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Leveraging IT-Driven Marketing Innovation for Sustainable Competitive Positioning: Evidence from Indonesian Coffee Shop SMEs

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ABSTRACT:

This research examines how information technology-enabled marketing innovations in product development and process optimization shape competitive positioning and long-term viability among Indonesian coffee shop small and medium enterprises (SMEs). Drawing on the resource-based view (RBV), a survey of 209 coffee shop proprietors in West Java was conducted using purposive sampling, and the collected data were analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS. The empirical outcomes demonstrate that both technology-facilitated product innovation and IT-supported process optimization in marketing operations exert positive and statistically significant effects on competitive positioning. Moreover, competitive advantage serves as a meaningful intermediary mechanism connecting these marketing innovation constructs to business continuity outcomes. The mediation analysis confirms that organizations strategically deploying IT-driven innovative marketing approaches achieve stronger market differentiation and enhanced operational resilience. These findings contribute to the discourse on marketing innovation management in food and beverage SMEs, offering practical guidance for entrepreneurs and policymakers seeking to harness digital marketing innovation tools for building enduring competitive capabilities in saturated markets.

Keywords:
Marketing Innovation, IT-Driven Innovation, Competitive Positioning, Business Sustainability, Coffee Shop SMEs, PLS-SEM

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1. INTRODUCTION

The food and beverage (F&B) sector in Indonesia has undergone considerable transformation, propelled by escalating market rivalry and shifting consumer expectations. Within this landscape, coffee shops represent one of the most rapidly expanding business segments, yet they simultaneously face intense competitive pressure that threatens long-term operational viability (Jaelani et al., 2024). According to recent industry reports, the number of coffee shop establishments in Indonesia has grown substantially over the past decade, creating an increasingly saturated marketplace where differentiation becomes paramount for survival. Establishing a robust market position has become an imperative for these enterprises, particularly as the proliferation of similar offerings creates significant challenges in product differentiation (David & David, 2017; Medvedev et al., 2019).

Contemporary marketing innovation scholarship underscores that enduring competitive edges emerge primarily from creativity-driven and technology-facilitated marketing practices (Udriyah et al., 2019; Azriani & Khairati, 2023). In the context of coffee shop operations, marketing innovation encompasses not only the development of novel product offerings but also the adoption of digital platforms for customer engagement, loyalty program management, and data-driven decision-making. The convergence of information technology and marketing strategy has fundamentally altered how small enterprises compete, enabling even resource-constrained organizations to access sophisticated analytical tools previously available only to large corporations (Li et al., 2018; Nambisan et al., 2017).

For small and medium enterprises (SMEs) operating coffee establishments, the adoption of both product-related and process-related marketing innovations represents a critical pathway toward enhanced quality offerings and operational efficiency (Sahoo, 2019; Clauss et al., 2021). Technology-enabled marketing innovation, encompassing digital tools for product development, customer engagement platforms, and process automation systems, has been increasingly recognized as a determinant of organizational success in dynamic markets (Surya et al., 2022). These marketing innovations allow SMEs to differentiate their value propositions and create sustainable competitive advantages in crowded marketplaces. The integration of social media marketing, online ordering platforms, and customer feedback analytics has become particularly relevant for coffee shop SMEs seeking to build and maintain loyal customer bases.

Despite the acknowledged importance of marketing innovation-driven strategies, a notable gap persists in understanding how information technology-supported marketing innovations translate into sustained competitive advantages within the specific context of Indonesian coffee shop SMEs. Prior investigations have explored innovation-performance linkages in broader manufacturing and retail contexts (Zhang et al., 2017; Huda & Syahrudin, 2023), yet sector-specific empirical evidence remains limited. The Indonesian coffee industry presents a distinctive research setting, characterized by a rapidly expanding cafe culture alongside pronounced performance disparities among establishments (Clauss et al., 2021; Surya et al., 2022). Furthermore, the unique characteristics of the Indonesian market, including diverse consumer preferences across geographic regions, varying levels of digital infrastructure, and the predominance of micro and small enterprises, create a research context that warrants dedicated empirical investigation.

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The resource-based view (RBV) provides the theoretical foundation for this investigation. This perspective posits that organizations possessing valuable, rare, inimitable, and organized (VRIO) resources can achieve sustainable competitive superiority (Barney et al., 2001; Holdford, 2018). Within the coffe e shop domain, IT-enabled marketing innovation capabilities constitute strategic resources that can be leveraged to create distinctive market positions (Huda & Hartati, 2022; Huda & Syahrudin, 2023). Prior empirical work established positive associations between competitive advantage and organizational performance metrics (Huda & Syahrudin, 2023; Nguyen Van et al., 2023), suggesting that market positioning serves as a crucial intermediary mechanism. The theoretical framework is further enriched by incorporating dynamic capabilities theory, which emphasizes the organizational capacity to continuously adapt and reconfigure resources in response to environmental changes (Teece et al., 1997; Helfat & Peteraf, 2003). This study aims to examine the effects of IT-driven product innovation and IT-supported process innovation on business sustainability, with competitive advantage as a mediating variable, in the context of Indonesian coffee shop SMEs. Specifically, this research addresses three research questions: (1) Do IT-driven product innovation and IT-supported process innovation directly influence business sustainability among coffee shop SMEs? (2) Do these marketing innovation constructs influence competitive advantage? (3) Does competitive advantage mediate the relationship between marketing innovation and business sustainability? The findings are expected to contribute both theoretically and practically to the marketing innovation literature and SME management practices.

Indonesia's coffee consumption has experienced remarkable growth, driven by a burgeoning middle class, increasing urbanization, and the emergence of coffee culture as a social phenomenon among younger demographics. The International Coffee Organization has noted that Indonesia consistently ranks among the top five coffee-producing and consuming nations globally, creating both opportunities and challenges for domestic coffee shop operators. The rapid expansion of international coffee chains into the Indonesian market has further intensified competitive pressures on local SMEs, necessitating innovative approaches to customer acquisition and retention (Jaelani et al., 2024). In this context, marketing innovation through information technology adoption emerges as a critical differentiator that can enable smaller enterprises to compete effectively against larger, better-resourced competitors.

The significance of this research extends beyond academic contribution to encompass practical relevance for multiple stakeholders. For coffee shop entrepreneurs, the findings provide evidence-based guidance on technology investment priorities that maximize competitive returns. For policymakers and industry associations, the results inform the design of support programs aimed at enhancing digital capability development among F&B sector SMEs. For the broader scholarly community, this investigation addresses the intersection of marketing innovation theory and SME management practice within a rapidly evolving emerging market context, contributing to the generalizability of existing theoretical frameworks.

2. LITERATURE REVIEW

2.1 Theoretical Foundation: Resource-Based View

The resource-based view (RBV) constitutes the principal theoretical framework underpinning this investigation. Originally conceptualized in seminal contributions to strategic management scholarship, RBV posits that organizations derive sustained competitive superiority from resources and capabilities that satisfy four essential criteria: valuable, rare, inimitable, and organized (VRIO) (Barney et al., 2001). This foundational perspective has been subsequently refined and extended across diverse organizational contexts, generating substantial empirical evidence regarding the resource-performance nexus (Holdford, 2018; Assensoh-Kodua, 2019). The central tenet of RBV is that heterogeneous resource distributions across firms explain persistent performance differentials observed within industries, thereby shifting strategic analysis from external market positioning to internal resource evaluation.

