

Driving MSME Growth: An Integrative Model of Innovation, Local Wisdom, and Institutional Support

Ramayanti¹, Agung Kwartama²

¹ Akademi Maritim Nasional Jakarta Raya, Indonesia

* Correspondence e-mail; Ramayancity27@gmail.com

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Abstract

Micro, Small, and Medium Enterprises face critical challenges in digital adaptation and product innovation despite their vital role in sustaining local economies. This study aims to develop an integrative model for home-based enterprise development by examining the interplay among technology, local wisdom, product uniqueness, academic collaboration, government support, entrepreneurial capability, and product innovation. Utilizing a quantitative survey design, data from home-based enterprise owners were analyzed using Partial Least Squares Structural Equation Modeling combined with Necessary Condition Analysis to evaluate causal pathways and minimum operational thresholds. The findings indicate that technology adoption, entrepreneurial capability, and continuous product innovation significantly drive business expansion. Moreover, integrating local cultural identity creates crucial product differentiation, while academic and governmental support fundamentally strengthen the innovation ecosystem. Ultimately, sustainable enterprise growth requires a holistic approach that simultaneously leverages internal capabilities and external institutional support to secure long-term competitive advantage.

Keywords

Digital Technology; Entrepreneurial Capability; Integrative Model; MSME Development; Product Innovation



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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) drive economic growth, job creation, and income distribution in developing nations like Indonesia (Utami & Lantu, 2023). These enterprises absorb substantial labor and sustain local community economies (Franky et al., 2025). Furthermore, community-based businesses stimulate localized economic innovation, fortifying national economic resilience against global market fluctuations (Triwijayati & Luciany, 2023). Despite their economic importance, MSMEs encounter severe structural barriers, including constrained technological access, low digital literacy, and underdeveloped product innovation capacities (Triwijayati & Luciany, 2023). Modern market demands compel enterprises to adopt digital infrastructure to maintain competitiveness, as

technological integration directly increases operational productivity and expands consumer reach (Rahman et al., 2023).

Digital technology adoption enables businesses to optimize operational efficiency and accelerate product development cycles (Noer et al., 2025; Kwartama, 2021). Specifically, digital marketing platforms and e-commerce networks heighten product visibility and foster direct consumer interaction, which improves overall marketing performance (Sharabati et al., 2024). This pattern is further corroborated by Kwartama (2021), who found that digitalization strategies significantly improved marketing outcomes in maritime logistics firms. Entrepreneurial capability defined as the capacity to recognize market opportunities and mitigate risks enhances organizational adaptability (Somwethee et al., 2023). Strong entrepreneurial skills elevate business performance by facilitating continuous product innovation (Nuryakin, 2024). Consequently, product innovation empowers enterprises to generate unique, value-added offerings that satisfy evolving consumer demands (Gonzalez et al., 2023). Furthermore, entrepreneurial passion directly fuels these product innovation initiatives within small enterprises (Shi et al., 2024).

Integrating local wisdom into production processes establishes a distinct cultural identity that separates MSME products from generic market alternatives (Mahrinasari et al., 2024). This differentiation strategy strengthens regional and global market positioning by emphasizing unique geographic or cultural traits (Utami & Lantu, 2023). Specific origin-related product characteristics increase symbolic value and consumer trust, thereby establishing a sustainable competitive advantage (Hofmeier et al., 2023). External institutional support forms a critical pillar for MSME sustainability. Government interventions provide essential policy frameworks, financing, and market access (Amin et al., 2025). Simultaneously, academic institutions supply vital research and knowledge transfer that elevate the innovative capacity of small businesses (Wei et al., 2025). Operating within this ecosystem, efficient cost management strategies improve product competitiveness by enabling flexible market pricing and enhancing profitability (Ngo, 2023). Complementing this, structured promotional activities increase brand awareness and market penetration (Al-Hakimi, 2024).

