



Halal Market Dynamics, Sharia-Oriented Dynamic Capabilities, and Innovation Performance in Muslim Fashion SMEs: Evidence from an Islamic Economic Perspective

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ABSTRACT

This paper investigates how external dynamics moderate the relationships between human capital, business strategy, financial outcomes, and innovation capability within Muslim Fashion SMEs in Indonesia. Grounded in Dynamic Capabilities Theory, Organizational Learning Theory, Contingency Theory, and Islamic business perspectives, the study examines how environmental uncertainty influences SMEs' strategic capacity to innovate within the halal fashion ecosystem. Using a quantitative approach and Structural Equation Modeling (SEM), the findings reveal that external dynamics strengthen the positive effects of human capital and business strategy on innovation capability, while weakening the influence of financial outcomes. These results indicate that financial strength alone is insufficient to sustain innovation without adaptability, strategic responsiveness, and competent human capital. The study contributes to the Islamic economics and halal business literature by demonstrating that innovation in Muslim Fashion SMEs is shaped not only by economic factors but also by Islamic values, halal orientation, and ethical entrepreneurship. Furthermore, the findings highlight the importance of innovation capability in supporting sustainable halal industry growth, strengthening Muslim entrepreneurship, and enhancing the competitiveness of Islamic SMEs in dynamic digital markets.

Keywords: external dynamics, human capital, business strategy, innovation capability, muslim fashion SMEs.

INTRODUCTION

In the era of globalization and digital transformation, innovation is essential for the sustainability and competitiveness of Small and Medium

Enterprises (SMEs), particularly in Indonesia's rapidly growing Muslim fashion sector. This industry is expanding due to rising domestic and global demand, but it also faces intense competition and fast-changing market dynamics, requiring continuous innovation to enhance product appeal, personalization, and customer loyalty.¹ Innovation capability is shaped not only by individual creativity but also by business strategy and human capital as key organizational drivers.²

Unlike conventional fashion SMEs, Muslim fashion SMEs operate within Islamic values, including halal compliance, modesty, ethics, and social responsibility. Thus, innovation is both market-driven and value-driven, requiring alignment between creativity and religious principles. Muslim consumer preferences increasingly emphasize modern design, personalization, sustainability, and Sharia compliance, pushing SMEs to adopt adaptive strategies such as halal branding, digital marketing, and customer engagement.

However, these SMEs face structural constraints such as limited financial resources, weak institutional support, and environmental uncertainty. Previous studies suggest that financial outcomes mediate the relationship between strategy and innovation, while external dynamics may act as both strengthening and weakening factors.³ Literature also shows inconsistent findings regarding the effects of human capital, business strategy, and external dynamics on financial outcomes and innovation capability.⁴

These inconsistencies reveal a research gap, as no study has integrated human capital, business strategy, financial outcomes, and external dynamics into a single model for Muslim fashion SMEs in Indonesia. This study addresses this gap by proposing an integrated framework that incorporates Islamic values and Muslim consumer behavior. The model is analyzed using PLS-SEM to examine complex relationships among variables.

The objective of this research is to analyze the effects of human capital and business strategy on innovation capability, with financial outcomes as a mediator and external dynamics as a moderator. The study is expected to provide theoretical contributions, practical guidance for SME development, and policy recommendations to strengthen a sustainable halal fashion innovation ecosystem in Indonesia.

¹ Kanokon Kiti et al., "The Impact of Leader Sensemaking Competence on Expatriate Agility During Economic Uncertainty: The Mediating Roles of Perceived Organisational Support and Self-Efficacy," *SAGE Open* 15, no. 2 (2025): 1-19.

² Jedsada Wongsansukcharoen and Jutamard Thaweepaiboonwong, "Effect of Innovations in Human Resource Practices, Innovation Capabilities, and Competitive Advantage on Small and Medium Enterprises' Performance in Thailand," *European Research on Management and Business Economics* 29, no. 1 (2023): 100210.

³ Luis Enrique Valdez-Juárez and Mauricio Castillo-Vergara, "Technological Capabilities, Open Innovation, and Eco-Innovation: Dynamic Capabilities to Increase Corporate Performance of Smes," *Journal of Open Innovation: Technology, Market, and Complexity* 7, no. 1 (2021): 1-19.

⁴ Chen Han and Shuman Zhang, "Multiple Strategic Orientations and Strategic Flexibility in Product Innovation," *European Research on Management and Business Economics* 27, no. 1 (2021): 100136.

Literature Review

Resource-Based View (RBV) dan Dynamic Capabilities Theory (DCT)

The Resource-Based View (RBV) explains that firms achieve competitive advantage by utilizing valuable, rare, inimitable, and non-substitutable resources.⁵ emphasize that effective resource utilization leads to superior performance, while Aurora Garrido-Moreno et al.⁶ note that unique resource configurations remain strategic advantages in dynamic environments. Complementing this, Dynamic Capabilities Theory (DCT) focuses on the ability to sense, seize, and transform resources in response to environmental changes,⁷ helping SMEs adapt and strengthen innovation-driven competitiveness.