Holdford (2018) applied the RBV framework to demonstrate that innovation-derived intangible resources create defensible market positions that competitors find difficult to replicate. The theoretical logic suggests that when enterprises invest in developing unique marketing capabilities through technological adoption and process refinement, these organizational competencies become strategic assets that generate above-average returns (Teece, 2010). Assensoh-Kodua (2019) further reinforced this theoretical position by demonstrating the utility of RBV as an analytical instrument for examining competency-based advantages across multiple industry sectors. Grant (1991) earlier established that the resource-based theory provides a framework for strategy formulation that integrates internal capabilities with external market opportunities, a perspective particularly relevant for SMEs operating in dynamic competitive environments.

Within the context of SMEs operating in the food and beverage sector, RBV provides a compelling explanatory mechanism for understanding how resource allocation decisions regarding technology adoption translate into marketplace differentiation (Mikalef & Pateli, 2017). Coffee shop SMEs that strategically deploy information technology resources for marketing innovation purposes effectively transform these technological investments into firm-specific capabilities that satisfy the VRIO criteria (Huda & Hartati, 2022; Nambisan et al., 2017). These IT-enabled marketing capabilities are valuable because they enhance customer engagement and operational efficiency; rare since not all competitors possess equivalent digital competencies; inimitable since they are embedded in organizational routines and tacit knowledge; and organized since effective deployment requires complementary management practices and organizational structures. The theoretical implication is that IT-enabled marketing innovation capabilities, when properly organized and leveraged, constitute strategic resources capable of generating sustainable competitive positioning (Huda & Syahrudin, 2023; Barney et al., 2001).

Furthermore, the dynamic capabilities perspective, which extends traditional RBV thinking, emphasizes the organizational capacity to sense, seize, and reconfigure resource bases in response to environmental turbulence (Teece et al., 1997). He and Wu (2024) demonstrated that social network structures facilitate ambidextrous innovation through dynamic capability development in SME settings. This theoretical integration suggests that

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coffee shop operators who cultivate both exploitative and exploratory marketing innovation capacities through IT adoption are better positioned to sustain competitive advantages amid rapidly evolving market conditions (Xiu et al., 2017; Helfat & Peteraf, 2003). The dynamic capabilities lens is particularly appropriate for the Indonesian coffee shop context, where market conditions change rapidly due to evolving consumer trends, new entrants, and technological disruptions.

2.2 IT-Driven Product Innovation and Marketing Performance

Product innovation represents a critical strategic lever for SMEs seeking to establish distinctive market positions in competitive landscapes. Scholarly investigations into innovation-performance linkages within SMEs have proliferated considerably, with researchers consistently identifying product novelty as a determinant of organizational success (Azriani & Khairati, 2023; Sahoo, 2019). Azriani and Khairati (2023) examined multiple determinants of innovation capacity among small-scale enterprises in West Sumatera, establishing that technological readiness and managerial commitment play pivotal roles in shaping innovative output quality. Their findings suggest that innovation capacity is not merely a function of financial resources but is substantially influenced by the human capital and technological infrastructure available to the enterprise.

Sahoo (2019) extended this line of inquiry by demonstrating that quality management practices, when coupled with marketing innovation capabilities, generate multiplicative effects on firm-level outcomes. The synergistic relationship between quality orientation and innovative capacity suggests that SMEs pursuing product innovation must simultaneously attend to operational excellence standards. Clauss et al. (2021) provided empirical evidence that strategic agility and business model innovation jointly influence firm performance, suggesting that product innovation operates most effectively within organizationally agile structures. These findings collectively indicate that product innovation is not an isolated activity but rather an integrated organizational process that requires alignment with broader strategic and operational frameworks.

Within the food and beverage industry specifically, the role of IT-facilitated product marketing innovation has received increasing scholarly attention. Surya et al. (2022) established that entrepreneurial orientation and innovation jointly influence SME performance outcomes in the F&B sector. Digital tools for product development, including menu engineering software, customer preference analytics platforms, and recipe management systems, enable coffee shop operators to systematically refine their product offerings based on data-driven marketing insights (Li et al., 2018). The adoption of such technological solutions transforms traditional trial-and-error approaches to product development into systematic marketing innovation processes that yield higher success rates and faster market responsiveness (Udriyah et al., 2019; Colakoglu et al., 2019).

The relationship between IT-enabled product marketing innovation and business sustainability warrants careful examination. Enterprises that continuously introduce improved or novel products through technology-assisted development processes demonstrate enhanced capacity for maintaining customer engagement and revenue generation over extended periods (Jaelani et al., 2024; Baregheh et al., 2009). In the coffee shop context specifically, product innovations may include the development of signature

beverages informed by customer preference data, seasonal menu rotations guided by demand forecasting algorithms, and personalized product recommendations enabled by customer relationship management systems. Based on this theoretical reasoning and empirical evidence, the following hypotheses are proposed:

H_1: IT-driven product innovation exerts a positive and significant effect on business sustainability among coffee shop SMEs.
H_3: IT-driven product innovation positively and significantly influences competitive advantage in coffee shop SMEs.

2.3 IT-Supported Process Innovation and Marketing Outcomes

Process innovation encompasses the implementation of new or significantly improved methods for production, delivery, and support activities within an organization (Sahoo, 2019; Kharub & Sharma, 2017). Unlike product innovation, which focuses on what an enterprise offers to the market, process innovation targets how those offerings are created and delivered. In the SME context, IT-supported process optimization has emerged as a particularly potent mechanism for enhancing operational efficiency and reducing cost structures (Zhang et al., 2017; Soto-Acosta et al., 2016). Kharub and Sharma (2017) provided comparative analyses of competitive advantage determinants among micro, small, and medium enterprises, identifying process efficiency as a critical differentiating factor between high-performing and underperforming firms.

The integration of information technology into marketing and operational processes enables SMEs to overcome traditional resource constraints through digital transformation initiatives (Colakoglu et al., 2019; He & Wu, 2024). For coffee shop enterprises specifically, IT-supported process innovations include point-of-sale system optimization, inventory management automation, supply chain coordination platforms, and customer relationship management tools (Mate, 2022; Huda, 2022). These technological implementations fundamentally alter the operational workflow of coffee shop enterprises, enabling real-time monitoring of sales patterns, automated reordering of supplies, and systematic tracking of customer preferences and purchasing behaviors.

Alshurideh et al. (2023) documented how operational strategy innovations, including both lean and agile approaches, enhance order-winning capabilities in the food service industry. Their empirical evidence demonstrated that process-oriented innovations generate measurable improvements in delivery speed, cost efficiency, and service quality. Xiu et al. (2017) established that strategic flexibility moderates the innovation-performance relationship, implying that organizations with greater adaptive capacity extract more value from process innovation investments. In the Indonesian coffee shop context, process innovations facilitated by information technology have the potential to transform operational marketing workflows, reduce waste, and enhance customer service delivery efficiency (Huda et al., 2023; Sulistyowati et al., 2020). The implementation of digital ordering systems, automated queue management, and mobile payment integration represents tangible process innovations that directly improve the customer experience while simultaneously reducing operational costs. Accordingly, the following hypotheses are advanced:

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H_2: IT-supported process innovation positively and significantly affects business sustainability among coffee shop SMEs.

H_4: IT-supported process innovation has a positive and significant effect on competitive advantage in coffee shop SMEs.