Prior research primarily examines digital transformation, innovation capabilities, or entrepreneurial ecosystems in isolation (Tsakalerou et al., 2025). Extant studies lack a cohesive framework that concurrently measures internal operational capacities alongside external institutional support mechanisms and cultural integration. This study grounds its framework in the Resource-Based View

(RBV), which posits that unique and inimitable resources—such as innovation capability and technological mastery—dictate sustained competitive advantage (Al-Sharif et al., 2023). Additionally, Dynamic Capability theory explains how enterprises reconfigure these resources to adapt to volatile environments (Taghizadeh et al., 2023). Accordingly, this study aims to develop an integrative model for home-based MSME development by combining technology, local wisdom, product uniqueness, academic roles, government support, entrepreneurial capability, and product innovation, with cost and promotion acting as mediating variables.

METHODS

This study employs a quantitative survey research design to analyze home-based Micro, Small, and Medium Enterprises engaged in the production and marketing of local products (Sarstedt et al., 2024). The population comprises active business owners and managers. A purposive sampling technique was applied to select respondents who operate home-based enterprises that have functioned for at least one year and actively utilize digital technology or social media (Hair et al., 2024). Sample size determination followed the ten-times rule for structural paths, while also incorporating recommendations to utilize larger samples to guarantee the stability and validity of the structural model (Legate et al., 2024).

Primary data were gathered through closed questionnaires, employing a five-point Likert scale to systematically measure respondent perceptions regarding the research variables (Hair et al., 2024). The gathered data were evaluated using Partial Least Squares Structural Equation Modeling via SmartPLS software, chosen for its robust capacity to analyze complex structural relationships without necessitating normal data distribution assumptions (Hair et al., 2024). To complement this, the study integrated Necessary Condition Analysis to identify the minimum threshold conditions required to achieve optimal enterprise development (Dul, 2020). This combined analytical approach aligns sufficiency logic with necessity logic to provide a comprehensive structural evaluation (Kolev & Schubring, 2023; Ringle et al., 2020).

The research framework examines a specific set of operationalized constructs. Technology reflects the capacity to utilize digital platforms and e-commerce, while local wisdom and product uniqueness measure the integration of cultural values and distinct design characteristics. Entrepreneurial capability captures the ability to identify opportunities, manage risks, and create business innovations. External support variables encompass the role of academics through training and mentoring, alongside government support via policy, financing, and marketing assistance. The mediating variables, cost and promotion, represent operational expense efficiency

and the execution of digital and offline marketing communications. Finally, the dependent construct, MSME development, is indicated by sales growth, market expansion, and competitive advantage enhancements. The structural interactions among these internal capabilities and external support mechanisms form the conceptual framework of this study.

FINDINGS AND DISCUSSION

The analysis evaluated the structural relationships and necessary conditions influencing home-based enterprise growth. The measurement model evaluation confirmed that all construct indicators yielded outer loading values exceeding the 0.70 threshold, thereby establishing strong construct validity. Subsequent inner model bootstrapping generated p-values near zero for the primary structural paths, indicating highly significant relationships among the variables. Furthermore, the interaction analysis demonstrated that varying cost levels directly altered the trajectory of enterprise growth.

Figure 1. Path Diagram Partial Least Squares Structural Equation Modeling (PLS-SEM)

