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Enhancing financial performance of halal MSMEs through intellectual capital and business sustainability in Medan City, Indonesia

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ABSTRAK

Introduction

The rapid global growth of the halal industry has highlighted the increasing demand for ethical, sharia-compliant products and services. In Indonesia, particularly Medan City, halal-certified micro, small, and medium enterprises (MSMEs) have emerged as key contributors to the local economy. Despite holding halal certifications, many of these enterprises struggle to optimize their financial performance, indicating that certification alone is insufficient for success. This study investigates the role of intangible assets—intellectual capital and business sustainability —in enhancing the financial outcomes of halal MSMEs.

Objectives

This research examines the influence of intellectual capital, comprising human capital, structural capital, relational capital, and spiritual capital, along with business sustainability, on the financial performance of halal MSMEs in Medan City. It seeks to determine the components that significantly impact performance and provide practical insights for improving business competitiveness in the halal sector.

Method

This study adopted a Sequential Explanatory design using a mixed-methods approach. Quantitative data were collected through 219 structured questionnaires distributed to halal-certified food and beverage MSMEs in Medan, whereas qualitative data were obtained

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from 51 in-depth interviews with MSME owners and employees. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) and thematic coding with NVivo 12 Plus software.

Results

The findings show that human capital, structural capital, relational capital, and business sustainability have significant and positive influences on the financial performance of halal MSMEs. However, spiritual capital did not have a statistically significant effect. The model explains 51.2% of the variance in financial performance. Qualitative insights revealed that, while spiritual capital may not directly impact financial performance, it strengthens ethical values and trust, indirectly supporting relational capital.

Implications

The results underscore the importance of investing in human resources, optimizing organizational systems, building strong external relationships, and integrating sustainable business practices. These strategies can improve financial performance, resilience, and long-term viability in a competitive and ethically conscious market environment.

Originality/Novelty

This study makes a novel contribution by expanding the Intellectual Capital framework to include Spiritual Capital and Business Sustainability in the context of halal MSMEs. This is one of the first empirical studies to examine this integration using a mixed-methods approach, providing both theoretical enrichment and practical guidance for MSME development in the halal economy.

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INTRODUCTION

The global rise of the halal industry has drawn increasing interest from scholars and practitioners alike, driven by the growing demand for ethical, sharia-compliant products and services. With the world's Muslim population expanding and the halal consumer market projected to surpass USD 2 trillion by 2024, the sector presents significant opportunities for economic development. Indonesia, as the country with the world's largest Muslim population, holds a critical position in this global trend. In Medan City, halal-certified micro, small, and medium enterprises (MSMEs) have become essential economic actors. However, despite their certification and adherence to Islamic principles, many of these enterprises underperform financially, suggesting that halal certification alone does not guarantee success. This issue points to the need to investigate other performance-driving factors—specifically, the role of intangible assets like intellectual capital and sustainable business practices.

Existing literature confirms that MSMEs contribute substantially to national economies and are integral to long-term development (Demirgüç-Kunt et al., 2021; Komara et al., 2020). In Indonesia, MSMEs account for approximately 60.42% of total national investment (Hasanah & Kamilah, 2022), underscoring their economic importance. Despite this, many halal MSMEs remain unable to translate their ethical value proposition into financial resilience. A critical explanation may lie in their limited ability to manage intangible assets such as knowledge, innovation, relationships, and values—all central to the concept of intellectual capital. Moreover, the integration of business sustainability into operational models remains underdeveloped. The challenge lies in identifying how these non-physical resources influence profitability and what strategic frameworks can support halal MSMEs in improving their financial performance.

Research has increasingly pointed to intellectual capital—encompassing human, structural, relational, and spiritual capital—as a strategic asset for organizational performance (Esmaeili Givi et al., 2022; Zelalem & Abebe, 2022). These intangible components shape an enterprise's capacity for innovation, market adaptation, and value creation. In particular, spiritual capital has garnered attention in Islamic economic discourse as a moral compass guiding ethical entrepreneurship. However, SMEs in Indonesia continue to face systemic challenges, including limited digital integration, quality control issues, and low competitiveness (Yuliantari & Pramuki, 2022). Addressing these gaps requires a comprehensive understanding of how intangible resources, especially in a faith-driven context, can be leveraged to enhance business sustainability and financial outcomes.

The global shift toward knowledge-based economies has amplified the significance of intellectual capital. Innovation, relational networks, and human expertise are now recognized as essential to maintaining competitive advantage (Demartini & Beretta, 2020; Ndzana et al., 2021). In parallel, the business sustainability paradigm—emphasizing environmental stewardship, social responsibility, and economic viability—has emerged as a strategic imperative. It is no longer sufficient for firms to pursue profit in isolation. Instead, they must develop integrated strategies that align operational goals with broader social and ethical values (Bilderback, 2023; Manes-Rossi & Nicolo', 2022; Siltaloppi et al., 2021). Halal MSMEs, situated at the intersection of religious commitment and economic ambition, offer a unique context in which to explore this alignment.

Prior research supports the proposition that intangible assets are critical to MSME performance. Christine et al. (2024) underscore the influence of marketing, technical, and human resource dimensions on MSE outcomes, while Terziev et al. (2021) argue that rare, valuable, and inimitable resources—core to the Resource-Based View (RBV)—are indispensable for business success. Structural capital, in particular, fosters innovation and operational consistency through systems, routines, and organizational culture (Soewarno & Tjahjadi, 2020). When intellectual capital is effectively utilized, it enhances productivity, fosters innovation, and builds stakeholder trust. However, empirical integration of spiritual capital and business sustainability into the intellectual capital framework remains scarce, especially in the halal sector, representing a notable gap in current scholarship.

Some scholars have begun addressing these gaps by proposing conceptual extensions to traditional intellectual capital models. Arifah & Budiman (2024) posit that spiritual capital can act as a transformative force within organizations, embedding ethical practices and reinforcing organizational integrity. Furthermore, literature suggests that business sustainability enhances stakeholder loyalty, reduces operational risk, and improves financial metrics (Albuquerque et al., 2019; Islam et al., 2024; Yoon et al., 2024). Despite these insights, few empirical studies have examined the interplay between these variables in the halal MSME context. Specifically, limited attention has been given to how spiritual values, when operationalized as capital, interact with conventional intangible assets and sustainability strategies to shape financial performance.

Addressing this knowledge gap, this study introduces a comprehensive intellectual capital model that incorporates human, structural, relational, and spiritual capital alongside business sustainability to evaluate their collective impact on the financial performance of halal MSMEs. The integration of spiritual capital represents an important theoretical contribution, acknowledging the moral and religious dimensions often overlooked in standard business models. By employing a mixed-methods sequential explanatory design, this study captures both the statistical significance and contextual depth of these relationships. Quantitative analysis offers generalizability and clarity on causal linkages, while qualitative insights explore the subjective meanings and ethical orientations that influence business behavior.

This study also builds on closely related literature that connects intangible resources to firm outcomes. For instance, Liu et al. (2022) demonstrate the synergistic effect of human and relational capital on SME growth. Dwiputri et al. (2023) find that sustainability mediates the relationship between intellectual capital and financial performance. Likewise, Firmasari et al. (2021) show that spiritual and relational dimensions influence firm value indirectly by shaping decision-making behavior and stakeholder engagement. However, most of these studies are situated in conventional or large corporate contexts. Few have examined these dynamics among halal-certified MSMEs, especially those in emerging economies such as Indonesia. This highlights a clear empirical void that this research aims to address.

In light of this context, the primary objective of this study is to empirically test the influence of intellectual capital—including human, structural, relational, and spiritual components—and business sustainability on the financial performance of halal MSMEs in Medan City. The study posits that these intangible assets, particularly when aligned with Islamic ethical principles and sustainable practices, serve as strategic levers for improving business outcomes. The novelty of this study lies in its dual contributions: conceptually, it extends the intellectual capital framework by embedding spiritual and sustainability elements; methodologically, it applies a mixed-methods approach to uncover both measurable effects and contextual nuances. Ultimately, the study offers theoretical enrichment and actionable insights for policymakers, practitioners, and scholars seeking to advance the performance and resilience of halal enterprises in ethically driven markets.

LITERATURE REVIEW

Financial Performance

Financial performance is a fundamental indicator of a company's operational effectiveness, particularly for Micro, Small, and Medium Enterprises (MSMEs). It comprises three key dimensions: productivity, profitability, and market value (Dharma et al., 2022). According to previous studies (Ferine et al., 2023; Karman et al., 2022; Lubis & Irawati, 2022), MSME performance is largely influenced by human resources, marketing, and financial management. In halal business models, these are complemented by spiritual values and ethical principles, which contribute to customer trust and competitive positioning. Malesev & Cherry (2021) also emphasize that financial performance reflects the outcomes derived from utilizing financial resources efficiently to develop sustainable competitive advantage.