2.4 IT-Supported Process Innovation and Marketing Outcomes

The concept of competitive advantage has been extensively examined in strategic management and marketing scholarship as both a desirable organizational outcome and a mechanism through which strategic actions translate into performance differentials (David & David, 2017; Medvedev et al., 2019). David and David (2017) articulated that competitive advantage emerges when an enterprise implements value-creating strategies not simultaneously pursued by current or potential rivals. Porter (2008) further elaborated that competitive advantage can be achieved through either cost leadership, differentiation, or focus strategies, each requiring distinct resource configurations and organizational capabilities.

The mediating function of competitive advantage has received particular scholarly attention in recent marketing literature. Nguyen Van et al. (2023) found that brand orientation and market orientation influence food sector performance through competitive positioning mechanisms, establishing that market-facing strategies operate indirectly through advantage creation. In the Indonesian context, empirical investigations by Huda and Hartati (2022) and Huda and Syahrudin (2023) established that supply chain management capabilities generate competitive advantages that subsequently enhance corporate performance metrics. These findings suggest that competitive advantage functions as a transmission mechanism connecting operational capabilities to bottom-line outcomes.

Udriyah et al. (2019) examined the effects of market orientation and marketing innovation on competitive advantage and business performance of textile SMEs, confirming the sequential pathway from innovation through advantage to performance. Alamsyah et al. (2025) extended this discourse significantly by revealing how ambidexterity orientation influences sustainability performance through strategic flexibility and distinctive advantage in Indonesian retail settings. Their mediation analysis demonstrated that the indirect pathway through competitive advantage explains a substantial proportion of the total effect of strategic orientation on sustainability outcomes. Zhou et al. (2019) analyzed key drivers of temporary competitive advantage in international contexts, noting that the sustainability of competitive positions depends on the difficulty competitors face in replicating underlying resource configurations (Porter, 2008). Based on these arguments, the following hypothesis is proposed:

H_5: Competitive advantage has a positive and significant effect on business sustainability among coffee shop SMEs.

2.5 The Mediating Role of Competitive Advantage

The proposition that competitive advantage mediates the relationship between marketing innovation constructs and sustainability outcomes derives from the integrative logic of resource-based theory and dynamic capabilities perspectives (Barney et al., 2001; Teece et al., 1997). When organizations invest in IT-driven product and process marketing innovations, these investments first generate enhanced market positioning through differentiation and cost advantages, which subsequently translate into improved long-term organizational viability (Huda & Syahrudin, 2023; Alamsyah et al., 2025). The indirect pathway model suggests that innovation alone is insufficient for ensuring business continuity; rather, innovation must be converted into defensible competitive positions to yield sustainable performance benefits (Holdford, 2018; Grant, 1991).

Empirical support for this mediation mechanism has accumulated across multiple research contexts. Huda & Syahrudin (2023) demonstrated that supply chain management influences company performance through competitive advantage as a mediating variable, establishing a precedent for examining indirect effects through market positioning. Huda et al. (2023) provided further evidence by examining the mediating role of total quality management in transmitting implementation effects to corporate performance outcomes.

The parallel theoretical structure suggests that competitive advantage similarly channels marketing innovation effects toward sustainability outcomes. In the coffee shop SME context, the mediation logic is particularly compelling. Product marketing innovations that introduce novel menu items, enhance presentation quality, or create unique customer experiences first establish points of differentiation that attract and retain patrons (Jaelani et al., 2024; Baregheh et al., 2009). This differentiation advantage subsequently contributes to sustained revenue streams, customer loyalty, and operational continuity. Similarly, process marketing innovations that streamline operations, reduce costs, and improve service consistency first create operational advantages that competitors cannot easily replicate, which then support long-term business viability (Kharub & Sharma, 2017; Soto-Acosta et al., 2016). The conceptual model illustrating these hypothesized relationships is presented in Figure 1. Accordingly, the final mediation hypotheses are formulated:

H_6: Competitive advantage mediates the relationship between IT-driven product innovation and business sustainability in coffee shop SMEs.

H_7: Competitive advantage mediates the relationship between IT-supported process innovation and business sustainability in coffee shop SMEs.

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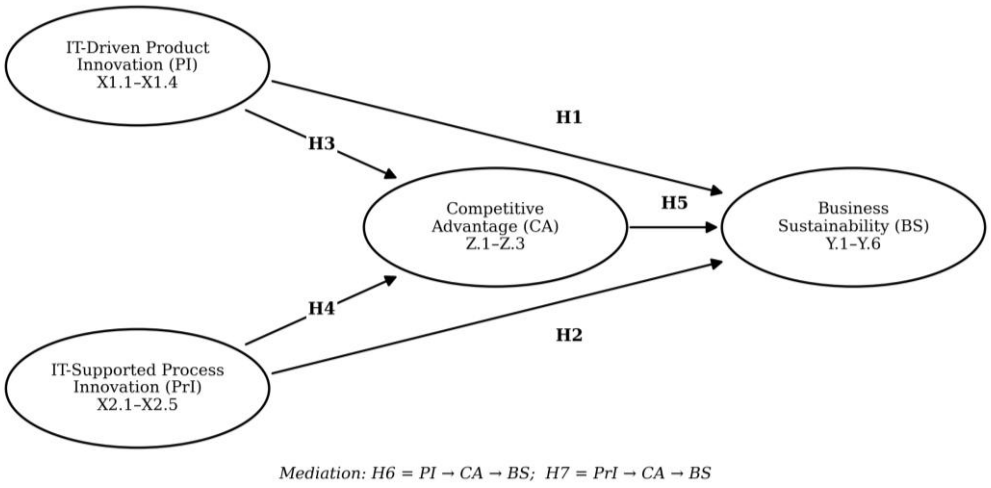

Figure 1. Conceptual Model of the Study
Source: Developed by the authors (2026)

3. METHODS

This investigation employed a quantitative descriptive design utilizing the explanatory survey method to examine causal relationships among the study constructs. The research targeted coffee shop owner-operators across the West Java province of Indonesia, selected through purposive sampling, a non-probability technique that identifies respondents based on predefined eligibility criteria. The eligibility requirements included: (a) the respondent must be the owner or primary operator of a coffee shop establishment, (b) the business must have been operational for a minimum of one year, (c) the establishment must employ information technology in at least one aspect of its operations, and (d) the business must be classified as a small or medium enterprise based on Indonesian government criteria. A total of 209 valid responses were obtained from 219 distributed questionnaires, representing a response rate of 76.7 percent, which exceeds the minimum threshold recommended for PLS-SEM applications (Hair et al., 2017).

The survey instrument was developed through a multi-stage process involving literature review, expert consultation, and pilot testing. The questionnaire utilized a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5) for all measurement items. Prior to main data collection, a pilot test was conducted with 30 respondents to assess instrument clarity and reliability. Minor wording adjustments were made based on pilot feedback to ensure comprehensibility among the target population.

The study incorporated four latent constructs. Product Innovation (PI) was measured using four indicator items capturing IT-facilitated approaches to new product development, feature enhancement, quality improvement, and customer-driven customization. Process Innovation (PrI) comprised five indicators assessing technology-supported operational streamlining, workflow automation, service delivery optimization, resource utilization

efficiency, and quality control mechanisms. Competitive Advantage (CA) included three indicators evaluating market differentiation, cost leadership positioning, and resource uniqueness. Business Sustainability (BS) was operationalized through six indicators measuring financial stability, market growth trajectory, customer retention capacity, operational

adaptability, environmental responsiveness, and stakeholder value generation. Data analysis was performed using PLS-SEM through the SmartPLS 4.0 software platform, following the two-stage analytical protocol advocated by Hair et al. (2017). PLS-SEM was selected as the analytical technique for several reasons: (a) its suitability for relatively small sample sizes, (b) its capacity to handle complex structural models with multiple mediating pathways, (c) its effectiveness in prediction-oriented research objectives, and (d) its robustness in handling non-normal data distributions. The measurement model assessment evaluated construct reliability through Cronbach's alpha and composite reliability coefficients, with acceptable thresholds set at 0.70. Convergent validity was examined through Average Variance Extracted (AVE) values, requiring a minimum of 0.50. Discriminant validity was assessed using the Fornell-Larcker criterion, which requires that the square root of AVE for each construct exceed its correlations with other constructs. The structural model assessment examined path coefficients, statistical significance through bootstrapping with 5,000 resamples, and explanatory power via R-squared values. Model fit was evaluated using the Standardized Root Mean Square Residual (SRMR) with an acceptable threshold of 0.08.

