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Original Article

Financial Literacy, Risk Aversion, Financial Performance, and Innovative Behavior in Indonesian SMEs

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Abstract

Lampung is one of the provinces that makes a major contribution to the Indonesian economy. The aim was to investigate the relationship between financial literacy and risk aversion on financial performance with innovative behavior as the mediating variable. The population were the SMEs in Lampung and a sample of 284 were selected. Structural equation modeling was used to test the research hypothesis. The research findings show that financial literacy had a positive direct effect on financial performance (β = .27, p = .006), risk aversion had a positive direct effect on financial performance (β = .21, p = .000), risk aversion, which had a positive direct effect on innovative behavior (β = .16, p = .005). Financial literacy was found to had a positive direct effect on innovative behavior (β = .73, p = .000); and innovative behavior had a positive direct effect on financial performance (β = .39, p = .000). When innovative behavior entered the relationship between financial literacy and financial performance, the direct effect (β = .04, p = .000) was significant. When innovative behavior was introduced into the link between risk aversion and financial success, the direct effect was significant (β = .34, p = .01). As a result, innovative behavior is regarded as a moderator of financial literacy and risk aversion on financial performance. This study elaborates on the ways that SME owners can improve their financial success by enhancing their financial literacy and embracing innovative behaviors that will ultimately benefit their business.

Small and medium enterprises (SMEs) in Indonesia have a major and crucial contribution to the Indonesian economy (Laila et al., 2023). One of the contributions made by SMEs is that they are able to absorb around 75.33% of the total non-agricultural workforce (BPS - Statistics Indonesia, 2019). One of the contributors to this contribution is Lampung Province (Setyaningrum et al., 2019; Yuniati et al., 2023). However, despite their enormous and vital contribution to the Indonesian economy, SMEs face many obstacles, such as the limited number of employees (Cardon & Stevens, 2004; Coetzer et al., 2019), lack of company structure, small management, inadequate organization, lack of risk management (Lavastre et al., 2012), and lack of working capital (Nasrallah & El Khoury, 2022). However, given the various barriers already in place, SMEs must continue to grow. Based on the results of previous studies (Wahyono & Hutahayan, 2021), the development of a company can be seen from the company's performance, in which external parties will evaluate the ability of SMEs based on their performance (Rosli & Sidek, 2013). This statement implies that performance can be likened to a mirror for the company. In general, little is known about how managers experience difficulties maintaining SME performance. There are many risks they must take to achieve good performance.

Researchers have paid increasing attention to the relationship between risk and performance (Rahaman et al., 2021; Salleh et al., 2021; Wiklund & Shepherd, 2005). Risks must be managed since they can sometimes completely collapse an enterprise. The goal of risk management is to minimize or manage risk so that the organization can survive. At certain times, SME owners are faced with how they manage company finances (Wong et al., 2018). Including choosing to avoid the risk or choose the risk (Kang et al., 2022) and it turns out the company frequently choose to take certain risks because they recognize the potential benefits tied to the risks (Rahaman et al., 2021). Other research (Rahaman et al., 2021; Rauch et al., 2009) found that risk-taking has a positive relationship with performance. It is important to understand the concept of risk and the approach used by managers or business owners towards a risk (Meroño-Cerdán et al., 2018). Managers or business owners who avoid risk are usually motivated by their business's safety, while risk-oriented managers are generally motivated by opportunities (Lopes, 1995). As a result, small business owners typically take on less risk than other business owners, which results in lower rates of return (González L. et al., 2021).

Owner of SMEs may choose to take risks and accept lower short-term performance (Dolz et al., 2019). This condition motivates them to aim for a long-term vision of the company that can make a positive contribution to the company's performance. Meanwhile, intense competition requires small and medium enterprises to reconsider their competitive position (Mawardi et al., 2020), including through innovation (Rosli & Sidek, 2013). Modern management theory has put forward the importance of managerial including the encouragement of innovative behavior to improve financial performance (Nicholson-Crotty et al., 2017). This means that innovation is crucial for SME to maintain their market position and strengthen performance levels and to achieve competitive advantage (Helmy et al., 2019; Mustafa & Yaakub, 2018). However, being innovative is difficult for SMEs, even if they quickly adapt their resources to respond to environmental and business demands. Otherwise, SMEs face negative performance risks if they do not adopt innovation (Mustafa & Yaakub, 2018). Previous research (Carney et al., 2019), revealed that research on small company innovation has opened up interesting new areas of investigation.