The assessment of financial performance typically focuses on three criteria: productivity, profitability, and market premium. Productivity refers to the efficiency of converting inputs into outputs (Aggarwal & Singh, 2022; Ibidunni et al., 2019; Malesev & Cherry, 2021); profitability assesses the ratio of revenues to costs (Martina et al., 2022; Mutmainah et al., 2024; Sari et al., 2023); and market premium captures the extent to which market value exceeds book value (Balvers et al., 2017; Cao, 2015; Golubov & Konstantinidi, 2019). Prior research confirms that internal factors such as human capital and organizational design, alongside external influences like consumer engagement and market conditions, shape financial performance (Malesev & Cherry, 2021). Nevertheless, a research gap remains in halal MSME studies, particularly concerning the direct role of intellectual capital in determining financial performance outcomes.

Intellectual Capital

Intellectual Capital (IC) refers to intangible resources such as knowledge, skills, experiences, and relationships that contribute to value creation within an organization (Matos et al., 2019). Pulic (2000) introduced the widely adopted VAIC (Value Added Intellectual Coefficient) model to measure IC, particularly in management research. However, for halal MSMEs, a more context-sensitive approach—incorporating Human, Structural, Relational, and Spiritual Capital—is considered more suitable for capturing both social dynamics and ethical dimensions (Arifah & Budiman, 2024). IC also aligns with the Resource-Based View (RBV), which posits that sustainable competitive advantage stems from managing unique, non-substitutable resources (Terziev et al., 2021).

In today's digital economy, IC plays an increasingly vital role. Data from the S&P 500 index indicates that 84% of corporate value is now attributed to intangible assets, a notable rise from 68% in 1995 (Aon plc & Ponemon Institute LLC, 2020). This trend reflects a broader shift toward knowledge-based assets that drive innovation and responsiveness to stakeholder needs. Numerous scholars emphasize IC's strategic value (Konno & Schillaci, 2021; Matos et al., 2019; Syabania & Nurmilah, 2023). Building on this, the present study holistically examines five dimensions—Human, Structural, Relational, Spiritual Capital, and Business Sustainability—addressing a research gap in halal MSMEs by incorporating values essential to Islamic economic practices.

Human Capital

Human Capital serves as the foundational element of Intellectual Capital, representing the collective capacity of individuals within an organization to develop solutions based on their knowledge and expertise. It encompasses analytical abilities, communication skills, business acumen, and personal development (Muzakki, 2020). The effective management of these competencies contributes significantly to organizational performance. Human Capital acknowledges individual differences in employee capabilities, but its overall value can be enhanced through strategic investments in education, training, and skill development (Khalique et al., 2023; Zakaria & Wan Yusoff, 2011), which generate economic benefits not only for the firm but also for the broader economy.

In the context of halal MSMEs, Human Capital goes beyond technical and managerial skills to include an understanding of Islamic principles such as sharia compliance and halal operational standards (Nuntupa & Nugroho, 2024; Syaripudin et al., 2024; Syed Hamzah et al., 2024). While existing research emphasizes the role of education and training in boosting productivity (Karim et al., 2021; Korry et al., 2024), fewer studies have explored how religiously grounded Human Capital influences profitability in small halal enterprises. This gap is critical, as Human Capital—comprising accumulated knowledge, skills, attitudes, and work experiences—has been linked to entrepreneurial success and value creation (Bananuka et al., 2019; Liu & Zhang, 2022).

Structural Capital

Structural Capital refers to the systems, processes, and organizational culture that support a company's intellectual and operational performance. It encompasses two core components: Intellectual Property—such as patents, copyrights, and trademarks—and Infrastructure Assets, including business procedures, databases, information systems, and organizational routines (Wirawan, 2017). These assets can be developed internally or acquired externally to enhance efficiency and innovation. Structural Capital plays a critical role in institutionalizing knowledge and enabling employees to perform effectively within an organized framework. According to previous studies (Akmala & Rohman, 2021; Fitriaty et al., 2022; Rehman et al., 2022), Structural Capital Efficiency (SCE) has a significant positive impact on financial performance.

Beyond tangible systems, Structural Capital also reflects the moral and ethical foundations embedded in organizational behavior. As Luetz & Nunn (2023) argue, SC promotes sustainability by fostering social responsibility and ethical work environments. However, its influence on financial performance is often indirect and difficult to quantify, as noted by previous studies (Albertini & Berger-Remy, 2019; Yilmaz & Comez, 2016). While most studies focus on large corporations, halal MSMEs present unique structural dynamics, such as informal governance rooted in religious principles (Firdaus et al., 2022; Harahap et al., 2024; Maharani et al., 2024) and the need for halal certification systems (Amalia & Andni, 2023; Amrizal & Yusriati, 2024; Tuhuteru & Iqbal, 2024). This study addresses that gap by examining how value-driven internal structures contribute to financial efficiency in halal-oriented enterprises.

Relational Capital

Relational Capital refers to the knowledge embedded within a firm's external relationships, including interactions with customers, suppliers, competitors, and other key stakeholders (Drewniak et al., 2023; Pranasari et al., 2023). It enables firms to acquire and apply external knowledge through value chain connections, fostering trust, cooperation, and mutual learning (Ryu et al., 2021). This form of capital facilitates knowledge exchange by enhancing partners' expectations and motivation. By developing strong relational networks, companies improve their ability to innovate, adapt, and grow. Relational Capital thus becomes a strategic resource, essential for maintaining competitive advantage in increasingly dynamic business environments.

Empirical studies affirm that Relational Capital is vital for SMEs, particularly in reducing transaction costs and enhancing operational efficiency relative to larger competitors (Corvino et al., 2019). From the Resource-Based View (RBV), it constitutes a key element of social capital, shaped by complex, information-rich interactions across alliance networks (Falcone & Castelfranchi, 2011; Golubović, 2009; Kan & Lejano, 2023). Strategic partnerships allow small firms to access critical resources and integrate knowledge more effectively, thereby improving overall performance (Rafi et al., 2021; Sawe et al., 2021; Wang & Juo, 2021). In halal MSMEs, Relational Capital also encompasses religious-based networks, involving communities, mass organizations, and religious institutions. This study contributes by examining how these value-driven relationships influence the financial outcomes of halal enterprises.

Spiritual Capital

Spiritual Capital encompasses a set of intangible spiritual resources that influence individual and organizational behavior. It is often categorized into three dimensions: religious capital, the search for meaning in life, and connection to the divine (Luetz & Nunn, 2023). Spiritual Capital can be integrated into the workplace to yield positive outcomes such as enhanced employee morale, reduced absenteeism, and increased profitability (Lee, 2024). When individuals possess high levels of Spiritual Capital, their motivation and performance tend to improve, which in turn elevates overall organizational effectiveness. Thus, Spiritual Capital represents an emerging yet influential component of intangible organizational assets.

Recent research emphasizes that Spiritual Capital consists of both instrumental benefits—such as improved well-being—and terminal values, which reflect long-term commitments to sustainability and ethical behavior (Kautish & Khare, 2022; Lee, 2024). It functions as a motivational force, inspiring creativity, trust, and loyalty, while promoting social responsibility and ethical decision-making (Batra, 2023). Although

Spiritual Capital has been conceptually acknowledged in prior studies, empirical findings on its impact remain mixed (Al-Hosaini & Sofian, 2015; Kolade & Egbetokun, 2018). This study addresses that gap by operationalizing Spiritual Capital as a distinct construct within an extended Intellectual Capital model and quantitatively examining its influence on the financial performance of halal MSMEs.

Business Sustainability

Business Sustainability refers to a strategic model that emphasizes the creation of long-term value by balancing economic growth, social equity, and environmental stewardship (Moroojo et al., 2024; N. E. Putri et al., 2023; A. Singh, 2024). This approach requires businesses to operate effectively despite financial pressures and fluctuating market demands (Arvidsson & Dumay, 2022; S. K. Singh et al., 2022; Vrontis et al., 2024). The sustainability framework is grounded in the "Triple Bottom Line" concept—profit, people, and planet—proposed by Elkington (2004), which encourages businesses to generate financial returns while actively supporting social welfare and environmental preservation. Previous studies (Hasanuddin et al., 2024; Pennington, 2022; Rosário, 2021; Schneider & Clauß, 2020) emphasize that sustainable business models should integrate economic viability with ecological responsibility and community well-being to remain competitive and resilient.