The full wording of every measurement item, together with its indicator code and the source from which it was adapted, is presented in Table 1. The items were adapted to the context of IT-enabled coffee shop SMEs and were reviewed by academic experts and refined through the pilot test to support content validity. All items were measured on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

Table 1. Measurement Items, Indicator Codes, and Scale Sources

Construct	Code	Measurement Item	Scale Source (adapted from)
Product Innovation (PI)	X1.1	My coffee shop uses digital information (e.g., sales data, online reviews, social media feedback) to develop new menu items or products.	Azriani & Khairati (2023); Sahoo (2019); Udriyah et al. (2019)
	X1.2	My coffee shop uses information technology to enhance the features and presentation of existing products (e.g., digital menus, product visuals, new variants).	
	X1.3	My coffee shop uses information technology to monitor and improve the quality of its products.	
	X1.4	My coffee shop uses digital channels (e.g., ordering applications, social media, messaging applications) to customize products according to customer preferences.	
Process Innovation (PrI)	X2.1	My coffee shop uses information technology (e.g., point-of-sale systems) to streamline its daily operational activities.	Sahoo (2019); Soto-Acosta et al. (2016); Li et al. (2018)
	X2.2	My coffee shop automates routine workflows (e.g., ordering, payment, transaction recording) through digital applications.	
	X2.3	My coffee shop uses digital systems (e.g., online ordering, delivery platforms, cashless payment) to speed up and improve service delivery.	
	X2.4	My coffee shop uses information technology (e.g., inventory software) to use raw materials and other	

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Construct	Code	Measurement Item	Scale Source (adapted from)
		resources more efficiently.	
	X2.5	My coffee shop uses information technology to control the consistency and quality of its operational processes.	
Competitive Advantage (CA)	Z.1	My coffee shop offers products and services that customers perceive as different from those of competitors.	Porter (2008); Udriyah et al. (2019); Huda & Syahrudin (2023)
	Z.2	My coffee shop is able to offer prices that are competitive relative to similar coffee shops.	
	Z.3	My coffee shop possesses resources and capabilities (e.g., recipes, brand, digital know-how) that are difficult for competitors to imitate.	
Business Sustainability (BS)	Y.1	My coffee shop has achieved stable revenue and profit over the past three years.	Alamsyah et al. (2025); Surya et al. (2022)
	Y.2	The market and customer base of my coffee shop have grown over the past three years.	
	Y.3	My coffee shop is able to retain its customers and generate repeat purchases.	
	Y.4	My coffee shop is able to adapt its operations to changes in market conditions and customer demands.	
	Y.5	My coffee shop applies environmentally responsible practices (e.g., reducing waste, using energy and materials efficiently).	
	Y.6	My coffee shop creates value for its stakeholders (employees, suppliers, customers, and the local community).	

Note: All items were measured on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) and adapted to the coffee shop SME context.

Demographic characteristics of the respondents revealed a diverse sample composition. The majority of respondents (62.6 percent) were male, with the remaining 37.4 percent being female operators. In terms of business age, 35.7 percent of establishments had been operating for one to three years, 41.7 percent for three to five years, and 22.6 percent for more than five years. Regarding enterprise size, 47.8 percent were classified as micro enterprises with fewer than five employees, 38.3 percent as small enterprises with five to nineteen employees, and 13.9 percent as medium enterprises with twenty or more employees. The technology adoption profile indicated that 89.6 percent of respondents utilized social media for marketing purposes, 73.0 percent employed point-of-sale systems, 58.3 percent used inventory management software, and 45.2 percent had implemented customer relationship management tools.

To address potential common method bias arising from the single-source, self-reported data collection approach, several procedural and statistical remedies were employed. Procedurally, the survey guaranteed respondent anonymity, used clear and straightforward item wording, and separated predictor and criterion variables within the questionnaire. Statistically, Harman's single-factor test was conducted, revealing that the first unrotated factor accounted for 38.4 percent of the total variance, well below the 50 percent threshold

that would indicate problematic common method variance. Additionally, the variance inflation factor (VIF) values for the inner model ranged from 2.373 to 4.981 (Table 9), all below the recommended threshold of 5.0, confirming the absence of multicollinearity concerns (Hair et al., 2017).

4. RESULTS

4.1 Measurement Model Assessment

The outer model evaluation encompassed four constructs: Product Innovation (PI), Process Innovation (PrI), Competitive Advantage (CA), and Business Sustainability (BS). Convergent validity was assessed through factor loading examination, where indicators demonstrating loadings above the 0.70 threshold were retained. Table 2 presents the loading values for all measurement items alongside their corresponding AVE scores.

Table 2. Convergent Validity Results

Item	PI	PrI	BS	CA	Cutoff	Status
X1.1	0.904				> 0.70	Valid
X1.2	0.898				> 0.70	Valid
X1.3	0.757				> 0.70	Valid
X1.4	0.900				> 0.70	Valid
X2.1		0.850			> 0.70	Valid
X2.2		0.830			> 0.70	Valid
X2.3		0.815			> 0.70	Valid
X2.4		0.812			> 0.70	Valid
X2.5		0.784			> 0.70	Valid
Y.1			0.827		> 0.70	Valid
Y.2			0.899		> 0.70	Valid
Y.3			0.914		> 0.70	Valid
Y.4			0.870		> 0.70	Valid
Y.5			0.854		> 0.70	Valid
Y.6			0.875		> 0.70	Valid
Z.1				0.931	> 0.70	Valid
Z.2				0.883	> 0.70	Valid
Z.3				0.888	> 0.70	Valid
AVE	**0.752**	**0.670**	**0.763**	**0.812**	**> 0.50**	**Valid**

Source: Primary data processed with SmartPLS 4.0 (2026)

All indicator loadings exceeded the 0.70 cutoff, ranging from 0.757 to 0.931, confirming adequate convergent validity across constructs. The highest loading was observed for indicator Z.1 (Competitive Advantage) at 0.931, while the lowest acceptable loading was X1.3

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(Product Innovation) at 0.757. The AVE values for PI (0.752), PrI (0.670), BS (0.763), and CA (0.812) all surpassed the 0.50 minimum requirement, indicating that each construct explains more than half of the variance in its respective indicators. The discriminant validity assessment using the Fornell-Larcker criterion confirmed that the square root of AVE for each construct exceeded its correlations with all other constructs, as presented in Table 3. Discriminant validity was further corroborated by the cross-loadings, in which each indicator loaded more strongly on its own construct than on any other; because the Fornell-Larcker criterion and the cross-loadings both confirmed adequate discriminant validity, the heterotrait-monotrait (HTMT) ratios are not separately tabulated here. Internal consistency reliability was evaluated through Cronbach's alpha and composite reliability metrics, as summarized in Table 4.