Innovation Capability (IC)

Innovation capability is an organization's ability to develop new products, services, or processes that add value and improve efficiency. It is driven by creativity, knowledge, and internal-external support.⁸ A supportive culture, flexible structure, and collaboration enhance innovation.⁹ Key indicators include product development, technology adoption, process efficiency, market responsiveness, R&D, digital innovation, customer feedback, and employee creativity.¹⁰

Financial Outcomes (FO)

Financial outcomes measure a company's performance over a period, including net income, revenue growth, profit margin, ROI, ROA, ROE, cash flow, and financial stability¹¹. They reflect the effectiveness of strategic decisions and resource management. In competitive industries, strong financial outcomes indicate successful strategy implementation and market expansion, and they

⁵ Thomas Clauss et al., "Organizational Ambidexterity and Competitive Advantage: The Role of Strategic Agility in the Exploration-Exploitation Paradox," *Journal of Innovation and Knowledge* 6, no. 4 (2021): 203–213.

⁶ Aurora Garrido-Moreno, Rodrigo Martín-Rojas, and Víctor J. García-Morales, "The Key Role of Innovation and Organizational Resilience in Improving Business Performance: A Mixed-Methods Approach," *International Journal of Information Management* 77, no. March (2024): 102777.

⁷ David J Teece, "Technological Innovation and the Theory of the Firm: The Role of Enterprise-Level Knowledge, Complementarities, and (Dynamic) Capabilities," in *Handbook of the Economics of Innovation*, vol. 1 (Elsevier, 2010), 679–730.

⁸ Julia Kroh et al., "Micro-Foundations of Digital Innovation Capability – A Mixed Method Approach to Develop and Validate a Multi-Dimensional Measurement Instrument," *Technological Forecasting and Social Change* 198, no. November 2022 (2024).

⁹ Umair Shafi Choksy et al., "The Role of Peripheral Vendors in Enhancing the Absorptive Capacity of Offshore Software Development Teams in Challenging Institutional Environments," *European Management Journal*, no. February (2024).

¹⁰ Adam Shore et al., "Building Entrepreneurial Resilience during Crisis Using Generative AI: An Empirical Study on SMEs," *Technovation* 135, no. December 2023 (2024): 103063.

¹¹ Irene Bautista-Bernal, Cristina Quintana-García, and Macarena Marchante-Lara, "Safety Culture, Safety Performance and Financial Performance. A Longitudinal Study," *Safety Science* 172, no. May 2023 (2024): 106409.

often act as a mediating factor between innovation capability and business strategy.¹²

Business Strategy (BS)

Business strategy refers to plans and actions aimed at achieving long-term goals such as competitiveness, market expansion, and strong market position.¹³ It integrates resource management, product development, and market expansion to drive innovation and financial performance.¹⁴ Aligned with internal and external conditions, it supports differentiation, alliances, and growth.¹⁵ Key indicators include vision, differentiation, pricing, diversification, alliances, execution speed, and trend adaptation.¹⁶

Human Capital (HC)

Human capital refers to employees' skills and competencies that support organizational goals such as innovation and performance.¹⁷ It includes technical abilities, creativity, leadership, and communication skills. Strong human capital enhances innovation, responsiveness, and strategy execution.¹⁸ Firms investing in training and development achieve better outcomes. Key indicators include skills, training, retention, leadership, motivation, collaboration, productivity, and diversity.¹⁹

External Dynamics (ED)

External dynamics refer to factors outside a firm's control that influence operations, such as economic conditions, regulations, market trends, and technological change.²⁰ These dynamics may create opportunities or threats

¹² Yire Jeong et al., "Synaptic Plasticity-Dependent Competition Rule Influences Memory Formation," *Nature Communications* 12, no. 1 (2021): 1–13.

¹³ László Kolozsár et al., "Tournament Rituals and Experiential Competence Development in Higher Education: A Case of a Unique Conference Series," *International Journal of Management Education* 22, no. 1 (2024).

¹⁴ Amani K. Samha, "Strategies for Efficient Resource Management in Federated Cloud Environments Supporting Infrastructure as a Service (IaaS)," *Journal of Engineering Research (Kuwait)* 12, no. 2 (2024): 101–114.

¹⁵ Fandy Tjiptono, Gregorius Chandra, and Dadi Adriana, "Strategic Marketing," *Yogyakarta: Publisher Andi* (2012).

¹⁶ Ibrahim Alkandi and Majed A. Helmi, "The Impact of Strategic Agility on Organizational Performance: The Mediating Role of Market Orientation and Innovation Capabilities in Emerging Industrial Sector," *Cogent Business and Management* 11, no. 1 (2024).

¹⁷ Saloni Pahuja et al., "Gaining Competitive Advantage Status through Human Resource Practices: A Study of Indian Banks," *Social Sciences and Humanities Open* 9, no. January (2024): 100804.

¹⁸ Zixuan Dong, Mohd Faiq Abd Aziz, and Yan Wang, "Human Capital Accumulation, Technological Progress, and Corporate Financialization," *International Review of Economics and Finance* 101, no. March (2025): 104235.

¹⁹ Natalia Tusquellas, Ramon Palau, and Raúl Santiago, "Analysis of the Potential of Artificial Intelligence for Professional Development and Talent Management: A Systematic Literature Review," *International Journal of Information Management Data Insights* 4, no. 2 (2024): 100288.

²⁰ Randa Mohammed Shams Addin Al-Mawsheki, "Effect of Working Capital Policies on Firms' Financial Performance," *Cogent Economics and Finance* 10, no. 1 (2022).

depending on firm adaptability.²¹ Firms must monitor regulatory, technological, and global shifts to stay competitive.²² Key indicators include regulation, competition, consumer preferences, economic stability, technology, government support, and globalization.²³

Hypothesis Development

Based on the Resource-Based View (RBV), human capital represents a valuable and difficult-to-imitate resource that enhances organizational performance. Effective human resource management through training, skill development, and talent retention improves productivity and financial performance.²⁴ Studies by Nourah Alsadaan et al.,²⁵ also confirm the positive relationship between human capital and financial outcomes. Therefore: H1: Human capital positively affects financial outcomes.