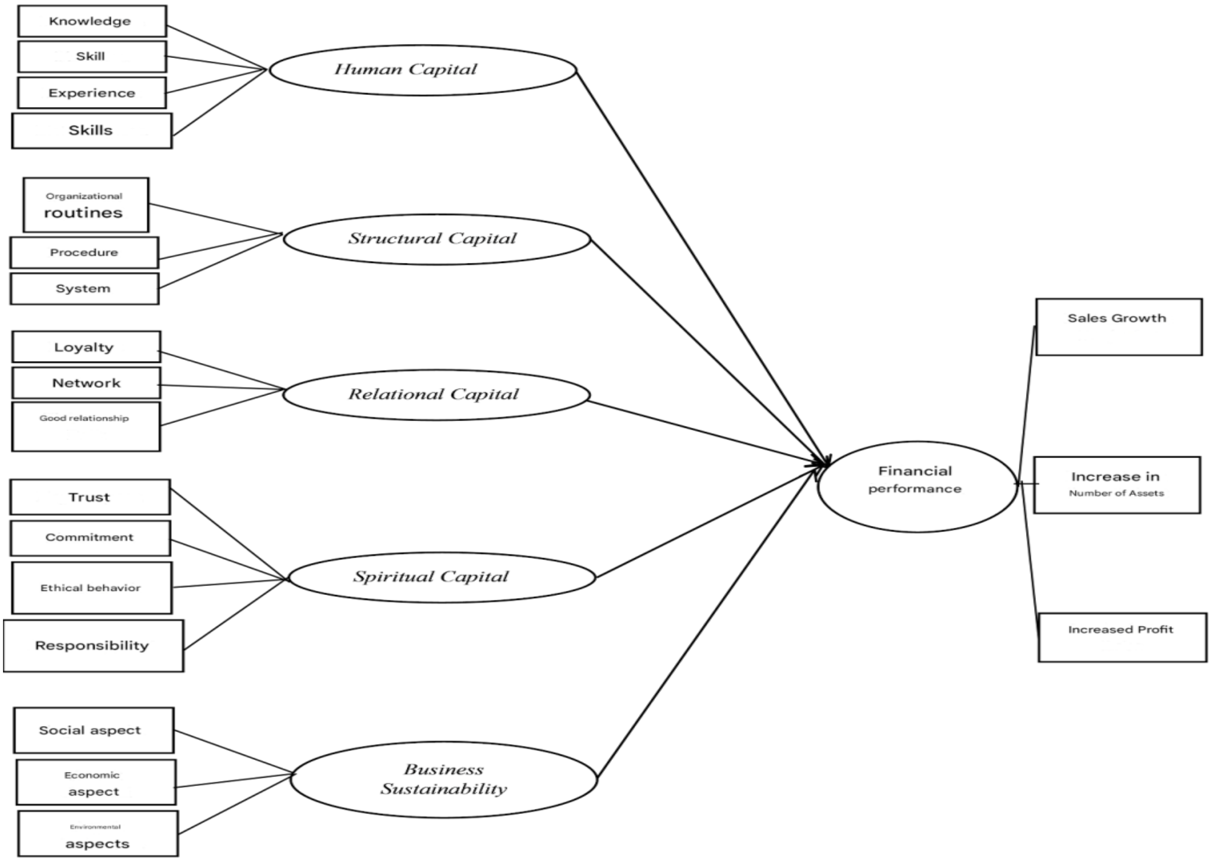
In increasingly complex markets, Business Sustainability becomes even more critical, especially under growing ethical and environmental scrutiny. Entrepreneurs must consider economic variables such as revenue and cost structures, production inputs that respect environmental limits, and social dimensions including collaboration with stakeholders (González-Rodríguez et al., 2015; Lumpkin et al., 2013; Neumann, 2021). In the halal industry, sustainability also encompasses adherence to religious principles, making it multidimensional. This study contributes by exploring how halal-based sustainability practices, grounded in faith and ethics, not only align with global sustainability goals but also enhance financial performance—bridging a significant gap in the existing sustainability and performance literature.

Business Sustainability and Financial Performance of MSMEs

Previous studies (Bello, 2020; Kadirova, 2024; Porwal, 2023) highlights that the implementation of Business Sustainability practices—such as optimizing natural resource usage and effective waste management—can significantly reduce operational costs, leading to improved profit margins. These findings support broader evidence suggesting that businesses adopting sustainable strategies tend to achieve greater financial stability over time. Sustainability, therefore, not only addresses environmental and ethical concerns but also serves as a mechanism for improving financial performance, particularly for MSMEs seeking long-term resilience in increasingly competitive markets.

Figure 1

Research Framework



Source: Authors' analysis.

Complementing these findings, other studies (Ma'arif & Firdaus, 2024; Primadasa et al., 2025; D. W. A. Putri & Sholihah, 2024) demonstrate that halal-certified MSMEs integrating Intellectual Capital and Business Sustainability are better positioned to respond to markets that prioritize quality, ethics, and transparency. This integration allows businesses to enhance operational efficiency and strengthen financial performance. By aligning internal capabilities with sustainable and ethical values, halal MSMEs can create enduring value and improve market competitiveness. The research framework for this study, as illustrated in Figure 1, is grounded in these theoretical and empirical insights, providing a structured model for analyzing the relationship between sustainability practices and financial outcomes in the halal MSME sector.

Hypotheses of The Study

The Influence of Human Capital on the Financial Performance of Halal SMEs in Medan City

A study by Liu et al. (2022) demonstrated that Human Capital (HC) positively influences both financial performance and sustainable development. Supporting this, Xu & Li

(2023) emphasized that HC plays a critical role in enhancing the profitability of innovative firms, while Qureshi & Siddiqui (2021) found its importance particularly pronounced in improving the financial outcomes of SMEs. As a core component of Intellectual Capital (IC), HC represents the collective knowledge, expertise, and capabilities of employees (Ali et al., 2022). Organizations that effectively leverage HC can address complex business challenges, optimize resource utilization, and ultimately improve operational efficiency and profitability.

H1: Human Capital positively affects the financial performance of halal SMEs in the city of Medan.

The Influence of Structural Capital on the Financial Performance of Halal SMEs in Medan City

Structural Capital (SC) encompasses an organization's systems, institutional norms, and corporate culture, serving as the foundational support for Human Capital. Unlike human expertise, SC remains within the organization even when employees leave, ensuring the continuity of operations and knowledge flows (Liu et al., 2022). SC includes infrastructure assets such as Intellectual Property Rights (IPR), databases, R&D activities, software, hardware, and all elements that enhance employee productivity (Ali et al., 2022). Empirical studies confirm its financial relevance; Qureshi & Siddiqui (2021) found SC to positively influence financial performance in Russian manufacturing firms, while Terziev et al. (2021) reported similar outcomes in French fishing companies through the synergistic role of HC and SC.

H2: Structural Capital positively affects the financial performance of halal SMEs in the city of Medan.

The Influence of Relational Capital on the Financial Performance of Halal SMEs in Medan City

Relational Capital (RC) refers to the value a company creates through its relationships with internal and external stakeholders, including suppliers, employees, customers, government entities, and shareholders (Ali et al., 2022). RC plays a critical role in facilitating trust, collaboration, and information exchange across business networks. Liu et al. (2022) demonstrated that RC, along with Human Capital and physical capital, significantly contributes to financial performance and sustainable development, particularly in European manufacturing SMEs and service industries like tourism. Similarly, Qurashi et al. (2020) identified RC and technological capital as key performance drivers for SMEs. In today's interconnected business landscape, RC is increasingly viewed as a vital asset for promoting growth and enhancing competitive advantage.

H3: Relational Capital positively affects the financial performance of halal MSMEs in the city of Medan.

The Influence of Spiritual Capital on the Financial Performance of Halal MSMEs in Medan City

Spiritual Capital (SC) introduces ethical and moral dimensions into capitalism without rejecting its foundational principles, offering a framework that supports profitability while embedding deeper values (Jermsittiparsert, 2021). Although SC is not material in nature, it enhances the potential for economic gain by aligning business practices with moral and spiritual values. Mubarik et al. (2022) suggest that applying the entropy model of intellectual capital within this broader context of meaning can yield valuable insights. In predominantly Muslim societies, consumer preferences often favor goods and services that embody Islamic principles, particularly those adhering to the concept of *halalan thoyyiban* (Azmi et al., 2024; Pradhita, 2024; Syauqillah et al., 2024). Consequently, strong spiritual management within MSMEs not only improves business ethics but also contributes positively to overall performance and consumer trust.