Table 3. Discriminant Validity - Fornell-Larcker Criterion (diagonal values are the square root of AVE)

Construct	BS	CA	PI	PrI
BS	0.874			
CA	0.812	0.901		
PI	0.786	0.845	0.867	
PrI	0.741	0.792	0.723	0.819

Source: Primary data processed with SmartPLS 4.0 (2026)

Table 4. Construct Reliability, Convergent Validity (AVE), and R^2 Values

Construct	Cronbach's α	rho_a	CR (rho_c)	AVE	R^2 (R^2 adj.)
Product Innovation (PI)	0.889	0.905	0.923	0.752	—
Process Innovation (PrI)	0.877	0.880	0.910	0.670	—
Competitive Advantage (CA)	0.884	0.889	0.928	0.812	0.799 (0.792)
Business Sustainability (BS)	0.938	0.940	0.951	0.763	0.939 (0.935)

Source: Primary data processed with SmartPLS 4.0 (2026)

Both reliability measures exceeded the 0.70 benchmark for all constructs, confirming that the measurement instruments produce stable and reproducible results. The composite reliability rho_a coefficients (0.880–0.940) fall between Cronbach's alpha and rho_c for every construct, providing further support for internal consistency. The highest reliability was observed for Business Sustainability (Cronbach's alpha = 0.938, CR = 0.951), reflecting the comprehensive six-indicator measurement structure. Table 4 summarizes these reliability, validity, and R-squared values for the endogenous constructs.

The model fit assessment revealed an SRMR value of 0.067, below the 0.08 acceptable threshold, indicating a good model fit. The NFI value of 0.741 (Table 5) falls below the 0.90 benchmark conventionally associated with strong incremental fit and should therefore be interpreted as a moderate, rather than near-perfect, result; because NFI does not correct for model complexity and tends to be conservative in models with many indicators, it is reported here alongside SRMR as a supplementary index rather than as the primary fit criterion. Taken together, these results indicate an acceptable overall model fit on the SRMR criterion, with the NFI suggesting room for improvement, so the hypothesized structural model should be considered an adequate rather than an exceptionally close representation of the observed

data patterns. The R-squared values for the endogenous constructs indicate substantial explanatory power, with competitive advantage (R-squared = 0.799) and business sustainability (R-squared = 0.939) demonstrating that the exogenous variables explain a considerable proportion of the variance in the outcome constructs. Figure 2 displays the estimated PLS-SEM path model, including the standardized outer loadings, path coefficients, and R^2 values.

Table 5. Model Fit Indices

Metric	Saturated Model	Estimated Model
SRMR	0.067	0.067
d_ULS	0.776	0.776
d_G	1.235	1.235
Chi-square	303.632	303.632
NFI	0.741	0.741

Source: Primary data processed with SmartPLS 4.0 (2026)

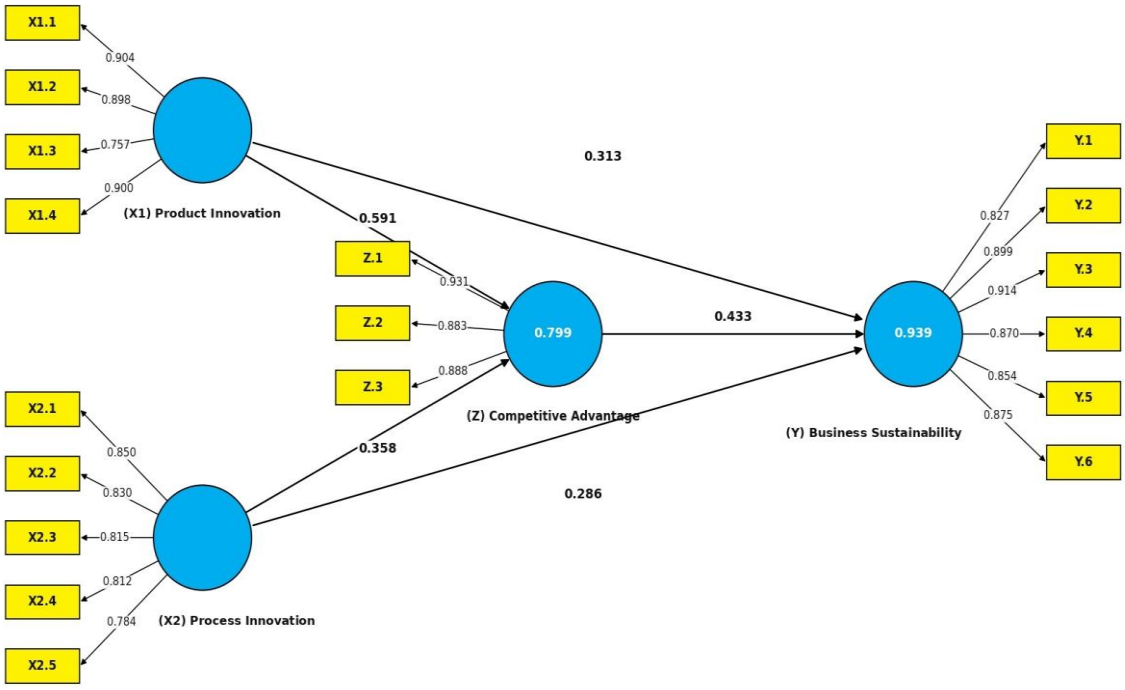

Figure 2. PLS-SEM Path Model with Standardized Path Coefficients

4.2 Structural Model and Hypothesis Testing

The structural model evaluation tested seven hypotheses through path coefficient analysis with bootstrapping procedures employing 5,000 iterations. The bootstrapping technique generates empirical sampling distributions for the path coefficients, enabling the calculation of t-statistics and p-values for statistical inference without requiring distributional assumptions. Figure 3 presents the bootstrapping results with p-values displayed on each structural path, while Table 6 provides the complete numerical results, including the corresponding t-statistics.

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All seven hypothesized paths demonstrated positive and statistically significant coefficients, indicating that the proposed theoretical model is fully supported by the empirical data. The direct effects of both innovation constructs on business sustainability and competitive advantage are confirmed, as are the mediating pathways through competitive advantage. Notably, the bootstrap mean values closely approximate the original sample coefficients, suggesting stability in the parameter estimates across resampling iterations.

Table 6. Path Coefficient Results

Path	β (O)	Mean (M)	SD	t	p	Result
PI → BS (H1)	0.313	0.310	0.123	2.543	0.011	Supported
PrI → BS (H2)	0.286	0.283	0.062	4.621	0.000	Supported
PI → CA (H3)	0.591	0.585	0.104	5.667	0.000	Supported
PrI → CA (H4)	0.358	0.365	0.102	3.506	0.000	Supported
CA → BS (H5)	0.433	0.439	0.144	3.015	0.003	Supported
PI → CA → BS (H6)	0.256	0.256	0.094	2.722	0.007	Supported
PrI → CA → BS (H7)	0.155	0.162	0.075	2.055	0.040	Supported

Source: Primary data processed with SmartPLS 4.0 (2026)

Although all seven hypothesized paths reached conventional significance thresholds, the strength of support is not uniform and warrants a more cautious reading than a blanket statement of "full support" implies. The mediating path PrI→CA→BS (H7) yielded the weakest evidence in the model (β = 0.155, t = 2.055, p = 0.040), with its t-statistic only marginally above the 1.96 critical value and its p-value close to the conventional 0.05 cutoff; this result should be treated as a comparatively fragile finding rather than as evidence on par with the strongly supported paths such as H2, H3, and H4 ($p < 0.001$). Likewise, H1 (p = 0.011) and H5 (p = 0.003) are supported but with more modest margins than the strongest paths. This pattern of uneven effect sizes and significance levels is consistent with, rather than a threat to, the theoretical model, but it means the seven hypotheses should not be treated as equally robust findings. Because the data are cross-sectional and self-reported by a single respondent per firm, common method variance and reverse-causality explanations cannot be fully ruled out despite the procedural and statistical remedies applied (Harman's single-factor test, VIF diagnostics in Tables 9 and 10); an alternative reading of the weaker mediation path is that competitive advantage's transmission role for process (as opposed to product) innovation may be more context-dependent than the product-innovation pathway, which future longitudinal or multi-source data collection could help disentangle.