RBV further suggests that business strategies aligned with organizational resources and market opportunities create competitive advantages that improve financial performance. Differentiation, cost leadership, and market responsiveness have been shown to enhance profitability and revenue growth.²⁶ Thus: H2: Business strategy positively affects financial outcomes.

Human capital also supports innovation through knowledge, creativity, collaboration, and organizational learning. Previous studies demonstrate that employee skills and competencies significantly contribute to innovation capability.²⁷ Therefore: H3: Human capital positively affects innovation capability.

According to Dynamic Capabilities Theory (DCT), adaptive and innovation-oriented business strategies encourage firms to respond effectively to

²¹ Charlie Lynch and Marcos Ferasso, "The Influence of a Company's Inherent Values on Its Sustainability: Evidence from a Born-Sustainable SME in the Footwear Industry," *Cleaner and Responsible Consumption* 9, no. April (2023): 100124.

²² Danielle L. Harrop et al., "Effects of a Culturally Informed Model of Care for Aboriginal and Torres Strait Islander Patients with Acute Coronary Syndrome in a Tertiary Hospital in Australia: A Pre-Post, Quasi-Experimental, Interventional Study," *The Lancet Global Health* 12, no. 4 (2024): e623–e630.

²³ Fortune Ganda, "The Interplay between Technological Innovation, Financial Development, Energy Consumption and Natural Resource Rents in the BRICS Economies: Evidence from GMM Panel VAR," *Energy Strategy Reviews* 51, no. July 2023 (2024): 101267.

²⁴ Petr Kellner et al., "Aerobic Endurance - Finding Optimal Rowing Ergometer Settings to Match Physiological Demands of Running," *Studia Sportiva* 18, no. 1 (2024): 57–64.

²⁵ Nourah Alsadaan et al., "Impact of Nurse Leaders Behaviors on Nursing Staff Performance: A Systematic Review of Literature," *Inquiry (United States)* 60 (2023).

²⁶ Sascha Kraus et al., "Digital Entrepreneurship: The Role of Entrepreneurial Orientation and Digitalization for Disruptive Innovation," *Technological Forecasting and Social Change* 193, no. April (2023): 122638.

²⁷ Carlos Ricardo Rossetto Daniel Penz, Bianca Costa Amorim, Sabrina Nascimento, "Influence, H E Technology, O F Index, Readiness Entrepreneurial, I N The, I N States, United America, O F" (2016): 66–76.

market changes and foster innovation.²⁸ Hence: H4: Business strategy positively affects innovation capability.

DCT also emphasizes the importance of responding to external environmental changes. Market uncertainty, technological shifts, and regulatory developments may stimulate innovation as firms seek to remain competitive.²⁹ Therefore: H5: External dynamics positively affect innovation capability.

Financial outcomes provide the resources necessary for innovation activities such as research, technology adoption, and product development. Profitable firms generally have greater capacity to invest in innovation.³⁰ Thus: H6: Financial outcomes positively affect innovation capability.

Financial outcomes may also mediate the effects of organizational resources on innovation. Human capital enhances financial performance, which subsequently supports innovation activities.³¹ Likewise, effective business strategies improve financial conditions that facilitate innovation implementation.³² Therefore: H7: Financial outcomes mediate the effect of human capital on innovation capability.

H8: Financial outcomes mediate the effect of business strategy on innovation capability.

External dynamics may strengthen or weaken organizational relationships with innovation capability. Dynamic environments increase the importance of adaptive human capital, financial strength, and flexible strategies in supporting innovation.³³ Accordingly: H9: External dynamics moderate the effect of human capital on innovation capability. H10: External dynamics moderate the effect of financial outcomes on innovation capability. H11: External dynamics moderate the effect of business strategy on innovation capability.

The conceptual framework illustrating these relationships is presented in Figure 1.

²⁸ Valdez-Juárez and Castillo-Vergara, "Technological Capabilities, Open Innovation, and Eco-Innovation: Dynamic Capabilities to Increase Corporate Performance of Smes."

²⁹ Nazneen Durrani et al., "Barriers to Adaptation of Environmental Sustainability in SMEs: A Qualitative Study," *PLoS ONE* 19, no. 5 May (2024): 1-22.

³⁰ Cemal Zehir, Ahmet Üzmez, and Hacer Yıldız, "The Effect of SHRM Practices on Innovation Performance: The Mediating Role of Global Capabilities," *Procedia - Social and Behavioral Sciences* 235, no. October (2016): 797-806.

³¹ Alsadaan et al., "Impact of Nurse Leaders Behaviors on Nursing Staff Performance: A Systematic Review of Literature."

³² Ola Laaksonen and Mirva Peltoniemi, "The Essence of Dynamic Capabilities and Their Measurement," *International Journal of Management Reviews* 20, no. 2 (2018): 184-205.

³³ Carlos Ricardo Rossetto et al., "O Desenvolvimento Da Capacidade Absortiva de Conhecimento a Partir Da Incerteza Ambiental," *Revista Ibero-Americana de Estratégia* 20, no. 1 (2021): e17393.

