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The Impact of Entrepreneurial Networks, Orientation, and Competence on Online Trading SMEs Performance in Makassar City

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ABSTRACT

This study aims to examine the effect of entrepreneurial networks, entrepreneurial orientation, and entrepreneurial competence on the performance of online trading SMEs in Makassar City. It seeks to understand how these entrepreneurial factors contribute to SMEs' success in the digital business environment.A quantitative approach was adopted using Partial Least Squares Structural Equation Modeling (PLS-SEM). Data were collected through online questionnaires distributed to 150 SME owners operating in online trading in Makassar. The measurement model and structural model were assessed for validity, reliability, and hypothesis testing.The study found that all three variables — entrepreneurial networks, entrepreneurial orientation, and entrepreneurial competence — have a significant and positive influence on SME performance. Entrepreneurial orientation was the most dominant factor, followed by entrepreneurial competence and entrepreneurial networks. The model explained 83.4% of the variance in SME performance with high predictive relevance ($Q^2 = 0.732$).This research enriches the literature on entrepreneurial dynamics by empirically validating the interplay between entrepreneurial orientation, networks, and competence in the context of digital SMEs in emerging economies. It confirms the Resource-Based View (RBV) theory by showing how internal capabilities and external linkages enhance performance.The findings provide practical guidance for SME owners to focus on building robust networks, enhancing managerial competencies, and fostering a proactive and innovative business mindset. For policymakers, the study highlights the need for support programs focusing on digital literacy, entrepreneurial training, and access to networking platforms.This study is limited to online trading SMEs in Makassar City, which may affect the generalizability of findings to other regions or industries. Future research could explore longitudinal designs, incorporate moderating variables such as digital transformation or government support, and compare SMEs across multiple regions or sectors.

1. Introduction

Small and Medium Enterprises (SMEs) play a crucial role in Indonesia's economy. According to data from the Ministry of Cooperatives and SMEs (2023), SMEs contribute over 60% of the national Gross Domestic Product (GDP) and absorb approximately 97% of the workforce. This substantial contribution demonstrates that SMEs are not merely an economic sector but a fundamental pillar of Indonesia's social and economic development (Nugraha & Hendrati, 2023). The growth of SMEs

has a direct impact on poverty alleviation, job creation, and overall economic resilience, making them a critical driver of national economic stability.

However, in their growth trajectory, SMEs face various challenges, particularly in an increasingly competitive digital era. Intensified market competition, limited access to capital, and low adoption of digital technology constitute major barriers to the sustainability and growth of SMEs (Yuen & Baskaran, 2023). Furthermore, global economic fluctuations and shifting consumer behaviors require SMEs to be more agile and adaptive to maintain their market share. The ability to leverage digital platforms, integrate innovative business models, and enhance supply chain efficiency has become essential for SMEs to sustain long-term growth (Lamperti et al., 2023).

Additionally, inadequate managerial competence and ineffective marketing strategies further constrain SMEs' opportunities to compete and expand sustainably. Many SMEs struggle with financial management, operational efficiency, and branding strategies, limiting their ability to scale beyond local markets. The lack of structured training programs and access to business mentorship further exacerbates these challenges. Addressing these issues requires collaborative efforts from government agencies, private sector stakeholders, and financial institutions to provide SMEs with the necessary resources, technological support, and policy frameworks to thrive in the digital economy (Maimunah et al., 2022).

Literature Review and Hypotheses Development

In the context of business digitalization, the success of SMEs depends not only on internal factors such as innovation and managerial competence but also on their ability to build robust entrepreneurial networks. Entrepreneurial networks refer to strategic relationships established by SMES actors with diverse stakeholders, including suppliers, customers, business partners, and government institutions. Strong networks can provide access to resources, market information, and broader business opportunities (Sullivan & Ford, 2014). A study by Tendai (2013) found that engagement in business networks significantly enhances SMES performance, particularly in expanding access to digital markets. Therefore, strengthening entrepreneurial networks is critical for SMEs as a primary strategy to improve competitiveness. Based on this understanding, the first hypothesis of this study is formulated as follows:

H1: Entrepreneurial networks have a positive and significant effect on the performance of SMEs.

