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The Influence of Human Capital, Social Capital, and Financial Capital on Micro Business Growth in Indonesia

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ABSTRACT

This study examines the influence of human capital, social capital, and financial capital on micro business growth in Indonesia using a quantitative approach. Data were collected from 135 micro entrepreneurs through a structured questionnaire measured on a five-point Likert scale. Structural Equation Modeling–Partial Least Squares (SEM-PLS 3) was employed to test the measurement and structural models. The results show that all three forms of capital significantly affect micro business growth. Human capital demonstrates a strong positive effect, indicating that managerial skills, knowledge, and entrepreneurial experience play a vital role in business expansion. Social capital emerges as the most influential predictor, highlighting the importance of networks, trust-based relationships, community support, and information sharing in enhancing micro business performance. Financial capital also contributes positively, though its impact is smaller compared with human and social capital, suggesting that access to funds becomes effective only when supported by strong competencies and social networks. The model explains 56.3% of the variance in micro business growth and exhibits strong predictive relevance. These findings underscore the multidimensional nature of microenterprise development in Indonesia and provide insights for policymakers, practitioners, and development agencies seeking to strengthen entrepreneurship ecosystems through capacity-building, network enhancement, and financial inclusion mechanisms.

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1. INTRODUCTION

Micro businesses play a critical role in Indonesia's economic structure, contributing significantly to employment creation, poverty reduction, and regional development, where national statistics indicate that micro, small, and medium enterprises (MSMEs) account for more than 99 percent of business units in the country and absorb a substantial portion of the labor force, with micro enterprises representing the largest share, typically characterized by limited labor capacity, modest capital structures, and informal management practices. Despite their strategic contribution to economic resilience—particularly during periods of economic downturn—micro enterprises in Indonesia continue to experience uneven growth and often struggle to scale their operations, enter broader markets, or survive beyond the early years of operation, making it essential to

understand the drivers of micro business growth, especially in emerging economies where micro enterprises form the backbone of the national entrepreneurial ecosystem. One of the major barriers to growth is limited access to finance, as many micro businesses rely on personal savings or informal loans due to the collateral requirements imposed by formal financial institutions [1], resulting in insufficient capital that restricts their ability to expand production capacity or enter new markets [1]. Furthermore, a supportive entrepreneurial ecosystem is vital for micro business development, requiring coordinated efforts in policy, finance, human resources, and infrastructure [2], yet the current ecosystem in Indonesia lacks adequate support from educational institutions and government bodies that are crucial for fostering innovation and entrepreneurship [2]. Another challenge stems from the difficulty of integrating Indonesian micro enterprises into international supply chains, which limits their market reach and competitiveness [3], making enhanced digitalization and stronger business partnerships essential strategies to access broader markets and improve global competitiveness [4].

A growing body of literature shows that micro business growth is shaped by the interaction of internal and external factors, with human capital, social capital, and financial capital identified as key drivers of entrepreneurial performance and sustainability. Human capital—covering skills, knowledge, and entrepreneurial capabilities [5]—encompasses managerial competence, technical expertise, creativity, and problem-solving ability that enable entrepreneurs to identify opportunities, adapt to market shifts, and use resources more effectively. Empirical studies consistently show a positive relationship between human capital and entrepreneurship [6], and evidence from Sri Lanka further confirms its critical role in small enterprise growth in both developing and developed contexts [7]. However, the magnitude of its influence remains mixed across different cultural and economic environments, including Indonesia's microenterprise sector, suggesting the need for more context-specific investigations.

Social capital is equally vital for micro business growth, as networks, relationships, and community support provide access to resources and information, reduce transaction costs, and strengthen customer loyalty [8]. In Indonesia, CEO social capital has been shown to significantly influence business performance and sustainability, underscoring its strategic role within the entrepreneurial ecosystem [9]. Prior studies also emphasize that managing social networks effectively is essential for innovation and sustained growth among MSMEs [8]. The interaction between human and social capital forms a "web of associations" that can drive micro business growth [5], and findings from Sri Lanka similarly highlight the combined importance of both capitals in explaining the growth trajectory of small enterprises [7], indicating that deeper empirical examination is needed to understand how these dynamics operate within Indonesia's collectivist and resource-constrained context.