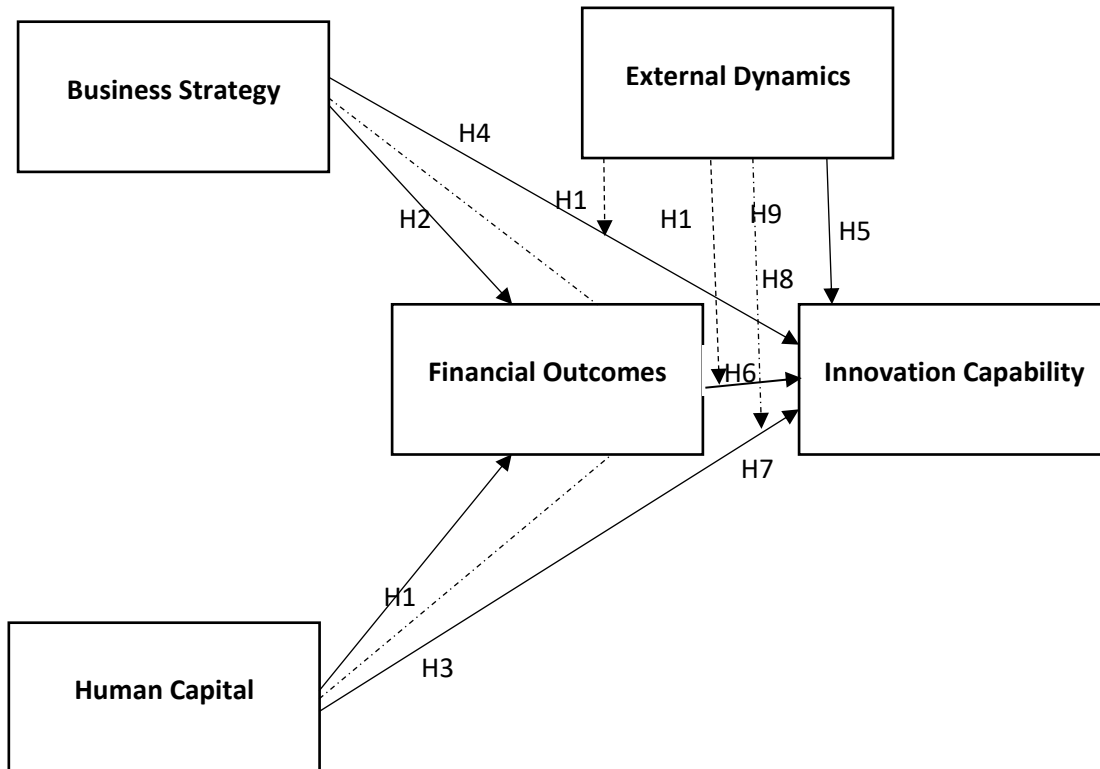


Figure 1. Conceptual Framework

METHODS

This study employs a quantitative approach to examine the relationships among external dynamics, human capital, business strategy, financial outcomes, and innovation capability in Muslim Fashion SMEs in East Java, Indonesia. A descriptive cross-sectional design was used, with data collected from 200 SME managers across Surabaya, Malang, Madiun, Bojonegoro, and Besuki.

Purposive sampling was applied to select respondents with at least two years of managerial experience, ensuring adequate knowledge of strategic decision-making and innovation activities. A pre-test involving 30 respondents was conducted to assess the validity and reliability of the research instrument. The sample size meets the recommended requirements for Structural Equation Modeling (SEM).

Data were collected between September and November 2024 using a structured questionnaire based on a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The instrument measured external dynamics, human capital, business strategy, financial outcomes, and innovation capability. Questionnaire items were adapted from relevant literature and refined through pre-testing to ensure validity and contextual relevance. Ethical standards, including informed consent, voluntary participation, anonymity, and confidentiality, were strictly maintained.

Data analysis was performed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software. Measurement model evaluation included convergent validity ($AVE > 0.50$), discriminant validity

(Fornell-Larcker and HTMT < 0.85), and reliability testing (Composite Reliability and Cronbach’s Alpha > 0.70). Structural relationships were assessed through path coefficients and bootstrapping procedures to test the proposed hypotheses.

RESULT AND DISCUSSION

Respondent Characteristics

The respondents were predominantly male (87.3%) and aged 35–52 years (62.8%). Most had over 10 years of business experience (63.3%), indicating substantial managerial expertise. In terms of education, the majority held a bachelor’s degree (50.1%), followed by a master’s degree (29.3%). Overall, the profile suggests that Muslim Fashion SMEs are largely managed by experienced, middle-aged entrepreneurs with relatively high educational backgrounds.

Measurement Model Testing

The measurement model demonstrates strong convergent validity, with all factor loadings exceeding 0.70 and AVE values above 0.50. Reliability was also confirmed, as Cronbach’s Alpha and Composite Reliability values for all constructs exceeded the recommended threshold of 0.70. Furthermore, the interaction terms showed excellent reliability. These results indicate that all constructs are valid, reliable, and suitable for subsequent structural model analysis.

Discriminant Validity

Discriminant validity was confirmed using the Fornell-Larcker Criterion and HTMT ratio. The square roots of AVE for all constructs exceeded their correlations with other constructs, indicating that each construct was more strongly related to its own indicators. Furthermore, all HTMT values were below the recommended threshold of 0.85. These results demonstrate strong discriminant validity and confirm that each construct was measured distinctly and accurately within the model.