In addition to entrepreneurial networks, entrepreneurial orientation plays a vital role in SMES success (Diandra & Azmy, 2021; Karnowati et al., 2023). Entrepreneurial orientation refers to the extent to which a business demonstrates a propensity to take risks, innovate, and adopt a proactive stance in responding to market changes (Manzano-Garcia & Ayala-Calvo, 2020). Previous studies indicate that SMEs with a high level of entrepreneurial orientation tend to be more innovative and adaptable to business environment shifts, ultimately enhancing their performance. Through appropriate innovation and well-designed strategies, SMEs can overcome market challenges and expand their competitiveness. Based on this rationale, the second hypothesis is formulated as follows:

H2: Entrepreneurial orientation has a positive and significant effect on the performance of SMEs.

Beyond networks and orientation, entrepreneurial competence is another key determinant of SMES performance. Entrepreneurial competence encompasses managerial skills, marketing capabilities, and the adoption of digital technology in business operations. In the digitalization context, SMEs with high competence in digital marketing and technology utilization tend to exhibit greater competitiveness compared to those relying on conventional methods (Herawati & Tjahjono, 2020). Research by Pratikto et al. (2023) emphasizes that strong entrepreneurial competence positively contributes to improved SMES performance. Accordingly, the third hypothesis is formulated as follows:

H3: Entrepreneurial competence has a positive and significant effect on the performance of SMEs.

While numerous studies have examined the relationships between entrepreneurial networks, orientation, competence, and SMES performance, there remains a gap in understanding how these factors interact in the context of online SMEs, particularly in Makassar City. As one of the largest economic hubs in Eastern Indonesia, Makassar has experienced rapid growth in SMEs. However,

challenges such as limited access to business networks and low utilization of digital technology persist as major obstacles to enhancing local SMES competitiveness.

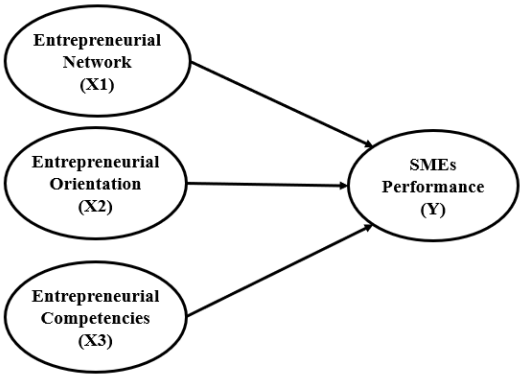

Fig. 1. Research Model Diagram

This study aims to comprehensively analyze the influence of entrepreneurial networks, orientation, and competence on the performance of online SMEs in Makassar City. Using Partial Least Squares-Structural Equation Modeling (PLS-SEM), this research is expected to provide theoretical and practical contributions by enhancing understanding of the factors affecting SMES performance and offering actionable recommendations for stakeholders to support digitally-driven SMES growth.

Furthermore, this study seeks to provide strategic recommendations for SMEs to expand their business networks, foster innovation-oriented entrepreneurial orientations, and strengthen competencies in adopting digital technologies. By doing so, the findings are anticipated to assist SMEs in Makassar City in achieving greater competitiveness and sustainability in the current digital era

2. Method

This investigation applies a quantitative design, relying on Structural Equation Modeling implemented through the Partial Least Squares method to assess the hypothesized constructs. The research aims to examine the relationships between entrepreneurial network, entrepreneurial orientation, entrepreneurial competence, and SMEs performance. The study follows a cross-sectional design, where data is collected at a single point in time.

The population of this study consists of SMEs operating in Makassar City. Purposive sampling was applied to identify respondents, focusing on business owners who fulfilled the established criteria, especially those who have integrated digital platforms into their business activities. The total number of respondents included in the study is 150, which follows the parameter-to-sample ratio recommended in SEM studies.

