurement indicators for each construct were adapted from validated prior studies and adjusted to the context of educational non-profit organizations. All indicators were measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Primary data were complemented with secondary sources obtained from peer-reviewed journals, organizational documents, sustainability literature, and government regulations relevant to educational foundations and strategic performance management.

3.5. Data Analysis Technique

This study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS software as the primary data analysis technique. PLS-SEM was selected because of its ability to analyze complex structural models involving multiple latent constructs, mediation relationships, and predictive analysis, while also accommodating relatively small sample sizes and non-normal data distributions (Hair et al. 2021).

The analysis procedure was conducted in two stages: evaluation of the measurement model (outer model) and evaluation of the structural model (inner model). The measurement model evaluation aimed to assess the validity and reliability of the constructs through several criteria, including indicator loadings, Cronbach's Alpha, Composite Reliability (CR), Average Variance Extracted (AVE), and discriminant validity using the Heterotrait-Monotrait Ratio (HTMT).

Subsequently, the structural model evaluation was conducted to assess the relationships among latent constructs using path coefficients (β), t-statistics, p-values, coefficient of determination (R^2), predictive relevance (Q^2), and effect size (f^2). Hypothesis testing was performed using the bootstrapping procedure to determine the significance of both direct and indirect effects among variables.

In addition, this study also applied Importance-Performance Map Analysis (IPMA) as an extension of PLS-SEM analysis to identify variables and indicators with high importance but relatively low performance. The IPMA analysis provides managerial implications by identifying strategic priorities for improving Organizational Performance (OP) and Organizational Sustainability (OS) within XYZ Foundation.

4. Findings And Discussion

4.1. Respondent Profile

This study targeted a total population of 111 respondents. A total of 103 questionnaire responses were collected, resulting in a response rate of 92.8%. However, 3 responses were excluded

due to missing data, leaving 100 valid responses for further analysis. Thus, the final usable responses represented 90.1% of the total population. Table 1 presents the demographic profile of respondents based on position, years of employment, and institution level within XYZ Foundation and the educational institutions under its management.

Based on position, respondents were dominated by Rector/Vice Rector/Principal/Vice Principal at 23%, followed by Officer/Staff/Non-Structural employees at 22%, Senior Officer/Head of Section at 21%, AVP/Manager at 20%, Vice President/Head of/Direktor at 11%, and Board of Director at 3%.

In terms of years of employment, most respondents had more than 7 years of experience (71%), followed by 5–7 years (14%), 2–4 years (11%), and less than 2 years (4%). Based on institution level, respondents came from Foundation Management Units (58%), Primary and Secondary Education Institutions (37%), and Higher Education Institutions (5%). This distribution indicates that the respondents represent various organizational levels relevant to performance management and strategic implementation.

Table 1. Respondent Profile ($N = 100$)

Characteristic	Category	Frequency (n)	Percentage (%)
Position	Board of Director	3	3%
	AVP/Manajer	20	20%
	Rector/Vice Rector/Principal/Vice Principal	23	23%
	Vice President/Head of/Direktor	11	11%
	Senior Officer/Head of Section	21	21%
	Officer/Staff/Non-Structural	22	22%
Years of Employment	Less than 2 years	4	4%
	2–4 years	11	11%
	5–7 years	14	14%
	More than 7 years	71	71%
Institution Level	Foundation Management Units	58	58%
	Higher Education Institutions	5	5%
	Primary and Secondary Education Institutions (Schools)	37	37%

Source(s): Created by authors

4.2. Measurement Model Assessment

The measurement model was evaluated to ensure that all constructs demonstrated adequate

reliability and validity. This assessment is important because robust measurement quality is required to ensure that the indicators accurately represent their

intended constructs. Widodo et al. (2025) emphasized that SEM-based quantitative studies should ensure measurement robustness through reliability, validity, and overall measurement quality assessment. In line with this view, the measurement model in this study was assessed by examining indicator reliability, internal consistency reliability, and convergent validity.

The assessment was conducted by examining outer loading, Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) values for each construct. The measurement model results showed that the retained indicator loadings ranged from 0.678 to 0.907. Most indicators had loading values above 0.700, indicating adequate indicator reliability. Although two indicators, namely FIN1 and OS13, had loading values slightly below 0.700, they were still considered acceptable because their values remained above 0.600 and the related constructs fulfilled the required AVE and reliability criteria. This is in line with Hair et al. (2022), who explain

that indicators with loadings below 0.700 may be retained when the overall construct validity and reliability remain satisfactory.

The Cronbach's alpha values ranged from 0.818 to 0.964, while the Composite Reliability values ranged from 0.871 to 0.968. These results indicate that all constructs had good internal consistency reliability because the values exceeded the commonly recommended threshold of 0.70. Furthermore, the AVE values ranged from 0.577 to 0.786, exceeding the minimum threshold of 0.50 suggested by (Hair et al., 2019). This confirms that all constructs had achieved adequate convergent validity.

Overall, the results indicate that the measurement model fulfilled the requirements of indicator reliability, internal consistency reliability, and convergent validity. Thus, all constructs in the model were considered valid and reliable for further analysis in the structural model assessment.