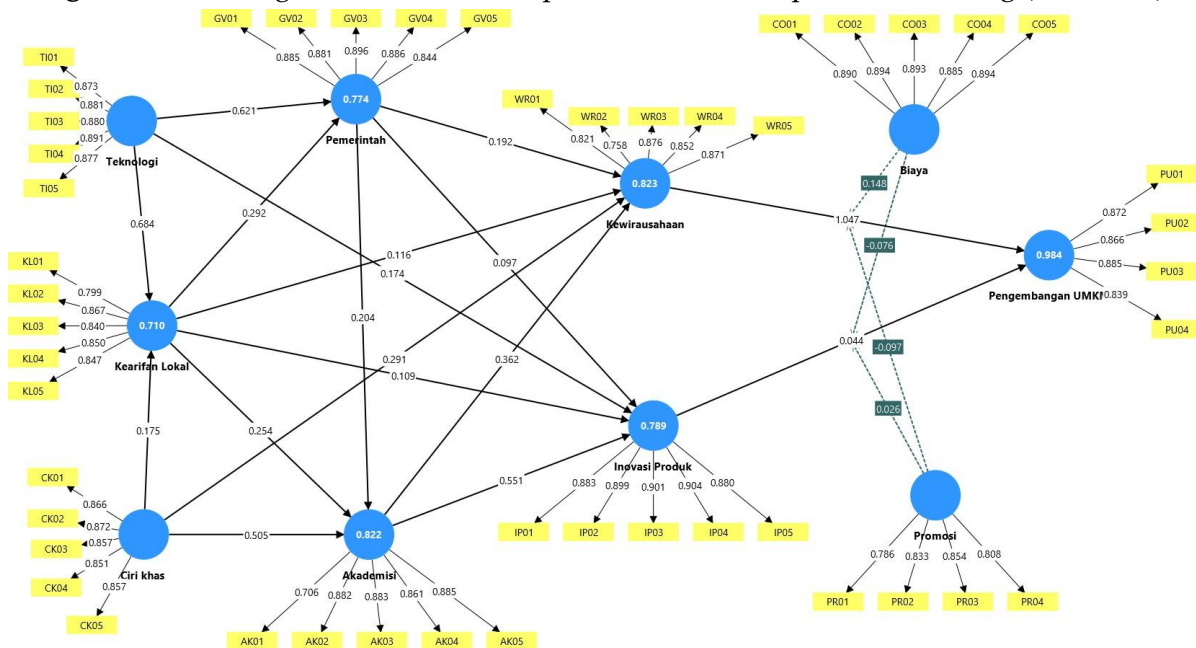
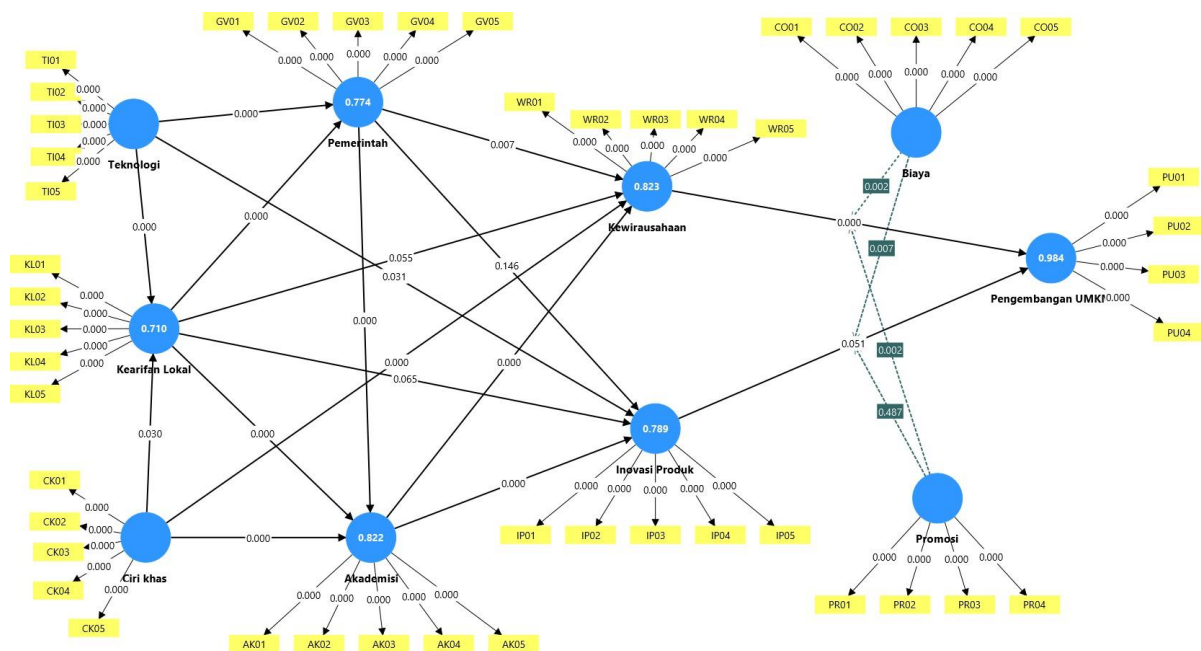