The determination of the sample size is based on the number of indicators used in the study. As per the guidelines suggested by Hair Jr et al. (2017), the appropriate sample size in SEM-PLS should range between 5 to 10 times the number of indicators. In this research, the model comprises 15 indicators across four main variables: entrepreneurial network (4 indicators), entrepreneurial orientation (4 indicators), entrepreneurial competence (4 indicators), and SMES performance (3 indicators). Applying this rule, the minimum required sample size is 75 respondents (5 × 15), while the upper bound is 150 respondents (10 × 15). To enhance the robustness of the model and ensure reliable estimation of path coefficients, the maximum threshold of 150 respondents was adopted. This ensures adequate statistical power, improves generalizability, and enhances the predictive capability of the model.

Data was collected using an online questionnaire distributed via Google Forms. The questionnaire was designed to measure each variable based on multiple indicators, as outlined in the conceptual framework. The Likert scale was used to capture respondents' perceptions, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

To analyze the collected data, the study applied the SmartPLS 3 software for hypothesis testing using the PLS-SEM approach. This method is preferred due to its ability to handle small sample sizes and non-normally distributed data. The model evaluation was conducted through several steps:

1. Reliability and Validity Testing: Internal reliability of the constructs was assessed by calculating both composite reliability and Cronbach's alpha. Convergent validity was evaluated by examining the Average Variance Extracted (AVE), whereas discriminant validity was assessed through the Fornell-Larcker criterion alongside the inspection of cross-loadings to confirm construct distinctiveness.
2. Model Fit Assessment: The fit of the structural model was gauged using the Standardized Root Mean Square Residual (SRMR), providing an overall measure of model adequacy.
3. Hypothesis Testing: The hypothesized relationships were tested by analyzing path coefficients, with the robustness of the findings determined through bootstrapping resampling procedures.

By employing these methodological steps and ensuring an adequate sample size, this study maintains rigor in its statistical analysis, enabling valid and replicable research findings

3. Results and Discussion

3.1. Results

This study collected responses from 150 SMEs business owners who met the predetermined criteria. The respondents provided demographic information, including business duration, sector, and funding sources, along with their responses to structured questionnaire items. The majority of respondents operate in sectors such as retail, food and beverage, and technology-based services, reflecting the diverse landscape of SMEs engaged in online trading.

Most SMEs surveyed have been in operation for 1 to 3 years, indicating that early-stage businesses are increasingly leveraging digital platforms to enhance market reach and business sustainability. In terms of funding sources, a significant proportion of SMEs rely on personal savings and family support, while others utilize bank loans and government-backed financial assistance programs to scale their operations. These findings highlight the crucial role of financial accessibility in supporting SME growth and competitiveness in digital markets.

Furthermore, the data analysis confirms that entrepreneurial networks, orientation and competence, play a fundamental role in driving business performance. Business owners who demonstrate higher adaptability, strong networking capabilities, and proactive decision-making tend to achieve better financial stability and market expansion. The structured questionnaire responses also indicate that SMEs that actively adopt digital marketing strategies and e-commerce platforms report improved sales performance and customer engagement. These insights provide a comprehensive understanding of the entrepreneurial ecosystem and the factors shaping SMEs' success in the evolving digital economy.

3.2. Measurement Model Evaluation (Outer Model)

The measurement model was evaluated to ensure the accuracy of the constructs used in this study. All indicators show strong validity, as their loading factors exceed 0.7 and AVE values surpass 0.5. This confirms that the variables appropriately measure the constructs. This finding supports the reliability of the measurement model in assessing entrepreneurial networks, orientation, and competence as predictors of SMEs performance in online trading. A strong convergent validity ensures that the variables in the study networking strength, entrepreneurial behavior, and business competence are accurately represented, reinforcing the study's credibility in evaluating their effects on business outcomes.