Although it is important to research, there is still little research exploring risk aversion and financial performance in one model (Meroño et al., 2018). In fact, innovation activities can enable small business to survive in dramatic changes of the external environment (Leppäaho & Ritala, 2022). Researchers have mostly conducted research that examines the relationship between risk aversion and financial performance with mediating variables, reliability on guanxi activities (Hoppe et al., 2017), risk aversion with stock market volatility using various risk aversion measures (Dai & Chang, 2021), innovation ability, risk aversion and leadership persistence (Leppäaho & Ritala, 2022), institutional ownership, financial performance, institutional myopia and risk aversion (Zeb et al., 2021). For this reason, this research go beyond by discussing financial literacy in a research model with risk aversion and company performance, in the context of SMEs.

In addition to innovation, SME managers or owners must have confidence in their financial decisions, psychological empowerment, knowledge sharing, and innovative behavior for growth and development (Helmy et al., 2019). Managers or owners who do not have the necessary financial knowledge of their company's finances will lack the skills needed to direct the company's financial matters (Tuffour & Barnor, 2019). Financial literacy has been identified as an important component as a form of better investment risk management, and better and greater access to finance to intensify company growth and company performance (Alharbi et al., 2022). The existence of financial literacy can also be used as a way to reduce negative innovation results towards more positive innovations (Nohong et al., 2019; Wahyono & Hutahayan, 2021). It has been established that financial literacy significantly affects the success or failure of a small business. However, the exact effect of financial literacy on the performance of small-scale enterprises has yet to be fully identified (Tuffour et al., 2020), hence this research is needed.

Although it is important to research, there is still little research exploring risk aversion and financial performance in one model (Meroño et al., 2018). In fact, innovation activities can enable small business to survive in dramatic changes of the external environment (Leppäaho & Ritala, 2022). Researchers have mostly conducted research that examines the relationship between risk aversion and financial performance with mediating variables, reliability on guanxi activities (Hoppe et al., 2017), risk aversion with stock market volatility using various risk aversion measures (Dai & Chang, 2021), innovation ability, risk aversion and leadership persistence (Leppäaho & Ritala, 2022), institutional ownership, financial performance, institutional myopia and risk aversion (Zeb et al., 2021). For this reason, this research go beyond by discussing financial literacy in a research model with risk aversion and company performance, in the context of SMEs.

Seeing the large contribution of the SME sector in Lampung to the economy, the competitiveness and development of SME must be sustainable from time to time. However, lately SME Lampung has experienced a decline in development so that it has a direct impact on the economic income of SME (Yuniati et al., 2023). It is very important for SME owners to have sustainable innovative behavior to achieve competitive advantage (Helmy et al., 2019) and improve financial performance. Finally, based on the arguments accompanied by the references above, this study was designed to provide several contributions to expand previous research. First, this study provides a clear understanding of the effect of financial literacy and risk aversion on the financial performance of SMEs. Second, this study attempts to address the limitations of previous research by investigating the function of innovative behavior as a mediator in enhancing the financial performance of SMEs. Furthermore, the purpose of this study is to assess the impact of innovative behavior as a mediator on SMEs' views of financial literacy, risk aversion, and financial performance in Indonesia.

Literature Review

Financial performance reflects management effectiveness and efficiency in making use of a company's resources (Orobia et al., 2020). Entrepreneurship theory by Acs et al. (2009) is a concept that is commonly used to explain how organizations might use information and available resources to generate innovations that benefit their businesses. This theory explains the role of the individual in the organization. According to this view, entrepreneurship is an individual response, particularly by business owners, to the opportunities generated by the mass availability of information, so that an entrepreneur can utilize his expertise to innovate and improve the financial performance of the organization. This section consists concepts about socioemotional wealth and the development of hypotheses between study variables, such as an relationship between financial literacy and financial performance, the relationship between risk aversion and financial performance, the relationship between risk aversion and innovative behaviour, the relationship between financial literacy and innovative behaviour, the relationship between innovative behaviour and financial performance, and the relationship between financial literacy, risk aversion, innovative behaviour, and financial performance.