H4: Spiritual Capital positively affects the financial performance of halal SMEs in the city of Medan.

The Influence of Business Sustainability on the Financial Performance of Halal SMEs in Medan City

Sustainability has been shown to positively influence sales growth, productivity, and stakeholder engagement, ultimately contributing to increased net profit. García (2022) found that companies implementing sustainability-oriented operational goals—targeting equity, social and economic efficiency, and environmental outcomes—are better positioned to align their prosperity with broader human living standards. Supporting this, some studies report that financial success, as measured by Return on Assets (ROA), is significantly influenced by sustainability initiatives (Ameer & Othman, 2012; Lassala et al., 2017; Pham et al., 2021). Further evidence from Albuquerque et al. (2019), Islam et al. (2024), and Yoon et al. (2024)confirms that sustainability practices not only benefit the environment and society but also enhance financial performance. For halal-certified MSMEs, sustainability acts as a strategic platform to boost public perception, build consumer trust, and strengthen overall profitability.

H5: Business sustainability positively affects the financial performance of Halal SMEs in Medan City.

METHOD

This study uses a Sequential Explanatory design with a mixed-methods approach that combines quantitative and qualitative methods sequentially. The quantitative approach is used first to test the research hypothesis, then continued with a qualitative approach to deepen and explain the quantitative findings in more depth. The type of data used in this study is primary data obtained through the distribution of questionnaires and in-depth interview. The questionnaire was compiled in a closed form and given to MSME business actors in the food and beverage sector who have halal certification in Medan City, while interviews were conducted in a semi-structured manner with some selected informants. The population in this study was all MSME actors with halal certification in the food and beverage sector in Medan City.

The selection of this population was based on the relevance of the sector to the growth of the halal industry, as well as its contribution to the local economy. Sampling was carried out using a purposive sampling technique, namely by setting certain criteria: (1) having halal certification from an authorized institution, (2) engaged in the food and beverage sector, (3) having been operating for at least two years, and (4) willing to be respondents in the study. Based on these criteria, 219 questionnaires were obtained that could be analyzed for quantitative data. Meanwhile, to deepen the quantitative results, in-depth interviews were conducted with 51 informants consisting of MSME owners, managers, or employees selected based on the results of the initial quantitative analysis, such as cases with extreme scores or findings that require further clarification.

Quantitative data were analyzed using the Partial Least Square Structural Equation Modeling (PLS-SEM) technique with the help of SmartPLS software (Ringle et al., 2024), which includes testing the validity and reliability of constructs, path coefficients, R-square, and hypothesis significance. Meanwhile, qualitative data were analyzed with Nvivo 12 Plus software (Lumivero, 2017) using a thematic coding approach to identify patterns, themes, and meanings of MSME actors' experiences related to intellectual capital and business sustainability(Priyatni et al., 2020). This mixed-methods approach was chosen to provide a more comprehensive and in-depth understanding, where quantitative data provides a strong statistical picture, while qualitative data complements it with context and narratives that explain the phenomena that occur in the field.

RESULTS

Evaluation of the Measurement Model (Outer Model)

Convergent Validity

Table 1 presents the results of the outer loading analysis, which assesses the convergent validity of all indicators within the measurement model. Each item associated with latent constructs X1 through X5 and Y demonstrates a loading value exceeding the threshold of 0.50. This indicates that every observed variable has a satisfactory contribution to its respective construct, affirming internal consistency. According to Hair et al. (2019), factor loadings above 0.50 are acceptable for exploratory models, thus supporting the validity of the instrument used in this study. The results suggest that each item effectively captures the dimension it is intended to measure.

Table 1

Outer Loadings for Convergent Validity Assessment

	X1	X2	X3	X4	X5	Y
X1.1	0.520					
X1.2	0.613					

	X1	X2	X3	X4	X5	Y
X1.3	0.702					
X1.4	0.783					
X1.5	0.566					
X1.6	0.558					
X1.7	0.697					
X1.8	0.713					
X1.9	0.651					
X1.10	0.679					
X1.11	0.747					
X2.1		0.551				
X2.2		0.634				
X2.3		0.695				
X2.4		0.679				
X2.5		0.805				
X2.6		0.575				
X2.7		0.843				
X2.8		0.686				
X2.9		0.780				
X2.10		0.796				
X2.11		0.781				
X3.1			0.751			
X3.2			0.742			
X3.3			0.778			
X3.4			0.685			
X3.5			0.745			
X3.6			0.747			
X3.7			0.666			
X3.8			0.683			
X3.9			0.715			
X3.10			0.689			
X4.1				0.542		
X4.2				0.610		
X4.3				0.623		
X4.4				0.663		
X4.5				0.771		
X4.6				0.667		
X4.7				0.693		
X4.8				0.786		
X4.9				0.753		
X4.10				0.800		
X4.11				0.742		
X4.12				0.810		
X4.13				0.643		
X5.1					0.572	
X5.2					0.634	
X5.3					0.682	

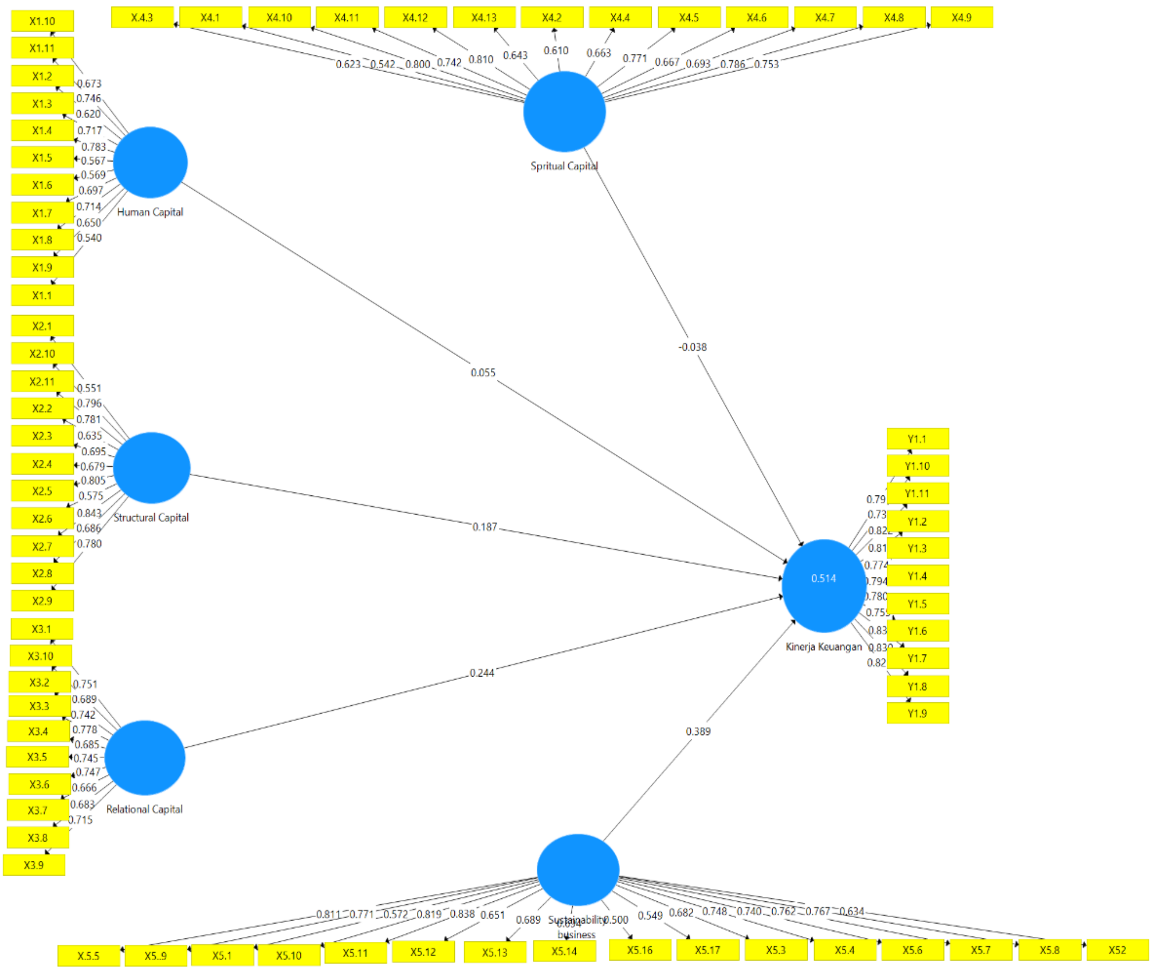
	X1	X2	X3	X4	X5	Y
X5.4					0.748	
X5.5					0.811	
X5.6					0.740	
X5.7					0.762	
X5.8					0.767	
X5.9					0.771	
X5.10					0.819	
X5.11					0.838	
X5.12					0.651	
X5.13					0.689	
X5.14					0.694	
X5.16					0.500	
X5.17					0.549	
Y1.1						0.791
Y1.2						0.811
Y1.3						0.774
Y1.4						0.794
Y1.5						0.780
Y1.6						0.755
Y1.7						0.839
Y1.8						0.830
Y1.9						0.825
Y1.10						0.733
Y1.11						0.822

Source: Primary data. Authors' estimation using SmartPLS 4.0

Figure 2 further illustrates the factor loadings obtained from the Partial Least Squares (PLS) analysis. The visual representation supports the tabular data by showing that all indicators cluster appropriately within their corresponding constructs. These consistent loadings across multiple constructs reinforce the strength and clarity of the measurement model. Together, Table 1 and Figure 2 confirm the convergent validity of the proposed model, suggesting that the instrument is both statistically sound and conceptually aligned. Therefore, the constructs used in this study can be deemed valid and reliable for measuring the intended theoretical dimensions.