The Fornell and Larcker (1981) criterion confirms that the square root of AVE values for each construct is greater than its correlation with other constructs, ensuring the distinctiveness of each variable. Specifically, Entrepreneurial Competence (0.948), Entrepreneurial Networks (0.952), Entrepreneurial Orientation (0.947), and SMEs Performance (0.942) all demonstrate strong discriminant validity as their values exceed inter-construct correlations. These findings collectively establish that entrepreneurial competence, networks, and orientation significantly impact the performance of online trading SMEs in Makassar City. The model's strong reliability, validity, and

predictive power suggest that businesses that enhance entrepreneurial capabilities, strengthen networks, and adopt an entrepreneurial mindset can achieve superior performance outcomes.

Cronbach's Alpha and Composite Reliability values exceed 0.9, indicating high internal consistency across the constructs (Wadkar et al., 2016). This suggests that the measurement model effectively captures the intended constructs, ensuring that the study's results are reliable and replicable.

Table 1. Reability Testing

Variable	Cronbach's Alpha	Composite Reliability
Entrepreneurial Competence	0.962	0.973
Entrepreneurial Networks	0.965	0.975
Entrepreneurial Orientation	0.962	0.972
Performance of SMEs	0.937	0.96

These findings validate that the constructs used in the study Entrepreneurial Competence, Networks, Orientation, and SMEs Performance are measured with a high degree of reliability. This ensures that any observed relationships between these variables in the structural model are not due to measurement errors, strengthening the study's overall credibility.

3.3. Structural Model Evaluation (Inner Model)

The structural model was assessed using R-square (R^2), path coefficients, and predictive relevance (Q^2) to evaluate the significance and strength of the relationships between variables. The basis used for directly testing the hypothesis is the output in the form of images or the values presented in the path coefficients output. A hypothesis is considered statistically validated when the p-value is smaller than 0.05 (reflecting a 5% significance threshold) and the T-statistic is above 1.960, thereby confirming the significant influence of the independent variable on its dependent counterpart.

3.4. Hypothesis Testing (Bootstrapping Results)

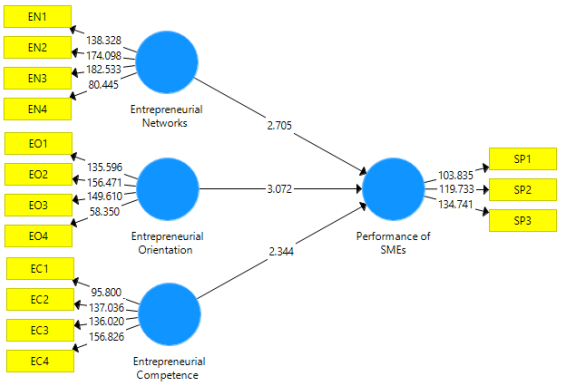

Fig. 2. Hypothesis Testing

Entrepreneurial networks play a crucial role in enhancing the performance of SMEs by facilitating market access and optimizing resource mobilization. The results indicate that entrepreneurial networks significantly influence SMEs' performance, with a coefficient of $\beta = 0.256$, a t-statistic of 2.593, and a p-value of 0.010. This suggests that strong business relationships with suppliers, customers, and industry stakeholders provide SMEs with greater opportunities for growth and sustainability. By leveraging well-established networks, SMEs can improve knowledge-sharing, gain access to strategic partnerships, and enhance their competitive advantage in online trading.

Entrepreneurial orientation emerges as the strongest predictor of SMEs' performance, with a coefficient of $\beta = 0.425$, a t-statistic of 2.838, and a p-value of 0.005. This confirms that businesses that embrace an entrepreneurial mindset characterized by risk-taking, innovation, and proactive

decision-making are more likely to achieve superior performance. SMEs that consistently innovate and respond to market trends tend to outperform competitors by capturing new opportunities and adapting to changing consumer demands. The findings reinforce the argument that a strong entrepreneurial orientation fosters resilience and long-term business success in dynamic online trading environments.

Entrepreneurial competence also demonstrates a significant impact on SMEs' performance, with a coefficient of $\beta = 0.310$, a t-statistic of 2.112, and a p-value of 0.035. This suggests that managerial skills, marketing expertise, and technological adaptation are essential for business growth. SMEs with higher entrepreneurial competence are better equipped to make informed strategic decisions, implement effective business models, and sustain operational efficiency. Developing entrepreneurial competencies enables business owners to navigate challenges, capitalize on emerging opportunities, and strengthen overall business performance in the competitive online marketplace.

