

Entrepreneurial Knowledge and Vicarious Experience as Determinant of Self-Efficacy among MSMEs in Jember, Indonesia

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Abstract

This study aims to examine the influence of entrepreneurial knowledge and vicarious experience on the self-efficacy of MSMEs in the food and beverage sector in Jember Regency. The research adopts a quantitative approach using Partial Least Squares Structural Equation Modeling (PLS-SEM) and involves 300 MSME respondents selected through purposive sampling from the three sub-districts with the highest business concentration. The results reveal that both entrepreneurial knowledge and vicarious experience have a positive and significant effect on self-efficacy. Entrepreneurial knowledge provides MSME actors with the skills and insights necessary for business development, while vicarious learning, through observing others' successes and failures. These findings highlight the importance of strengthening both technical knowledge and psychological readiness in enhancing entrepreneurial performance. The study suggests that training programs for MSMEs should integrate knowledge enhancement with experiential learning and self-confidence development to support sustainable business growth.

Keywords: Entrepreneurial Knowledge, Vicarious Experience, Self-Efficacy, MSMEs, Jember.

INTRODUCTION

Entrepreneurship development plays a vital role in improving community welfare and supporting regional development by optimizing the potential of local entrepreneurs. Many countries, including Indonesia, have made significant progress in advancing entrepreneurship (Oetomo & Utami, 2019). Small and mediumsized enterprises (SMEs) are considered key drivers of economic growth, job creation, and equitable development (Tobing et al., 2018; Yanuar, 2022).

According to Indonesia's Central Statistics Agency, the number of MSMEs increased by an average of 4.2% per year from 2009 to 2019. In the past three years, MSMEs consistently contributed

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more than 50% to the national GDP. These figures highlight MSMEs' ability to boost economic self-reliance and play a central role in accelerating national growth. In response, Bank Indonesia prioritizes MSMEs as a strategic sector for driving economic progress and trade expansion. In Jember Regency, data from BPS (2015) revealed that 24,101 MSMEs operated in the food and beverage sector, spread across 31 districts. The top three districts with the highest concentration are Kaliwates, Sumbersari, and Patrang. However, despite their numbers, many MSMEs struggle to survive in a competitive business environment due to limited entrepreneurial knowledge and resources (Agu, 2018). Previous studies suggest that strengthening business knowledge improves competitiveness and strategic capability (Srimulyani & Hermanto, 2022).

Internal factors such as entrepreneurial knowledge, vicarious experience, and self-efficacy are crucial for MSME success. Yanuar (2023) notes that most MSME actors have only completed high school and lack access to relevant training and mentoring. According to Sarwono (2012), without sufficient knowledge, skills, and motivation, entrepreneurs are unlikely to succeed. Understanding business operations, marketing, and management is essential for starting and sustaining a business. Entrepreneurial knowledge provides guidance on how to manage external business environments and internal organizational dynamics. Additionally, external factors like vicarious experience—learning through the observation of others—help entrepreneurs avoid common mistakes. Vicarious experience allows individuals to acquire insights without directly experiencing failure, which can be especially useful in high-risk business settings.

Recent studies confirm the positive role of vicarious experience in enhancing self-efficacy. Mahshunah et al. (2024) found that young farmers in Indonesia developed greater confidence by observing successful peers. In business, Ramdani (2024) demonstrated how e-commerce consumers were influenced by vicarious experiences during live streaming. Su et al. (2020) emphasized that SMEs could reduce international market entry risks by learning from others who had succeeded abroad. This study focuses on analyzing how entrepreneurial knowledge and vicarious experience influence self-efficacy among MSME actors in Jember Regency. While previous research has explored similar themes, this study differs in context, timing (post-pandemic), and variables used. By focusing solely on internal factors and excluding business performance as a variable, the research aims to provide relevant insights for empowering MSMEs through improved knowledge and psychological preparedness.

THEORETICAL FRAMEWORK AND HYPOTHESIS

Entrepreneurial Knowledge

Entrepreneurial knowledge encompasses an understanding of business management, marketing strategies, and decision-making processes. This knowledge plays a vital role in shaping an individual's confidence in their ability to run a business (selfefficacy). Several previous studies support the hypothesis that entrepreneurial knowledge positively influences self-efficacy. Yanuar et al. (2022), in a study on MSME actors in Jember, found that individuals with a higher level of entrepreneurial knowledge tend to exhibit greater confidence in managing their businesses. Similarly, Wibowo and Khan (2022) confirmed that entrepreneurial knowledge strengthens individuals' belief in their ability to make sound business decisions, thus enhancing selfefficacy. Wang et al. (2021) also demonstrated that formal entrepreneurial education contributes significantly to increased entrepreneurial self-efficacy among students. However, contrasting findings also exist. Susanto (2019), for instance, argued that despite having sufficient knowledge, many MSME actors did not show a corresponding increase in self-efficacy. The study suggested that practical experience and external factors, such as the business environment, play a more critical role in shaping confidence. Likewise, Ie et al. (2021) emphasized that personal attributes, such as motivation and social support, had a stronger impact on self-efficacy than cognitive factors like knowledge acquisition.