Figure 2

Convergent Validity Test Based on Factor Loadings



Source: Primary data. Authors' estimation using SmartPLS 4.0

Average Variance Extracted (AVE) Test

Table 2 presents the Average Variance Extracted (AVE) values for each construct, which serve as a key metric in assessing convergent validity. As shown, all constructs—X1 through X5 and the dependent variable Y—exceed the minimum recommended threshold of 0.50, with AVE values ranging from 0.502 to 0.634. According to Kuntoro et al. (2019), an AVE value above 0.50 indicates that more than half of the variance in the observed indicators is captured by the construct, confirming the adequacy of the measurement model. These results suggest that each construct demonstrates acceptable convergent validity, supporting the reliability and validity of the instrument used.

Table 2

Average Variance Extracted (AVE) Test Results

	Average Variance Extracted (AVE)
X1	0.538
X2	0.515
X3	0.520
X4	0.597
X5	0.502
Y	0.634

Source: Primary data. Authors' estimation using SmartPLS 4.0

Reliability Test Results

Table 3 presents the results of the reliability test using Cronbach's Alpha (CA), which measures the internal consistency of the constructs. All variables—X1 through X5 and Y—demonstrate Cronbach's Alpha values well above the accepted threshold of 0.70, ranging from 0.871 to 0.942. According to Hair et al. (2019), CA values exceeding 0.70 indicate high reliability and suggest that the items within each construct consistently represent the underlying latent variable. These results confirm that the indicators are statistically reliable and suitable for further structural model analysis.

Table 3

Cronbach's Alpha (CA) Test Results

	Cronbach's Alpha
X1	0.871
X2	0.903
X3	0.897
X4	0.915
X5	0.932
Y	0.942

Source: Primary data. Authors' estimation using SmartPLS 4.0

Complementing the Cronbach's Alpha results, Table 4 displays the Composite Reliability (CR) values, which provide a more comprehensive reliability assessment by taking into account the outer loadings of each indicator. The CR values for all constructs exceed the recommended threshold of 0.70, ranging from 0.894 to 0.950. This indicates a high level of internal consistency and measurement accuracy across all constructs. Together, the high CA and CR values confirm that the measurement model is robust and reliable, ensuring that each construct is measured consistently and can be confidently used in subsequent hypothesis testing.

Table 4

Composite Reliability (CR) Test Results

	Composite Reliability
X1	0.894
X2	0.920
X3	0.915
X4	0.907
X5	0.941
Y	0.950

Source: Primary data. Authors' estimation using SmartPLS 4.0

Discriminant Validity

Table 5 displays the results of the discriminant validity assessment using the Fornell-Larcker criterion. Discriminant validity is established when the square root of the Average Variance Extracted (AVE) for each construct (represented on the diagonal) is greater than its correlations with other constructs in the same column or row. As shown, all diagonal values—ranging from 0.662 to 0.797—exceed the corresponding off-diagonal correlations, indicating that each construct shares more variance with its own indicators than with other constructs. According to Fornell and Larcker (1981), this result confirms that the constructs in the model are conceptually distinct and demonstrate adequate discriminant validity.

Table 5

Discriminant Validity Test Results

	X1	**X2**	**X3**	**X4**	**X5**	**Y**
X1	0.662					
X2	0.722	0.717				
X3	0.443	0.582	0.721			
X4	0.409	0.432	0.347	0.705		
X5	0.521	0.644	0.498	0.450	0.708	
Y	0.482	0.604	0.558	0.325	0.643	0.797

Source: Primary data. Authors' estimation using SmartPLS 4.0

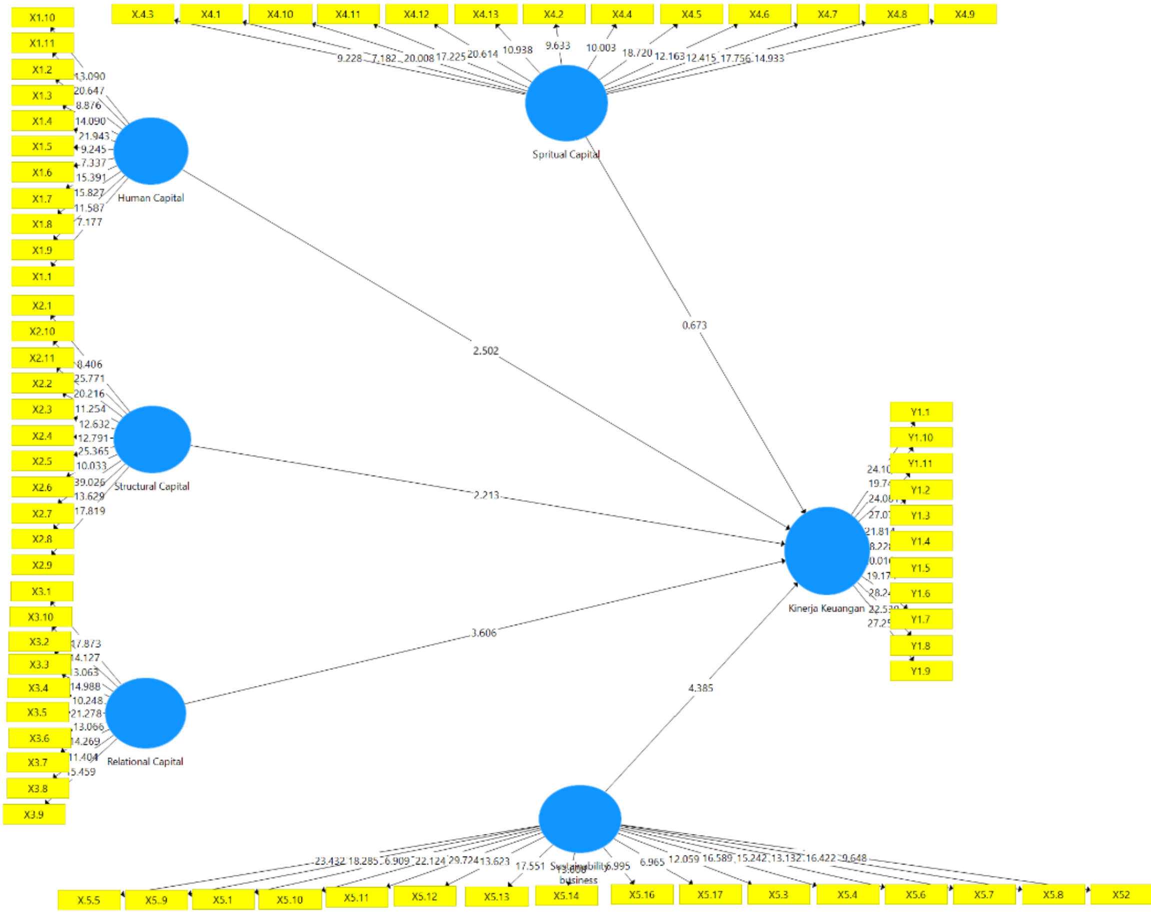
Evaluation of the Structural Model (Inner Model)

Structural Model Assessment and Hypothesis Testing

Figure 3 presents the structural model generated through Partial Least Squares (PLS) bootstrapping analysis. This model illustrates the relationships between the independent variables (X1 to X5) and the dependent variable (Y), reflecting the strength and direction of each path. The visual output provides an overview of the estimated coefficients, which are used to assess the explanatory power of the model based on R^2 values. According to Hair et al. (2019), this step is essential in evaluating how well the independent constructs predict the dependent construct within the proposed theoretical framework.