Entrepreneurship

The theory of entrepreneurship suggests that the development of information can expand the scope of corporate innovation (Khursheed et al., 2021). This information can arise due to information coming out of large companies or information about the strategies used by new entrepreneurs. With this information, SME owners can maximize their resources to make innovations for their companies. In addition, in running a business, an entrepreneur needs adequate knowledge and ability to raise external financial capital (Block et al., 2013). Previous literature has shown that financial literacy assists business owners in managing the company's financial capital effectively, thereby increasing their performance (Diéguez-Soto et al., 2022). Financial literacy capabilities help SME owners manage information to support the creation of innovations for companies that ultimately improve company performance. Based on this, researchers use this theory as a basis for building relationships between financial literacy, innovative behavior, and financial performance.

Socio-Emotional Wealth

There are similarities in characteristics between SME and family businesses (Bertschi-Michel et al., 2019; Di Toma, 2020; Gamble et al., 2021), so researchers apply social-emotional wealth (SEW) as the basic theory in this study. Socio-emotional wealth (SEW) is considered a unique factor that describes the company's non-economic goals in order to maintain the stability of small businesses (Holt et al., 2018; Yadav, 2021). Previous studies have proven that SEW is related to risk aversion (Baixauli-Soler et al., 2021). This is reinforced (Gómez-Mejía et al., 2007) that SEW can be used to avoid company losses. In small businesses, risk avoidance of SEW is prioritized over risk avoidance of financial loss (Berrone et al., 2012; Gómez-Mejía et al., 2007). In addition to risk aversion, it turns out that SEW is related to innovation decisions that are beneficial to companies (Filser et al., 2018; Weimann et al., 2020), which ultimately improve financial performance (Gottardo & Moisello, 2015). In line with this, previous research found that SEW can explain the relationship between innovation and firm performance (Meroño-Cerdán et al., 2018; Patel & Chrisman, 2014).

Financial Literacy and Financial Performance

Lin and Bates (2022) describe financial literacy as a person's fundamental understanding of debt management. Financial literacy is the ability to make sound financial decisions (Tumba et al., 2022). Financial literacy is crucial for educating individuals in recognizing financial behaviors that encourage good financial resource management, internal and external (Shaferi et al., 2018; Tumba et al., 2022). It allows business owners or managers to understand essential financial concepts such as interest rates, risk, return on investment, inflation, and investment diversification. Meanwhile, a lack of financial literacy leads to poor investment choices (Bianchi, 2018; Shaik et al., 2022).

Previous research has linked financial literacy with financial performance. Financial performance is defined as the evaluation and interpretation of the company's financial position and operations which involve comparisons and interpretations of accounting data (Bag & Omrane, 2022; Eljelly, 2004). Meanwhile, the purpose of financial analysis is to diagnose the information in financial statements to assess a company's profitability and financial health (Dalayeen, 2017). Financial literacy has been demonstrated to have a significant positive effect on a company's financial performance because companies with access to financial information will invest in more profitable businesses (Agyei, 2018; Wibowo, 2015). The better the financial literacy, the higher the opportunity to improve financial performance (Sohilauw et al., 2020). By using (financial) knowledge and knowledge of calculating loan interest rates, SME owners can be selective in finding sources of business capital to run their businesses, ultimately improving their financial performance. Conversely, a lack of financial literacy can limit access to financial resources, and a lack of investment knowledge can limit financial performance (Diéguez-Soto et al., 2022). Therefore, this research proposed the following hypothesis:

H1: Financial literacy of SME owners has a positive effect on the financial performance of SMEs.