Table 2. Hypothesis Testing

Var.	O Sample	T Stat.	P Val.	Desc.
EN -> SP	0.256	2.593	0.01	Supported
EO -> SP	0.425	2.838	0.005	Supported
EC -> SP	0.31	2.112	0.035	Supported

3.5. Model Explanation Power

An R^2 of 0.834 demonstrates that 83.4% of the variation in SME performance can be attributed to the included predictors, highlighting the model's high explanatory power. However, the remaining 16.6% underscores the influence of unobserved variables that fall outside the current research scope. Although the strong R^2 suggests reliability, scholars caution that excessively high values may indicate overfitting; therefore, supplementary assessments such as cross-validation or predictive relevance (Q^2) are recommended to ensure the model's generalizability.

Table 3. 3 R-Square

Variable	R-*Square*	R-*Square Adjusted*
Performance of SMEs	0.834	0.831

3.6. Predictive Relevance

The Q^2 result of 0.732 confirms that the structural model achieves predictive relevance, thereby supporting its robustness in explaining SMEs' performance outcomes. As the Q^2 value surpasses zero, it affirms the model's predictive validity. Nonetheless, relying exclusively on Q^2 may overlook potential shortcomings; thus, further assessments, such as cross-validated redundancy measures, may strengthen the evaluation of predictive quality.

Table 4. Predictive Relevance

Variable	Q^2 (=1-SSE/SSO)	Description
Performance of SMEs	0.732	Has predictive relevance

3.7. Model Fit Assessment

The model fit assessment indicates that the structural model provides a strong representation of the relationships between variables. The Standardized Root Mean Square Residual (SRMR) value of 0.039 is significantly below the recommended threshold of 0.08, confirming that the model achieves an excellent fit (Hu & Bentler, 1999). This suggests that the discrepancies between the observed and estimated correlations are minimal, reinforcing the robustness of the model in explaining the dynamics of entrepreneurial networks, orientation, and competence in influencing SMEs' performance.

Additionally, the Normed Fit Index (NFI) value of 0.790 demonstrates that the model adequately explains variance in SMEs' performance. While an ideal NFI value approaches 1.0, a value of 0.790 indicates that the structural model captures a substantial portion of the variance among the constructs. This further supports the validity of the model in illustrating how entrepreneurial factors

contribute to the success of online trading SMEs. The combination of a strong SRMR value and an acceptable NFI score suggests that the model is well-calibrated and suitable for hypothesis testing, ensuring the reliability of the research findings.

Table 5. Model Fit Assessment

Metric	Saturated Model	Estimated Model
SRMR	0.039	0.039
d_ULS	0.182	0.182
d_G	1.077	1.077
Chi-Square	809.142	809.142
NFI	0.79	0.79

3.8. Discussion

The findings reinforce the importance of entrepreneurial competence, networks, and orientation in determining SMEs performance.

Entrepreneurial Networks and SMEs Performance

The results confirm that entrepreneurial networks significantly contribute to SMEs' performance, as indicated by the positive and significant path coefficient ($\beta = 0.256$, $t = 2.593$, $p = 0.010$). This finding aligns with prior research emphasizing the role of social capital, strategic alliances, and market access in enhancing business growth and sustainability. Strong relationships with suppliers, customers, and industry stakeholders provide SMEs with increased market opportunities, access to valuable resources, and enhanced business collaborations (Bruce et al., 2023; El Nemar et al., 2022).

Networking allows SMEs to gain industry insights, share knowledge, and access financing opportunities, which are essential for survival in highly competitive digital markets. Well-established networks help SMEs build trust with key business partners, thereby improving supply chain efficiency and reducing operational uncertainties. Through collaborative relationships with other businesses, SMEs can improve product innovation, expand market reach, and create mutually beneficial partnerships that drive performance improvements (Kusmantini et al., 2020).