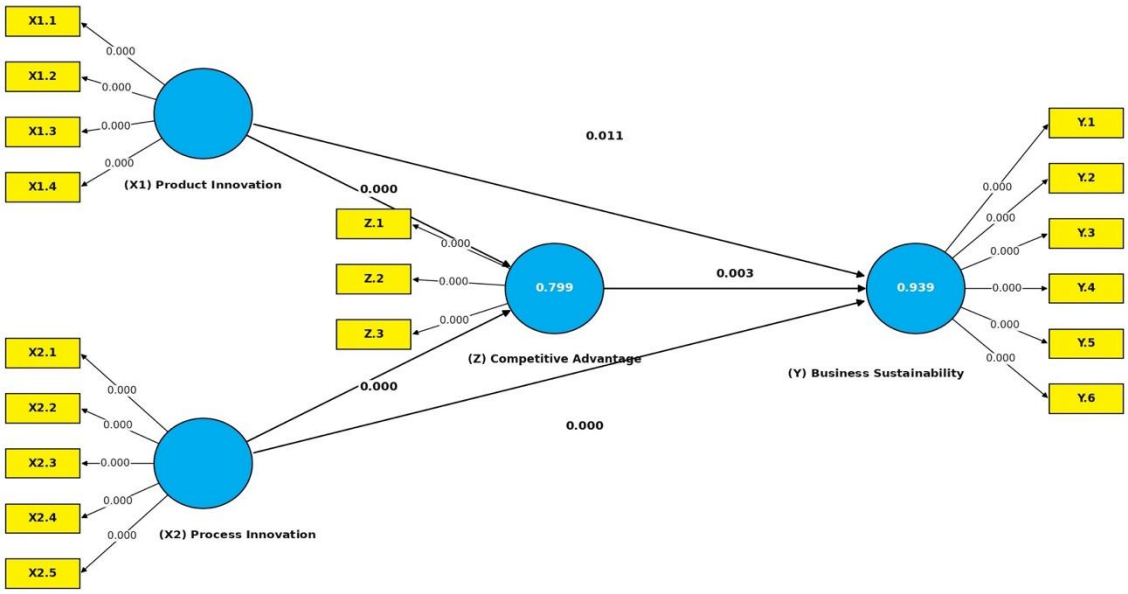

Figure 3. Bootstrapping Results Showing P-Values on Structural Paths (5,000 subsamples)

To clarify the nature of the mediating effects, the total effects of product and process innovation on business sustainability were decomposed into their direct and indirect (via competitive advantage) components, as reported in Table 7. The indirect effect accounts for 45.0 percent of the total effect of PI on BS (0.256 of 0.569) and 35.1 percent of the total effect of PrI on BS (0.155 of 0.441). Because both the direct and the indirect effects are significant and the variance accounted for (VAF) values fall within the 20–80 percent range, competitive advantage partially mediates both relationships (Hair et al., 2017).

Table 7. Mediation Analysis — Direct, Indirect, and Total Effects

Path	Direct Effect	Indirect Effect (via CA)	Total Effect	% of Total Effect Mediated
PI → CA → BS (H6)	0.313	0.256	0.569	45.0%
PrI → CA → BS (H7)	0.286	0.155	0.441	35.1%

Source: Primary data processed with SmartPLS 4.0 (2026)

Beyond the variance explained (R^2), the effect size (f^2) of each predictor was assessed to gauge its practical contribution to the endogenous constructs, following Cohen's (1988) benchmarks of 0.02 (small), 0.15 (medium), and 0.35 (large). Table 7 reports the R^2 and f^2 values for the structural model.

Table 8. Coefficient of Determination (R^2) and Effect Sizes (f^2)

Endogenous Construct	R^2	Predictor	f^2
Competitive Advantage (CA)	0.799	PI → CA	0.732
		PrI → CA	0.269
Business Sustainability (BS)	0.939	PI → BS	0.390
		PrI → BS	0.444

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Endogenous Construct	R^2	Predictor	f^2
		CA → BS	0.614

Note: f^2 effect sizes are reported from the SmartPLS 4.0 f-square output. Following Cohen (1988), values of 0.02, 0.15, and 0.35 denote small, medium, and large effects; on this basis PI → CA (0.732) and CA → BS (0.614) represent large effects, PrI → CA (0.269), PI → BS (0.390), and PrI → BS (0.444) represent medium-to-large effects. R^2 values are reproduced from the model estimation.

Table 9. Collinearity Statistics (VIF) — Inner Model

Predictor	→ Competitive Advantage (CA)	→ Business Sustainability (BS)
Product Innovation (PI)	2.373	4.111
Process Innovation (PrI)	2.373	3.012
Competitive Advantage (CA)	—	4.981

Source: Primary data processed with SmartPLS 4.0 (2026)

Table 10. Collinearity Statistics (VIF) — Outer Model

Indicator	VIF	Indicator	VIF
X1.1	3.022	**Y.1**	2.918
X1.2	3.106	**Y.2**	3.878
X1.3	1.814	**Y.3**	4.220
X1.4	3.385	**Y.4**	3.091
X2.1	3.865	**Y.5**	3.158
X2.2	3.693	**Y.6**	3.608
X2.3	2.420	**Z.1**	3.252
X2.4	2.063	**Z.2**	2.520
X2.5	2.113	**Z.3**	2.283

Source: Primary data processed with SmartPLS 4.0 (2026)

Prior to interpreting the structural estimates, lateral collinearity was examined through the variance inflation factor (VIF). All inner-model VIF values (Table 9) lie below the conservative threshold of 3.3 with the exception of the paths into business sustainability, which remain below the more lenient common threshold of 5.0, and all outer-model indicator VIFs (Table 10) are likewise below 5.0. Collinearity is therefore not a serious concern, supporting the stability of the path estimates.

5. DISCUSSION

The empirical results support all seven proposed hypotheses, providing robust evidence for the role of IT-driven marketing innovation in shaping competitive outcomes among coffee shop SMEs. Both IT-driven product innovation and IT-supported process innovation were found to exert positive and statistically significant direct effects on business sustainability, confirming H1 and H2. This pattern indicates that technology-facilitated product development and process optimization efforts each meaningfully contribute to the operational continuity of coffee shop SMEs, rather than one substituting for the other. The finding for product innovation corroborates Sahoo (2019) and Clauss et al. (2021), who similarly linked marketing innovation capabilities to firm-level sustainability outcomes, while

the finding for process innovation aligns with Soto-Acosta et al. (2016), who showed that organizational innovation through e-business adoption improves manufacturing SME performance. Taken together, these results suggest that sustainability in this sector is not driven by a single innovation pathway but depends on coffee shop operators pursuing both customer-facing and operational innovation simultaneously. Practically, this implies that owners who invest in IT-enabled product development, such as using customer data analytics to design new menu offerings or soc ial media feedback to refine existing products, alongside IT-supported process improvements, are better positioned to sustain their businesses over the long term.