Risk Aversion and Financial Performance

Risk aversion in the economic and financial context is a person's tendency to choose results with low uncertainty over results with high uncertainty (Vernengo et al., 2020). Risk aversion is the term used to describe a person's tendency to prefer situations with more predictable but possibly lower outcomes over those with highly unpredictable but potentially higher outcomes. Several studies have examined risk aversion in the scope of small business (González et al., 2013; Hiebl, 2012; Ibáñez, 2021) and associated it with financial performance (Meroño-Cerdán et al., 2018; Ogalo, 2019; Upadhyay et al., 2017). Prior research (Lopes, 1995; Nyanga & Chindanya, 2021) explains that the motivation of managers or small business owners in carrying out risk aversion is generally motivated by the safety of their business. SMEs tend to avoid losses by maintaining their socio-emotional wealth, causing them to be risk-averse when it comes to business opportunities (Carney et al., 2015; Kempers et al., 2018; Meroño-Cerdán et al., 2018), which will affect their financial performance. Previous research has demonstrated a relationship between small business owners aversion to risk and their financial performance (Meroño-Cerdán et al., 2018). Thus, the second hypothesis is developed as follows:

H2: Risk aversion of SME owners has a positive effect on the financial performance of SMEs.

Risk aversion and Innovative Behavior

Small companies generally show lower entrepreneurial activity in the innovation process (Jaskiewicz et al., 2015). In line with this research, research conducted by Purwidianti et al. (2021) provides an illustration that the risk tolerance of SMEs is at a medium level. It may be due to changes in risk aversion related to investing in innovative projects (Beck et al., 2011). According to the SEW approach, small businesses that are still growing but have much profit tend to expand (Gómez-Mejía et al., 2007). In addition, business owners or managers who feel taking control of their organization and environment can actively participate in managing change through innovation (Wijbenga & van Witteloostuijn, 2007). In line with this statement, previous studies have shown a relationship between risk aversion and innovation (Huybrechts et al., 2013). Risk aversion by entrepreneurs is a step of interest alignment and a long-term perspective that will prevent resource exploitation decisions that do not lead to sustainable competitiveness (Mishra & Mcconaughy, 1999). This step allows small-scale entrepreneurs with risk aversion to choosing innovations that will be profitable in the long term. Thus, the third hypothesis is formulated as follows:

H3: Risk aversion of SME owners has a positive effect on the innovative behavior of SMEs.

Financial literacy and Innovative Behavior

Financial literacy is known to affect company decisions, especially in innovation decisions (García-Pérez-de-Lema et al., 2021). Other empirical research shows evidence that financial literacy can significantly influence innovation (Illmeyer et al., 2017). The financial management culture of a company determines the factors that drive innovation, and these factors include effective cost and revenue management, a focus on long-term financial goals, deliberate financial planning, the attitude toward management funding, and adaptation of new banking solutions (Győri et al., 2019; Illmeyer et al., 2017). Research conducted in the SME sector shows that financial literacy can help SME owners recognize the potential financial returns from investing in R&D, which can substantially increase company innovation (Liu et al., 2021; Tian et al., 2020). This research suspect that financial literacy will be positively related to innovative behavior, as shown in the following hypothesis:

H4: Financial literacy of SME owners has a positive effect on the innovative behavior of SMEs.

Innovative Behavior and Financial Performance

Innovative behavior refers to introducing and applying new ideas, products, processes, and procedures to a person's work role, unit, or organization (Bagheri et al., 2022; Yuan & Woodman, 2010). Yuan and Woodman (2010) further explained that innovative behavior is a broader concept than creativity and includes a variety of behaviors involved in generating, promoting, and implementing new ideas. The use of technology can encourage sustainability and growth, and it can facilitate business success (Budiarto & Pramudiati, 2018; Fowowe, 2017). Several studies have linked innovative behavior with various performances (Kijkasiwat & Phuensane, 2020; Lu & Chesbrough, 2022; Meroño-Cerdán et al., 2018). Furthermore, previous studies have also found a positive relationship between innovative behavior and SMEs' performance (Kijkasiwat & Phuensane, 2020; Shashi et al., 2019; Wellalage & Fernandez, 2019). Other research found that failure to consider the negative effects of innovation might impact the environment and growth of a business (Laforet, 2011). The literature provides strong evidence for the positive effects of innovation on company performance. Thus, the fifth hypothesis is developed as follows:
H5: Innovative behavior of SME owners has a positive effect on the financial performance of SMEs.