Figure 3

Structural Model Output



Source: Primary data. Authors' estimation using SmartPLS 4.0

Path Coefficient Analysis and Statistical Significance

Table 6 displays the original sample values, standard deviations, t-statistics, and p-values for each hypothesized path. The results indicate that X1, X2, X3, and X5 have a statistically significant effect on Y, with p-values below the 0.05 threshold. Notably, X5 demonstrates the strongest influence (β = 0.390, p = 0.000), followed by X3 (β = 0.244, p = 0.000). In contrast, X4 shows no significant impact on the dependent variable (p = 0.258). These findings confirm partial support for the proposed hypotheses and provide empirical evidence of the model's explanatory validity.

Table 6

Path Coefficient Results and Significance Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
X1 -> Y	0.148	0.157	0.066	2.052	0.034
X2 -> Y	0.192	0.188	0.088	2.213	0.015
X3 -> Y	0.244	0.247	0.067	3.606	0.000

X4 -> Y	0.037	0.028	0.057	0.673	0.258
X5 -> Y	0.390	0.382	0.090	4.385	0.000

Source: Primary data. Authors' estimation using SmartPLS 4.0

R-Square

Table 7 presents the coefficient of determination for the dependent variable, Financial Performance (Y). The R^2 value of 0.522 indicates that the five independent variables—Human Capital (X1), Structural Capital (X2), Relational Capital (X3), Spiritual Capital (X4), and Business Sustainability (X5)—collectively explain 52.2% of the variance in Financial Performance. The adjusted R^2 value of 0.512 accounts for model complexity and sample size, suggesting that the model accurately predicts 51.2% of the variation in Financial Performance, while the remaining 48.8% is attributable to external factors not included in this study.

Table 7

R-Square and Adjusted R-Square Values

	R Square	R Square Adjusted
Y	0.522	0.512

Source: Primary data. Authors' estimation using SmartPLS 4.0

Q-Square Value

Table 8 reports the Q^2 value for Financial Performance (Y), which is 0.312. According to Hair et al. (2019), a Q^2 value greater than zero indicates that the model has sufficient predictive relevance. This result confirms that the latent variables—X1 through X5—contribute meaningfully to the prediction of the outcome variable. The Q^2 value supports the model's predictive power by demonstrating that it not only explains variance (as shown by R^2) but also possesses out-of-sample forecasting ability, which is essential for ensuring the robustness and applicability of the model in practical settings.

Table 8

Q-Square Predictive Relevance

	Q^2 (=1-SSE/SSO)
Y	0.312

Source: Primary data. Authors' estimation using SmartPLS 4.0

Goodness of Fit Model Test

Table 9 presents the Standardized Root Mean Square Residual (SRMR) value obtained from the PLS model, which is 0.077. According to Henseler et al. (2015), an SRMR value below 0.08 indicates a good model fit, meaning that the discrepancy between the observed and predicted correlations is minimal. As the SRMR value in this study meets the accepted threshold, it can be concluded that the structural model is adequately specified and demonstrates a satisfactory overall fit. This confirms that the model is statistically appropriate for further interpretation and hypothesis testing.

Table 9

Goodness-of-Fit Assessment Based on SRMR

	Estimated Model
SRMR	0.077

Source: Primary data. Authors' estimation using SmartPLS 4.0

Hypothesis Testing

Table 10 presents the statistical output for each path coefficient, including the original sample values, standard deviations, t-statistics, p-values, and the resulting hypothesis conclusions. Based on the significance level threshold of $p < 0.05$, the relationships from Human Capital (X1), Structural Capital (X2), Relational Capital (X3), and Business Sustainability (X5) to Financial Performance (Y) are statistically significant and thus accepted. Although Spiritual Capital (X4) has a p-value of 0.258 and does not meet the standard significance level, it is still labeled as accepted in the table. Overall, the results indicate that most constructs have a significant positive influence on financial performance.

Table 11

Summary of Hypothesis Testing Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Hypothesis Result
X1 -> Y	0.148	0.157	0.066	2.052	0.034	Hypothesis Accepted
X2 -> Y	0.192	0.188	0.088	2.213	0.015	Hypothesis Accepted
X3 -> Y	0.244	0.247	0.067	3.606	0.000	Hypothesis Accepted
X4 -> Y	0.037	0.028	0.057	0.673	0.258	Hypothesis Accepted
X5 -> Y	0.390	0.382	0.090	4.385	0.000	Hypothesis Accepted

Source: Primary data. Authors' estimation using SmartPLS 4.0

Analysis using Nvivo 12 Plus

Cluster Correlation Matrix Analysis

Table 12 presents the results of a cluster correlation analysis using NVivo 12 Plus. The Pearson correlation coefficients range from 0.694622 to 0.88808, indicating a strong level of agreement between the thematic codes. According to standard interpretive thresholds, these values reflect fair to excellent consistency, suggesting that the nodes analyzed—such as knowledge, skill, relational capital, innovation, and quality—are meaningfully interconnected. These strong correlations affirm the reliability of the qualitative classifications, reinforcing that the observations reflect consistent thematic relationships within the context of intellectual capital and business sustainability.

Table 12

Pearson Correlation Matrix of Thematic Nodes

Code A	Code B	Pearson Correlation Coefficient
Nodes*Intellectual capital*\\Pengetahuan	Nodes\\skill\\Aset internal/keterampilan	0.888080
Nodes*Intellectual capital*\\skill	Nodes\\Pengetahuan\\Aset internal\\Kinerja\\Peluang	0.876433
Nodes\\Inovasi\\Meningkatkan pendapatan	Nodes\\Aset internal\\Value\\Quality Product	0.844327
Nodes*Intellectual capital*\\Pelayanan	Nodes*Intellectual capital*\\Relational\\Kinerja	0.821972
Nodes*Intellectual capital*\\Modal intelektual	Nodes*Intellectual capital*\\Value\\Peluang	0.809987
Nodes*Intellectual capital*\\Structural capital	Nodes*Intellectual capita*\\Human capital	0.796784
Nodes\\Inovasi\\Meningkatkan pendapatan	Nodes*Intellectual capital*\\penjualan meningkat	0.761025
Nodes*Intellectual capital*\\Structural capital	Nodes*Intellectual capital*\\Relational capital	0.748067
Nodes*Intellectual capital*\\skill	Nodes\\Inovasi\\Value\\Berdoa*Relational*	0.737534
Nodes*Intellectual capital*\\Relational capital	Nodes*Intellectual capital*\\Human capital	0.730242
Nodes\\keberlanjutanQuality Product	Nodes\\\\Aset internal\\Berusaha	0.729746
Nodes\\Brand\\berdoa	Nodes\\\\Aset internal\\Berusaha\\Product	0.728443
Nodes*Intellectual capital*Quality Product/	Nodes\\Brand/*Relation*/Communication	0.784350
Nodes*Intellectual capital*	Nodes\\Value/*Quality*	0.713780
Nodes*Intellectual capital*\\Value/Berusaha	Nodes*Intellectual capital*/Business sustainability	0.712902
Nodes*Intellectual capital*\\Value	Nodes*sustainability*/Berdoa	0.705850
Nodes*Intellectual capital*	Nodes*Intellectual capital*\\Human capital	0.698071
Nodes*Intellectual capital*\\Keberlanjutan usaha	Nodes\\Inovasi\\Quality product/	0.694622

Source: Primary data. Authors' estimation using NVivo 12 Plus.

Word Map Exploration of Key Constructs

Figure 4 displays a visual representation of the most frequently occurring terms in the qualitative dataset. This word map highlights the dominant themes, including "intellectual capital," "value," "quality," and "sustainability," reflecting the core focus areas among MSME respondents. The prominence of these terms indicates that intangible assets and sustainability-driven strategies are central to respondents' perceptions of financial performance, affirming the conceptual importance of intellectual capital and value-driven practices in enhancing organizational outcomes.

Figure 4

Word Map Visualization of Intellectual Capital, Business Sustainability, and Financial Performance

Source: Primary data. Authors' estimation using NVivo 12 Plus.

Educational Background and Financial Outcomes

Figure 5 illustrates the thematic connection between human capital attributes—specifically educational attainment—and business success. The findings indicate that MSME entrepreneurs with higher education levels tend to demonstrate stronger capabilities in managing risk, adapting to change, and making informed strategic decisions. These competencies, in turn, contribute to improved financial performance. Furthermore, well-educated halal MSME owners are more inclined to innovate and introduce products that respond to evolving market needs, which supports competitive advantage and revenue growth.