H1: Entrepreneurial knowledge significantly influences self-efficacy.

Vicarious Experience

Vicarious experience, which refers to learning through observing the successes or failures of others, can enhance an individual's self-efficacy. Bandura (1997) stated that witnessing others succeed in certain tasks can strengthen an individual's belief that they too are capable of achieving similar outcomes. This hypothesis is also supported by several studies. Mahshunah et al. (2024) reported that millennial farmers in Indonesia developed higher levels of selfefficacy after observing the success of their peers, which indicates the power of vicarious learning. Su et al. (2020) found that small and medium-sized enterprises that learned from other firms' experiences-especially those who succeeded in foreign marketsgained the confidence needed to innovate and adapt. Bandura (1997), in his social cognitive theory, identifies vicarious experience as one of the four core sources of self-efficacy development, validating the relationship between observational learning and self-belief. Conversely, other researchers found no significant effect. Ramdani (2024), for example, observed that vicarious exposure through live-streamed content in e-commerce influenced consumers' impulsive behavior rather than enhancing their self-efficacy. Similarly, Park and Puranam (2020) argued that observational learning is not always effective in boosting selfefficacy, particularly when individuals feel they lack the resources or similarities with the role models they observe.

H2: Vicarious experience significantly influences self-efficacy.

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	Tuble 1. Bullinary of past research			
	Variable	Author	Result	
	EK on SE	(Yanuar et al., 2022; Wibowo & Khan, 2022; Wang et al., 2021)	Entrepreneurial knowledge has a positive and significant impact on self- efficacy	
		(Susanto, 2019; Ie et al., 2021)	Entrepreneurial knowledge does not have a significant effect on self-efficacy	
	VE on SE	(Mahshunah et al., 2024); Su et al., 2020; Bandura, 1997)	Vicarious experience has a positive and significant impact on self-efficacy	
		(Ramdani, 2024; Park & Puranam, 2020)	Vicarious experience does not have a significant effect on self-efficacy	



Figure 1. Conceptual Framework

METHODOLOGY

This study employs a quantitative approach. The type of research used in this study is explanatory research, which aims to explain the relationship between exogenous variables and endogenous variables through hypothesis testing. This research was conducted to determine the effects of entrepreneurial knowledge (X1), vicarious experience (X2), and self efficacy (Y). Entrepreneurial knowledge (X1) has five indicators including: business field / area of business, bookkeeping, communication, management knowledge, and marketing knowledge. Vicarious experience (X1) has five indicators including: model identification, model success, strategy observation, learning implementation, and social environment. Self efficacy (Y) has five indicators including: confidence, ability, persistence, decision making, and motivation. Before being implemented, the instrument has been approved by expert judgment.

Population is the entirety of subjects and/or objects that will be the target of the research (Riyanto & Setyorini, 2024:5). To create population boundaries, there are three criteria that must be met, namely content, scope and time. In this study, the population used was MSME entrepreneurs providing Food and Beverages in Jember Regency. The sample in this study was MSME entrepreneurs in the Food and Beverage sector in three sub-districts in Jember Regency, considering that they are the three sub-districts that have the largest number of MSMEs based on the latest data from the Jember Regency BPS, namely 97 of Kaliwates District, 110 of Sumbersari District, and 93 of Patrang District. The total sample size for this study is 300 MSME entrepreneurs.

Data were collected through a survey technique using a questionnaire distributed to the MSME entrepreneurs providing Food and Beverages in Jember Regency. The data analysis technique employed is partial least squares structural equation modeling (PLS-SEM) with SmartPLS 4.0.9.9 software. The evaluation using PLS-SEM is conducted in two stages: outer model evaluation and inner model evaluation. In this study, the outer model evaluation is performed by testing for convergent validity, discriminant validity, average variance extracted (AVE), composite reliability, and Cronbach's alpha for each variable being tested. The inner model evaluation in this study utilizes R-squared, Q-squared, f-squared, and Variance Inflation Factor (VIF). Hypothesis testing with PLS-SEM is conducted using the bootstrapping method.