The measurement model validation confirms the robustness of entrepreneurial networks as a critical construct. Convergent validity is established, as all loading factors exceed 0.7 and AVE values surpass 0.5, ensuring that the construct accurately represents the impact of networks on SMEs' success. Discriminant validity is also confirmed through the Fornell-Larcker criterion, demonstrating that entrepreneurial networks are distinct from other constructs in the study. Furthermore, Cronbach's Alpha (0.965) and Composite Reliability (0.975) indicate a high degree of internal consistency, reinforcing the reliability of the measurement model.

The structural model evaluation further highlights the substantial role of entrepreneurial networks in explaining SMEs' performance. The R^2 value of 0.834 demonstrates that networking, alongside entrepreneurial competence and orientation, accounts for a significant portion of the variance in SMEs' performance. The predictive relevance ($Q^2 = 0.732$) validates that well-established entrepreneurial networks contribute meaningfully to SMEs' competitive advantage and business success.

From a practical perspective, SMEs should actively engage in business networking events, industry collaborations, and digital networking platforms to expand their market reach and gain strategic business insights. Governments and business development organizations should encourage policies that foster entrepreneurial networking programs, mentorship initiatives, and business cluster collaborations to enhance SMEs' capabilities (Faisol et al., 2022). Future research may explore the moderating role of digital networking, cross-border collaborations, and government incentives in strengthening the impact of entrepreneurial networks on SMEs' performance.

Entrepreneurial Orientation and SMEs Performance

Entrepreneurial orientation is identified as the most influential factor affecting SMEs' performance, as evidenced by the strongest path coefficient ($\beta = 0.425$, $t = 2.838$, $p = 0.005$). This

finding underscores the critical role of innovation, proactiveness, and risk-taking in driving business success. Businesses that adopt innovative practices, take calculated risks, and proactively respond to market dynamics tend to achieve superior performance compared to those that follow a more conservative approach. This aligns with previous studies highlighting the importance of an entrepreneurial mindset in fostering adaptability, strategic decision-making, and long-term competitiveness (Bosman et al., 2022; Haynie & Shepherd, 2007).

Innovation enables SMEs to develop unique value propositions, differentiate from competitors, and meet evolving customer demands in the dynamic digital marketplace (Christofi et al., 2023). A proactive stance allows businesses to anticipate changes in consumer behavior, technological advancements, and market shifts, ensuring that they remain ahead of competitors (Liczmańska-Kopcewicz & Zastempowski, 2019). Additionally, a willingness to take calculated risks enables SMEs to seize emerging opportunities, expand into new markets, and explore novel business models. However, excessive risk-taking without proper market adaptation can lead to adverse effects, highlighting the need for a balanced strategic approach that aligns risk management with sustainable growth objectives (Samuel & Samuel, 2022; Zhu et al., 2023).

The measurement model validation confirms the robustness of entrepreneurial orientation as a significant construct in explaining SMEs' performance. Convergent validity is established, as all factor loadings exceed 0.7 and AVE values surpass 0.5, ensuring that the indicators effectively capture entrepreneurial orientation. Discriminant validity, assessed using the Fornell-Larcker criterion, confirms that entrepreneurial orientation is empirically distinct from other constructs. Moreover, Cronbach's Alpha (0.962) and Composite Reliability (0.972) demonstrate high internal consistency, reinforcing the reliability of this construct.

The structural model evaluation further validates the impact of entrepreneurial orientation. The R^2 value of 0.834 indicates that, in combination with entrepreneurial competence and networks, entrepreneurial orientation explains a substantial portion of the variance in SMEs' performance. The predictive relevance ($Q^2 = 0.732$) confirms that entrepreneurial orientation plays a crucial role in determining business success in online trading.

From a practical perspective, SMEs should continuously invest in innovation, foster a culture of agility, and implement data-driven decision-making processes to maintain competitiveness. Policymakers and industry stakeholders should support entrepreneurial training programs, funding for innovation, and policy incentives to encourage SMEs to embrace entrepreneurial orientation while mitigating excessive risk exposure (Rassool et al., 2023). Future research may explore the moderating effects of industry-specific regulations, financial constraints, and digital transformation on the relationship between entrepreneurial orientation and SMEs' performance to provide a more comprehensive understanding of its impact.

