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Enhancing financial and non-financial performance through the balanced scorecard approach for firms' sustainable development

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Abstract

Purpose: Achieving sustainability enhances overall performance, including both financial and non-financial factors vital to global firms. This study proposes an approach to the sustainable development of companies in Vietnam, involving an evaluation through the four perspectives of the balanced scorecard (BSC).

Design/methodology/approach: Data were collected from 391 selected enterprises in Ho Chi Minh City (HCMC) using a convenience sampling technique.

Findings: The results confirm a positive influence of the balanced scorecard's perspectives (financial perspective, customer perspective, internal business processes perspective, and learning and growth perspective) on both dimensions of firm performance – financial and non-financial in support of sustainable development.

Research limitations/implications: The use of convenience sampling in the data collection process of surveying enterprises in HCMC may slightly limit the generalisability of the findings to other regions or industries, either within Vietnam or globally. The sample may not fully capture or represent the diversity of business operations across different sectors. Nevertheless, the BSC framework is recommended as an efficient tool for enhancing business outcomes in HCMC by advocating a holistic approach to performance management aimed at sustainable growth. Aligning key strategic areas within enterprises will result in significantly improved short-term results and long-term sustainability.

Practical implications: Managers of enterprises in HCMC should adopt the BSC perspectives to improve performance, as this supports more effective resource utilisation and promotes sustainability.

Social implications: This study contributes to the literature on sustainable performance management at the corporate level, providing insights for policymakers and practitioners on enhancing management practices and suggesting channels for future research on firm-level sustainable development.

Originality/value: This study is unique in integrating the BSC framework with the concept of sustainable development, specifically within the Vietnamese enterprise context. Unlike traditional research that examines financial or non-financial angles of company performance in isolation, this study emphasises the integration of both dimensions through the BSC's four perspectives. These insights are beneficial for business leaders, policymakers, and academics, as they provide evidence that aligning strategic objectives with the BSC perspectives promotes improved sustainable practices, thereby enhancing overall organisational resilience and growth.

Keywords: Balanced scorecard, Management process, Firm performance, Sustainable development

Jel Codes: M0, M1, M2

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1. Introduction

A major theme in management literature is organisational performance and its importance in determining corporate success. It is important to note that the primary responsibility of management throughout this process lies in fostering success within companies. Therefore, companies now require effective management tools that enable them to measure and enhance the tracking of managerial capabilities while striving for sustainable development (Alimuddin, Hasnidar, Bura & Anggraeni, 2020). Performance management is essential in today's competition-driven work environment, as it enhances productivity across various dimensions (Ali, Maelah, Meerani & Jantan, 2022). The literature has discussed at length the issues of sustainability within companies (Lamia, 2023). Effective working capital management involves ensuring that an organisation maintains a balance between risk and liquidity to maximise shareholder wealth (Kiymaz, Haque & Choudhury, 2024). In the case of Vietnam, due to the ever-changing global market environment and domestic conditions, local firms should consider incorporating sustainability as a core part of their strategies to achieve sustainability. This multidimensional strategy could generate both tangible and intangible benefits, thereby enhancing company competitiveness in global markets. Through the development of a resilient informational environment and the application of flexible strategic performance management frameworks, Vietnamese businesses can not only optimise costs, effectively control risks, and fully utilise human resources but also foster innovation.

For Vietnamese firms, adjusting their strategic plans to incorporate sustainability is essential, as rapid changes in the global market environment make their success imperative and generate both tangible and intangible benefits, thereby enhancing their competitive advantage in the global market. Wati and Triwiyono (2018) argued that in the era of globalisation, there has been intense competition across numerous economic sectors, particularly in large cities. Corporate performance appraisals have traditionally served as the benchmark for measuring success, necessitating appropriate criteria for performance evaluation. The balanced scorecard (BSC), introduced in 1992 as a strategic management system designed to improve overall company performance, is an increasingly adopted business performance measurement (Sweiti & Lele, 2016). The BSC framework is an invaluable decision support tool, helping managers assess operational effectiveness while integrating non-financial customer feedback with financial metrics, internal processes, innovation, learning, and growth opportunities (Ngole & Mabonesho, 2023; Ta, Doan, Tran, Dam & Pham, 2022). Additionally, enterprises face risks associated with rapid or slow growth: rapid growth may strain funding resources, while slow growth may reflect internal inefficiencies (Pham & Vo, 2022). Therefore, given Vietnam's rapid economic growth, improved performance management is essential for achieving sustainable development.

All businesses require new approaches to organisational management in the context of the information age and rapidly evolving business environments. Das (2019) states that traditional financial metrics are used by members of the business community to evaluate success on a global scale. Recently, it has been established that the corporate world exerts significant influence on environmental and social dimensions (Demartini & Taticchi, 2021). This may reflect the increasing importance of balancing financial and non-financial objectives (Cupertino, Vitale & Taticchi, 2023). Globalisation has caused organisations to implement several assessment approaches to enhance productivity. This highlights the need for any firm aspiring to advance in today's fiercely competitive business environment to adopt modern management strategies through the development of comprehensive performance appraisal frameworks. Globalisation, therefore, creates opportunities for improved productivity within organisations by increasing competitiveness in the global market.

Zazueta-Salido, Lagarda-Leyva and Lozoya-Díaz (2019) note that the BSC is a system used to guide individual organisational units in aligning their operations with the goals of the overall organisation and corporate strategy.

Kumar, Lim, Sureka, Jabbour and Bamel (2024) state that the BSC has generated a vast body of literature in both academic research and real-world applications. The balanced scorecard, developed in the 1990s, is one of the most acclaimed and widely used strategic performance management tools globally, attracting significant and far-reaching scholarly attention (Dabor, Dabor, Eguasa, Atarere & Abusomwa, 2023). As Vietnam continues to welcome more businesses and foreign investments, due to global integration (Tran & Tran, 2020), there is an increasing need for organisations to demonstrate sustainable development and prosperity. Therefore, all organisations should exhibit strong performance. A balance should be struck in tackling the current debate on developing a sustainability-focused balanced scorecard for profit-driven businesses. The primary aim of these companies is to create value, which fosters growth. Pursuing company expansion goals remains valid (Pham & Vo, 2022). Accordingly, this study seeks to establish the influence of the BSC on companies in Ho Chi Minh City (HCMC), Vietnam. It focuses specifically on companies that have improved their performance and sustainable development through the adoption or previous use of BSC techniques.