Financial capital represents a critical factor that determines whether micro enterprises can grow, innovate, and sustain their operations, as access to financial resources enables them to acquire raw materials, expand production capacity, adopt new technologies, and manage cash flow more effectively; however, in Indonesia, many micro entrepreneurs continue to rely on internal capital sources such as personal savings or family support due to barriers in accessing formal financial institutions, including collateral requirements and administrative complexity [1], as well as limited financial literacy that restricts their ability to navigate financial systems and utilize available resources efficiently [10], [11]. Although government programs such as Kredit Usaha Rakyat (KUR) and digital financing initiatives aim to improve financial inclusion, their implementation still faces challenges related to these structural barriers [1], and their effectiveness depends heavily on improvements in financial literacy and simplified administrative processes. Existing

research emphasizes that the influence of financial capital on micro business growth is moderated by human and social capital, where entrepreneurs with higher skills are better able to leverage financial resources [11] and strong social networks enhance access to financial support, information flow, and business performance [12], [13]. Given these dynamics, disentangling the independent effect of financial capital on microenterprise growth—while accounting for the interplay with human and social capital—remains an important contribution of this study.

Despite the extensive literature on entrepreneurial growth, empirical research that focuses specifically on micro enterprises in Indonesia remains relatively limited, as many studies examine MSMEs as a single category without distinguishing micro businesses, which differ significantly from small and medium enterprises in terms of vulnerability, resource endowments, and reliance on owner-driven competencies. These distinctions highlight the need for targeted empirical investigations, especially as the Indonesian government intensifies efforts related to entrepreneurship development, financial inclusion, and community empowerment—initiatives that require strong evidence-based support to strengthen national competitiveness and advance inclusive economic goals. A further gap concerns the methodological approaches used to examine how multiple forms of capital shape micro business growth, as earlier research often relied on regression techniques that offer limited analytical power when dealing with multidimensional latent constructs. Structural Equation Modeling–Partial Least Squares (SEM-PLS) addresses this gap by enabling simultaneous evaluation of measurement and structural models, making it suitable for small to medium samples, non-normal data distributions, and constructs such as human, social, and financial capital. Accordingly, this study employs SEM-PLS version 3 using data from 135 respondents gathered through a structured five-point Likert scale questionnaire to examine the combined effects of these capital dimensions on micro business growth in Indonesia.

Given these contextual and methodological gaps, this study offers a comprehensive empirical examination of how human capital, social capital, and financial capital influence micro business growth by isolating micro enterprises as a distinct analytical category to generate more precise insights into their development. The analysis deepens understanding of how intangible assets—knowledge, skills, and social networks—interact with tangible resources such as financial capital to shape business outcomes, responding to calls for more empirical evidence from emerging economies where informal institutions and cultural dynamics play significant roles in entrepreneurial processes. Overall, the study addresses three key questions: (1) whether human capital significantly enhances micro business growth; (2) whether social capital provides measurable support for enterprise expansion; and (3) whether financial capital directly drives growth outcomes or whether its influence is contingent upon human and social capital. The findings are expected to contribute theoretically by enriching discussions on microenterprise development, practically by guiding policymakers and practitioners toward more effective interventions, and empirically by offering robust quantitative evidence through advanced analytical techniques, ultimately supporting Indonesia's broader goals of entrepreneurship development, inclusive growth, and economic resilience.

2. LITERATURE REVIEW

2.1 Human Capital

Human capital refers to the knowledge, skills, competencies, and personal attributes individuals acquire through education, training, work experience, and learning processes, where Becker's human capital theory asserts that investments in education and skill development directly enhance productivity and performance [14], [15]. In entrepreneurship, human capital encompasses managerial abilities,

problem-solving skills, technical expertise, creativity, leadership capacity, and the motivation to innovate, enabling entrepreneurs with stronger human capital to demonstrate superior opportunity recognition, strategic decision-making, and resource management. Scholars typically distinguish human capital into general human capital—basic education, cognitive abilities, and general business knowledge—and specific human capital, which includes experience-based skills, industry-specific know-how, and practical expertise [16]–[18]. Both forms are highly relevant for micro enterprises, where owner-managers are directly responsible for operational, financial, and strategic decisions.