Financial literacy, Risk aversion, Innovative Behavior, and Financial Performance

The need for financial literacy has received more attention because of its role in financial performance (Tuffour et al., 2020). Previous research has found that financial literacy significantly affects financial performance (Agyei, 2018; Wibowo, 2015). Good financial literacy increases the ability of managers to manage financial strategies, including determining capital structure (Sohilauw et al., 2020). So, the better the financial literacy, the higher the opportunity to improve financial performance (Sohilauw et al., 2020). On the other hand, a low level of financial literacy in SMEs has caused the business failure (Tuffour & Barnor, 2019). For this reason, a mediating variable is needed to bridge the relationship between financial literacy and financial performance so that the relationship remains positive. For this reason, we proposed innovative behavior as the mediating variable. The financial performance of SMEs is expected to improve when SME owners exhibit more innovative behavior due to having strong financial literacy. The proposal of innovative behavior as mediating variable is strengthened by previous research, which shows evidence that financial literacy can significantly influence innovation (Illmeyer et al., 2017). Financial literacy can help SME owners to realize the potential financial returns from investing in R&D, which can then substantially increase company innovation (Liu et al., 2021; Tian et al., 2020), which ultimately improves financial performance (Kijkasiwat & Phuensane, 2020; Lu & Chesbrough, 2022; Meroño-Cerdán et al., 2018). Thus, the sixth hypothesis is formulated as follows:

H6: Innovative behavior mediates the relationship between financial literacy and financial performance.

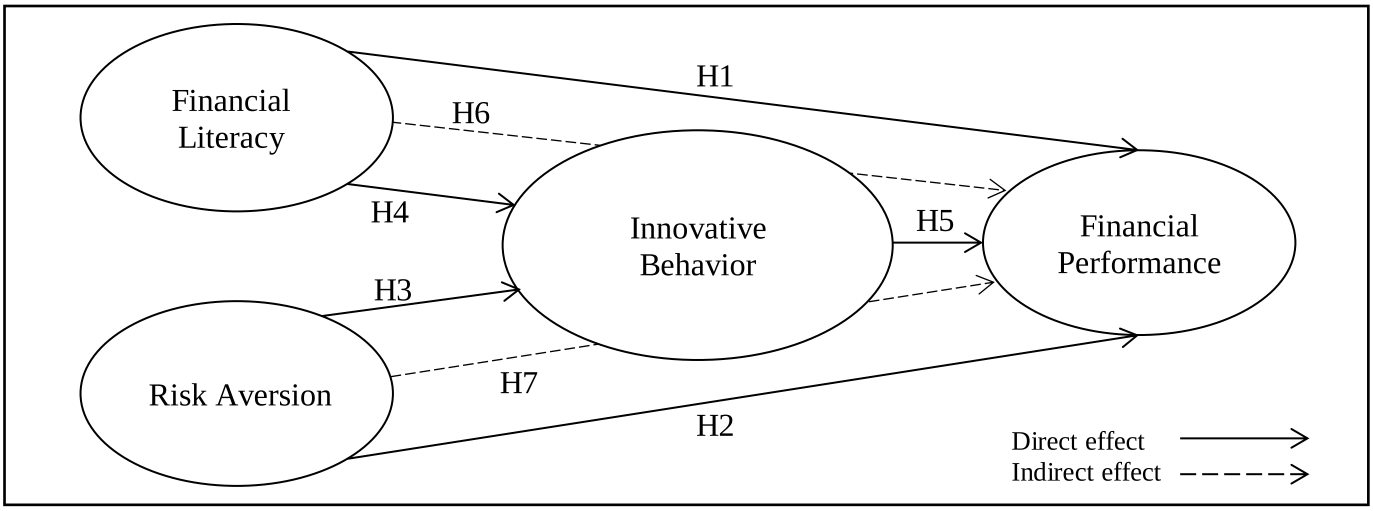
Contrary to financial literacy, most managers and business owners frequently take no risks to prevent unfavorable consequences. Previous studies have shown that risk-averse managers are less likely to promote innovation and entrepreneurial behavior in their organizations when they are required to meet performance goals (Hoppe et al., 2017; Nicholson-Crotty et al., 2017). On the other hand, small businesses such as SMEs tend to risk aversion when they feel pressure (from their families) to keep the business going (Gómez-Mejía et al., 2007). These two slightly different findings lead us to overcome their discrepancy. Therefore, we proposed innovative behavior as the mediating variable. We hope organizational innovation will rise when SME owners are willing to take risks (Nicholson-Crotty et al., 2017). Well-managed risk aversion is a strategic step that has been proven to increase sustainable competitiveness (Nicholson-Crotty et al., 2017; Wijbenga & van Witteloostuijn, 2007), which then leads to innovative behavior that can improve financial performance (Kijkasiwat & Phuensane, 2020; Lu & Chesbrough, 2022; Meroño-Cerdán et al., 2018). Thus, the seventh hypothesis is formulated as follows:

H7: Innovative behavior mediates the relationship between risk aversion and financial performance.

The proposed research model is depicted in Figure 1 based on the theoretical review and the proposed hypotheses.

Figure 1

Proposed Conceptual Framework



Method

Participants

The population of the research is SME owners in Lampung, Indonesia. Data reported by the Indonesian Ministry of Cooperatives and Small and Medium Enterprises (Kemenkop UKM) shows a total of 8.71 million SMEs in Indonesia by 2022, with more than half of them located on the island of Java and Sumatra. However, research in Sumatra and Lampung in particular has not been carried out much. In fact, Lampung is one of the areas on the island of Sumatra which has the largest number of SMEs (Santika, 2023). This underlies the research conducted in the Lampung region. The method used in this study is non-probability sampling with accidental sampling technique. Accidental sampling is a type of nonprobability sampling in which members of the target population meet certain criteria, such as ease of accessibility, geographical proximity, availability at a certain time, or willingness to participate in accordance with the research objectives (Etikan, 2016). Questionnaires distributed to SME owners according to the research context. Researchers distributed online questionnaires by sending a Google form link via private message. Questionnaires were sent to 310 SME owners and 289 of them responded during the data collection period from July to August 2022. The percentage of questionnaires that were responded to was 93.2%. According to Loehlin and Beaujean (2016), the minimum sample size required to reduce bias in all types of SEM estimates is 200. Based on these sample requirements, this study met the sample criteria of 289 samples. The responses obtained were then proceeded and analyzed.

Instruments

The questionnaire was developed using the results of previous empirical studies and background theories. The questionnaire was created in English and then translated into Bahasa. The questionnaires were translated into Bahasa by academics fluent in both languages. The data was then gathered using Bahasa questionnaires. The translated Bahasa version was eventually translated back into English for this study. All items were measured by a five-point Likert scale, in which 5 = strongly agrees, 4 = agree, 3 = not sure, 2 = disagree and 1 = strongly disagree.

Financial literacy in this study was developed from previous research (Tumba et al., 2022), which consists of 5 statements: "I know the current level of inflation and interest rates"; "I am able to predict how much cash is coming in and going out of my business"; "I record all income and expenses of my business"; "I am able to evaluate investment alternatives in financial markets"; "I understand balance sheets, income statements, and cash flow". The scale showed good reliability with Cronbach's alpha of .89. Meanwhile, to describe risk aversion, we developed the statement items from previous research (Meroño-Cerdán et al., 2018), "I tend to work on projects with definite results"; "I tend to do production activities that have been done before"; "I tend to choose investments or projects that have low risk". The scale showed good reliability with Cronbach's alpha of .88. To measure innovative behavior, this research used 5 statement items developed from previous research (Expósito & Sanchis-Llopis, 2019; Meroño-Cerdán et al., 2018): "I make many modifications to products or services"; "I am constantly looking for new ideas in product or service development"; "I make the development of new innovations on products or services"; "I make new innovations in the process of creating a product or service"; "I made a new innovation in my business management system". The scale showed good reliability with Cronbach's alpha of .90. Lastly, to assess financial performance, 4 statement items developed from previous research (Lee, 2021; Tumba et al., 2022): "My business has experienced an increase in sales after innovating"; "There has been a decrease in production costs due to innovations"; "My business has increased profits after innovating"; "There is a decrease in fixed costs in production due to innovations made". The scale showed good reliability with Cronbach's alpha of .87.