Sustainable development, a relatively recent concern with practical implications on both businesses and the global community in recent years, has become increasingly significant in evaluating performance within and beyond the company, encompassing both financial and non-financial aspects. While numerous strategic management tools help companies become more sustainable, there remains limited knowledge regarding how an integrated tool affects a firm's long-term success. The BSC provides a structured framework that integrates financial goals with customer satisfaction, internal business processes, learning, and growth. The research aims to address that gap by assessing how Vietnamese enterprises in HCMC use BSC perspectives to achieve sustainable performance and empirically contribute to similar models in the economy of an emerging country. Moreover, this research will help Vietnamese firms in advancing sustainable growth and adaptation while integrating into international markets, through an assessment that incorporates both financial and non-financial perspectives under the BSC framework. Beyond balancing the BSC, this study proposes recommendations for investors and regulators on strategies for managing performance and aligning them with goals for sustainable growth and comprehensive performance. The research question is as follows: Does the balanced scorecard (BSC) – including the financial perspective, customer perspective, internal business processes perspective, and learning and growth perspective – affect a firm's financial and non-financial performance in relation to sustainable development?

Additionally, this study offers recommendations to investors and regulators on aligning performance management strategies with sustainable growth objectives. The use of a balanced scorecard that integrates both financial and non-financial perspectives will support Vietnamese firms in strengthening their position in international markets, thereby enabling them to sustain long-term success.

2. Literature Review and Hypothesis Development

2.1. The balanced Scorecard (BSC) Theory

The BSC was developed by Kaplan (1992) and is regarded as one of the most valuable and prevalent management approaches today (Lee, Tsui & Yau, 2023). Managers in firms are highly experienced and possess deep operational insights aimed at increasing profitability. Accordingly, researchers continuously seek to primarily investigate and assess the factors that affect profitability (Nguyen, Phan & Hang, 2024). Businesses apply BSC strategic planning tools to prioritise projects, goods, and services, align daily operations, and communicate long-term aims to individuals to ensure the achievement of overall organisational performance objectives.

Kaplan (1992) and Kaplan and Norton (1996) explain that the BSC was initially developed to address the limitations of heavily relying on accounting measures and financial performance control systems. These limitations were very loosely defined to include an inadequate focus on transactional activities, retrospective appraisals, misalignment with company values, and a bias toward short-term decisions at the expense of long-term strategic perspectives. Moreover, Kaplan and Norton (2006) note that the implementation of BSC allows companies to be evaluated across four different dimensions: financial, customer, internal business processes, and learning and growth.

Bui and Krajcsák (2023) define corporate governance as the act or manner of governing a company through its management and operations. Attention has been focused on the role of BSC in performance and sustainability, as demonstrated by Nair, Hunt and Jayabalan (2021), Benková, Gallo, Balogová and Nemec (2020), and

Anjomshoae, Hassan, Kunz, Wong and de Leeuw (2017). The balanced scorecard is a performance management technique that links tangible and intangible assets. Its emergence as a strategic management model stems from its capacity to express corporate strategies (Dağıdır & Özkan, 2024). The BSC translates a company's vision and strategy into specific goals and actions, assisting operational effectiveness by integrating financial metrics with operational indicators to ensure performance related to strategic strategy execution.

2.2. Firm Performance and the Relationship between BSC and Firm Performance

Rafiq, Zhang, Yuan, Naz and Maqbool (2020) argue that the notion of organisational performance is inherently linked to strategy execution, as evidenced by the use of the balanced scorecard. However, it is necessary to distinguish between the concept of firm performance and the broader concept of business success (Dabor et al., 2023). Effective performance management is vital for firms globally, regardless of size or industry, as it serves as one of the primary measures indicating how effectively an enterprise achieves its goals and ensures long-term viability. At the beginning of the 20th century, enterprises primarily assessed performance based on cost accounting, often overlooking important non-financial factors such as human resource development and organisational learning.

The BSC provides a well-defined set of performance measures within a carefully constructed, system-oriented management perspective, incorporating relevant information on how these measures relate to planned innovation to improve quality performance (Dabor et al., 2023). Cignitas, Torrents and Vilajosana-Crusells (2022) states that the BSC's influence on organisational performance is realised through improvements in employee skills and output, which, in turn, increase the effectiveness of internal business functions. This results in enhanced customer satisfaction, expanded market share, and increased profitability for these companies. The boost in profitability has positive ripple effects across enterprises, such as improved employee benefits and greater engagement in corporate social responsibility (CSR) initiatives.

The BSC involves selecting performance measures and their alignment with strategic innovation to achieve improved quality performance (Dabor et al., 2023). Cignitas et al. (2022) states that the BSC's influence on organisational performance materialises by enhancing employee competencies and performance, thereby increasing the efficiency of internal business processes. This results in increased consumer satisfaction, expanding businesses' market share, which boosts profitability. This growth, in turn, increases revenues for all firms, leading to improved employee perks and stronger participation in CSR initiatives.

Firm performance refers to the range of activities carried out by an organisation in the operational execution of its strategic management goals within a defined time frame. A major focus of performance measurement lies in the appraisal of goals and objectives (Wati & Triwiyono, 2018). Achieving a balanced scorecard with both financial and non-financial indicators involves organisational leaders striking the right balance in their consideration and maintenance of both these dimensions. Managers striving to balance financial and non-financial performance should enhance their commitment to sustainability by developing effective strategies that reinvest surplus resources generated from core business operations into innovation, thus supporting the sustainability of internal production and procurement processes (Cupertino et al., 2023). A comprehensive assessment must therefore consider both financial and non-financial measures. Financial measures emphasise profitability, while non-financial measures monitor progress, accomplishments, and objectives in areas such as customer satisfaction and operational productivity. Examples of non-financial indicators include workforce satisfaction and training levels, which significantly contribute to enhanced overall performance, especially in volatile market conditions. Balancing performance management is critical for capturing a company's full value and supporting sustainable long-term growth.