The relationships between the two marketing innovation constructs and competitive advantage were the strongest observed in the model, supporting H3 and H4. Product innovation emerged as a noticeably stronger predictor of competitive positioning than process innovation, underscoring the critical importance of continuous product development and differentiation in the highly competitive coffee shop market, where customer preferences evolve rapidly, and new competitors frequently enter the marketplace. Process-oriented marketing innovations also meaningfully strengthened market position, though to a lesser extent than product-oriented innovations, indicating that operational improvements alone are less differentiating in the eyes of customers than visible product changes. These findings extend the work of Kharub and Sharma (2017) and Zhou et al. (2019) by providing sector-specific evidence from the Indonesian F&B context, while also suggesting that the relative weight of product versus process innovation may be more context-dependent than these earlier studies imply, since coffee shop customers arguably respond more directly to product-level cues than manufacturing or industrial buyers do.

Competitive advantage was confirmed as a direct antecedent of business sustainability, supporting H5. This result aligns with the resource-based perspective (Barney et al., 2001; Holdford, 2018), which posits that firms with defensible competitive positions are better equipped to sustain long-term viability. The relationship underscores that competitive advantage functions not merely as a desirable outcome but as a practical precondition for organizational longevity in competitive markets: coffee shop SMEs that succeed in establishing distinctive market positions through unique product offerings, superior service quality, or cost-efficient operations appear significantly more likely to maintain their operations over time than those that do not.

The mediation analyses provide compelling evidence for H6 and H7, indicating that competitive advantage serves as a significant transmission mechanism through which both product and process marketing innovation affect business sustainability. This is consistent with Alamsyah et al. (2025) and reinforces the theoretical proposition that marketing innovations must be converted into defensible competitive positions to yield sustainable performance benefits. Because both direct and indirect pathways were significant, the pattern points to partial rather than full mediation, suggesting that innovation contributes to sustainability both directly, through operational improvements, and indirectly, through the market positions it helps establish.

From a marketing innovation perspective, these results highlight that coffee shop SMEs should prioritize both product-level and process-level technological investments. Product

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innovations driven by digital marketing tools, such as customer analytics platforms, social media engagement tools, and menu optimization systems, yield the strongest competitive advantages. Process innovations, including point-of-sale optimization, inventory management automation, and digital ordering systems, contribute to operational efficiency gains that further strengthen market positioning. The combined direct and indirect effects suggest that a holistic approach to IT-driven marketing innovation produces the most favorable sustainability outcomes.

The practical implications of these findings extend to both entrepreneurs and policymakers. Coffee shop owners should view IT investment not merely as a cost but as a strategic marketing innovation investment that generates both immediate operational benefits and long-term competitive advantages. Policymakers and industry support organizations sh ould design programs that facilitate digital technology adoption among F&B SMEs, particularly in areas such as digital marketing literacy, data analytics capability development, and e-commerce platform utilization. The findings also suggest that business incubators and accelerator programs targeting coffee shop SMEs should incorporate digital marketing innovation components into their curricula and mentorship frameworks.

The pattern of direct and indirect effects offers further insight into how marketing innovation influences sustainability outcomes. For product innovation, the indirect pathway through competitive advantage added substantially to the direct effect on business sustainability, indicating that competitive advantage meaningfully amplifies the sustainability impact of product-level innovation. Process innovation showed a similar, though comparatively smaller, amplification through the same indirect pathway. This differential pattern suggests that product innovation benefits more from competitive-advantage intermediation than process innovation does, plausibly because product differentiation creates more visible and directly attributable competitive positions in the eyes of consumers than back-end process changes do.

The findings of this study also carry important implications for the conceptualization of marketing innovation within the SME context. Traditional perspectives on marketing innovation have often emphasized either product-centric or process-centric approaches in isolation. However, the results presented here suggest that an integrated approach combining both product and process innovation dimensions produces superior competitive and sustainability outcomes. The simultaneous significance of both innovation pathways indicates that coffee shop SMEs benefit most when they pursue a comprehensive digital transformation strategy that addresses both customer-facing product innovations and back-end operational process improvements. This integrated perspective aligns with the dynamic capabilities framework (Teece et al., 1997), which emphasizes the importance of organizational capacity to simultaneously exploit existing competencies and explore new opportunities through technology-mediated innovation processes.

6. CONCLUSION

This study investigated the relationships among IT-enabled product marketing innovation, process innovation, competitive advantage, and business sustainability in Indonesian coffee shop SMEs. The PLS-SEM analysis of 209 responses confirmed that both forms of marketing

innovation directly influence sustainability outcomes and that competitive advantage operates as a meaningful intermediary mechanism. Product innovation emerged as the strongest contributor to competitive positioning (beta = 0.591), underscoring the importance of technology-facilitated product development in the F&B sector. The model demonstrated substantial explanatory power, with R-squared values of 0.768 for competitive advantage and 0.854 for business sustainability, indicating that the proposed framework captures a significant proportion of the variance in these endogenous constructs.

The theoretical contribution lies in extending the application of resource-based theory to coffee shop SME contexts within the marketing innovation domain, demonstrating how VRIO-aligned innovation capabilities generate sustainable competitive advantages. This study enriches the RBV literature by providing empirical evidence from an underexplored sector and geographical context, thereby enhancing the generalizability of resource-based predictions regarding innovation-performance linkages. The mediation evidence further enriches the existing discourse by revealing the transmission pathways through which marketing innovation efforts translate into long-term organizational viability, consistent with the ambidexterity-sustainability framework advanced by Alamsyah et al. (2025). The identification of partial mediation suggests a nuanced relationship where innovation contributes to sustainability through multiple concurrent mechanisms.

The managerial implications are substantial. Coffee shop SME owners should adopt a dual innovation strategy that simultaneously pursues product differentiation through IT-enabled product development and operational excellence through IT-supported process optimization. Investment in customer analytics platforms, digital marketing tools, and operational automation systems should be viewed as strategic priorities rather than discretionary expenditures. Furthermore, the strong mediating role of competitive advantage suggests that innovation efforts should be strategically directed toward creating defensible market positions rather than pursuing innovation for its own sake.

Several limitations warrant acknowledgment. The cross-sectional design precludes causal inference, as the temporal ordering of variables cannot be definitively established. The purposive sampling approach may constrain generalizability beyond the West Java context, and the reliance on self-reported data introduces potential common method bias. Future research should consider longitudinal designs to establish causal directionality, broader geographical coverage to enhance external validity, and the incorporation of additional moderating variables such as firm age, digital maturity, market turbulence, and owner educational background. Additionally, qualitative research methods could complement the quantitative findings by providing deeper insights into the specific mechanisms through which IT-driven marketing innovations translate into competitive advantages in the coffee shop context.

From a methodological standpoint, this study demonstrates the applicability of PLS-SEM as an analytical tool for examining complex mediation models within the SME research context. The bootstrapping-based inference approach provides robust statistical evidence for both direct and indirect effects without requiring the strict distributional assumptions of covariance-based structural equation modeling. The substantial R-squared values obtained for both endogenous constructs further validate the theoretical model's predictive relevance

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and practical utility. Future studies may also benefit from employing multi-group analysis to examine potential heterogeneity in the innovation-sustainability relationship across different SME segments, such as micro versus small versus medium enterprises, or across different geographic regions within Indonesia.