Table 1. Outer Loading Evaluation

Construct	Indicator	Outer Loading	Remark
Akademisi	AK01 - AK05	0.706 - 0.885	VALID
Biaya	CO01 - CO05	0.885 - 0.994	VALID
Ciri Khas	CK01 - CK05	0.851 - 0.872	VALID
Inovasi Produk	IP01 - IP05	0.820 - 0.904	VALID
Kearsifan Lokal	KL01 - KL05	0.799 - 0.867	VALID
Kewirausahaan	WR01 - WR05	0.758 - 0.876	VALID
Pemerintah	GV01 - GV05	0.844 - 0.896	VALID
Pengembangan UMKM	PU01 - PU04	0.839 - 0.885	VALID
Promosi	PR01 - PR04	0.408 - 0.854	VALID
Teknologi	TI01 - TI05	0.473 - 0.891	VALID

Figure 2. Bootstrapping Results



Distinctive to this research is the formulation of a comprehensive entrepreneurial ecosystem model that concurrently measures internal operational capacities alongside external institutional support. Rather than evaluating digital transformation or product innovation in isolation, these findings demonstrate that sustained MSME development requires a simultaneous synthesis of local cultural identity, active academic mentoring, and strategic government backing.

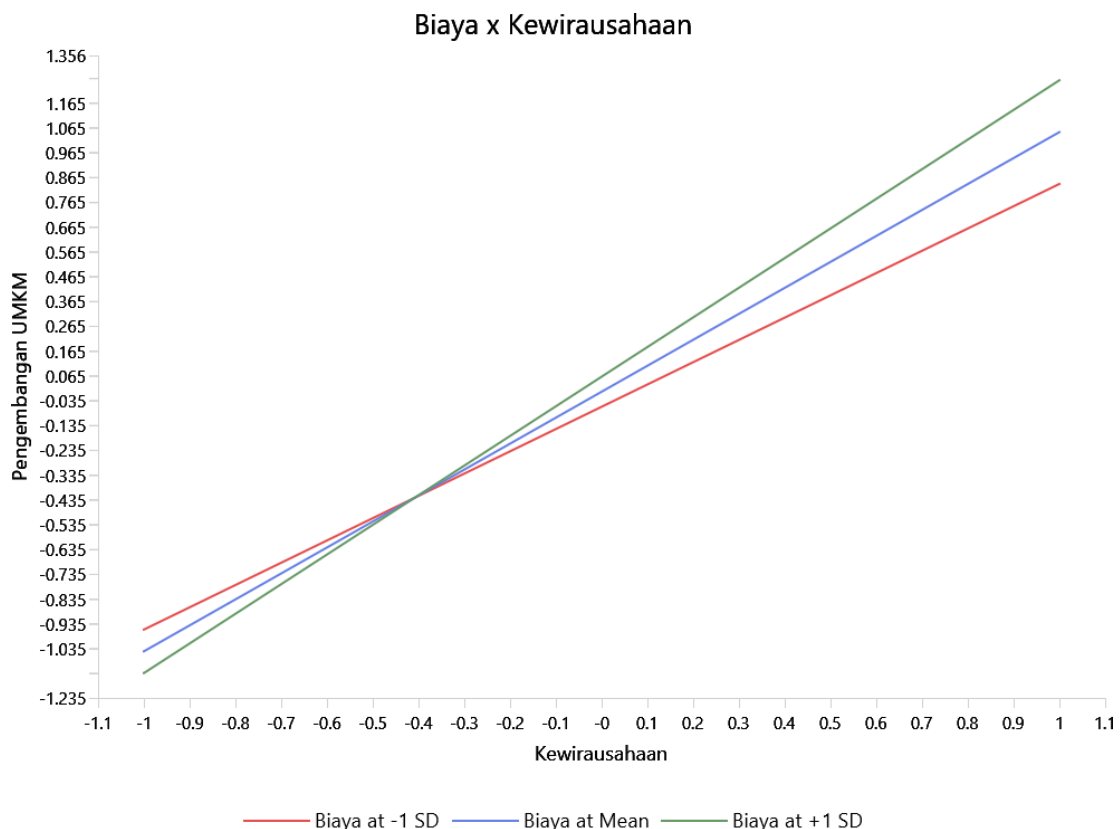
Structural Model Evaluation

Empirical research requires rigorous validation to ensure that survey indicators accurately capture abstract organizational constructs. Researchers documented that strong outer loading scores verify the convergent validity of a measurement instrument (Hair et al., 2024). Furthermore, establishing this measurement reliability is essential before evaluating the complex causal relationships within structural equations (Henseler et al., 2023). Once validated, the structural paths demonstrated substantial explanatory power for the latent variables (Richter et al., 2023). The bootstrapping procedure subsequently confirmed these interactions by producing highly significant statistical values across the entire structural network (Hair et al., 2022). Experts emphasized that such simultaneous prediction models effectively map complex business ecosystems (Sarstedt et al., 2023). Grounded in the Resource-Based View, the hypothesis positing that the integrated structural measurement model is valid and reliable is supported.

Ecosystem Collaboration and Digital Innovation

Collaborative ecosystems fundamentally drive business expansion by merging internal innovative capacities with external institutional support. Scholars demonstrated that integrating technological infrastructure with academic partnerships critically elevates competitive advantage in modern digital economies (Kraus et al., 2023). Consistent with this, Kwartama and Ahmed (2026) found that digital transformation initiatives in maritime logistics significantly enhanced customer loyalty and operational performance, highlighting the