Table 1. Hypothesis Testing

Path Coefficients	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values	Decision
Direct Effects						
HC -> FO	0.293	0.296	0.065	4.484	0.000	H1, Significant
BS -> FO	0.499	0.497	0.064	7.841	0.000	H2, Significant
HC -> IC	0.326	0.055	0.643	0.506	0.613	H3, Not Significant
BS -> IC	0.335	0.332	0.086	3.922	0.000	H4, Significant
ED -> IC	-0.168	0.108	0.635	0.264	0.792	H5, Not Significant
FO -> IC	0.243	0.254	0.088	2.770	0.006	H6, Significant
Indirect Effects						

HC -> FO -> IC	0.071	0.074	0.030	2.368	0.018	H7, Significant
BS -> FO -> IC	0.121	0.126	0.046	2.607	0.009	H8, Significant
Moderating						
Moderating ED * HC -> IC	0.292	0.306	0.091	3.209	0.001	H9, Significant
Moderating ED * FO -> IC	-0.444	-0.456	0.080	5.553	0.000	H10, Significant
Moderating ED * BS -> IC	0.292	0.294	0.078	3.729	0.000	H11, Significant

Source: Data processed

The hypothesis testing results in Table 1 reveal a mix of significant and non-significant relationships among variables in the context of Muslim fashion SMEs. Hypotheses H1 and H2 are supported, indicating that both human capital ($\beta = 0.293$, $t = 4.484$, $p = 0.000$) and business strategy ($\beta = 0.499$, $t = 7.841$, $p = 0.000$) significantly enhance financial outcomes. This suggests that effective HR practices and market-aligned strategies contribute to improved financial performance. However, H3 is rejected, as human capital does not significantly impact innovation capability directly ($\beta = 0.326$, $t = 0.506$, $p = 0.613$), implying the need for supporting factors like financial strength. In contrast, H4 is accepted, with business strategy significantly affecting innovation capability ($\beta = 0.335$, $t = 3.922$, $p = 0.000$). H5 is rejected due to the non-significant effect of external dynamics on innovation ($\beta = -0.168$, $t = 0.264$, $p = 0.792$). H6 is supported, showing financial outcomes positively influence innovation ($\beta = 0.243$, $t = 2.770$, $p = 0.006$). Financial outcomes also mediate the relationships in H7 and H8. Moderation tests support H9, H10, and H11, with H10 showing a negative moderating effect, indicating that environmental instability may hinder innovation despite strong finances.

Direct Effect

Effect of Human Capital on Financial Outcomes

findings indicate that human capital has a positive and significant effect on financial outcomes among Muslim fashion SMEs. This suggests that effective human resource management enhances operational efficiency, productivity, profitability, and overall business performance. Human capital serves as a strategic asset that supports innovation, improves customer service, and strengthens digital marketing capabilities, which are essential in the highly competitive and trend-sensitive Muslim fashion industry. These findings are consistent with the studies of Kellner et al,³⁴ which emphasize that investments in training, skills development, and employee empowerment significantly improve financial performance, particularly in SMEs. However, found that in highly unstable environments or where institutional support is weak, human

³⁴ Kellner et al., "Aerobic Endurance - Finding Optimal Rowing Ergometer Settings to Match Physiological Demands of Running."

capital may not directly translate into better financial outcomes.³⁵ For Muslim fashion SMEs in Indonesia, strengthening human capital is increasingly important within the growing halal fashion ecosystem. Firms require competencies in halal product development, digital marketing, Islamic branding, and consumer trend analysis. Therefore, continuous investment in human resource development is essential to enhance innovation capability, competitiveness, and long-term financial sustainability in the digital halal economy.

Effect of Business Strategy on Financial Outcomes

The findings indicate that business strategy has a positive and significant effect on financial outcomes among Muslim fashion SMEs. This confirms that well-designed and adaptive business strategies contribute to improved revenue growth, cost efficiency, and long-term business sustainability. In the highly competitive Muslim fashion industry, strategies such as product differentiation, digital marketing adoption, customer-oriented pricing, and a strong focus on customer satisfaction play a crucial role in enhancing financial performance. The finding is consistent with Sascha Kraus et al.,³⁶ who highlighted the importance of market-oriented strategies and digital technology utilization in improving SME performance, and Han and Zhang,³⁷ who emphasized the role of product innovation, consumer adaptation, and operational efficiency in achieving superior financial outcomes. In the Indonesian Muslim fashion sector, strategies involving trend-based modest fashion products, influencer collaborations, and e-commerce utilization have proven effective in expanding market reach.

However, noted that strategy alone may not improve financial outcomes without strong execution capabilities, competent human resources, and adequate organizational support.³⁸ Therefore, strategic capability remains essential for enhancing competitiveness and sustainable growth in the digital halal fashion market.

The Effect of Human Capital on Innovation Capability

The findings indicate that human capital does not have a significant direct effect on innovation capability among Muslim fashion SMEs. This suggests that high-quality human resources alone are insufficient to enhance innovation capability without support from other organizational factors, such as adaptive management systems, innovation-oriented culture, technological infrastructure, and resources for experimentation and development. While Benjamin J. Adams

³⁵ Erianto P. Hasibuan and Ahmad Azmy, "Improving Employee Performance Affected by Leadership Style, Organizational Culture, and Work Ethics in Technology Service Company," *Quality - Access to Success* 23, no. 189 (2022): 56–66.

³⁶ Sascha Kraus et al., "Digital Transformation in Healthcare: Analyzing the Current State-of-Research," *Journal of Business Research* 123 (2021): 557–567.

³⁷ Han and Zhang, "Multiple Strategic Orientations and Strategic Flexibility in Product Innovation."