Table 2. Measurement Model — Factor Loadings, Reliability and Convergent Validity

Construct	Item	Descriptions	Factor Loading	CA ($\geq$ 0.70)	CR ($\geq$ 0.70)	AVE ($\geq$ 0.50)
Customer Perspective (CUS)	CUS1	The organization (foundation) has customer/student-oriented objectives and has consistently implemented them.	0.810	0.848	0.892	0.623
	CUS2	Customer/student satisfaction is used as one of the main indicators in assessing the organization's performance.	0.754			
	CUS3	Customer/student expectations are considered in the organization's decision-making process.	0.830			
	CUS4	The organization (foundation) is able to easily understand the needs and expectations of customers/students.	0.717			

Construct	Item	Descriptions	Factor Loading	CA ($\geq$ 0.70)	CR ($\geq$ 0.70)	AVE ($\geq$ 0.50)
Financial Perspective (FIN)	CUS5	Customer/student information is regarded as an important organizational asset.	0.830			
	FIN1	The organization has sufficient financial capacity to support long-term operational sustainability.	0.678	0.818	0.871	0.577
	FIN2	Employees understand the cost structure required for customer/student acquisition.	0.706			
	FIN3	Employees understand the financial expenditures needed to attract prospective customers/students.	0.737			
	FIN4	The organization evaluates customer/student relationship management based on the balance between financial benefits and costs incurred.	0.842			
Internal Business Process Perspective (IBP)	IBP1	The organization's service processes are delivered in a timely and efficient manner.	0.777	0.840	0.893	0.676
	IBP2	The organization's internal work processes are designed to meet the expectations of customers/students.	0.863			
	IBP3	Customer/student feedback is systematically used to improve internal service processes.	0.838			
	IBP4	Employees perceive that the technology used by the organization supports the efficiency and effectiveness of internal work processes and service delivery.	0.807			
Learning & Growth Perspective (LG)	LG1	Employees have the capability to support the resolution of customer/student problems.	0.700	0.833	0.882	0.601
	LG2	Employees are involved in the evaluation and improvement of	0.769			

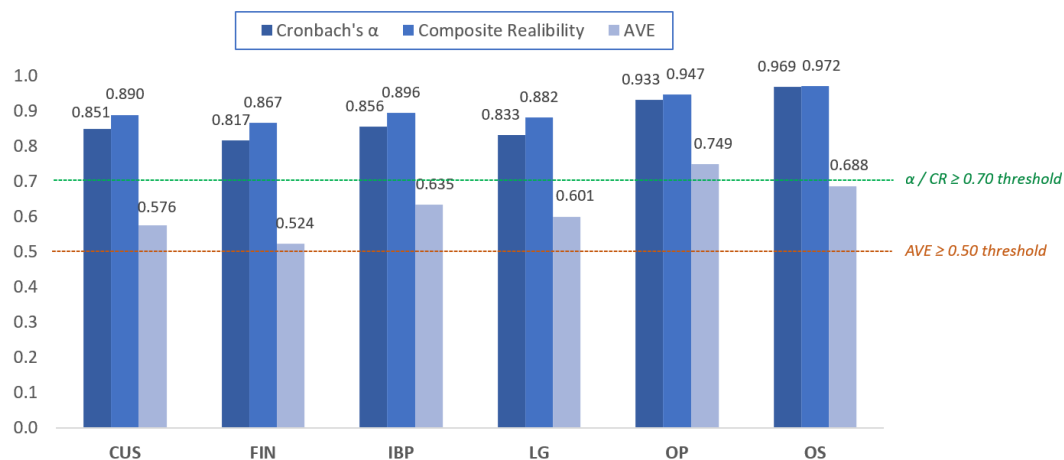
Construct	Item	Descriptions	Factor Loading	CA ($\geq$ 0.70)	CR ($\geq$ 0.70)	AVE ($\geq$ 0.50)
Organizational Sustainability (OS)		the organization's performance management system.				
	LG3	The organization provides training programs to enhance employees' competencies in delivering better services to customers/students.	0.802			
	LG4	Human resource development is aligned with the improvement of service quality and stakeholder needs.	0.842			
	LG5	Employee rewards are linked to service improvement, competency development, and customer/student satisfaction.	0.754			
	OS1	The organization consistently achieves its long-term objectives.	0.844	0.964	0.968	0.687
	OS2	The organization's strategy supports the institution's economic sustainability.	0.882			
	OS3	The organization carries out its social responsibilities effectively.	0.814			
	OS4	The organization is able to adapt to changes in policies and the needs of customers/students.	0.848			
	OS5	The organization responds quickly to changes in trends and the external environment.	0.864			
	OS6	The organization maintains its reputation as a trusted institution.	0.862			
	OS7	The organization achieves innovation targets in educational programs and services.	0.769			
	OS8	The organization's strategic objectives support financial sustainability.	0.834			
	OS9	The organization's strategy increases customer/student trust.	0.876			

Construct	Item	Descriptions	Factor Loading	CA (≥ 0.70)	CR (≥ 0.70)	AVE (≥ 0.50)
	OS10	The organization's operational strategy improves efficiency and productivity.	0.814			
	OS11	The organization utilizes partnerships to support sustainability.	0.876			
	OS12	The organization is more innovative than similar institutions.	0.722			
	OS13	The organization's strategic performance is superior to that of similar institutions.	0.688			
	OS14	The organization's strategy supports long-term growth and sustainability.	0.884			

Note: CA = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted.

Source(s): Created by authors

Figure 2. Reliability and Convergent Validity of Reflective Constructs



Discriminant validity was further evaluated using the Heterotrait-Monotrait Ratio (HTMT) and the Fornell-Larcker Criterion. In this study, HTMT was used as the main criterion to assess whether each construct in the model was empirically distinct from other constructs. This approach is supported by Henseler et al. (2015), who argue that traditional approaches, such as the Fornell-Larcker Criterion and cross-loading assessment, may not reliably detect discriminant validity problems in variance-based SEM. Therefore, they proposed HTMT as a

more sensitive and reliable criterion for assessing discriminant validity in PLS-SEM. Similarly, Voorhees et al. (2016) found that HTMT provides strong performance in discriminant validity testing and can be used as an important standard for evaluating discriminant validity. In line with this, SmartPLS documentation based on Hair et al. (2022) also emphasizes that HTMT is recommended because it is more sensitive than traditional methods such as the Fornell-Larcker Criterion and cross-loading analysis. In general,

HTMT values below 0.90 indicate that discriminant validity has been achieved, while values above this threshold suggest potential overlap between constructs.