Mio, Costantini and Panfilo (2022) indicate that while financial measures offer insights into historical results, the remaining three BSC perspectives incorporate non-financial markers that enable businesses to monitor progress in nurturing the essential skills and intangible resources essential for future growth and financial prosperity. Organisations typically identify their missions and objectives through non-financial performance metrics (similar to the BSC), such as response time, product quality, environmental impact, and employee and customer satisfaction. Financial performance evaluation, on the other hand, involves analysing metrics and ratios to assess operational efficiency, short-term obligations, long-term solvency, and liquidity, providing a summary of an organisation's economic standing.

2.3. The Effect of Financial Perspective on Firm Performance

The financial perspective (FPE) is a critical component of the BSC and significantly affects a company's overall success. According to Cignitas et al. (2022), an organisation's overarching goals, such as increasing profitability and meeting specified financial goals, are subsumed within the financial perspective. Metrics such as return on investment, accounts payable, profit per share, and operating expenses fall directly under its influence. These key performance indicators serve as enablers that assist the company in meeting its financial goals.

Measurement components of performance in the BSC are primarily divided into two perspectives: financial and non-financial (Oktaria, 2019). A robust financial perspective augments the efficiency of both financial and non-financial operations. Krstić, Sekulić and Ivanović (2014) argue that the financial perspective consists of certain measures and indicators. Alongside fundamental financial metrics such as shareholder value, contributed economic value, and return on invested capital, sales volume and expenses are often considered leading indicators within the financial perspective. Nair et al. (2021) demonstrate that the financial dimension within the BSC framework serves as a strategic tool for evaluating how effectively an organisation improves profitability, increases shareholder value, and fosters enterprise growth. The financial perspective assesses the impact of strategies on profitability, growth, and shareholder value to support sustained development. It specifically defines profit targets and financial goals based on factors such as profitability, revenue growth, sales metrics, and customer revenue per visit. By prioritising cost efficiency, businesses deliver quality with minimal expenses, thereby providing long-term value to stakeholders while also mitigating risks in business operations. Therefore, based on the analysis above, the proposed hypotheses are as follows:

H1a: Improving the financial perspective has a positive effect on a firm's financial performance.

H1b: Improving the financial perspective has a positive effect on a firm's non-financial performance.

2.4. The Effect of Customer Perspective on Firm Performance

As indicated by the customer perspective (CPE) within the BSC, companies are expected to focus on achieving very high levels of customer satisfaction, retention, and acquisition through the delivery of their business services. Simbolon (2018) argues that the customer dimension reflects a company's ability to provide its customers with high-quality products and services, deliver them effectively, and proactively address customer complaints to ensure repeat loyalty. Moreover, the company's capability to deliver valuable goods and services, the efficiency of delivery, and the satisfaction and service of each customer are essential components (Dabor et al., 2023). When customers are satisfied, they tend to become loyal and support the business through continued purchases. As a result, the business achieves enhanced operational effectiveness and development.

The financial perspective simply aims to increase shareholder value (Miloloža, 2018). According to Krstić et al. (2014), the customer perspective focuses on the consumers of the company's products, particularly a specific demographic that receives dedicated attention, commitment, and resources based on the expectation that they will generate the most significant financial contributions. Nair et al. (2021) indicate that the customer perspective primarily involves customer-centred assessments, encompassing their satisfaction, perceived worth, and expectations. How these issues are addressed and resources allocated can drive strategic approaches, ultimately enhancing firm financial performance (Prena, 2023). Moreover, product durability is vital for businesses as it influences not only service quality but also long-term targets to provide optimal service. Therefore, based on the analysis above, the proposed hypotheses are as follows:

H2a: The customer perspective has a positive effect on a firm's financial performance.

H2b: The customer perspective has a positive effect on a firm's non-financial performance.

2.5. The Effect of Internal Business Processes on Firm Performance

Achievement within the internal business perspective is facilitated by identifying consumer needs and vigorously creating new products and services through innovative approaches that allow companies to effectively meet customer demands (Kaplan & Norton, 1996). Additionally, internal business processes contribute to operational efficiency by lowering costs while also increasing customer satisfaction, which is critical to boosting business value and improving organisational financial performance.

As noted by Krstić et al. (2014), the internal process perspective is very meaningful, as it identifies the processes that are essential for achieving goals linked to both consumer and financial perspectives. According to Karabulut (2015), the internal business perspective involves assessing and identifying a firm's internal structure and operational processes to ensure it meets or exceeds the expectations of consumers and shareholders. This perspective provides a foundation for examining an organisation's internal activities. Firms use these internal procedures to achieve performance goals. According to Prena (2023), this perspective captures the internal outcomes that drive both financial performance and customer satisfaction. The BSC emphasises the achievement of financial goals alongside increased customer intimacy and process improvement—critical factors for a firm's long-term viability. It strengthens a firm's financial health by helping determine the most critical activities and establishing relevant indicators, especially in areas such as order processing, production, delivery, and product development. Therefore, based on the analysis above, the proposed hypotheses are as follows:

H3a: The internal business processes perspective has a positive effect on a firm's financial performance.

H3b: The internal business processes perspective has a positive effect on a firm's non-financial performance.

2.6. The Effect of Learning And Growth on Firm Performance

The learning and growth perspective (LGP) plays a crucial role when a firm seeks to gain a market edge in the global economy. The concept involves the development of employees, research, and innovative thinking. Krstić et al. (2014) indicate that the perspective can be understood as encompassing the fundamental elements necessary to accomplish the objectives set by various business viewpoints. Key emphases include employee qualifications and motivation, with a focus on goal attainment. Consequently, modern management methodologies emphasise human resource development and achievement assessment, moving beyond approaches centred solely on cost minimisation and employee supervision.