Entrepreneurial Competence and SMEs Performance

The findings of this study reinforce the crucial role of entrepreneurial competence in shaping SMEs' performance, particularly in the context of online trading. The positive and significant path coefficient ($\beta = 0.310$, $t = 2.112$, $p = 0.035$) confirms that SMEs with higher levels of entrepreneurial competence achieve superior business outcomes. These results align with previous studies that emphasize the importance of managerial skills, marketing proficiency, and digital literacy in sustaining business success in highly competitive digital marketplaces.

From a managerial perspective, well-developed entrepreneurial competence allows SMEs to navigate dynamic market conditions, make strategic decisions, and optimize resource allocation effectively. The ability to assess market trends, adjust business strategies, and implement innovative solutions is critical for maintaining a competitive edge (Pulka et al., 2021). Furthermore, the digital economy necessitates adaptability, and SMEs with strong entrepreneurial competence are more likely to leverage technology, integrate digital marketing strategies, and optimize e-commerce platforms to enhance customer engagement and sales performance (Aziz, 2022).

The measurement model validation supports the robustness of entrepreneurial competence as a key construct influencing SMEs' performance. Convergent validity was confirmed as all factor loadings exceeded 0.7 and the AVE values surpassed 0.5, ensuring that the indicators effectively measure the construct. Discriminant validity, assessed through the Fornell-Larcker criterion, demonstrated that entrepreneurial competence is empirically distinct from other variables,

reinforcing its unique contribution to SMEs' success. Moreover, Cronbach's Alpha (0.962) and Composite Reliability (0.973) confirmed the high internal consistency of the measurement, strengthening the credibility of these findings.

The structural model evaluation further highlights the predictive power of entrepreneurial competence in explaining SMEs' performance. The R^2 value of 0.834 suggests that entrepreneurial competence, alongside entrepreneurial networks and orientation, accounts for a substantial portion of the variance in SMEs' performance. Additionally, the predictive relevance ($Q^2 = 0.732$) confirms that entrepreneurial competence plays a significant role in determining business success. These findings underscore the importance of ongoing skill development, continuous learning, and technological adaptability for SMEs seeking to remain competitive in digital markets (Hogeforster & Wildt, 2023).

In practical terms, SMEs that prioritize the development of financial management skills, customer relationship management, and digital marketing expertise are more likely to sustain long-term growth and resilience in fluctuating market environments (Parmitasari, 2023). Governments and industry stakeholders should support initiatives that enhance entrepreneurial training programs, foster knowledge-sharing platforms, and provide access to digital tools to strengthen SMEs' entrepreneurial competence. Future research may explore the moderating effects of market dynamics, industry-specific factors, and government interventions to further contextualize the impact of entrepreneurial competence on SMEs' performance.

4. Conclusion

This study provides empirical evidence that entrepreneurial competence, networks, and orientation significantly influence SMEs' performance in the digital business ecosystem. The findings demonstrate that entrepreneurial orientation is the most influential factor, emphasizing the importance of innovation, proactiveness, and risk-taking in driving business success. Entrepreneurial networks also play a vital role in improving SMEs' market access, collaboration, and resource mobilization, while entrepreneurial competence enhances managerial capabilities, marketing expertise, and digital literacy, all of which are essential for business sustainability.

The study offers practical implications for SMEs to enhance their strategic business approaches, emphasizing the need to foster an entrepreneurial mindset, build strong business networks, and continuously improve competencies. SMEs should invest in innovation-driven strategies, leverage digital networking platforms, and adopt technology-enabled business solutions to strengthen their market position. Policymakers and business development organizations should support SMEs through training programs, access to financial resources, and regulatory frameworks that encourage entrepreneurial growth.

Future research can explore additional factors such as government support, digital transformation, and competitive market dynamics to further refine the model and extend its applicability. Additionally, investigating the moderating effects of industry-specific challenges, technological advancements, and market conditions may provide deeper insights into the relationship between entrepreneurial attributes and SMEs' performance. By addressing these aspects, future studies can contribute to a more comprehensive understanding of the entrepreneurial ecosystem and its role in sustaining SMEs in the digital economy.