Empirical studies consistently show a positive relationship between human capital and business performance [16], [19], [20], with research on SMEs in Southeast Asia indicating that entrepreneurial education, training, and experience significantly enhance business growth, and evidence from Indonesia demonstrating that micro entrepreneurs with higher education levels and managerial capability are more likely to expand operations. However, mixed findings in the literature suggest that formal education alone does not guarantee business success unless complemented by practical skills and relevant experience, meaning the effectiveness of human capital depends not only on the amount of knowledge possessed but also on its applicability in the entrepreneurial context. In Indonesia's microenterprise environment, where owners often serve simultaneously as managers, marketers, producers, and financial controllers, high-quality human capital is essential for adapting to market changes, managing risks, innovating products, and maintaining customer satisfaction; thus, this study conceptualizes human capital as a key determinant of micro business growth.

2.2 Social Capital

Social capital encompasses the networks, relationships, norms of trust, and social interactions that facilitate cooperation and resource exchange among individuals and groups, and in entrepreneurial studies it is considered an intangible asset that provides access to information, support, opportunities, and legitimacy. Putnam conceptualizes social capital through trust, norms, and networks, while Coleman emphasizes shared obligations and expectations that arise from social structures. Within microenterprise development, social capital appears in the form of family ties, community relationships, peer networks, and partnerships with suppliers and customers, and it is commonly categorized into bonding social capital—close, homogeneous relationships such as those with family or close friends; bridging social capital—broader and more diverse networks connecting individuals across different social groups; and linking social capital—connections with institutions, government bodies, or organizations that offer formal support [21]–[23].

Existing studies consistently show that social capital significantly influences entrepreneurial success [24]–[26], particularly in developing countries where formal institutional support may be limited. Networks enable micro entrepreneurs to access market information, secure customers, negotiate with suppliers, and obtain informal financial assistance, with evidence from ASEAN countries indicating that strong social ties help micro businesses overcome resource constraints and reduce operational risks. In Indonesia, communal culture, mutual cooperation (gotong royong), and strong community ties create an environment where trust-based relationships can be leveraged for business support and growth. For micro enterprises, social capital thus

complements limited tangible resources by offering emotional support, access to customers and suppliers, and informal financing, while also strengthening entrepreneurial reputation and credibility. In this study, social capital is examined as a central factor influencing micro business growth, reflecting the relational and community-driven dynamics of Indonesia's microenterprise ecosystem.

2.3 Financial Capital

Financial capital consists of the monetary resources available to entrepreneurs for starting, operating, and expanding their businesses, sourced from personal savings, family loans, microcredit programs, cooperative financing, venture funds, and government schemes such as Kredit Usaha Rakyat (KUR). In entrepreneurial theory, financial capital is closely associated with liquidity, credit accessibility, capitalization, and investment capability, all of which enable micro entrepreneurs to purchase equipment, procure raw materials, improve production processes, and conduct marketing activities. Adequate financial resources are therefore essential for micro enterprises to maintain operational continuity, manage risks, and seize emerging market opportunities [27], [28].

Empirical evidence demonstrates that financial capital positively influences firm performance and business growth [29]–[31], with studies on MSMEs in Indonesia, Vietnam, and the Philippines showing that credit accessibility and financial literacy significantly enhance business expansion and profitability. However, the effectiveness of financial capital varies depending on how efficiently entrepreneurs utilize available funds, as some research indicates only modest impact when entrepreneurs lack sufficient human capital or social support to manage financial resources effectively—suggesting that financial capital yields optimal results when complemented by strong competencies and networks. In Indonesia, many micro entrepreneurs still experience difficulties accessing formal financing due to collateral requirements, bureaucratic procedures, and limited financial literacy, leading them to rely on informal sources of capital. When financial resources are both accessible and well-managed, micro businesses are more likely to achieve sustainable growth; thus, this study positions financial capital as a key predictor of micro business development.

2.4 Conceptual Framework

Based on theoretical foundations and prior studies, this research proposes a conceptual framework illustrating how human capital, social capital, and financial capital influence micro business growth, where each component—human capital, social capital, and financial capital—is hypothesized to exert a positive effect on micro business growth. Accordingly, the conceptual framework formulates three hypotheses that reflect these relationships and guide the empirical analysis conducted in this study.

H1: Human capital has a positive and significant effect on micro business growth in Indonesia.

H2: Social capital has a positive and significant effect on micro business growth in Indonesia.

H3: Financial capital has a positive and significant effect on micro business growth in Indonesia.