RESULTS AND DISCUSSION

Based on the characteristics of the 300 MSME respondents in Jember Regency, most operated in permanent business locations (82.67%), indicating operational stability. The majority were female (71%), highlighting the significant role of women in microbusiness activities. In terms of education, most respondents had at least a high school diploma, with many holding bachelor's degrees (35.33%), suggesting a relatively high level of educational attainment. Most respondents were within the productive age range, particularly between 41–50 years old (32%). Regarding business experience, more than half had been operating their businesses for 1-5 years (50.67%), showing established

entrepreneurial experience. In terms of income, most earned between IDR 1–5 million per month (53.33%), while only a small proportion reported earnings above IDR 5 million, indicating that most were still categorized as micro-enterprises with limited revenue.





 Table 2. Respondent Data

Profile	Indicator	Σ	%
Gender	Male	87	29.00
	Female	213	71.00
Business	Stay	248	82.67
Location	Moving	52	17.33
Education	SD	20	6.67
	SMP	26	8.67
	SMA	79	26.33
	D3	69	23.00
	S1	106	35.33
Age	< 20 years	5	1.67
	20-25 years	5	1.67
	26-30 years	36	12.00
	31-35 years	39	13.00
	36-40 years	43	14.33
	41-50 years	96	32.00
	> 50 years	76	25.33
Business	< 1 years	24	8.00
Duration	1 - 5 years	152	50.67
	5 - 10 years	81	27.00

	> 10 years	43	14.33
Earning	< 1 million	119	39.67
	1 - 5 million	160	53.33
	5 - 10 million	17	5.67
	11 - 15 million	3	1.00
	15 - 30 million	1	0.33
	> 30 million	0	0.00

Source: Processed Primary Data (2025)

The measurement used to obtain answers from respondents was assessed using a Likert scale. This Likert scale ranges from 1 to 5, where 1 indicates "strongly disagree" and 5 indicates "strongly agree."

Outer Model Evaluation or Measurement Model

a. Convergent Validity

Convergent validity is considered adequate if the factor loading value exceeds 0,70. Based on the results shown in Table 3, all indicators contained in each latent variable (entrepreneurial knowledge, vicarious experience, and self efficacy) have values above 0,7, indicating that all indicators are valid. Based on the results shown in Table 3, second discriminant validity testing, which requires an Average Variance Extracted (AVE) value greater than 0,50 (Rosdaniati & Muafi, 2021).

Table 3. Loading factor results

Variable	Indicators	Outer loadings	Description
EK	EK.1	0,813	Valid
	EK.2	0,846	Valid
	EK.3	0,858	Valid
	EK.4	0,793	Valid
	EK.5	0,824	Valid
VE	VE.1	0,823	Valid
	VE.2	0,854	Valid
	VE.3	0,813	Valid
	VE.4	0,880	Valid
	VE.5	0,772	Valid
SE	SE.1	0,827	Valid
	SE.2	0,818	Valid
	SE.3	0,800	Valid
	SE.4	0,797	Valid
	SE.5	0,785	Valid

Source: Processed Primary Data (2025)

Table 4. AVE results

Variable	AVE	Description
EK	0,684	Valid

VE	0,688	Valid
SE	0,649	Valid

Source: Processed Primary Data (2025)

Based on table 3 and table 4, it can be stated that each indicator can represent the construct it represents. So that the data can be used in the next analysis stage.

b. Discriminant Validity

Considered valid if the cross-loadings the indicators have a high value on the variable (Hair Jr et al., 2021). Based on table 5 it can be said that all are valid.

Variable	EK	VE	SE
EK.1	0,813	0,519	0,517
EK.2	0,846	0,509	0,514
EK.3	0,858	0,365	0,519
EK.4	0,793	0,413	0,525
EK.5	0,824	0,373	0,521
VE.1	0,441	0,823	0,430
VE.2	0,411	0,854	0,398
VE.3	0,500	0,813	0,472
VE.4	0,468	0,880	0,469
VE.5	0,329	0,772	0,302
SE.1	0,554	0,440	0,827
SE.2	0,560	0,443	0,818
SE.3	0,443	0,376	0,800
SE.4	0,495	0,353	0,797
SE.5	0,459	0,428	0,785

Source: Processed Primary Data (2025)

Based on table 5, the cross-loading value of each variable is greater than the other variable items, so that all variables are valid discriminants.

a. Reliability Test

Reliability testing will be considered reliable if Cronbach's alpha > 0,7 and composite reliability > 0,7 (Hair Jr et al., 2021). Based on Table 6, it can be said that all variables are reliable.