³⁸ Yi Fang Lee et al., "Assessing Study Skill Needs for Information Technology and Computer Science Students in Technical and Vocational Universities," *Heliyon* 9, no. 10 (2023): e20915.

et al³⁹ found that human capital positively contributes to innovation through knowledge creation and continuous learning, this result is consistent with Tianshu Quan et al,⁴⁰ who reported that human capital has limited influence on innovation in organizations lacking structural and cultural support. Empirical evidence suggests that many Muslim fashion SMEs still focus human resource development on operational and production activities rather than creativity, digital skills, trend analysis, and technology adoption. Therefore, strengthening innovation capability requires not only developing human capital but also fostering a supportive ecosystem that encourages creativity, digital adaptation, collaboration, and continuous innovation within the evolving halal fashion industry.

The Effect of Business Strategy on Innovation Capability

The findings indicate that business strategy has a positive and significant effect on innovation capability among Muslim fashion SMEs. This suggests that flexible and market-responsive strategies enhance a firm's ability to develop innovative products, services, and business processes. In the Muslim fashion industry, where consumer preferences, fashion trends, and competition change rapidly, adaptive strategies play a crucial role in sustaining innovation and competitiveness. The finding aligns with Valdez-Juárez,⁴¹ who found that innovation-oriented and market-focused strategies strengthen innovation capability, particularly in SMEs. Similarly, reported that technology- and trend-based strategies improve firms' capacity to innovate and respond to evolving consumer needs.⁴² However, argued that business strategy may be less effective in organizations with weak structures and limited execution capabilities.⁴³ For Muslim fashion SMEs, strategic planning should integrate halal branding, digital marketing, consumer trend analysis, and innovation management. Strengthening strategic capabilities is therefore essential to support sustainable innovation and enhance competitiveness in the rapidly growing halal fashion industry.

The Effect of External Dynamics on Innovation Capability

The findings indicate that external dynamics do not have a significant direct effect on innovation capability among Muslim fashion SMEs. This suggests that changes in market conditions, regulations, competition, or technology do not automatically encourage innovation unless firms possess sufficient internal

³⁹ Benjamin J. Adams et al., "Competition and Habitat Availability Interact to Structure Arboreal Ant Communities across Scales of Ecological Organization," *Proceedings of the Royal Society B: Biological Sciences* 290, no. 2007 (2023).

⁴⁰ Tianshu Quan et al., "Unveiling the Impact and Mechanism of Digital Technology on Agricultural Economic Resilience," *Chinese Journal of Population Resources and Environment* 22, no. 2 (2024): 136-145.

⁴¹ Valdez-Juárez and Castillo-Vergara, "Technological Capabilities, Open Innovation, and Eco-Innovation: Dynamic Capabilities to Increase Corporate Performance of Smes."

⁴² Kraus et al., "Digital Transformation in Healthcare: Analyzing the Current State-of-Research."

⁴³ Han and Zhang, "Multiple Strategic Orientations and Strategic Flexibility in Product Innovation."

readiness and capabilities to respond effectively. The findings imply that external changes act only as triggers, while innovation depends largely on internal capabilities. Many SMEs remain focused on business survival and operational efficiency rather than innovation due to limited resources, weak market intelligence, and inadequate innovation systems. The result is consistent with Binh Thi Thanh Truong et al.,⁴⁴ who found that external dynamics do not necessarily stimulate innovation in SMEs with limited internal capabilities. Likewise, reported that unstable regulations and restricted market access often increase uncertainty, causing SMEs to prioritize efficiency over innovation.⁴⁵ In contrast, Durrani et al.⁴⁶ showed that firms with stronger internal capabilities are more likely to innovate when facing external pressures. Therefore, Muslim fashion SMEs should strengthen internal capabilities through innovation-oriented leadership, digital literacy, market intelligence, and adaptive management systems. Such capabilities are essential for responding to evolving halal fashion trends, changing consumer preferences, and increasing competition in the digital halal economy.

The Effect of Financial Outcomes on Innovation Capability

The findings indicate that financial outcomes have a positive and significant effect on innovation capability among Muslim fashion SMEs. This suggests that firms with stronger financial performance possess greater capacity to invest in innovation activities, including product development, technology adoption, digital transformation, and business process improvements. Financial stability provides the resources needed to support experimentation, creativity, and the implementation of new ideas, thereby enhancing innovation capability. The finding aligns with Pahuja et al.,⁴⁷ who reported that financially successful firms are more likely to pursue innovation aggressively. Similarly, Konstantinos Bourletidis⁴⁸ highlighted financial resources as a prerequisite for sustaining innovation in SMEs, while Kyootai Lee et al.⁴⁹ found that high liquidity and profitability reduce the risks associated with exploring new opportunities. However, noted that some firms with strong financial positions may become risk-

⁴⁴ Binh Thi Thanh Truong and Phuong V. Nguyen, "Driving Business Performance through Intellectual Capital, Absorptive Capacity, and Innovation: The Mediating Influence of Environmental Compliance and Innovation," *Asia Pacific Management Review* 29, no. 1 (2024): 64–75.

⁴⁵ Humberto Batista, Xavier Suzana, and Cândido De Barros, *From the Table to the Sofa: The Remote Work Revolution Attitudes and Behaviors, Education and Information Technologies* (Springer US, 2024).

⁴⁶ Durrani et al., "Barriers to Adaptation of Environmental Sustainability in SMEs: A Qualitative Study."

⁴⁷ Pahuja et al., "Gaining Competitive Advantage Status through Human Resource Practices: A Study of Indian Banks."