The LGP promotes the acquisition of new skills and information among employees while addressing motivation, education, and capability augmentation. Nair et al. (2021) indicate that the internal business perspective involves analysing and acknowledging an organisation's internal business processes and structure, aiming to guarantee that it meets or exceeds the expectations of both shareholders and customers. Therefore, through the LGP, enterprises can identify shortcomings in procedures, employee proficiencies, and informational frameworks, allowing them to implement corrective measures that secure long-term viability.

Learning and growth metrics focus on improving the quality of human resources and other areas by developing employee skills and loyalty (Kefe, 2019). Nair et al. (2021) note that the learning and growth perspective within a balanced scorecard framework evaluates employee skills and satisfaction as contributors to overall management performance. Cignitas et al. (2022) states that the learning and growth perspective, as a fourth component within the balanced scorecard framework, identifies employee skills and happiness of employees as effective indicators of general management efficiency. This perspective enhances company value through improved operational efficiency and the facilitation of employee development. The corporate learning and growth perspective measures workforce capacity and the key drivers of their performance, considering organisational structure, skill enhancement, learning needs, retention, and employee satisfaction. High satisfaction levels lead to increased productivity due to positive customer perceptions and business results. Therefore, based on the analysis above, the proposed hypotheses are as follows:

H4a: The learning and growth perspective has a positive effect on a firm's financial performance.

H4b: The learning and growth perspective has a positive effect on a firm's non-financial performance.

2.7. The Effect of Firm Performance on Sustainable Development

The crucial role of firm performance lies in its ability to drive sustainable development by fostering long-term economic stability and social well-being, ultimately creating balanced and resilient business growth. Stede, Chow and Lin (2006) indicate that sustainable development is characterised by an effort to achieve economic progress while safeguarding natural resources and maintaining environmental well-being. Performance results motivate businesses to efficiently fulfil their environmental sustainability responsibilities (Rafiq et al., 2020). Sustainable growth is defined as the optimal threshold at which a company can attain its highest growth rate without exhausting its cash flow, often equated with the break-even point of growth (Pham & Vo, 2022). Evidence suggests that enterprise sustainable development encompasses not only strong performance but also adherence to business ethics, environmental considerations, and long-term objectives.

According to Krstić et al. (2014), identifying and addressing critical elements in the business environment requires adopting a non-economic perspective. The principal challenge in managing sustainable development within the sustainable balanced scorecard model is effectively identifying and managing key determinants or success factors. Managers should measure, monitor, control, and improve these elements to achieve sustainable development. Organisational performance has recently emerged as a notable determinant in the realisation of sustainable development goals (Rafiq et al., 2020). Sustaining firm development toward sustainability is significant because it extends beyond financial profits to include workplace cleanliness and corporate social responsibility initiatives across economic, social, and environmental domains.

The purported triad of economy, society, and environment is explicitly at the forefront of addressing urgent global challenges such as increased poverty and climate change. Accordingly, stakeholders are more consistently demanding that firms implement sustainability measures (Dağıdır & Özkan, 2024). Company goals have recently evolved toward achieving sustainable outcomes that integrate social and environmental factors. This sustainability commitment establishes a corporate obligation for multiple stakeholders and involves adopting strategies that deliver improved social and environmental results (Alimuddin et al., 2020; Skačkauskienė, Ślusarczyk, Baryń, Kot & Navickas, 2019). High-performing organisations are argued to possess the capacity to effectively contribute to sustainable growth, which is rapidly becoming essential for all businesses (Rafiq et al., 2020). Therefore, based on the analysis above, the proposed hypotheses are as follows:

H5a: A firm's financial performance has a positive effect on the firm's sustainable development.

H5b: A firm's non-financial performance has a positive effect on the firm's sustainable development.

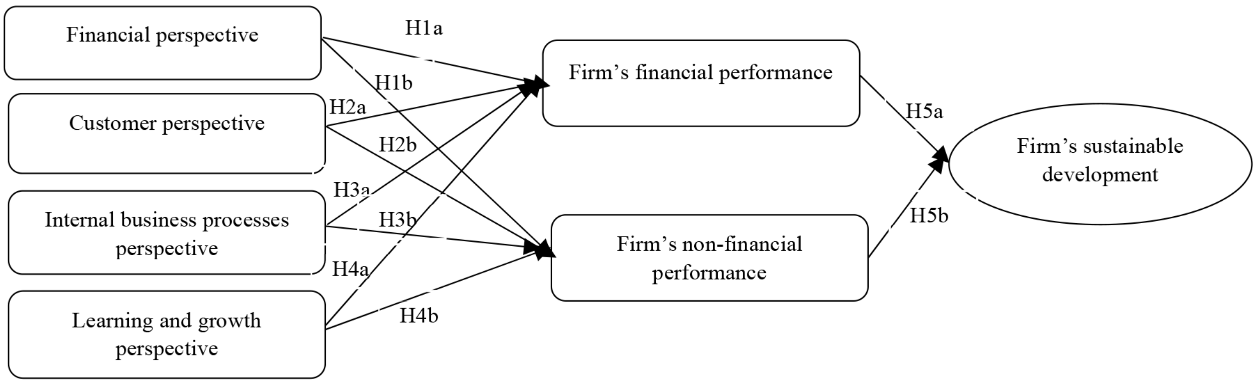

Figure 1. The conceptual framework of the study

3. Methodology

Regarding the study's design, this research surveyed firms in HCMC that have implemented or are presently applying the four main perspectives of the BSC (financial, customer, internal business processes, and learning and growth) in their operations. Data were collected from employees of these firms using a convenience sampling procedure. The information collected served to evaluate the level of implementation and effects of these factors on overall company performance in practice, thereby contributing to the practical understanding of management efficiency and strategic development in HCMC-based firms.

The survey's initial section required participants to provide demographic information. The subsequent section requested participants to answer questions related to the study variables. A 5-item scale was employed to gauge the fundamental dimensions of the BSC (financial, customer, internal business, and learning and growth perspectives). This scale was also utilised to evaluate financial performance, non-financial performance, and sustainable development.