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Tabel 6 Respondents' Profile

Respondent Characteristics	Category	Number	Percentage (%)
Gender	Male	33	22
	Female	117	78
Age	< 25 years	39	26
	25 - 35 years	72	48
	36 - 45 years	24	16
	> 45 years	15	10
Last Education	Junior High School	35	23.33
	Senior High School	7	4.67
	Diploma (D3)	22	14.67
	Bachelor (S1)	47	31.33
	Master/Doctorate (S2/S3)	39	26
Business Duration	< 1 year	11	7.33
	1 - 3 years	90	60
	4 - 6 years	38	25.33
	> 6 years	11	7.33
Business Type	Fashion	23	15.33
	Culinary	35	23.33
	Technology	26	17.33
	Services	29	19.33
	Others	37	24.67
Source of Capital	Personal	72	48
	Bank Loan	13	8.67
	Venture Capital	12	8
	Family/Friends	35	23.33
	Crowdfunding	18	12

Table 7 Variables and Indicators Used in Research

Variable	Code	Indicators
Entrepreneurial Network	EN1	Strength of networking with suppliers and partners
	EN2	Access to business opportunities through networks
	EN3	Frequency of business interaction with networks
	EN4	Trust and collaboration within the network
Entrepreneurial Orientation	EO1	Innovation in business operations
	EO2	Risk-taking behavior in decision making
	EO3	Proactiveness in responding to market changes
	EO4	Competitive aggressiveness towards competitors
Entrepreneurial Competence	EC1	Managerial skills and decision-making ability
	EC2	Marketing and branding capabilities
	EC3	Adaptability to technological advancements
	EC4	Financial literacy and resource management
SMEs Performance	SP1	Revenue growth over the past year
	SP2	Customer satisfaction and retention
	SP3	Business sustainability and competitive advantage

Table 8 Convergent Validity Test

Variabel	Item	Loading Factor	AVE	Keterangan
Entrepreneurial Network	EN1	0.944	0,906	Valid
	EN2	0.954		Valid
	EN3	0.961		Valid
	EN4	0.949		Valid
Entrepreneurial Orientation	EO1	0.956		Valid
	EO2	0.954		Valid
	EO3	0.957	0,897	Valid
	EO4	0.922		Valid
Entrepreneurial Competence	EC1	0.934	0,899	Valid
	EC2	0.947		Valid
	EC3	0.951		Valid
	EC4	0.96		Valid
SMEs Performance	SP1	0.937	0,888	Valid

	SP2	0.938		Valid
	SP3	0.952		Valid

Table 9 Fornell-Larcker Criterion Value

Variable	Entrepreneurial Competence	Entrepreneurial Networks	Entrepreneurial Orientation	Performance of SMEs
Entrepreneurial Competence	0.948			
Entrepreneurial Networks	0.710	0.952		
Entrepreneurial Orientation	0.854	0.708	0.947	
Performance of SMEs	0.855	0.777	0.871	0.942

Table 10 Cross loading value

Item	Entrepreneurial Competence	Entrepreneurial Networks	Entrepreneurial Orientation	Performance of SMEs
EC1	0.934	0.624	0.815	0.798
EC2	0.947	0.667	0.79	0.818
EC3	0.951	0.664	0.797	0.798
EC4	0.96	0.736	0.837	0.828
EN1	0.628	0.944	0.653	0.742
EN2	0.665	0.954	0.656	0.741
EN3	0.686	0.961	0.675	0.744
EN4	0.726	0.949	0.712	0.732
EO1	0.829	0.655	0.956	0.817
EO2	0.814	0.691	0.954	0.837
EO3	0.849	0.703	0.957	0.834
EO4	0.744	0.632	0.922	0.811
SP1	0.772	0.728	0.812	0.937
SP2	0.829	0.743	0.821	0.938
SP3	0.814	0.724	0.829	0.952