Table 3. Heterotrait-Monotrait Ratio (HTMT) and Fornell-Larcker Criterion

Heterotrait-Monotrait Ratio (HTMT)							Fornell-Larcker Criterion						
Construct	CUS	FIN	IBP	LG	OP	OS	Construct	CUS	FIN	IBP	LG	OP	OS
CUS	-						CUS	0.789					
FIN	0.836	-					FIN	0.728	0.759				
IBP	0.883	0.776	-				IBP	0.753	0.664	0.822			
LG	0.757	0.679	0.825	-			LG	0.641	0.586	0.695	0.775		
OP	0.796	0.707	0.787	0.752	-		OP	0.703	0.642	0.693	0.663	0.887	
OS	0.800	0.754	0.829	0.822	0.891	-	OS	0.727	0.682	0.752	0.743	0.839	0.829

Note: CUS = Customer Perspective; FIN = Financial Perspective; IBP = Internal Business Process Perspective; LG = Learning & Growth Perspective; OP = Organizational Performance; OS = Organizational Sustainability.

Source(s): Created by authors

Based on the final measurement model assessment, discriminant validity was evaluated primarily using the Heterotrait-Monotrait Ratio (HTMT), while the Fornell-Larcker Criterion was used as a complementary assessment. Discriminant validity is an essential requirement in PLS-SEM because it ensures that each latent construct measures a concept that is empirically distinct from other constructs in the model. In this study, HTMT was prioritized because recent methodological literature has shown that HTMT provides a more sensitive and reliable assessment of discriminant validity compared to traditional criteria such as Fornell-Larcker and cross-loading evaluation.

Henseler, Ringle & Sarstedt (2016) introduced HTMT as a new criterion for assessing discriminant validity in variance-based SEM and demonstrated through simulation that the Fornell-Larcker Criterion and cross-loadings often fail to detect discriminant validity problems in common research situations. Similarly, Voorhees et al. (2016) suggested that HTMT should be used as a standard approach in discriminant validity assessment because of its stronger diagnostic capability. Hair et al. (2019, 2022) also recommend HTMT as the primary criterion in PLS-SEM measurement model evaluation, particularly because it provides a more rigorous assessment of whether constructs are empirically distinguishable.

The final HTMT results showed that all construct relationships were below the

recommended threshold of 0.90. The HTMT values ranged from 0.707 to 0.891, with the highest value found in the relationship between Organizational Performance and Organizational Sustainability. According to Henseler et al. (2015) an HTMT value below 0.90 indicates acceptable discriminant validity for conceptually related constructs, while a more conservative threshold of 0.85 may be applied when constructs are conceptually more distinct. Hair et al. (2022) further explain that the 0.90 threshold is acceptable when constructs are theoretically related and measure phenomena within the same nomological network. Therefore, since all HTMT values in this study were below 0.90, the measurement model can be considered to have achieved acceptable discriminant validity.

In addition to HTMT, the Fornell-Larcker Criterion was examined as a supporting assessment. The results showed that most constructs met the Fornell-Larcker requirement, where the square root of the Average Variance Extracted was greater than the correlations with other constructs. However, the relationship between Organizational Performance and Organizational Sustainability remained relatively high. Specifically, the square root of AVE for Organizational Sustainability was slightly lower than its correlation with Organizational Performance. This indicates that the two constructs are closely related both conceptually and empirically.

Nevertheless, this condition does not necessarily invalidate the measurement model because HTMT was used as the main basis for determining discriminant validity. This approach is methodologically justified because HTMT has been empirically proven to outperform the Fornell-Larcker Criterion in detecting discriminant validity issues (Henseler et al. (2015). Moreover, Voorhees et al. (2016) emphasized that HTMT provides stronger evidence for discriminant validity assessment and should be used alongside or even ahead of traditional criteria. Therefore, although the Fornell-Larcker result indicated a marginal issue between Organizational Performance and Organizational Sustainability, the HTMT value between these constructs was 0.891 and remained below the recommended threshold of 0.90. Thus, discriminant validity was considered acceptable.

Overall, the final measurement model demonstrated adequate discriminant validity. The HTMT results confirmed that all constructs were empirically distinguishable, while the Fornell-Larcker Criterion provided additional support for most construct relationships. The relatively strong relationship between Organizational Performance and Organizational Sustainability is theoretically reasonable because sustainability in educational organizations is closely related to the ability to maintain strong organizational performance over time. Therefore, the measurement model was considered valid and suitable for further structural model assessment.

4.3. Structural Model Evaluation

Following confirmation of measurement-model adequacy, the structural model was assessed

for explanatory and predictive performance. The adjusted R^2 value was 0.587 for Organizational Performance, indicating a moderate explanatory power, and 0.783 for Organizational Sustainability, indicating substantial explanatory power. Stone-Geisser Q^2 Predict values exceeded zero for both endogenous constructs, with $Q^2 = 0.568$ for Organizational Performance and $Q^2 = 0.658$ for Organizational Sustainability, indicating that the model has predictive relevance.

Effect-size coefficients showed small effects for Customer Perspective $\rightarrow$ Organizational Performance ($f^2 = 0.060$), Financial Perspective $\rightarrow$ Organizational Performance ($f^2 = 0.028$), Internal Business Process Perspective $\rightarrow$ Organizational Performance ($f^2 = 0.038$), and Learning & Growth Perspective $\rightarrow$ Organizational Performance ($f^2 = 0.077$). Similar small effects were also found for Customer Perspective $\rightarrow$ Organizational Sustainability ($f^2 = 0.005$), Financial Perspective $\rightarrow$ Organizational Sustainability ($f^2 = 0.020$), Internal Business Process Perspective $\rightarrow$ Organizational Sustainability ($f^2 = 0.041$), and Learning & Growth Perspective $\rightarrow$ Organizational Sustainability ($f^2 = 0.103$). Meanwhile, Organizational Performance $\rightarrow$ Organizational Sustainability showed a large effect size ($f^2 = 0.443$). The standardized root mean square residual value (SRMR = 0.074) was below the 0.10 cut-off, supporting acceptable model fit.