A structured questionnaire was developed based on the study framework to elicit unbiased responses to the items from the participants. Each variable in this study was measured using a 5-point Likert scale, ranging from (1) 'strongly disagree' to (5) 'strongly agree'.

Regarding the measurement of the factors, the financial perspective (FPE) comprises five items: FPE1, FPE2, FPE3, FPE4, and FPE5. This measurement was adapted from Shalini and Venkatesh (2022). The customer perspective (CPE) consists of five items: CPE1, CPE2, CPE3, CPE4, and CPE5. These items were derived from the research conducted by M'maiti (2014). The measurement scale for the internal business processes perspective (IBP) was adapted from M'maiti (2014) and encompasses seven items: IBP1, IBP2, IBP3, IBP4, and IBP5. The learning and growth perspective (LGP) comprises five items: LGP1, LGP2, LGP3, LGP4, and LGP5. These items were adapted from M'maiti (2014). Financial performance (FIP) comprises four components: FIP1, FIP2, FIP3, and FIP4, which were derived from Muli (2016). The measurement of non-financial performance comprises five items, including NFP1, NFP2, NFP3, and NFP4, which were derived from Yuliansyah and Razimi (2015). The four items measuring a firm's sustainable development (FSD) were developed in this study. For further details, refer to the Annex 1.

Regarding the population and sample, participant responses were scrutinised to ensure the selected data sample excluded invalid responses, such as those reflecting that the respondent did not answer seriously or that the respondent's answers were erratic. Samples omitting important information required for further processing by analysis software were also excluded.

The software used in this study was SmartPLS, through which the analysis was conducted and the research findings were obtained. SmartPLS is highly acclaimed and was utilised in this study for its strong performance with very complex models involving multiple relationships. It is compatible with small to medium sample sizes and provides strong results for both exploratory and confirmatory research. Additionally, it enhances the predictive accuracy of the results and works well in supporting latent variable modelling.

The data sample used in this study comprised 391 responses. Of these, 56.3% were male, 41.2% were female, and 2.6% identified as other. The positions of employees within their enterprises ranged from Executive/Specialist to Director. The quality of employees was assessed based on their educational qualifications, ranging from certificate holders to doctoral degree holders. For further information, refer to Table 1.

	Frequency	Percent	Valid Percent	Cumulative Percent
Gender				
Male	220	56.3	56.3	56.3
Female	161	41.1	41.1	97.4
Other	10	2.6	2.6	100.0
Total	391	100.0	100.0	
Position				
Executive/Specialist	188	48.1	48.1	48.1
Manager	129	33.0	33.0	81.1
Director	74	18.9	18.9	100.0
Total	391	100.0	100.0	
Qualification				
Certificate	61	15.6	15.6	15.6
Diploma	122	31.2	31.2	46.8
Bachelor's	174	44.5	44.5	91.3
Master's	31	7.9	7.9	99.2
Doctorate	3	0.8	0.8	100.0
Total	391	100.0	100.0	

Table 1. Demographic information

4. Findings

Regarding the outer loadings, all items exceed 0.7, meeting the required statistical criterion. The next step will present the construct reliability and validity in Table 2.

Variables	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
CPE	0.844	0.847	0.889	0.616
FIP	0.814	0.817	0.878	0.643
FPE	0.855	0.856	0.896	0.633
FSD	0.890	0.893	0.924	0.753
IBP	0.857	0.863	0.897	0.637
LGP	0.818	0.821	0.873	0.578
NFP	0.876	0.878	0.915	0.729

Table 2. Construct reliability and validity

Cronbach's alpha coefficient ranges from 0 to 1. Theoretically, a higher coefficient value indicates better reliability of the measuring scale. If Cronbach's alpha coefficients are above 0.7 for the scales, this indicates that these scales are quite reliable. The results of the data analysis, as presented in Table 2, demonstrate that all scales meet the reliability criteria. Bagozzi and Yi (1988) indicate that when the composite reliability (CR) for the scales exceeds 0.7, it meets the statistical requirements. Additionally, when the average variance extracted (AVE) is greater than 0.5, it indicates that the scales demonstrate convergent validity. Therefore, both CR and AVE values meet the statistical criteria.

Variables	CPE	FIP	FPE	FSD	IBP	LGP
CPE						
FIP	0.673					
FPE	0.561	0.71				
FSD	0.561	0.678	0.591			
IBP	0.396	0.701	0.393	0.448		
LGP	0.351	0.732	0.478	0.611	0.552	
NFP	0.568	0.755	0.616	0.787	0.633	0.667

Table 3. Heterotrait–Monotrait Ratio (HTMT)

Henseler, Ringle and Sarstedt (2015) states that if all heterotrait–monotrait (HTMT) values are less than 0.9, discriminant validity is assured. In each pair of scales presented in Table 3, the HTMT correlation index is below 0.9. Therefore, the indicators of the scales differentiate from each other, and the measurement model of the study achieves a high level of accuracy in terms of discriminant validity.

The next step in this study is to conduct a bootstrap analysis using 5,000 bootstrap samples to evaluate the structural model in SmartPLS. The results obtained from the bootstrap will assess the hypotheses regarding the relationships among the factors in the research model. The interaction relationships and hypothesis testing are presented based on the results in Table 4.

To assess the interaction relationships, this study utilises the results of the bootstrap analysis. Based on the results of the analysis presented in Table 4 and Figure 2, the above results indicate that all p-values for the interactions are equal to 0.000, which is less than 0.05. Figure 2 illustrates the relationships between the representative variables in the research model. All interaction effects in the research model are statistically significant, and the hypotheses are accepted.