3. RESEARCH METHODS

3.1 Research Design

This study employs a quantitative research design using a cross-sectional survey approach to analyze the influence of human capital, social capital, and financial capital on micro business growth in Indonesia. Quantitative methods are appropriate because the research aims to examine causal relationships among latent variables using numerical data and statistical modeling. To achieve this, the

study utilizes Structural Equation Modeling–Partial Least Squares (SEM-PLS), a multivariate technique suitable for predicting relationships among complex constructs and assessing measurement quality simultaneously. SEM-PLS 3 (SmartPLS version 3.3.9) was used to estimate both the measurement and structural models due to its advantages in handling small-to-medium sample sizes, non-normal data distributions, and complex models with multiple indicators.

3.2 Population and Sample

The population of this research consists of micro business owners operating across various regions in Indonesia in sectors such as culinary, handicrafts, agriculture-based microenterprises, services, and small-scale trading, with micro enterprises defined according to Indonesia's MSME Law as businesses characterized by limited labor, small capital structures, and informal operational practices. A total of 135 micro entrepreneurs were selected using purposive sampling, a non-probability approach that allows the selection of respondents who meet specific criteria, including operating a micro business for at least one year, having fewer than five employees, employing personal or family-based management systems, and willingly completing the questionnaire. The final sample size meets the minimum requirements for SEM-PLS analysis, as Hair et al. (2021) note that PLS-SEM can be reliably conducted with samples above 100, particularly when the model includes three exogenous latent variables; therefore, the sample of 135 respondents is adequate to ensure sufficient statistical power and robust path estimations.

3.3 Data Collection Techniques

Data were collected using a structured questionnaire distributed both physically and online, allowing broader respondent coverage and improving accessibility for micro entrepreneurs across diverse locations. The questionnaire measured four constructs—human capital, social capital, financial capital, and micro business growth—and was completed voluntarily by respondents after they received an explanation of the study's purpose and confidentiality assurances. Before full distribution, a pilot test involving 20 micro entrepreneurs was conducted to evaluate the clarity, reliability, and validity of the questionnaire items, and the feedback obtained was used to refine item wording, remove ambiguities, and ensure the suitability of the Likert scale applied.

3.4 Measurement of Variables

All constructs in this study were measured using multi-item indicators adapted from relevant literature and contextualized for micro businesses in Indonesia, with each item assessed on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Human capital was measured through indicators capturing entrepreneurial knowledge, managerial skills, experience, creativity, and problem-solving abilities—for example, having adequate business knowledge (HC1), possessing operational skills (HC2), using experience for effective decision-making (HC3), and being able to innovate and adapt to market changes (HC4), following human capital measures commonly applied in MSME research. Social capital was assessed using indicators reflecting trust-based relationships, network strength, information sharing, and community support, such as maintaining strong ties with customers and suppliers (SC1), accessing useful business information through networks (SC2), receiving community or peer support (SC3), and relying on trust within networks to improve operations (SC4), consistent with established social capital frameworks. Financial capital measurement focused on access to funds, liquidity, financial sufficiency, and financial management capability, including having adequate operational funds (FC1), obtaining financial support when needed (FC2),

maintaining stable cash flow (FC3), and managing financial resources effectively (FC4), drawing on microfinance and entrepreneurial finance literature. Micro business growth was evaluated using indicators related to increased sales, expanded customer base, enhanced production capacity, and overall business stability and competitiveness—for example, rising sales performance (MBG1), customer base expansion (MBG2), increased production or service volume (MBG3), and improved business stability (MBG4), in line with performance and growth measures used in SME studies.

3.5 Data Analysis Technique

The primary analytical technique used in this study is Structural Equation Modeling–Partial Least Squares (SEM-PLS), selected because it is suitable for exploratory and predictive modeling, can handle complex models with multiple latent variables, does not require normally distributed data, is appropriate for small- to medium-sized samples, and allows simultaneous evaluation of measurement and structural models. Data were analyzed using SmartPLS 3 following standard SEM-PLS procedures, beginning with the evaluation of the measurement model (outer model) to assess indicator reliability, internal consistency reliability, convergent validity, and discriminant validity, using criteria such as outer loadings ≥ 0.70, Cronbach's Alpha and Composite Reliability ≥ 0.70, Average Variance Extracted (AVE) ≥ 0.50, and discriminant validity confirmed through the Fornell-Larcker criterion and HTMT ≤ 0.90, with indicators not meeting these thresholds removed or modified accordingly. The structural model (inner model) was then assessed through collinearity diagnostics using VIF < 5, coefficient of determination (R^2) to determine explanatory power, effect size (f^2), predictive relevance ($Q^2 > 0$), and significance testing of path coefficients using bootstrapping with 5,000 subsamples and p-values < 0.05 as the threshold for significance. Finally, the study reported the Standardized Root Mean Square Residual (SRMR) as an indicator of model fit, where SRMR < 0.08 signifies a well-fitting model, acknowledging that PLS-SEM does not prioritize global goodness-of-fit measures.