4.4. Hypothesis Testing

Path coefficients, t-statistics, and p-values were derived through bootstrapping with 5,000 resamples. Table 5 summarizes the hypothesis testing results and presents the relative magnitude of each estimated effect.

Table 5. Structural Model Results and Hypothesis Testing

H	Path	β	t-value	p-value	Effect (f^2)	Decision
H1	FIN $\rightarrow$ OP	0.160	1.475	0.070	0.028 (small)	Not Supported
H2	CUS $\rightarrow$ OP	0.267	1.913	0.028	0.060 (small)	Supported
H3	IBP $\rightarrow$ OP	0.209	1.641	0.050	0.038 (small)	Supported/ Borderline

H	Path	β	t-value	p-value	Effect (f^2)	Decision
H4	LG $\rightarrow$ OP	0.253	2.425	0.008	0.077 (small)	Supported
H5	FIN $\rightarrow$ OS	0.098	1.169	0.121	0.020 (small)	Not Supported
H6	CUS $\rightarrow$ OS	0.058	0.468	0.320	0.005 (very small)	Not Supported
H7	IBP $\rightarrow$ OS	0.159	1.901	0.029	0.041 (small)	Supported
H8	LG $\rightarrow$ OS	0.219	2.549	0.005	0.103 (small)	Supported
H9	OP $\rightarrow$ OS	0.480	5.161	0.000	0.443 (large)	Supported
H10	FIN $\rightarrow$ OP $\rightarrow$ OS (Indirect)	0.077	1.413	0.079	—	Not Supported
H11	CUS $\rightarrow$ OP $\rightarrow$ OS (Indirect)	0.128	1.707	0.044	—	Supported
H12	IBP $\rightarrow$ OP $\rightarrow$ OS (Indirect)	0.100	1.530	0.063	—	Not Supported
H13	LG $\rightarrow$ OP $\rightarrow$ OS (Indirect)	0.121	2.180	0.015	—	Supported

Note: β = standardized path coefficient; f^2 = Cohen's effect-size index.

Source(s): Created by authors

4.5. Discussion of Direct Effects

The structural model results show that not all Balanced Scorecard perspectives have a significant direct effect on Organizational Performance and Organizational Sustainability. Overall, the findings indicate that non-financial perspectives, particularly Customer Perspective, Internal Business Process Perspective, and Learning and Growth Perspective, play a more important role than Financial Perspective. This is consistent with the Balanced Scorecard logic, which emphasizes that organizational success should be evaluated not only from financial indicators, but also from stakeholder satisfaction, internal process effectiveness, and organizational learning. This view is also supported by Rafiq et al. (2020), Hardani et al. (2025) and Silva et al. (2025), who highlight the importance of non-financial dimensions in

strengthening organizational performance and sustainability.

Contrary to H1, Financial Perspective does not significantly affect Organizational Performance ($\beta = 0.160$, $t = 1.475$, $p = 0.070$). This suggests that financial aspects alone are not sufficient to directly improve performance. Although financial management remains important, its contribution may depend on the effectiveness of non-financial dimensions. This finding is in line with Hardani et al. (2025) who found that Financial Perspective did not significantly affect organizational performance. Therefore, H1 is not supported.

H2 is supported because Customer Perspective has a positive and significant effect on Organizational Performance ($\beta = 0.267$, $t = 1.913$, $p = 0.028$). This finding indicates that the organization's ability to understand and satisfy stakeholders contributes to better performance. In

educational organizations, stakeholder satisfaction, service quality, and responsiveness are important drivers of organizational achievement.

H3 shows that Internal Business Process Perspective has a positive effect on Organizational Performance, with $\beta = 0.209$, $t = 1.641$, and $p = 0.050$. Since the p-value is exactly at the significance threshold, this relationship can be interpreted as marginally significant. This indicates that internal business processes have begun to contribute to organizational performance, but the effect is not yet statistically strong.

This condition may occur because improvements in internal processes, such as service standardization, digitalization, quality assurance, inter-unit coordination, and operational efficiency, require time before producing a direct impact on performance. In educational organizations with multiple units and institution levels, differences in implementation consistency, human resource readiness, and technology utilization may also weaken the direct effect. Therefore, although the relationship is positive, the borderline result suggests that internal business processes still need to be strengthened to contribute more optimally to Organizational Performance.

H4 is supported because Learning and Growth Perspective has a positive and significant effect on Organizational Performance ($\beta = 0.253$, $t = 2.425$, $p = 0.008$). This result confirms that employee competency development, organizational learning, innovation, and knowledge improvement are important contributors to performance. This finding is also consistent with the Balanced Scorecard framework, which positions learning and growth as the foundation for improving internal processes and overall performance.

H5 is not supported because Financial Perspective does not significantly affect Organizational Sustainability ($\beta = 0.098$, $t = 1.169$, $p = 0.121$). This finding indicates that sustainability is not directly determined by financial performance alone, but requires broader capabilities such as adaptability, innovation, stakeholder trust, and continuous improvement. This is consistent with the Sustainability Balanced Scorecard view, which

emphasizes multidimensional performance measurement beyond financial indicators.

H6 is also not supported, as Customer Perspective does not significantly affect Organizational Sustainability ($\beta = 0.058$, $t = 0.468$, $p = 0.320$). This suggests that customer-related factors may improve Organizational Performance, but do not directly translate into long-term sustainability. Therefore, Customer Perspective may influence sustainability indirectly through Organizational Performance.