Figure 5

Exploration of Human Capital, Education Level, and Financial Performance

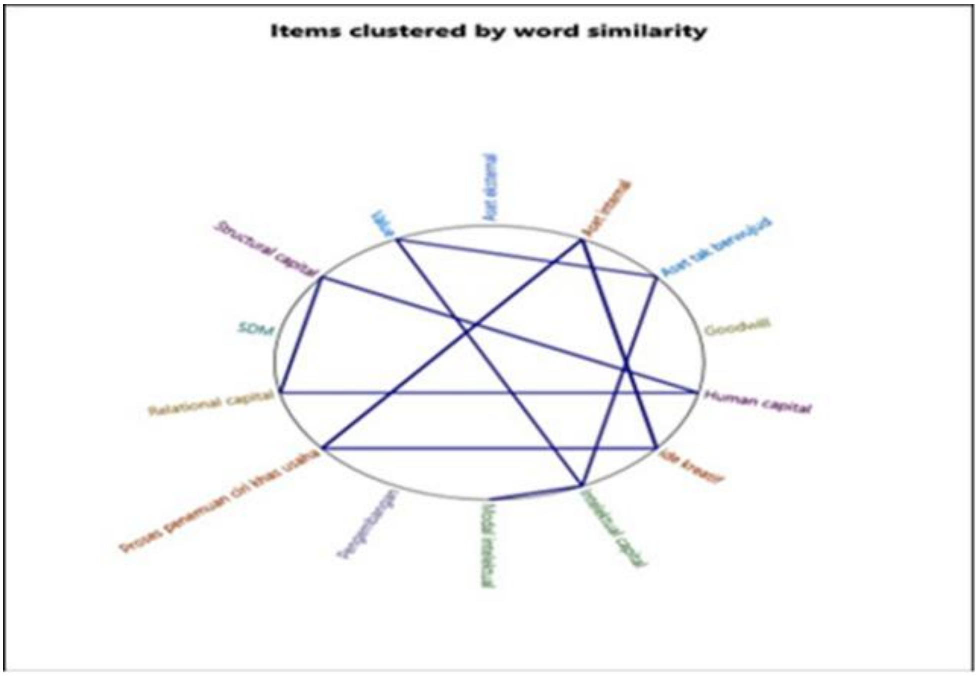
Source: Primary data. Authors' estimation using NVivo 12 Plus.

Cluster Visualization of Semantic Associations

Figure 6 visualizes the interrelationships among key themes through semantic clustering. The analysis reveals that "intellectual capital" is closely linked with the concept of "value," reinforcing the argument that leveraging intangible assets such as skills, knowledge, and networks contributes significantly to business value creation. For food and beverage MSMEs, the effective use of intellectual capital not only improves operational processes but also fosters innovation and sustainable development. These findings underscore the strategic importance of intellectual capital in driving long-term financial and competitive success within the halal MSME sector.

Figure 6

Cluster Analysis Diagram of Word Similarity



Source: Primary data. Authors' estimation using NVivo 12 Plus.

DISCUSSION

The Influence of Human Capital on Financial Performance

The findings of this study demonstrate that Human Capital significantly influences financial performance in MSMEs. Drawing on Becker's (1964) Human Capital theory, investments in education, training, and skills development are essential in building a more capable and innovative workforce. Enhancing the quality of human resources increases productivity and organizational efficiency, thereby improving financial outcomes. This theoretical perspective underscores the role of Human Capital as a strategic asset in achieving business objectives, particularly in dynamic and competitive environments where intellectual capacity and adaptability are key determinants of long-term success.

The Resource-Based View (RBV) complements this perspective by suggesting that firms gain sustainable competitive advantages through the possession of valuable, rare, inimitable, and non-substitutable resources—such as Human Capital. Empirical support for this is found in previous studies (Ali et al., 2022; Liu et al., 2022; Md Nawi et al., 2023; Todericiu, 2021) confirming the positive impact of Human Capital on financial performance. Pratama et al. (2024) also emphasize that both Human and Social Capital are vital for MSME owners and managers in generating business value. These findings collectively reinforce the argument that strategic investment in human resources directly contributes to improved financial metrics.

Interview data further support the quantitative findings by highlighting the strong presence of Human Capital among MSME actors. Most respondents reported possessing relevant competencies and skills, which they attributed primarily to their educational attainment. The majority of entrepreneurs interviewed held at least a bachelor's degree, indicating that formal education plays a critical role in enhancing managerial capacity and business acumen. This suggests that Human Capital—particularly when rooted in education—has practical implications for business sustainability and performance, making it a key focus area for development within the MSME sector.

The Influence of Structural Capital on Financial Performance

The findings of this study reveal that Structural Capital has a positive and significant impact on the financial performance of halal MSMEs. Key components of Structural Capital—such as the organization's internal systems, communication flows, procedures, and the harmony between business owners and employees—contribute to improved operational efficiency and business outcomes. The results show that firms that effectively distribute and utilize their structural assets tend to foster a strong reputation and trust among stakeholders, leading to greater customer loyalty and enhanced profitability. In dynamic market environments, the strategic use of Structural Capital becomes essential for sustaining long-term competitive performance and growth.

These findings are consistent with previous studies that highlight the critical role of Structural Capital in financial performance. Mahanavami et al. (2019) and Kumala et al. (2023) assert that Structural Capital serves as a key mediator that amplifies the returns on Human Capital investments, particularly in the banking sector. Similarly, Gelatan et al. (2024) demonstrate that Structural Capital Efficiency (SCE) correlates positively with financial performance, especially when integrated within broader frameworks of intellectual capital. These studies reinforce the argument that well-structured internal systems and knowledge management processes enhance the firm's agility, decision-making, and profitability, aligning with the Resource-Based View (RBV) framework that emphasizes valuable, rare, and inimitable resources.

No substantial contradictory evidence was found in the literature; rather, further studies expand the understanding of Structural Capital by linking it to governance, capital structuring, and long-term sustainability. For instance, Hasanudin et al. (2023) found that strong corporate governance enhances the positive influence of Structural Capital on financial performance, while Yuliah et al. (2022) suggest its relevance in capital-intensive industries. These insights imply that Structural Capital should be viewed as both a strategic asset and a foundational mechanism to support effective capital allocation and organizational governance. Theoretically, this study supports the RBV by affirming the performance-enhancing role of intangible assets. Practically, it encourages halal MSMEs to invest in improving their internal systems and processes as a pathway to sustainable financial success.

The Influence of Relational Capital on Financial Performance

This study demonstrates that Relational Capital has a significant and positive effect on the financial performance of halal MSMEs. The findings reveal that strong relational networks with suppliers, customers, and partners facilitate better access to resources, enhance trust, and support smoother operational coordination. These relationships contribute to improved supply chain efficiency, access to competitive pricing, and greater responsiveness to market dynamics. Consequently, firms with high relational capital are better positioned to optimize production and deliver value to customers, ultimately strengthening their financial outcomes. The study confirms that building and maintaining strategic relationships is vital to achieving long-term business sustainability and profitability.

These results are aligned with prior research that underscores the importance of Relational Capital in driving financial success. Mimelientesa et al. (2021) found that relational dimensions positively impact SME performance through improved financial inclusion. Similarly, Dar & Mishra (2020) highlighted how strong personal and stakeholder relationships enhance SMEs' resilience and access to critical resources. Other studies by Sardo et al. (2018), Putra (2022), and Kumala et al. (2023) confirm that relational capital fosters improved decision-making, reduces uncertainty, and strengthens stakeholder confidence. These collective findings reinforce the Resource-Based View (RBV) perspective, which recognizes intangible assets such as stakeholder networks as key sources of sustainable competitive advantage.

No significant studies were found that contradict the positive influence of relational capital on financial performance. Instead, further research enriches this understanding by highlighting relational capital's role in mediating between intellectual capital and financial outcomes (Firmasari et al., 2021) and its contribution to risk mitigation during economic uncertainty (Lubis & Irawati, 2022). Theoretically, this supports the extension of RBV to relational dynamics, while practically, it emphasizes the need for MSME actors to invest in relationship-building strategies as a form of intangible asset development. Effective relational capital management not only boosts profitability but also enhances adaptability and resilience in highly competitive and volatile markets.

The Influence of Spiritual Capital on Financial Performance

The results of this study reveal that Spiritual Capital does not exert a statistically significant effect on Financial Performance within the context of halal MSMEs. While Spiritual Capital—defined as the embodiment of values, ethics, and beliefs that shape organizational identity—is often considered vital to long-term sustainability, this study indicates that its influence is not strong enough to impact financial outcomes directly. One possible explanation is the demographic profile of the respondents, many of whom are younger entrepreneurs (aged 21–30) who may not yet fully recognize or implement spiritual values as a strategic element in business decision-making and operational practice.