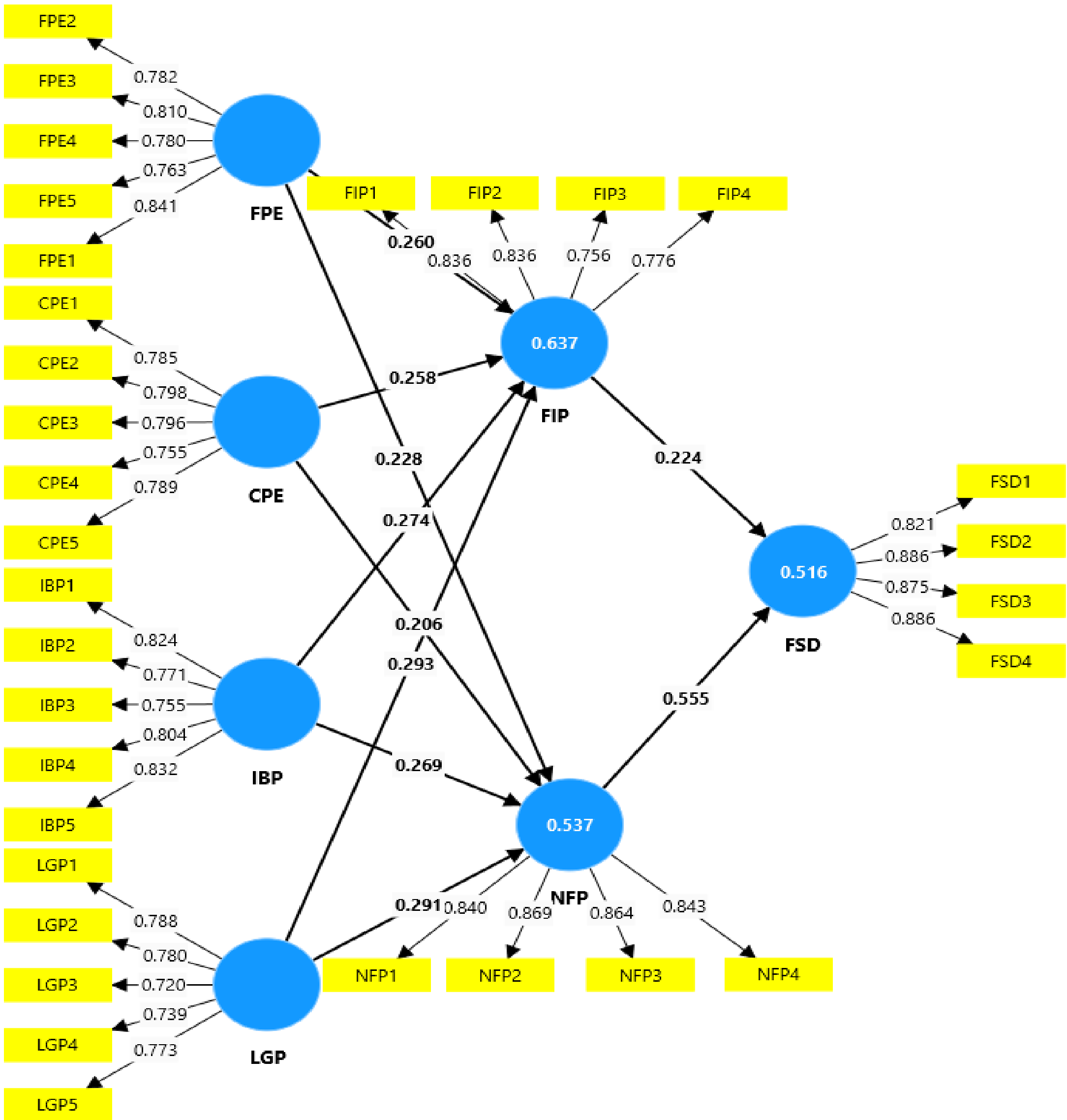

Figure 2. Result analysis of the research model

Paths	Beta (β)	Sample mean (M)	Standard deviation (STDEV)	t-statistics (|O/STDEV|)	p-values
CPE -> FIP	0.258	0.259	0.040	6.432	0.000
CPE -> NFP	0.206	0.206	0.040	5.106	0.000
FIP -> FSD	0.224	0.225	0.053	4.232	0.000
FPE -> FIP	0.260	0.260	0.039	6.738	0.000
FPE -> NFP	0.228	0.228	0.042	5.440	0.000
IBP -> FIP	0.274	0.274	0.036	7.641	0.000
IBP -> NFP	0.269	0.269	0.047	5.786	0.000
LGP -> FIP	0.293	0.295	0.031	9.555	0.000
LGP -> NFP	0.291	0.293	0.046	6.329	0.000
NFP -> FSD	0.555	0.555	0.042	13.256	0.000

Table 4. Mean, STDEV, t-statistics, and p-values

Multicollinearity in the model is highly likely to arise when the variance inflation factor (VIF) is 5 or above, according to Hair, Risher, Sarstedt and Ringle (2019). There is no multicollinearity in the model, as can be observed from the analysis findings in this study, where all VIF values are less than 3.

In summary, from the research results, it is evident that the research model holds statistical significance, and the hypotheses are accepted. Therefore, the four perspectives of the balanced scorecard (financial, customer, internal business processes, and learning and growth) positively impact the financial and non-financial performance of Vietnamese enterprises and contribute to improvements in their sustainable development.

	CPE	FIP	FPE	FSD	IBP	LGP	NFP
CPE		1.362					1.362
FIP				1.688			
FPE		1.452					1.452
FSD							
IBP		1.369					1.369
LGP		1.397					1.397
NFP				1.688			

Table 5. Evaluating multicollinearity

5. Discussions

The empirical results of this study show that the model is statistically significant concerning the acceptance of the hypotheses. This study explores the four perspectives of the balanced scorecard: financial, customer, internal business processes, and learning and growth. These perspectives positively affect both financial and non-financial performance among enterprises in Vietnam and significantly contribute to their sustainable development.

The BSC is comprehensive in its ability to address various options and functions that strategists should develop and implement to guide a company toward its identified objectives (Rafiq et al., 2020; Singh & Arora, 2018). Effective working capital management represents a vital component of financial management due to its substantial role in determining a firm's overall accomplishment and long-term viability (Kiymaz et al., 2024). The BSC serves as a managerial device in enabling firms to align their vision with both short- and long-term objectives, supported by appropriate measurement techniques. Its impact on companies is considerable, as even minor shifts in perspective can result in enhanced performance oversight. The results of the study show that integrity management, through the BSC, has a positive impact on both financial and non-financial performance in promoting sustainable development within Vietnamese firms. Consequently, its application within the BSC model enhances managerial effectiveness in executing activities, thereby contributing to sustainable growth.