H7 is supported because Internal Business Process Perspective has a positive and significant effect on Organizational Sustainability ($\beta = 0.159$, $t = 1.901$, $p = 0.029$). This finding indicates that effective internal processes, efficient operations, and continuous improvement practices support long-term organizational sustainability.

H8 is supported because Learning and Growth Perspective has a positive and significant effect on Organizational Sustainability ($\beta = 0.219$, $t = 2.549$, $p = 0.005$). This shows that learning capability, employee development, innovation, and organizational knowledge are essential for building long-term sustainability.

Most importantly, Organizational Performance has the strongest direct effect on Organizational Sustainability ($\beta = 0.480$, $t = 5.161$, $p < 0.001$). This supports H9 and shows that stronger performance significantly contributes to sustainability. The large effect size ($f^2 = 0.443$) further confirms the important role of Organizational Performance in explaining Organizational Sustainability. This result is consistent with Rafiq et al. (2020) and Hardani et al. (2025) who found that organizational performance plays an important role in linking Balanced Scorecard implementation with sustainability outcomes.

Overall, the direct-effect findings indicate that non-financial perspectives of the Balanced Scorecard are more influential than Financial Perspective in explaining Organizational Performance and Organizational Sustainability. The results also confirm that Organizational Performance is a key driver of Organizational Sustainability.

4.6. Discussion of Indirect Effects

The indirect effect analysis shows that Organizational Performance plays a mediating role in several relationships between Balanced Scorecard perspectives and Organizational Sustainability. However, the mediation effect is not significant for all paths. These findings are consistent with prior studies showing that Organizational Performance can serve as an important mechanism linking strategic management practices with sustainability outcomes. Rafiq et al. (2020) found that Organizational Performance mediates the relationship between Balanced Scorecard implementation and sustainable development. Similarly, Hardani et al. (2025) confirmed the mediating role of Organizational Performance in linking Balanced Scorecard perspectives with sustainable development. In addition, Mu et al. (2024) emphasized that sustainability-oriented practices, such as CSR orientation, commitment, and participation, can enhance strategic business performance, indicating that performance serves as an important pathway through which sustainability-oriented strategies generate organizational outcomes.

H10 is not supported because the indirect effect of Financial Perspective on Organizational Sustainability through Organizational Performance is not significant ($\beta = 0.077$, $t = 1.413$, $p = 0.079$). This result indicates that Financial Perspective does not significantly influence sustainability either directly or indirectly through Organizational Performance. Therefore, financial indicators alone may not be sufficient to strengthen long-term Organizational Sustainability in this study. This finding is aligned with the Sustainability Balanced Scorecard perspective, which emphasizes that sustainability requires broader financial and non-financial capabilities rather than relying solely on financial outcomes.

H11 is supported, as Customer Perspective has a positive and significant indirect effect on Organizational Sustainability through Organizational Performance ($\beta = 0.128$, $t = 1.707$, $p = 0.044$). This result suggests that Customer Perspective contributes to sustainability when it first improves Organizational Performance. Since the

direct effect of Customer Perspective on Organizational Sustainability is not significant, while the indirect effect is significant, Organizational Performance can be interpreted as an indirect-only mediator or full mediator in this relationship. This interpretation is consistent with Zhao et al. (2010) who explain that indirect-only mediation occurs when the indirect effect is significant, but the direct effect is not significant.

H12 is not supported because the indirect effect of Internal Business Process Perspective on Organizational Sustainability through Organizational Performance is not significant ($\beta = 0.100$, $t = 1.530$, $p = 0.063$). Although Internal Business Process Perspective has a significant direct effect on Organizational Sustainability and a borderline effect on Organizational Performance, its indirect effect through Organizational Performance is not statistically significant. This indicates that internal business processes influence sustainability more directly rather than through the mediation of Organizational Performance.

H13 is supported, as Learning and Growth Perspective has a positive and significant indirect effect on Organizational Sustainability through Organizational Performance ($\beta = 0.121$, $t = 2.180$, $p = 0.015$). This finding indicates that Learning and Growth Perspective improves sustainability not only directly but also indirectly by enhancing Organizational Performance. Since both the direct and indirect effects are significant and positive, Organizational Performance can be interpreted as a complementary partial mediator in the relationship between Learning and Growth Perspective and Organizational Sustainability. This interpretation is in line with Zhao et al. (2010), who explain that complementary mediation occurs when both direct and indirect effects are significant and have the same direction.

Overall, the findings indicate that Learning and Growth Perspective is the most consistent antecedent because it significantly affects Organizational Performance and Organizational Sustainability both directly and indirectly. In addition, Organizational Performance serves as an important mechanism that strengthens the relationship between selected Balanced Scorecard

perspectives and Organizational Sustainability. These results support previous studies suggesting that strategic management practices, non-financial capabilities, and sustainability-oriented initiatives can be translated into long-term sustainability through improved organizational or strategic business performance.

4.7. Importance-Performance Map Analysis

4.7.1. IPMA for Organizational Performance

The Importance-Performance Map Analysis (IPMA) was conducted to identify the priority areas that should be considered in improving Organizational Performance. The IPMA results combine two dimensions, namely importance, which reflects the total effect of each construct on Organizational Performance, and performance, which reflects the current achievement level of each construct.