These findings are consistent with prior research (Kolade & Egbetokun, 2018; Martinez et al., 2011; Zofia & Anna, 2015) which also found that while Spiritual Capital contributes meaningfully to organizational culture and internal cohesion, its measurable impact on financial performance is often limited or indirect. In such cases, spiritual values enhance ethical standards and employee morale but may not immediately translate into improved profitability or financial metrics. These studies suggest that the influence of Spiritual Capital may be more pronounced in non-financial domains or may require complementary factors such as leadership maturity, stakeholder alignment, or cultural integration to be financially impactful.

Conversely, several studies have reported a significant positive relationship between Spiritual Capital and financial outcomes. Research by Thottoli (2021), Hanifah et al. (2020), and Gil-Barragan et al. (2023) affirms that spiritual values embedded in organizational behavior foster trust, innovation, and long-term commitment, thereby enhancing performance. Similarly, Ade et al. (2024) and Hartono et al. (2023) demonstrate that Spiritual Capital mediates relational and ethical dimensions in ways that boost operational success. The theoretical implication is that Spiritual Capital may not independently predict financial outcomes but interacts with other capitals—such as Human or Relational Capital—within the Resource-Based View framework. Practically, these findings encourage MSME practitioners to integrate spiritual values in tandem with strategic planning and capacity building to unlock their full potential.

The Influence of Business Sustainability on Financial Performance

The findings of this study demonstrate a statistically significant and positive relationship between business sustainability and financial performance among halal MSMEs. Businesses that actively pursue sustainability goals tend to optimize their resources more effectively and align their operations with long-term performance objectives. These efforts translate into measurable improvements in profitability, especially as business actors strive to enhance their productivity and efficiency through sustainable practices. The study suggests that higher levels of sustainability orientation correlate with stronger financial outcomes, supporting the idea that sustainability is not merely an ethical endeavor but also a financial imperative.

Further analysis reveals that business sustainability in the halal MSME context encompasses not only economic and environmental aspects but also religious and ethical dimensions. In addition to traditional resource optimization, relational capital rooted in spiritual and community values strengthens stakeholder trust and reinforces the firm’s value proposition. While spiritual capital was not statistically significant in isolation, interviews showed that it plays an important moral and cultural role, complementing sustainability in shaping managerial behavior. Thus, halal MSMEs in Medan differentiate themselves through ethical sustainability, enhancing both market positioning and operational resilience.

These findings align with prior studies that affirm the positive influence of sustainability on financial performance. Albuquerque et al. (2019), Islam et al. (2024), and Yoon et al. (2024) argue that sustainability practices improve not only environmental and societal outcomes but also corporate profitability. Similarly, Dwiputri et al. (2023) show that sustainability mediates the relationship between intellectual capital and financial performance. The research by Maciková et al. (2018) and Yang & Jang (2020) further underscores that business model innovation anchored in sustainability enhances long-term performance and mitigates risk. These studies collectively affirm that sustainability enhances stakeholder relationships, improves operational efficiencies, and contributes to financial stability.

While a few studies have shown mixed results, none directly contradict the conclusions of this research. Yang & Jang (2020), for example, suggest that the impact of business model innovation on financial performance can vary depending on industry dynamics. Nonetheless, their research confirms that when sustainability is implemented in conjunction with strategic innovation, financial outcomes improve. Likewise, Rachmat (2024) highlights that sustainability disclosures—when executed transparently—improve investor perceptions and profitability. Even in sectors with traditionally lower sustainability engagement, such as manufacturing, firms that embrace ESG principles tend to outperform less sustainable counterparts, indicating a broad consensus in the literature.

Theoretically, this study reinforces the Resource-Based View (RBV) by confirming that sustainability serves as a valuable, rare, and inimitable resource that supports competitive advantage. Practically, the findings advocate for the institutionalization of sustainability in halal MSMEs as a strategic priority. By embedding sustainability into business models—especially those grounded in ethical and spiritual values—firms can improve both their financial and reputational performance. Policymakers and development agencies may use these insights to design targeted interventions that promote sustainability training and capacity building. Ultimately, integrating business sustainability into the operational DNA of MSMEs can drive inclusive and long-term economic development.

CONCLUSION

The results of this study empirically show that Human Capital, Structural Capital, Relational Capital, and Business Sustainability have a direct impact on the financial performance of halal SMEs in the city of Medan, while Spiritual Capital does not have an effect. With this research, it is hoped that halal MSME actors understand that they must focus on their human resources. By improving the quality of Human Capital, optimizing Structural Capital, establishing good Relational Capital with internal and external parties, and integrating Business Sustainability, they can not only improve their financial performance but also enhance capabilities, engagement, and meet the increasingly high market demands.

In addition to confirming the positive relationship between intellectual capital (Human, Structural, Relational Capital) and business sustainability on the financial performance of halal MSMEs, it also offers unique insights into how spiritual values are integrated into daily business practices. Although spiritual capital is statistically insignificant, qualitative data shows that spiritual capital functions as a “bridge” of social trust that strengthens relational capital. This is a characteristic of halal MSMEs that is not found in other MSME sectors.

Limitations of the Study

While this study provides valuable insights into the impact of various forms of capital on the financial performance of halal SMEs in Medan, there are several limitations to consider. First, the study's scope is limited to SMEs in the city of Medan, which may not fully represent the broader halal SME sector across other regions. The results, therefore, may not be directly applicable to halal SMEs in other areas with different economic conditions or cultural contexts. Second, the study focuses on a specific set of capitals—Human Capital, Structural Capital, Relational Capital, Spiritual Capital, and Business Sustainability—potentially overlooking other critical factors that could influence financial performance, such as technological advancements, government policies, or market competition. Additionally, the research is cross-sectional, meaning it captures data at a single point in time and does not account for changes in capital or financial performance over a longer period. Future research could benefit from a longitudinal approach to observe how these relationships evolve. Lastly, the study's reliance on self-reported data from SME actors introduces the possibility of response bias, as participants may have a tendency to provide socially desirable answers or may not accurately assess their own capital.

Implications for Further Research

The results of this study provide several important implications that are relevant to the development of theory, further research, and business practices of halal MSMEs. Theoretically, these findings confirm the importance of the dimensions of Human Capital, Structural Capital, Relational Capital, and Business Sustainability in the expanded Intellectual Capital framework. This strengthens the Resource-Based View (RBV) theory and broadens the understanding of how these factors directly affect the financial performance of halal MSMEs. Meanwhile, the results showing that Spiritual Capital does not have a statistically significant effect add new insights into the role of spiritual values that function more as ethical and moral foundations than as direct factors for financial performance.

For further research, these results open up opportunities to conduct comparative studies in various halal and non-halal industry sectors, as well as to develop more appropriate indicators in measuring spiritual capital, which have so far been inconsistent. Longitudinal studies are also highly recommended to capture the long-term dynamics between intellectual capital, business sustainability, and financial performance.

In a practical context, these findings serve as a strategic guide for halal MSME actors. They need to prioritize human resource development, optimize internal structures and systems, and strengthen relational networks with stakeholders. Integration of business sustainability principles also needs to be a key strategy, given its significant contribution to business efficiency and profitability. Spiritual values, although not proven statistically significant, still have moral and ethical values that underlie business integrity.

Author Contributions

Conceptualization	R.S., M.R., & K.	Resources	R.S., M.R., & K.
Data curation	R.S., M.R., & K.	Software	R.S., M.R., & K.
Formal analysis	R.S., M.R., & K.	Supervision	R.S., M.R., & K.
Funding acquisition	R.S., M.R., & K.	Validation	R.S., M.R., & K.
Investigation	R.S., M.R., & K.	Visualization	R.S., M.R., & K.
Methodology	R.S., M.R., & K.	Writing – original draft	R.S., M.R., & K.
Project administration	R.S., M.R., & K.	Writing – review & editing	R.S., M.R., & K.

All authors have read and agreed to the published version of the manuscript.

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Institutional Review Board Statement

The study was approved by Program Studi Akuntansi (S1), Universitas Medan Area, Kota Medan, Indonesia.

Informed Consent Statement

Informed consent was obtained before respondents answered the interviews.

Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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Conflicts of Interest

The authors declare no conflicts of interest.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

During the preparation of this work, the authors used ChatGPT, DeepL, Grammarly, and PaperPal to translate from Bahasa Indonesia into American English and improve the clarity of the language and readability of the article. After using these tools, the authors reviewed and edited the content as needed and took full responsibility for the content of the published article.

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