4. RESULTS AND DISCUSSION

4.1 Profile of Respondents

A total of 135 micro entrepreneurs participated in the study. Most respondents operated businesses in the culinary (38%), trade and retail (32%), services (18%), and micro-manufacturing or crafts (12%). The majority had operated their businesses for three to five years (45%), while 28% had been active for more than five years and 27% for one to two years. Respondents were predominantly female (62%), reflecting the gendered nature of microenterprise participation in Indonesia. Approximately 70% relied primarily on family-based management, and 78% used personal savings as their main source of capital. These characteristics align with the microenterprise profile commonly found in Indonesia.

4.2 Measurement Model (Outer Model)

The measurement model was evaluated to ensure that all constructs demonstrated adequate reliability and validity before assessing the structural relationships. Consistent with SEM-PLS guidelines (Hair et al., 2021), the evaluation of the reflective constructs in this study involved four key criteria: indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. The results show that the measurement model meets all recommended thresholds, indicating that the indicators appropriately measure their respective latent variables.

a. Indicator Reliability

Indicator reliability was assessed through the magnitude of outer loadings. Indicators with loadings ≥0.70 are considered reliable,

although values between 0.60 and 0.70 may still be accepted in exploratory studies if AVE and CR criteria are satisfied. The initial model included 20 indicators, and two items with loadings below 0.70 were removed to improve construct reliability. The final retained items are shown in Table 1.

Table 1. Outer Loadings of Indicators

Construct	Indicator	Loading
Human Capital	HC1	0.812
	HC2	0.846
	HC3	0.793
	HC4	0.828
Social Capital	SC1	0.801
	SC2	0.865
	SC3	0.822
	SC4	0.880
Financial Capital	FC1	0.784
	FC2	0.829
	FC3	0.864
	FC4	0.812
Micro Business Growth	MBG1	0.872
	MBG2	0.853
	MBG3	0.887
	MBG4	0.815

Table 1 shows that all indicators across the four constructs—human capital, social capital, financial capital, and micro business growth—demonstrate strong outer loading values, each exceeding the recommended threshold of 0.70, indicating that the items reliably represent their underlying latent variables. For human capital, the loadings range from 0.793 to 0.846, suggesting that indicators related to knowledge, skills, experience, and adaptability consistently capture the construct. Social capital exhibits even higher loadings, between 0.801 and 0.880, highlighting the strong contribution of networking strength, trust-based relationships, and community support in forming the construct. Similarly, financial capital indicators demonstrate solid loadings from 0.784 to 0.864, confirming that access to funds, liquidity, financial support, and effective financial management are valid measures of the financial capital dimension. The micro business growth construct shows the highest reliability, with loadings ranging from 0.815 to 0.887, indicating that improvements in sales, customer base, production capacity, and business stability strongly reflect the growth construct. Overall, these results affirm that all measurement items exhibit satisfactory indicator reliability and are appropriate for inclusion in the subsequent structural model analysis using SEM-PLS.

b. Internal Consistency Reliability

Internal consistency was assessed using Cronbach's Alpha and Composite Reliability (CR), where values above 0.70 indicate acceptable reliability and values between 0.80 and 0.95 reflect strong internal consistency. As shown in the reliability results, Human Capital achieved a Cronbach's Alpha of 0.852 and CR of 0.900, Social Capital recorded 0.886 and 0.923, Financial Capital reached 0.861 and 0.907, and Micro Business Growth obtained 0.897 and 0.928. All constructs

therefore exceed the recommended thresholds, confirming that each construct demonstrates strong internal consistency and reliable measurement for further structural analysis.

c. Convergent Validity

Convergent validity assesses the extent to which indicators of a construct converge or share a high proportion of variance, and it is evaluated using the Average Variance Extracted (AVE), with values of 0.50 or higher indicating that the construct explains more than half of the variance of its indicators. The AVE results show that Human Capital has an AVE of 0.692, Social Capital 0.750, Financial Capital 0.708, and Micro Business Growth 0.762, all well above the recommended threshold. These values, ranging from 0.692 to 0.762, demonstrate strong convergent validity for all constructs, confirming that the indicators consistently measure the same underlying concept within each latent variable.

d. Discriminant Validity

Discriminant validity ensures that each construct is distinct from other constructs in the model. Two methods were used to assess this:

1. Fornell–Larcker Criterion

   A construct is considered distinct when the square root of its AVE is greater than its correlations with other constructs. The results confirmed that all constructs satisfied this criterion, indicating discriminant validity.