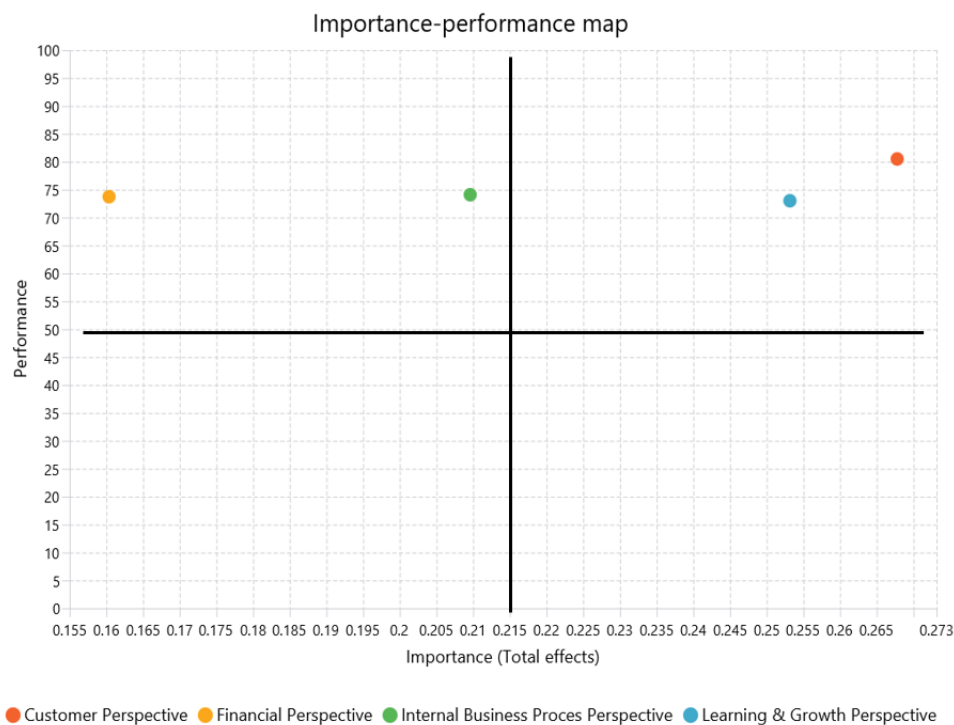


Figure 3. IPMA for Organizational Performance

Source(s): Created by authors

Table 6. IPMA for Organizational Performance

Variabel	Organizational Sustainability	Performance	Kuadran IPMA
Customer Perspective	0.267	80.502	Q1
Financial Perspective	0.160	73.741	Q2
Internal Business Proces Perspective	0.209	74.100	Q2
Learning & Growth Perspective	0.253	73.015	Q1

Source(s): Created by authors

The IPMA results for Organizational Performance show that Customer Perspective has the highest importance value (0.267) and the highest performance value (80.502), placing it in Quadrant 1 (Q1). This indicates that customer-related aspects

represent a key strategic strength in improving Organizational Performance. Therefore, stakeholder satisfaction, service quality, and responsiveness should be maintained and continuously strengthened.

Learning and Growth Perspective is also positioned in Q1, with an importance value of 0.253 and a performance value of 73.015. This suggests that employee development, organizational learning, and innovation are important drivers of Organizational Performance and should continue to receive managerial attention. Since this construct has relatively high importance and performance, the organization should maintain its current achievements while seeking further improvement.

Meanwhile, Internal Business Process Perspective and Financial Perspective are located in Quadrant 2 (Q2). These variables show relatively good performance, but their importance values are lower compared with Customer Perspective and Learning and Growth Perspective. Therefore, both perspectives should be maintained as supporting factors, while strategic attention should remain focused on strengthening Customer Perspective and Learning and Growth Perspective.

Overall, the IPMA results indicate that Customer Perspective and Learning and Growth Perspective are the main strategic strengths for enhancing Organizational Performance. This finding is consistent with the direct-effect results, where Customer Perspective and Learning and Growth Perspective significantly affect Organizational Performance. It is also aligned with Rafiq et al. (2020) and (Hardani et al., 2025) who emphasize that non-financial perspectives of the Balanced Scorecard play an important role in strengthening organizational performance and sustainability outcomes.

From a methodological perspective, this interpretation is supported by Ringle and Sarstedt

(2016), who explain that IPMA extends PLS-SEM results by combining importance and performance dimensions to support managerial priority setting. More recent studies also confirm this view. Hauff et al., (2024) explain that IPMA in PLS-SEM assesses the importance and performance of constructs to identify more effective managerial priorities, while (Sarstedt et al., 2024) emphasize that importance-performance analysis can help determine which areas should be prioritized to improve a target construct. Therefore, the IPMA results in this study provide practical guidance that the organization should maintain its strengths in Customer Perspective and Learning and Growth Perspective while continuing to manage Financial Perspective and Internal Business Process Perspective as supporting factors.

4.7.2. IPMA Organization Sustainability

The Importance-Performance Map Analysis (IPMA) was also conducted to identify the priority areas that should be considered in strengthening Organizational Sustainability. The IPMA results combine two dimensions, namely importance and performance. Importance reflects the total effect of each construct on Organizational Sustainability, while performance represents the current achievement level of each construct. Through this analysis, constructs with high importance but relatively lower performance can be identified as strategic priority areas for improvement. Therefore, IPMA provides practical guidance for determining which factors should receive greater managerial attention in order to enhance long-term organizational sustainability.