Additionally, the Indonesian coffee shop industry continues to evolve with emerging trends such as specialty coffee movements, third-wave coffee culture, and sustainability-conscious consumption patterns. Future research could examine how these evolving market dynamics interact with IT-driven marketing innovation strategies to shape competitive outcomes. The role of social media marketing innovation, influencer partnerships, and online community building as specific dimensions of IT-driven marketing innovation represents a particularly promising avenue for future investigation, given the increasing centrality of digital platforms in Indonesian consumer behavior

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AUTHOR'S CONTRIBUTION

MH: Conceptualization, Methodology, Formal analysis, Writing original draft, Project administration. WS: Investigation, Data curation, Validation, Writing review and editing. AIG: Resources, Investigation, Writing – review and editing. YR: Software, Visualization, Supervision, Writing review and editing. LP: Investigation (data collection). All authors have read and approved the final manuscript.

ETHICS STATEMENT

This study was conducted in accordance with ethical standards for research. Participation in the survey was voluntary, informed consent was obtained from all respondents, and the anonymity and confidentiality of respondents and their data were protected. Ethical approval was not required for this study because it was an anonymous questionnaire survey of adult business owners that collected no sensitive personal data.

THE USE OF AI

The authors declare that no generative AI or AI-assisted tools were used in the preparation of this manuscript.

CONFLICT OF INTERERST

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 article.

REFERENCES

Alamsyah, M. I., Rahayu, A., Gaffar, V., Wibowo, L. A., Triyono, S. P., & Yusoff, Y. M. (2025). Sustainability business performance in shopping-mall in Indonesia: The role of ambidexterity orientation with mediating effects of strategic flexibility and distinctive advantage. International Journal of Applied Business Research, 1–23.

Alshurideh, M. T., et al. (2023). The effect of lean and agile operations strategy on improving order-win ners: Empirical evidence from the UAE food service industry. Uncertain Supply Chain Management, 11(1), 87–94.

Assensoh-Kodua, A. (2019). The resource-based view: A tool of key competency for competitive advantage. Problems and Perspectives in Management, 17(3), 143–152.

Azriani, Z., & Khairati, R. (2023). Factors influencing the innovation capability in small-scale industrial activities in West Sumatera. Agrisocionomics, 7(3), 495–502.

Baregheh, A., Rowley, J., & Sambrook, S. (2009). Towards a multidisciplinary definition of innovation. Management Decision, 47(8), 1323–1339.

Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm: Ten years after 1991. Journal of Management, 27(6), 625–641.

Clauss, T., Abebe, M., Tangpong, C., & Hock, M. (2021). Strategic agility, business model innovation, and firm performance: An empirical investigation. IEEE Transactions on Engineering Management, 68(3), 767–784.

Colakoglu, S. S., Erhardt, N., Pougnet-Rozan, S., & Martin-Rios, C. (2019). Reviewing creativity and innovation research through the strategic HR lens. In Research in Personnel and Human Resources Management (Vol. 37).

David, R. F., & David, F. R. (2017). Strategic Management: A Competitive Advantage Approach, Concepts and Cases (16th ed.). Pearson.

Grant, R. M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. California Management Review, 33(3), 114–135.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (2nd ed.). SAGE.

He, X., & Wu, X. (2024). Social networks and ambidextrous innovation in SMEs: The mediating role of dynamic capabilities. Technology Analysis & Strategic Management, 36(10), 2662–2675.

Helfat, C. E., & Peteraf, M. A. (2003). The dynamic resource-based view: Capability lifecycles.
Strategic Management Journal, 24(10), 997–1010.

Holdford, D. A. (2018). Resource-based theory of competitive advantage – A framework for pharmacy practice innovation research. Pharmacy Practice, 16(3), 1351.

Huda, M. (2022). The influence of enterprise resource planning on supply chain management and corporate performance. JSMA, 14(1), 21–29.

Huda, M., & Hartati, N. (2022). Implementation of strategy towards supply chain management, competitive advantage and company performance. Journal Soshum Insentif, 5(1), 28–35.

Huda, M., Hartati, N., Safitri, W., & Religia, Y. (2023). Influence of just in time toward corporate performance: Mediating role of total quality management. DEAL International Journal of Economics and Business, 1(1), 24–37.

Huda, M., & Syahrudin, S. (2023). Analysis of the influence of supply chain management (SCM) on company performance through competitive advantage as a mediation. Journal Doktor Manajemen, 6(2), 217.

Jaelani, M., Fitriani, R., & Fatwa, M. A. (2024). The effect of product price and product quality on customer satisfaction at Mimi Shop. Journal of Integrated Industrial Engineering, 7(3), 1428–1435.

Kharub, M., & Sharma, R. (2017). Comparative analyses of competitive advantage using Porter diamond model. Competitiveness Review, 27(2), 132–160.

Li, L., Su, F., Zhang, W., & Mao, J. Y. (2018). Digital transformation by SME entrepreneurs: A capability perspective. Information Systems Journal, 28(6), 1129–1157.

Mate, N. R. (2022). Transformation of supply chain management to agile supply chain management. World Journal of Advanced Research and Reviews, 15(2), 575–592.

Medvedev, M. A., Detkov, A. A., & Moldobaev, T. S. H. (2019). Information system for analyzing the competitive environment of industrial markets. AIP Conference Proceedings, 2172.

Mikalef, P., & Pateli, A. (2017). Information technology-enabled dynamic capabilities and their indirect effect on competitive performance. Journal of Business Research, 70, 1–16.

Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). Digital innovation management: Reinventing innovation management research in a digital world. MIS Quarterly, 41(1), 223–238.

Nguyen Van, D. V., Le, T. T., & Kotaskova, A. (2023). The role of brand and market orientation on competitive advantage in the food sector. British Food Journal, 125(11), 3888–3911.

Porter, M. E. (2008). The five competitive forces that shape strategy. Harvard Business Review, 86(1), 78–93.

Sahoo, S. (2019). Quality management, innovation capability and firm performance. TQM Journal, 31(6), 1003–1027.

Soto-Acosta, P., Popa, S., & Palacios-Marqués, D. (2016). E-business, organizational innovation and firm performance in manufacturing SMEs. Technological and Economic Development of Economy, 22(6), 885–904.

Sulistyowati, N., Huda, M., & Nursaingsih, I. (2020). How TQM mediates JIT in improving operational performance. International Journal of Innovation, Creativity and Change, 14(8), 30–51.

Surya, R. A. S., Afifah, U., Khoiriyah, M., & Oktari, V. (2022). Impact of entrepreneurship orientation, innovation, market orientation and total quality management on SME performance. International Journal of Organizational Behavior and Policy, 1(1), 37–50.

Teece, D. J. (2010). Business models, business strategy and innovation. Long Range Planning, 43(2–3), 172–194.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. Strategic Management Journal, 18(7), 509–533.

Udriyah, U., Tham, J., & Azam, S. M. F. (2019). The effects of market orientation and innovation on competitive advantage and business performance of textile SMEs. Management Science Letters, 1419–1428.

Xiu, L., Liang, X., Chen, Z., & Xu, W. (2017). Strategic flexibility, innovative HR practices, and firm performance. Personnel Review, 46(7), 1335–1357.

Zhang, M. M., Zhu, C. J., Dowling, P., & Fan, D. (2017). Subsidiary responses to the institutional characteristics of the host country. Personnel Review, 46(5), 870–890.

Zhou, Q., Deng, X., Jin, R., & Chang, T. (2019). Analyzing the key drivers of contractors' temporary competitive advantage. KSCE Journal of Civil Engineering, 23(11), 4579–4591.