⁴⁸ Konstantinos Bourletidis and Yiannis Triantafyllopoulos, "SMEs Survival in Time of Crisis: Strategies, Tactics and Commercial Success Stories," *Procedia - Social and Behavioral Sciences* 148 (2014): 639–644.

⁴⁹ Kyootai Lee et al., "The Influence of Product Innovation Messages on the Intention to Purchase Incumbent Products," *Journal of Innovation and Knowledge* 6, no. 3 (2021): 154–166.

averse and less motivated to innovate.⁵⁰ Therefore, Muslim fashion SMEs should maintain sound financial performance to support continuous innovation, strengthen halal branding, enhance digital capabilities, and improve competitiveness within the rapidly expanding halal fashion and digital economy sectors.

Indirect Effect

The Mediating Role of Financial Outcomes in the Relationship between Human Capital and Innovation Capability

The findings indicate that financial outcomes significantly mediate the relationship between human capital and innovation capability among Muslim fashion SMEs. This suggests that the contribution of human capital to innovation is realized through improved financial performance. Competent employees with strong knowledge, skills, and experience enhance operational efficiency, product quality, creativity, and decision-making, which ultimately strengthen financial outcomes. Improved financial performance then provides the resources needed to invest in innovation activities, including technology adoption, product development, and market expansion. This result is consistent with Abdullah Sultan Al Shammre et al.,⁵¹ who found that human capital positively influences SME financial performance, which subsequently supports innovation. Similarly, Geraldo Cardoso de Oliveira Neto et al.⁵² emphasized that strong financial performance facilitates digital transformation and product innovation, while Malka Liaquat et al.⁵³ highlighted financial capability as a key mediator between organizational resources and innovation capability. Therefore, Muslim fashion SMEs should invest in human capital while simultaneously strengthening financial performance to support innovation, digital transformation, halal branding, and long-term competitiveness within the rapidly growing halal fashion ecosystem.

The Mediating Role of Financial Outcomes in the Relationship between Business Strategy and Innovation Capability

The findings indicate that financial outcomes significantly mediate the relationship between business strategy and innovation capability among Muslim fashion SMEs. This suggests that business strategy does not directly enhance innovation capability but first improves financial performance, which subsequently provides resources and flexibility for innovation activities. Effective strategies, such as market differentiation, customer focus, digital

⁵⁰ Alexandru Paru, "A Review of the Relationship between Corporate Entrepreneurship and Financial Performance," *Management and Economics Review* 6, no. 1 (2021): 123–143.

⁵¹ Abdullah Sultan Al Shammre et al., "Unleashing Environmental Performance: The Impact of Green Entrepreneurial Motivation on Small Enterprises," *Frontiers in Environmental Science* 11, no. April (2023): 1–12.

⁵² Geraldo Cardoso de Oliveira Neto et al., "Impact Measuring the of Technological Innovation Driven by Co-Creation of Value on the Performance of Multinationals in Emerging Markets," *Journal of Open Innovation: Technology, Market, and Complexity* 11, no. 2 (2025).

⁵³ Malka Liaquat et al., "Impact of Motivational Factors and Green Behaviors on Employee Environmental Performance," *Research in Globalization* 8, no. September 2023 (2024): 100180.

marketing, and operational efficiency, contribute to stronger financial outcomes that support product development, technology adoption, and business transformation. This result is consistent with Simonov Kusi-Sarpong et al.⁵⁴, who found that well-executed business strategies improve financial performance, which then drives innovation. Similarly, Anandhi Bharadwaj et al.⁵⁵ argued that market-oriented strategies increase profitability and cash flow, enabling firms to finance innovative initiatives.⁵⁶ also demonstrated that adaptive and long-term business strategies provide the financial foundation necessary for sustaining innovation. Supporting this argument, Vera Gelashvili et al.⁵⁷ found that strategic planning often influences innovation indirectly through stronger financial performance. Therefore, Muslim fashion SMEs should strengthen both strategic capability and financial performance to support sustainable innovation, digital transformation, and competitiveness within the expanding halal fashion industry.

Moderating Effects

The Moderating Effect of External Dynamics on the Relationship between Human Capital and Innovation Capability

The findings indicate that external dynamics significantly strengthen the relationship between human capital and innovation capability among Muslim fashion SMEs. This suggests that changes in technology, market demand, competition, and regulations increase the contribution of human capital to innovation. In dynamic environments, competent and adaptive employees are better able to identify opportunities, respond to challenges, and generate innovative solutions, thereby enhancing organizational innovation capability. This result is consistent with Jiajia Liu et al.⁵⁸, who found that technological uncertainty and competitive pressure amplify the role of human capital in driving innovation. Similarly, Nadia Zahoor et al.⁵⁹ argued that organizations with adaptive and strategically oriented human resources are more capable of innovating under volatile market conditions. In the ASEAN context, highlighted that external dynamics encourage employees to develop creative responses to

⁵⁴ Simonov Kusi-Sarpong et al., "Intellectual Capital, Blockchain-Driven Supply Chain and Sustainable Production: Role of Supply Chain Mapping," *Technological Forecasting and Social Change* 175 (2022).

⁵⁵ Anandhi Bharadwaj et al., "Digital Business Strategy: Toward a next Generation of Insights," *MIS Quarterly: Management Information Systems* 37, no. 2 (2013): 471–482.

⁵⁶ Lee et al., "The Influence of Product Innovation Messages on the Intention to Purchase Incumbent Products."