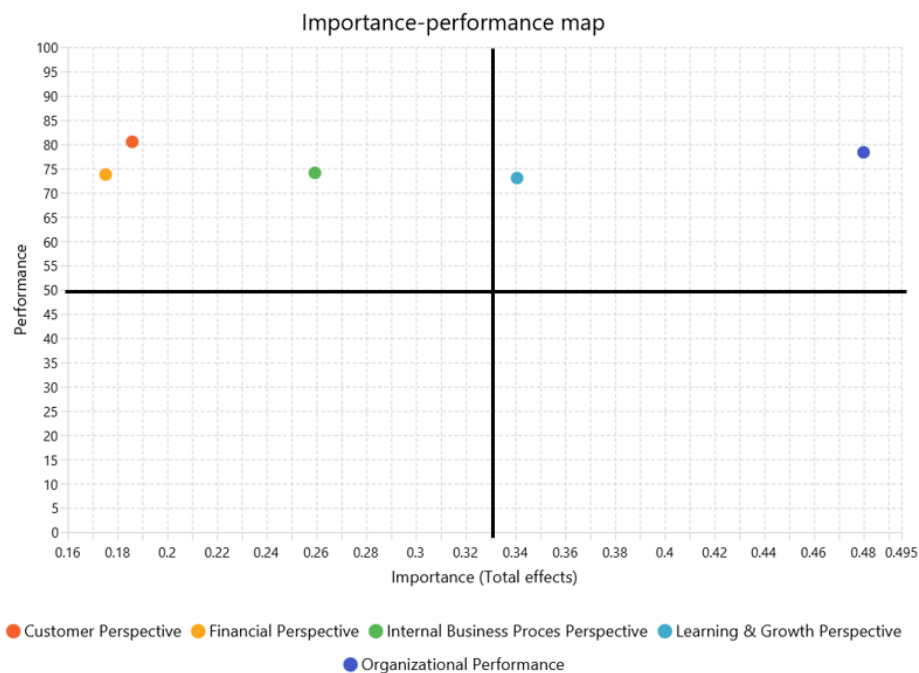


Figure 4. IPMA for Organizational Sustainability

Source(s): Created by authors

Table 7. IPMA for Organizational Sustainability

Variabel	Organizational Sustainability	Performance	Kuadran IPMA
Organizational Performance	0.480	78.329	Q1
Learning & Growth Perspective	0.341	73.015	Q1
Internal Business Proces Perspective	0.259	74.100	Q2
Customer Perspective	0.186	80.502	Q2
Financial Perspective	0.175	73.741	Q2

Source(s): Created by authors

The IPMA results for Organizational Sustainability show that Organizational Performance has the highest importance in value (0.480) with a performance value of 78.329, placing it in Quadrant 1 (Q1). This indicates that Organizational Performance is the most critical strategic strength in strengthening Organizational Sustainability. Therefore, the organization should maintain and continuously improve its performance outcomes to support long-term sustainability.

Learning and Growth Perspective is also positioned in Q1, with an importance value of 0.341 and a performance value of 73.015. This suggests that employee development, organizational learning, innovation, and capability improvement are important strategic factors for supporting

Organizational Sustainability. Since this construct has relatively high importance and performance, it should be maintained and further strengthened.

Meanwhile, Internal Business Process Perspective, Customer Perspective, and Financial Perspective are located in Quadrant 2 (Q2). These variables show relatively good performance, but their importance values are lower than Organizational Performance and Learning and Growth Perspective. Therefore, these constructs should be maintained as supporting factors, while strategic attention should mainly focus on strengthening Organizational Performance and Learning and Growth Perspective.

Overall, the IPMA results indicate that Organizational Performance and Learning and

Growth Perspective are the key strategic strengths for enhancing Organizational Sustainability. This finding is consistent with the structural model results, where Organizational Performance has the strongest direct effect on Organizational Sustainability, while Learning and Growth Perspective contributes both directly and indirectly through Organizational Performance. The findings are also aligned with Rafiq et al. (2020) and Hardani et al. (2025) who emphasize the important role of Organizational Performance in linking Balanced Scorecard perspectives with sustainability outcomes. From a methodological perspective, IPMA is useful because it combines importance and performance dimensions to support managerial priority setting. Ringle & Sarstedt (2016) explain that IPMA extends PLS-SEM results by identifying constructs that are important for improving a target construct, while recent studies by (Hauff et al., 2024) and (Sarstedt & Liu, 2024) further confirm that IPMA can support better prioritization of managerial actions in PLS-SEM.

4.8. Theoretical and Contextual Discussion

The findings provide several theoretical and contextual contributions to the literature on the Balanced Scorecard, Organizational Performance, and Organizational Sustainability. First, this study reinforces the role of the Balanced Scorecard as a strategic management framework that integrates both financial and non-financial perspectives. Rafiq et al. (2020) explain that the Balanced Scorecard is not only a performance measurement tool, but also a strategic management system that helps organizations translate strategic objectives into measurable actions and improve sustainable outcomes. In addition, Hansen & Schaltegger (2016) emphasize that the Sustainability Balanced Scorecard integrates financial and non-financial measures, as well as short-term and long-term objectives, to support sustainability-oriented performance measurement and management.

Second, the results indicate that non-financial perspectives have a stronger role in explaining organizational outcomes than the Financial Perspective. Customer Perspective, Internal Business Process Perspective, and Learning

and Growth Perspective show more meaningful contributions to Organizational Performance and Organizational Sustainability. This finding is consistent with Rafiq et al. (2020), who found that non-financial measures provide stronger implications for organizational performance and sustainable development compared with financial measures alone. This also supports the Sustainability Balanced Scorecard perspective, which argues that sustainability should be managed through multidimensional indicators rather than relying solely on financial performance.

Third, Learning and Growth Perspective emerges as the most consistent strategic driver in this study, as it significantly influences both Organizational Performance and Organizational Sustainability, directly and indirectly. This finding highlights the importance of employee development, organizational learning, innovation, and capability building in supporting long-term sustainability. In line with this argument, Silva et al. (2025) explain that the Sustainability Balanced Scorecard helps organizations align sustainability with strategic objectives and strengthen organizational capacity. Therefore, in educational organizations, sustainability depends not only on current performance achievement, but also on the organization's ability to continuously develop competencies, innovate, and adapt to environmental changes.

Furthermore, Organizational Performance plays an important mediating role in linking Balanced Scorecard perspectives with Organizational Sustainability. This finding is aligned with Rafiq et al. (2020), who positioned Organizational Performance as an intervening variable between the Balanced Scorecard and sustainable development. It is also supported by Mu et al. (2024), who show that sustainability-oriented practices can strengthen strategic business performance through stakeholder value, service quality, employee engagement, and long-term competitiveness. This supports the result of the present study, where Organizational Performance becomes the strongest predictor of Organizational Sustainability.