Table 6. Reliability test results

Variable	Cronbach's alpha	CR (rho_a)	CR (rho_c)
EK	0,884	0,884	0,915
SE	0,865	0,869	0,902
VE	0,887	0,898	0,917

Source: Processed Primary Data (2025)

Based on table 6. The results of the reliability test show that the instrument has consistent measurement results, so it can be used in research.

Evaluation Inner Model

a. Coefficient Determination (\mathbf{R}^2)

The coefficient of determination (R-Square) value for each endogenous variable is the predictive power of the structural model (Rosdaniati & Muafi, 2021). In Table 7, it is known that the first R-Square value for the latent variable of self efficacy is 0,438 (43,8%), less than 0,75 so it is included in the moderate model. The second R-Square value for the endogenous latent variable of self efficacy is 0,435 (43,5%) less than 0,75 so it is included in the moderate model.

Table 7. R-square test results

Variable	R-square	R-square adjusted
SE	0,438	0,435

Source: Processed Primary Data (2025)

b. f-Square Test (f^2)

In Table 8, the f^2 value is used to calculate how much relative influence the exogenous variable has on the endogenous variable. The f2 value ranges from $0,02 \leq f^2 < 0,15$ indicating that the variable has a weak influence. The f2 value ranges from $0,15 \leq f^2 < 0,35$ indicating that the variable has a moderate influence. The f^2 value $\geq 0,35$ indicates that the variable has a high influence.

Table 8. f-Square test results

Variable	f-square	Description
EK -> SE	0,319	Medium
VE -> SE	0,078	Medium

Source: Processed Primary Data (2025)

c. Predictive Relevance (Q^2)

In Table 9, Q-Square testing is done by looking at the Q-Square predict value which shows how much the model's relevance prediction is. A variable is considered to have a high relevance prediction if it has a value of $0.5 \le Q^2 \le 1$, has a moderate relevance prediction if it has a value of $0.25 \le Q^2 < 0.5$ and has a low relevance prediction if it has a value of $0 \le Q^2 < 0.25$ (Hair Jr et al., 2021).

Table 9. Q-Square test results

Variable	Q ² predict	RMSE	MAE
SE	0,418	0,777	0,53

Source: Processed Primary Data (2025)

d. Hypothesis Testing





Figure 3. Hypothesis test result diagram

 Table 10. Bootstrapping test results

Variable	Original sample	T statistics	P values	Description
EK -> SE	0,498	7,719	0,000	Signifiant
VE -> SE	0,247	3,944	0,000	Signifiant

Source: Processed Primary Data (2025)

The analysis results show that Entrepreneurial Knowledge has a positive and significant effect on Self-Efficacy, with a path coefficient of 0.498 (p < 0.001). The t-statistic value of 7.719, which is well above the threshold of 1.96, indicates that this relationship is statistically highly significant. The path coefficient, which is close to 0.5, suggests that the contribution of Entrepreneurial Knowledge to the formation of Self-Efficacy falls within the moderate-to-strong category. Therefore, the first hypothesis of this study is accepted. Theoretically, this finding supports the Social Cognitive Theory (Bandura, 1986), which states that mastery of knowledge can enhance an individual's confidence in performing a task. In the context of entrepreneurship, the better the mastery of business principles, management, and marketing, the higher the confidence of an entrepreneur in facing business challenges.

Vicarious Experience was found to have a positive and significant effect on Self-Efficacy, with a path coefficient of 0.247 (p < 0.001). The t-statistic value of 3.944 indicates strong significance, although the magnitude of the effect falls within the small-tomoderate category. This suggests that learning through the observation of others' experiences contributes to the development of entrepreneurial self-confidence, although its influence is not as substantial as that of direct knowledge. Therefore, the second hypothesis of this study is accepted. This finding aligns with Social Learning Theory (Bandura, 1977), which emphasizes the importance of role models in the learning process. In entrepreneurship, observing the successes or failures of other business actors provides "indirect lessons" that enrich one's perspective and help build self-belief. The result also supports previous research by Obschonka et al. (2019), which highlights the role of mentors and role models in entrepreneurial development.

CONCLUSION

The results of this study confirm that both entrepreneurial knowledge and vicarious experience significantly contribute to enhancing self-efficacy among MSME entrepreneurs in Jember Regency. Entrepreneurial knowledge shows a stronger influence, indicating that mastery of business principles, management, and marketing greatly strengthens an entrepreneur's confidence in navigating business challenges. Meanwhile, vicarious experience also plays a meaningful role, as learning through observing the success or failure of others—though moderately impactful—helps shape belief in one's abilities. These findings support Social Cognitive Theory and Social Learning Theory, emphasizing that both direct mastery and observational learning are essential in developing entrepreneurial self-efficacy.

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