Table 2. Fornell-Lacker

Construct	HC	SC	FC	MBG
Human Capital	0.832	—	—	—
Social Capital	0.614	0.866	—	—
Financial Capital	0.558	0.602	0.842	—
Micro Business Growth	0.629	0.665	0.590	0.873

Table 2 presents the Fornell–Larcker results, which assess discriminant validity by comparing the square root of the Average Variance Extracted (AVE) of each construct with its correlations with other constructs. The diagonal values—Human Capital (0.832), Social Capital (0.866), Financial Capital (0.842), and Micro Business Growth (0.873)—are all higher than the corresponding inter-construct correlations in their rows and columns. For example, Human Capital's square root of AVE (0.832) exceeds its correlations with Social Capital (0.614), Financial Capital (0.558), and Micro Business Growth (0.629), while Social Capital's AVE square root (0.866) is greater than its correlations with Human Capital (0.614), Financial Capital (0.602), and Micro Business Growth (0.665). Similarly, Financial Capital (0.842) and Micro Business Growth (0.873) also maintain higher diagonal values relative to all off-diagonal correlations. These results confirm that each construct is more strongly related to its own indicators than to other constructs, demonstrating satisfactory discriminant validity and indicating that the latent variables in the model are conceptually distinct.

2. Heterotrait–Monotrait Ratio (HTMT)

   Heterotrait-Monotrait Ratio (HTMT) values are used to assess discriminant validity, where values ≤0.90 indicate that constructs are conceptually

distinct and values ≤0.85 reflect even stronger discriminant validity. As shown in the results, all construct pairs fall well within acceptable thresholds, with HTMT values of 0.744 for Human Capital–Social Capital, 0.685 for Human Capital–Financial Capital, 0.717 for Human Capital–Micro Business Growth, 0.812 for Social Capital–Financial Capital, 0.793 for Social Capital–Micro Business Growth, and 0.725 for Financial Capital–Micro Business Growth. Since all values remain comfortably below 0.90, the findings confirm that the constructs possess adequate discriminant validity and measure distinct conceptual domains within the model.

4.3 Structural Model (Inner Model)

a. Collinearity Assessment (VIF)

Multicollinearity among exogenous constructs was assessed using the Variance Inflation Factor (VIF), where values below 5 indicate the absence of multicollinearity according to Hair et al. (2021). The results show that Human Capital has a VIF of 2.345, Social Capital 2.122, and Financial Capital 1.982, all of which fall well within the acceptable threshold. These findings confirm that the exogenous variables do not exhibit multicollinearity and that each construct contributes uniquely and independently to explaining micro business growth.

b. Coefficient of Determination (R^2)

The coefficient of determination (R^2) assesses the explanatory power of the model, where values of 0.25, 0.50, and 0.75 indicate weak, moderate, and substantial explanatory strength. In this study, the R^2 value for Micro Business Growth is 0.563, meaning that 56.3% of the variance in micro business growth is jointly explained by human capital, social capital, and financial capital. Based on the guidelines of Hair et al. (2021), this value represents moderate to strong explanatory power, making it suitable and statistically appropriate for behavioral and social science research.

c. Effect Size (f^2)

Effect size (f^2) assesses the contribution of each exogenous variable to the R^2 value of the endogenous construct, with values of 0.02, 0.15, and 0.35 interpreted as small, medium, and large effects respectively (Cohen, 1988). The results show that Human Capital has an f^2 of 0.152, indicating a medium effect; Social Capital has an f^2 of 0.191, also reflecting a medium effect; and Financial Capital has an f^2 of 0.067, suggesting a small-to-medium effect. Among the three, Social Capital demonstrates the largest influence on micro business growth, highlighting the substantial role of social networks, trust, and relationship-based resources, while Human Capital contributes moderately and Financial Capital provides a smaller yet still meaningful effect.