⁵⁷ Vera Gelashvili et al., "Technological Transformation: The Importance of E-WOM and Perceived Privacy in the Context of Opinion Platforms," *Technological Forecasting and Social Change* 205, no. June (2024).

⁵⁸ Jiajia Liu et al., "The Effect of Financial Digital Transformation on Financial Performance: The Intermediary Effect of Information Symmetry and Operating Costs," *Sustainability (Switzerland)* 15, no. 6 (2023).

⁵⁹ Nadia Zahoor et al., "The Micro-Foundations of Digitally Transforming SMEs: How Digital Literacy and Technology Interact with Managerial Attributes," *Journal of Business Research* 159, no. January 2022 (2023): 113755.

market disruptions.⁶⁰ The finding is particularly relevant for Muslim fashion SMEs operating within Indonesia's rapidly growing halal fashion ecosystem. As consumer preferences, digital technologies, and modest fashion trends evolve, SMEs require human resources capable of understanding market changes, adopting digital tools, and developing innovative halal fashion products. However, Truong et al.⁶¹ noted that human capital alone is insufficient without supportive organizational systems, digital infrastructure, and effective knowledge management. Therefore, Muslim fashion SMEs should strengthen both employee competencies and organizational readiness to maximize innovation capability in an increasingly dynamic halal fashion market.

The Moderating Effect of External Dynamics on the Relationship between Financial Outcomes and Innovation Capability

The findings indicate that external dynamics weaken the relationship between financial outcomes and innovation capability. This suggests that in unstable environments such as market uncertainty, regulatory changes, and technological disruption, even financially strong firms tend to prioritize stability and risk avoidance over innovation. Although financial resources are available, firms become more cautious in allocating funds and often focus on liquidity maintenance, cost control, and operational survival rather than high-risk innovative activities. As noted by Guangqin Li, Xiaoge Li et al.,⁶² uncertainty reduces firms' willingness to invest in innovation due to unpredictable returns. This behavior is explained by Prospect Theory Jovi Sulistiawan,⁶³ where decision-makers become risk-averse under uncertainty, and Contingency Theory, which states that organizational effectiveness depends on environmental conditions. Thus, financial strength alone is insufficient to drive innovation without strategic courage and adaptive capability. Conversely, external dynamics strengthen the relationship between business strategy and innovation capability. Adaptive and responsive strategies enable firms to transform environmental changes into innovation opportunities. For Muslim fashion SMEs, rapid changes in consumer behavior, digital competition, and halal fashion trends require both financial discipline and adaptive strategic planning. Policymakers should support SMEs through digital transformation programs,

⁶⁰ Nela Dharmayanti et al., "Journal of Open Innovation : Technology , Market , and Complexity Exploring Sustainability Management Control System and Eco-Innovation Matter Sustainable Financial Performance : The Role of Supply Chain Management and Digital Adaptability in Indonesian C," *Journal of Open Innovation: Technology, Market, and Complexity* 9, no. 3 (2023): 100119.

⁶¹ Truong and Nguyen, "Driving Business Performance through Intellectual Capital, Absorptive Capacity, and Innovation: The Mediating Influence of Environmental Compliance and Innovation."

⁶² Guangqin Li, Xiaoge Li, and Lingzhi Huo, "Digital Economy, Spatial Spillover and Industrial Green Innovation Efficiency: Empirical Evidence from China," *Heliyon* 9, no. 1 (2023): e12875.

⁶³ Jovi Sulistiawan, Nuri Herachwati, and Edelweiss Jinan Ratu Khansa, "Barriers in Adopting Green Human Resource Management under Uncertainty: The Case of Indonesia Banking Industry," *Journal of Work-Applied Management* (2024).

halal branding support, and innovation financing to strengthen resilience and competitiveness in the evolving halal economy.

CONCLUSION

This study examined the moderating role of external dynamics in the relationships among human capital, business strategy, financial outcomes, and innovation capability in Muslim Fashion SMEs in Indonesia. The findings reveal that external dynamics strengthen the effects of human capital and business strategy on innovation capability, while weakening the influence of financial outcomes on innovation. These results suggest that innovation is shaped by both internal resources and external factors, including digital transformation, evolving consumer preferences, and the expanding halal fashion ecosystem. The study contributes theoretically by integrating human capital, business strategy, financial outcomes, and external dynamics into a single framework within the context of halal-based SMEs. It also enriches Islamic economics literature by highlighting the role of innovation capability in supporting halal branding, ethical entrepreneurship, consumer trust, and the principles of maqasid al-shariah.

Practically, the findings emphasize the need for adaptive business strategies, innovation-oriented human resources, digital capabilities, and supportive halal financing. Strengthening innovation capability can enhance competitiveness, sustainability, and inclusive growth within Indonesia's rapidly growing halal economy.

Author's Contribution

Mirhamida Rahmah conceptualized the study, designed the research framework, supervised the project, and drafted the manuscript. Karina Ananda Putri contributed to data collection, literature review, and questionnaire development. Dinda Fatmah conducted data analysis using SEM/PLS-SEM, interpreted the findings, and contributed to manuscript revision. Yusriyah Rahmah assisted in data validation, methodological refinement, and theoretical development. Zakiyah Zulfa Rahmah contributed to literature analysis, editing, and preparation of the discussion section. Chamdan Purnama provided academic supervision, critical review, and final approval of the manuscript. All authors have read and approved the final version of the manuscript.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Ethical Approval

This study complied with ethical research standards. All participants provided informed consent, participated voluntarily, and were assured of confidentiality, anonymity, and the right to withdraw at any time.

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