From a contextual perspective, the findings suggest that educational organizations should not rely solely on Financial Perspective to achieve sustainability. Although financial stability remains important, long-term sustainability requires stronger attention to stakeholder value, internal process effectiveness, organizational learning, innovation, and performance excellence. This is consistent with the Sustainability Balanced Scorecard literature, which emphasizes that sustainability should be integrated into strategic performance management through multidimensional financial and non-financial indicators.

Overall, this study extends prior research by confirming that the Balanced Scorecard can be used as a strategic framework to enhance Organizational Performance and Organizational Sustainability in educational organizations. The findings also highlight that Learning and Growth Perspective and Organizational Performance should become key strategic priorities because both variables show strong relevance in supporting long-term institutional sustainability. Thus, Organizational Sustainability should be understood as the result of integrated strategic management, strong performance achievement, stakeholder-oriented practices, and continuous organizational capability development.

5. Conclusion

This study examined the influence of Balanced Scorecard perspectives on Organizational Performance and Organizational Sustainability in educational organizations. The results show that Customer Perspective, Internal Business Process Perspective, and Learning and Growth Perspective significantly affect Organizational Performance, while Financial Perspective does not. For Organizational Sustainability, Internal Business Process Perspective, Learning and Growth Perspective, and Organizational Performance have significant positive effects, whereas Financial Perspective and Customer Perspective do not show significant direct effects.

The findings indicate that non-financial perspectives play a more important role than

Financial Perspective in explaining organizational outcomes. Organizational Performance is also proven to be the strongest predictor of Organizational Sustainability. In addition, Organizational Performance mediates the effects of Customer Perspective and Learning and Growth Perspective on Organizational Sustainability but does not significantly mediate the effects of Financial Perspective and Internal Business Process Perspective.

Theoretically, this study confirms that the Balanced Scorecard can be used as a strategic management framework to explain performance and sustainability in educational organizations. The findings also highlight the importance of Learning and Growth Perspective and Organizational Performance as key factors in supporting long-term sustainability.

Practically, educational organizations should strengthen Organizational Performance and Learning and Growth Perspective by improving employee competencies, organizational learning, innovation, service quality, and strategic execution. Customer Perspective, Internal Business Process Perspective, and Financial Perspective should also be maintained to support institutional stability and operational effectiveness. Overall, sustainable educational organizations are built through strong performance, non-financial capabilities, and continuous organizational development.

6. Implications, Limitations, and Future Research

6.1. Practical and Managerial Implications

From a managerial standpoint, the findings provide practical guidance for educational organizations in strengthening Organizational Performance and Organizational Sustainability through the Balanced Scorecard framework. The results indicate that management should place greater emphasis on non-financial perspectives, particularly Learning and Growth, Customer Perspective, and Internal Business Process Perspective, rather than relying solely on Financial Perspective. Learning and Growth should be prioritized through employee competency

development, organizational learning, innovation capability, digital readiness, continuous training, employee engagement, and a culture of continuous improvement, as this perspective plays a significant role in both Organizational Performance and Organizational Sustainability.

Practically, the organization should strengthen human resource development policies and reward systems that are aligned with sustainability-oriented performance. (Winarno & Silvianita, 2024) argued that integrating social responsibility principles into HR practices, such as continuous training, employee development, and rewards based on sustainable performance, can help organizations achieve sustainability goals and strengthen stakeholder relationships. Therefore, employee development should not only focus on individual competence, but also on building organizational capabilities that support service quality, innovation, accountability, and long-term sustainability.

The findings also suggest that Organizational Performance is a key mechanism for enhancing Organizational Sustainability. Therefore, educational organizations should strengthen strategic execution, performance monitoring, target achievement, service quality, and institutional effectiveness. Since Customer Perspective and Learning and Growth contribute to Organizational Sustainability through Organizational Performance, management should ensure that stakeholder-oriented programs and learning initiatives are translated into measurable performance outcomes. Meanwhile, Internal Business Process Perspective and Financial Perspective should continue to be maintained to support operational efficiency, institutional stability, and long-term organizational resilience.

6.2. Limitations of the Study

Several limitations should be acknowledged. First, this study focuses on educational organizations, which may limit the generalizability of the findings to other sectors or organizational contexts. Second, the study uses a cross-sectional design, so it cannot fully capture changes in OP and OS over time. Third, the model

only examines the four Balanced Scorecard perspectives, namely FIN, CUS, IBP, and LG, as antecedents of OP and OS. Other relevant variables, such as leadership, organizational culture, digital transformation, governance, risk management, and employee engagement, were not included in the model.

Fourth, the data were collected using respondents' perceptions, which may contain subjective bias. Although PLS-SEM is appropriate for analyzing complex relationships among constructs, the interpretation of causality should still be made carefully. Therefore, the findings should be viewed as empirical evidence of association and influence within the tested model, rather than as absolute causal conclusions.

6.3. Suggestions for Future Research

Future research is encouraged to extend this study in several directions. First, longitudinal research can be conducted to examine how FIN, CUS, IBP, LG, OP, and OS develop over time and to provide stronger evidence of causal relationships. Second, future studies may apply the model to different sectors, such as higher education, healthcare, public institutions, or corporate organizations, to test the generalizability of the findings.

Third, additional variables such as leadership style, organizational culture, digital capability, innovation, governance, risk management, and employee engagement can be incorporated to provide a more comprehensive explanation of OP and OS. Fourth, future research may use mixed methods by combining PLS-SEM with interviews or case studies to gain deeper insights into how Balanced Scorecard practices are implemented in organizational decision-making. Finally, comparative studies across different types of educational institutions may provide a richer understanding of how strategic management practices contribute to sustainable organizational development.

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