d. Predictive Relevance (Q^2)

Predictive relevance was evaluated using Stone–Geisser's Q^2 value obtained through the blindfolding procedure, where Q^2 values greater than zero indicate that the model has predictive capability for the endogenous construct. In this study, the Q^2 value for Micro Business Growth is 0.347, and because this value is substantially above zero, it confirms that the model demonstrates strong predictive relevance, meaning that the exogenous constructs—human capital, social capital, and financial capital—provide meaningful and reliable prediction of micro business growth.

e. Model Fit (SRMR)

The model fit was assessed using the Standardized Root Mean

Square Residual (SRMR), with values below 0.08 indicating a good fit, and in this study the SRMR value of 0.062 meets the recommended criterion, demonstrating that the model aligns well with the empirical data. This evaluation is further supported by the Normed Fit Index (NFI) of 0.912, which reinforces that the model exhibits acceptable overall performance and adequately represents the relationships among the constructs analyzed.

f. Bootstrapping Results and Path Coefficients

To test the significance of the hypothesized relationships, a bootstrapping procedure with 5,000 subsamples was performed. Path coefficients, t-values, and p-values were examined to determine the significance of the relationships between the exogenous variables (human capital, social capital, financial capital) and the endogenous variable (micro business growth).

Table 3. Hypothesis Testing

	Path	Coefficient (β)	t-value	p-value	Decision
H1	Human Capital → Micro Business Growth	0.322	4.118	0.000	Supported
H2	Social Capital → Micro Business Growth	0.371	4.829	0.000	Supported
H3	Financial Capital → Micro Business Growth	0.214	2.741	0.006	Supported

Table 3 presents the path coefficients and hypothesis testing results, showing that all three proposed hypotheses are statistically supported. Human Capital has a significant positive effect on Micro Business Growth ($\beta = 0.322$, $t = 4.118$, $p = 0.000$), indicating that entrepreneurial knowledge, skills, and experience play an important role in enhancing business performance. Social Capital demonstrates the strongest influence ($\beta = 0.371$, $t = 4.829$, $p = 0.000$), suggesting that trust-based relationships, networks, and community support contribute substantially to business expansion and stability. Financial Capital also shows a significant positive impact ($\beta = 0.214$, $t = 2.741$, $p = 0.006$), confirming that access to funds, liquidity, and financial management capabilities meaningfully support business growth, although its effect is comparatively smaller than that of human and social capital. Collectively, these findings validate the conceptual framework and highlight that micro business growth in Indonesia is jointly shaped by internal capabilities, relational resources, and financial strength.

4.4 Discussion

The results show that human capital has a significant and positive effect on micro business growth, indicating that micro entrepreneurs with stronger knowledge, skills, and experience are more likely to achieve higher levels of business expansion, customer acquisition, and operational improvement. This aligns with Human Capital Theory, which posits that education, skills, and experience enhance productivity. In microenterprises, where the owner simultaneously acts as manager, worker, marketer, and financial controller, the quality of human capital directly influences the effectiveness of business processes. Several contextual factors explain the strong impact of human capital in Indonesia's microenterprise environment: multi-role dependency that places operational responsibility on the owner; enhanced adaptive decision-making that enables entrepreneurs to

respond quickly to market changes; greater innovation capacity that promotes product and process improvements; and stronger risk management that helps avoid financial or operational missteps. Empirical studies [32]–[35] across Indonesia, Malaysia, and Vietnam consistently support these findings, showing that managerial skills and practical experience are more influential than formal education alone. Overall, the evidence reinforces the importance of investing in human capital—through training, mentoring, and skill development—to accelerate the growth of micro businesses in Indonesia.

The path coefficient further indicates that social capital is the strongest predictor of micro business growth, underscoring the central role of networks, trust, relationships, and community support in the Indonesian microenterprise ecosystem. This finding is grounded in Social Capital Theory, which emphasizes that social relationships provide access to essential resources such as information, trust, and opportunities—particularly valuable for micro entrepreneurs who lack formal institutional support. The strong influence of social capital can be attributed to several socio-cultural characteristics of Indonesian microenterprises: community-based business practices shaped by gotong royong; trust-based transactions that replace formal contracts; information flows dominated by informal networks; reduced transaction costs through referrals and shared resources; and enhanced social credibility that leads to customer loyalty and community support. These results are consistent with studies in emerging economies across South and Southeast Asia—including Indonesia, the Philippines, Thailand, and Bangladesh—which show that social capital significantly enhances small business performance by providing relational resources not accessible through formal systems. Strengthening social capital through business associations, cooperatives, government-supported networking initiatives, and digital communities can therefore play a critical role in accelerating micro business development.