There is a case for conducting further research to explore how corporate governance influences financial performance across diverse contexts and types of companies. This is particularly important given the growing interest in understanding the effects of corporate governance on financial performance in emerging markets, SMEs, and other organisational contexts (Bui & Krajcsák, 2023). Accordingly, this study underscores the significance for enterprises in HCMC to enhance both financial and non-financial performance. It suggests that these enterprises concentrate on improving profit margins, resource allocation, financial strategies, processes, cost management, and reducing expenses to achieve comprehensive performance and ensure the sustainable development of their firms.

Regarding hypotheses H1a and H1b: for H1a, the financial perspective has a positive effect on a firm's financial performance ($\beta = 0.260$, $P < 0.05$); and for H1b, the financial perspective has a positive effect on a firm's non-financial performance ($\beta = 0.228$, $P < 0.05$). In this regard, implementing the BSC offers a framework for improving the financial performance of Vietnamese companies through a broadened vision in HCMC. All performance indicators affecting these businesses should be incorporated into this approach, with specific financial targets and robust monitoring mechanisms to maximise their potential. Additional aspects that must be addressed under this approach include cash flow optimisation, liquidity management, risk mitigation, cost efficiency, and process enhancement. Through collaborative implementation of these measures, firms will be better positioned to achieve sustainable financial targets. In doing so, firms in HCMC are likely to enhance their financial performance while advancing toward sustainable development.

Dabor et al. (2023) found that the customer perspective has a beneficial impact on organisational performance. The results of my study similarly show that the customer perspective has a significantly positive relationship with both financial and non-financial performance. Specifically: for H2a, the customer perspective has a positive impact on a firm's financial performance ($\beta = 0.258$, $P < 0.05$); and for H2b, the customer perspective has a positive effect on a firm's non-financial performance ($\beta = 0.206$, $P < 0.05$). Improving coordination among departments to increase customer satisfaction should be a major focus for firms in HCMC. Reducing product returns can be achieved through clear and responsive customer communication. Moreover, simplifying the product return process and promptly addressing customer complaints are essential. To ensure positive experiences throughout the purchasing process, firms should ensure employees are continuously trained in customer service approaches. Only by effectively handling the quality-related issues that matter most to customers can firms in HCMC enhance satisfaction and value, foster loyalty that drives repeat business, and ultimately improve profitability.

Regarding H3a, the internal business processes positively affects a firm's financial performance ($\beta = 0.274$, $P < 0.05$). Regarding H3b, the internal business processes positively affects a firm's non-financial performance ($\beta = 0.269$, $P < 0.05$). The BSC ensures alignment between corporate structure and organisational strategic goals, while also fostering a motivated working environment. Moreover, the internal business processes perspective indicates that well-trained blue-collar workers in the production process produce output that increases labour efficiency and reduces defective production (Kefe, 2019). Vietnamese firms in HCMC should focus on improving their internal processes to sustain core values that drive them toward perfectionism. This includes evaluating and optimising management, operational, financial, and customer service processes. Key factors include eliminating inefficiencies, adopting industry best practices, and fostering a culture of continuous improvement. This focus drives excellence in service delivery, reengineering, performance monitoring, and productivity improvement. In a highly competitive and volatile market, strong organisational value systems not only enable firms to overcome challenges but also initiate a path toward growth and long-term stability.

Regarding the relationship between the learning and growth perspective and a firm's financial and non-finance performance: for H4a, the learning and growth perspective has a positive effect on a firm's financial performance ($\beta = 0.293$, $P < 0.05$); and for H4b, the learning and growth perspective has a positive effect on a firm's non-financial performance ($\beta = 0.291$, $P < 0.05$). Moreover, Dabor et al. (2023) show that the learning and growth perspective has a favourable impact on organisational performance. If the balanced scorecard framework's learning and growth perspective fails to prioritise a work environment that values learning, creativity, and adaptability, it misses its essence. Effective leadership enhances employee output, technology use, and the capacity to adjust to market changes, all of which reflect improved financial and non-financial performance.

Regarding the effect of firm's financial and non-financial performance on its sustainable development, the result of my study indicates that: for H5a, a firm's financial performance has a positive effect on the firm's sustainable development ($\beta = 0.224$, $P < 0.05$); and for H5b, a firm's non-financial performance has a positive effect on the firm's sustainable development ($\beta = 0.555$, $P < 0.05$). This study reveals a significant relationship between the dependent (financial and non-financial performance of HCMC firms) and independent variables from the standpoint of sustainable development. Balancing financial success with social responsibility is essential for long-term viability and for contributing to societal welfare. To achieve sustainability and ultimately gain a competitive advantage in the market, firms in HCMC should focus their performance on non-financial aspects such as employee well-being, customer satisfaction, and social responsibility. This calls for an integrated focus on both monetary and non-monetary performance.

The balanced scorecard approach facilitates sustainable development by incorporating both financial and non-financial performance, thereby supporting the Sustainable Development Goals (SDGs). Additionally, it enables more optimal resource utilisation, strengthens operational efficiency, and drives innovation across Vietnamese enterprises through its four perspectives (financial, customer, internal business processes, and learning and growth). Integrating profitability considerations with corporate social responsibility fosters long-term resilience with minimal environmental impacts from firms. This approach supports economic growth, promotes innovation and responsible consumption, and ensures that enterprises will contribute to economic, social, and sustainability progress.

6. Theoretical and Practical Implications

This study advances corporate performance management by integrating the balanced scorecard framework with sustainable development. It demonstrates that aligning strategic goals across the four BSC perspectives leads to improvements in both financial and non-financial outcomes. Moreover, it demonstrates that sustainability is a strategic imperative rather than a compliance requirement, reinforcing the study's applicability to Vietnamese enterprises. The study provides empirical support for expanding the application of the BSC to emerging markets such as Vietnam and, more broadly, highlights its contribution to long-term resilience and competitiveness.