cross-sectoral relevance of digital integration. Moreover, supportive governmental policy frameworks and structured collaborative networks play a vital role in stimulating local market expansion (Audretsch et al., 2022). Consequently, robust entrepreneurial capabilities empower business owners to leverage these diverse external resources to generate tangible, market-ready product innovations (Nambisan et al., 2023). Grounded in the Triple Helix theory, the hypothesis positing that institutional collaboration and technological adoption positively influence MSME development is supported.

Figure 3. Simple Slope Interaction Plot



The Moderating Mechanism of Operational Costs

Resource constraints function as a critical boundary condition that dictates the ultimate efficacy of entrepreneurial activities. Methodologists indicated that interaction plots effectively illustrate how varying levels of a moderator alter the trajectory of a primary structural relationship (Hayes, 2022). Within this specific operational context, maintaining efficient cost management significantly amplifies the positive impact of entrepreneurial capability on overall business growth (Aguinis

& Glavas, 2023). This finding aligns with Kwartama and Samiyono (2025), who demonstrated that minimizing operational costs and maximizing customer satisfaction are interdependent strategies that jointly enhance company performance in maritime transport. The hypothesis positing that cost positively moderates the relationship between entrepreneurial capability and enterprise development is supported.

CONCLUSION

This study investigated the structural factors driving the development of home-based Micro, Small, and Medium Enterprises through an integrative framework of internal capabilities and external support mechanisms. The empirical evaluation confirmed that integrating technological adoption with active academic mentoring and government support significantly accelerates enterprise growth. Furthermore, strong entrepreneurial capability directly translates these external resources into viable product innovations. Crucially, the analysis revealed that efficient cost management acts as a vital moderating mechanism, substantially amplifying the positive impact of entrepreneurial skills on business expansion. This study contributes a holistic ecosystem model that bridges the gap between individual entrepreneurial traits and institutional support structures. Future research should expand the geographic scope of the sample and incorporate additional operational variables to test this integrative development model more comprehensively.

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