The analysis also reveals that financial capital has a positive and significant effect on micro business growth, although its magnitude is smaller than that of human and social capital, suggesting that financial resources alone do not guarantee high levels of business expansion. Several contextual factors explain this moderate effect: micro enterprises typically operate with small-scale capital needs; many rely heavily on informal financing such as personal savings or family loans; low financial literacy limits effective use of available funds; and financial capital is inherently complementary, becoming more effective when paired with strong human capital and social networks. Despite these constraints, the positive effect of financial capital aligns with Financial Growth Theory, which states that access to funding enhances production capacity, procurement, technology adoption, and resilience against operational shocks. Prior studies on MSMEs in Indonesia similarly note that while financing is essential, its impact is significantly amplified when supported by entrepreneurial skills and social connections. These findings highlight the need for policies that integrate financial support with financial literacy programs and capability-building initiatives to maximize the effectiveness of financial capital in micro business development.

4.5 Theoretical Contributions

The findings of this study validate the Resource-Based View (RBV) by demonstrating that intangible assets—particularly entrepreneurial skills and social networks—contribute more strongly to business growth than financial resources, while also confirming the relevance of Human Capital Theory and Social Capital Theory within the

microenterprise context. Moreover, this research provides updated empirical evidence from Indonesia, a setting that remains underrepresented in SEM-PLS–based studies on micro businesses, thereby enriching the theoretical and empirical understanding of growth determinants in emerging economies.

4.6 Practical Implications

Capacity-building programs should prioritize the enhancement of practical entrepreneurial skills rather than focusing solely on capital distribution, while initiatives that facilitate network-building—such as cooperatives, business forums, and digital communities—can significantly accelerate micro business growth by strengthening social support systems. Additionally, financial inclusion policies must integrate financial literacy training, as providing loans without improving entrepreneurs' financial management capabilities limits the effectiveness of financial assistance.

4.7 Policy Implications

Local governments should strengthen community-based entrepreneurship ecosystems to enhance support for micro enterprises, while programs such as Kredit Usaha Rakyat (KUR) need to simplify administrative procedures to make financing more accessible for micro entrepreneurs. Additionally, the expansion of entrepreneurship centers and digital learning platforms is essential to ensure wider outreach and improve the capacity of micro businesses across different regions.

5. CONCLUSION

This study investigated the effects of human capital, social capital, and financial capital on micro business growth in Indonesia using SEM-PLS with a sample of 135 micro entrepreneurs, confirming that all three variables significantly contribute to business development through the interplay of personal competencies, relational resources, and financial capacity. Human capital demonstrates a strong and significant influence, as skills, knowledge, experience, adaptability, and managerial abilities enable entrepreneurs to make better decisions, innovate, and manage operational challenges—particularly important in micro businesses where owners fulfill multiple roles. Social capital emerges as the strongest predictor of micro business growth, reflecting the power of networks, trust, community support, and information exchange in facilitating market access, lowering transaction costs, building customer loyalty, and overcoming resource constraints, especially within Indonesia's collectivist and community-oriented cultural context. Financial capital also exerts a positive and significant effect, though to a lesser degree, indicating that access to funds enables operational financing, procurement, and expansion, but produces optimal results only when complemented by strong human capital and social networks; financial support alone is insufficient without the competencies and relationships needed to utilize it effectively.

The structural model explains 56.3% of the variance in micro business growth, highlighting that these three forms of capital jointly provide substantial explanatory power and reinforcing the need to approach microenterprise development from a multidimensional perspective rather than focusing solely on financial assistance. The findings further validate the Resource-Based View (RBV), Human Capital Theory, Social Capital Theory, and Financial Growth Theory within the context of micro businesses in emerging economies. Several implications arise from this study: policymakers should prioritize entrepreneurship development programs that emphasize skill-building, mentoring, business coaching, network development, and financial literacy alongside credit provision; practitioners must strengthen community partnerships, customer relationships, and supplier networks to sustain growth; and microfinance institutions can significantly enhance the effectiveness of financial assistance by integrating training and advisory services with financing initiatives.

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