This research is highly useful from a managerial and administrative perspective. Applying the BSC approach in enterprises across Ho Chi Minh City would enhance resource allocation, decision-making, and sustainability in the long term. The government could support BSC-based strategic approaches by initiating training programs and offering incentives to promote the integration of sustainability into firms' performance management processes. Additionally, embedding this principle within a company's organisational culture would further enhance economic stability, employee well-being, and corporate social responsibility, reinforcing its position within the broader context of sustainable development.

7. Conclusions

This study applies BSC theory to examine its impact on the performance of Vietnamese enterprises in HCMC regarding firms' sustainable development, as perceived by employees. The results indicate that the research model is statistically significant and that the research hypotheses are supported. Both the financial and non-financial performance of Vietnamese firms in HCMC has improved as a result of BSC implementation. Positive effects on both financial and non-financial performance are explicitly indicated across the four perspectives of the balanced scorecard – financial, customer, internal business processes, and learning and growth which, in turn, contribute to the sustainable growth of Vietnamese firms.

The present study further underlines that firms in HCMC should adhere to the four important perspectives of the balanced scorecard. Doing so enables firms to enhance non-financial results while improving long-term financial performance, thereby fostering growth within Vietnam's business environment. Additionally, this research explores the intricate relationship between sustainable development and performance management, offering substantial support for firms navigating today's complex business environment. It is therefore strongly recommended that companies in HCMC adopt the BCM model in their management practices while innovating to more comprehensively address performance enhancement, aligning corporate goals with sustainable development goals. Moreover, by offering implications for further research and developing global business practices, this study provides a robust basis for future inquiry into performance management in the context of sustainable growth within business practices. Additionally, it provides a foundation for future research on performance management and sustainable development regarding both local business practices and global company practices.

8. Limitations and Future Studies

The study was carried out on Vietnamese firms in HCMC. However, certain limitations arose due to time, financial, and data availability constraints. The sample size was relatively small, and the method of data collection may have influenced the generalisability of the findings. Consequently, the generalisability of the findings is somewhat limited. The second limitation is that the study gives equal consideration to all businesses without classifying them by type. Further research could address this and further refine the specific areas within the balanced scorecard perspectives – financial, customer, internal business processes, and learning and growth where performance analysis may be most effective from both financial and non-financial angles. Further studies can also compare these dimensions across sectors, such as trade, services, and manufacturing, to identify the optimal corporate practices for driving business growth.

This study focused exclusively on managerial factors, omitting issues such as workplace culture, corporate social responsibility (CSR), and innovation potential. Future research should incorporate these factors alongside those discussed in this study to provide a more comprehensive understanding of their contribution to creating financial and non-financial management outcomes.

As this study was conducted solely in Ho Chi Minh City, it is geographically limited. Future studies should be carried out in other regions of Vietnam to offer a broader perspective and enable comparisons across different business environments. This would support the development of more region-specific management strategies.

Declaration of Conflicting Interests

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Annex 1

Item Codes	Descriptions	Adapted/ adopted from sources
	Financial perspective (FPE)	Shalini and Venkatesh (2022).
FPE1	Enterprise reduces employee-related costs.	
FPE2	My company reduces costs associated with facilities.	
FPE3	My company discovers new markets.	
FPE4	My company assesses return on investment.	
FPE5	My company enhances business success in multiple modes.	
	Customer perspective (CPE)	M'maiti (2014).
CPE1	Customer relationship management systems have been implemented in the organisation.	
CPE2	Customer orientation objectives have been formulated and implemented.	
CPE3	Customer satisfaction is a criterion used to evaluate performance.	
CPE4	Customer expectations are considered in the decision-making process.	
CPE5	Customer needs and expectations are easily identified.	
	Internal business processes perspective (IBP)	M'maiti (2014).
IBP1	Activities focusing on customers are periodically controlled.	
IBP2	Customers are satisfied with the delivery time of the services.	
IBP3	All processes in the organisation are tailored to customers' expectations.	
IBP4	Customers' views are incorporated into the design and improvement of the products and services.	
IBP5	Customers' requirements are transposed in the improvement of the products and services.	
	Learning and growth perspective (LGP)	M'maiti (2014).
LGP1	All employees are responsible for resolution of customer problems.	
LGP2	Employees are involved in the review of the balanced scorecard.	
LGP3	Customer-centric training is provided to all employees.	
LGP4	Employee interests are correlated with those of the customers.	
LGP5	Reward strategies are in accordance with customer satisfaction levels.	
	Financial performance (FIP)	Muli (2016).
FIP1	The liquidity of my firm has been rising in the last 3 years.	
FIP2	The profitability of my firm has been rising in the last 3 years.	
FIP3	The financial performance of my firm is satisfactory.	
FIP4	Financial performance is a key challenge in my firm.	
	Non-financial performance (NFP)	Yuliansyah and Razimi (2015).
NFP1	Your operational performance (e.g., safety, on-time delivery, cycle time).	
NFP2	Your product and service innovations (e.g., new service products, service development cycle time).	
NFP3	Your relationship with customers (e.g., customer satisfaction, customer loyalty).	
NFP4	Your relationship with employees (e.g., employee turnover, employee satisfaction).	
NFP5	Your relationship with suppliers (e.g., input into product or service design, on-time delivery).	
NFP6	Your alliances with other organisations (e.g., joint ventures, joint marketing).	
NFP7	Your community (e.g., public image, community involvement).	
	Firm's sustainable development (FSD)	
FSD1	Enterprises integrate environmental factors into their business policies.	
FSD2	Enterprises prioritise social responsibility and uphold ethical business standards.	
FSD3	Enterprises are attentive to local communities, aiming to support initiatives for sustainable development.	
FSD4	Enterprises achieve financial growth through their commercial endeavours, while incorporating sustainable practices into their core business strategies.	