Procedure

A survey approach was used to collect data through online questionnaires via Google Forms. The progress of filling out the data collection was evaluated every week to see the number of incoming responses. Based on the last evaluation, 289 responses out of 310 questionnaires distributed were obtained.

This evaluation includes checking the completeness and appropriateness of the respondent's answers to the questions asked. There were five incomplete and inappropriate responses, which were excluded from the data test. After the data was collected and sorted, the instrument was tested for its validity and reliability. Validity and reliability tests are used to see whether the data obtained from the research instrument meets the model testing requirements (Yudiatmaja et al., 2022). The significant p value must be greater than 0.05 for the data to meet the validity and reliability test criteria (Hair et al., 2013). The Cronbach's alpha value can be used to verify the reliability test. If the value is more than 0.07, the data is considered reliable.

Ethical Considerations.

This research has met strict ethical clearance in the data collection because it involves humans. Prior to conducting the initial survey, an ethical permit application and research protocol were requested by the ethics committee of the Faculty of Economics of Krisnadwipayana University to obtain ethical approval with references No.113/KOMET/PPPM/FE-UK/VII/2022, July 28, 2022.

Results

Descriptive Analysis

The research was conducted in Lampung, one of the provinces in Indonesia. The data obtained in this study were from 284 people. The respondents were mostly male (50.4%). The majority of respondent ages ranged from 20 to 30 years (52.8%). More than half of the respondents have a high school or equivalent education level (51.8%) with less than 5 years of business experience (71.5%). The majority of businesses owned by respondents are less than 5 years old (65.8%) and have less than 10 employees (95.8%).

Measurement Model Assessment

Confirmatory factor analysis (CFA) using SEM was conducted before analyzing the data. Based on the CFA results in Table 1, it can be seen that the AVE value is greater than .50, and the CR value is greater than .70 for each variable, as suggested by Hair et al. (2010).

Table 1

Reliability and Validity Analysis

Construct	Items	Standardized Loading	Composite Reliability (CR)	Average Variance Extracted (AVE)
Financial literacy	5 items	.75 – .82	.89	.63
Risk aversion	3 items	.79 - .91	.89	.74
Innovative behavior	5 items	.72 - .89	.90	.65
Financial performance	4 items	.62 - .91	.85	.60

Furthermore, researchers conducted a model suitability test to determine whether the proposed model matches the data. In addition, the goodness of fit was tested using several measurement parameters, such as chi-square/degrees of freedom (χ^2/df), Tucker Lewis Index (TLI), and root-mean-square error of approximation (RMSEA). It is clear from the model analysis results that this research model meets the goodness of fit criteria. Table 2 provides more specific information about the measurement results from the goodness of fit model.

Table 2

Goodness of Fit Measures of the Full Model

Parameter	Cut-off Value	Result	Interpretation
χ^2/df	< 3.00	2.00	Fit
GFI	≥ .90	.91	Good fit
NFI	≥ .90	.94	Good fit
TLI	≥ .90	.96	Good fit
RMSEA	≤ .08	.06	Good fit

Structural Model Assessment

The structural model in this study was tested using SEM with the maximum likelihood prediction technique. The goodness of fit parameter presented in Table 3 shows a satisfactory fit index. Furthermore, the research hypothesis was calculated using SEM with 5,000 bootstrapped samples and a 95% confidence interval (CI) (Hayes, 2018). Table 3 shows the findings of the research hypothesis testing.

Table 3

Hypotheses Testing

Hypotheses	Path	Standardized Coefficient	*p*-value	Result
H1	FL → FP	.27	.006	Supported
H2	RA → FP	.21	***	Supported
H3	RA → IB	.16	.005	Supported
H4	FL → IB	.73	***	Supported
H5	IB → FP	.39	***	Supported
H6	FL → IB → FP	.04	***	Supported
H7	RA → IB → FP	.34	.01	Supported

Note. *** Significance at the level 0.001 ($p < 0.001$); $p < .05$; FL= financial literacy; RA= risk aversion; IB=innovative behavior; FP= financial performance

The SEM findings demonstrate that financial literacy significantly and positively affects financial performance ($\beta = .27$, $p < .05$). Thus, the first hypothesis of this study is supported. Risk aversion is found to have a positive and significant effect on financial performance ($\beta = .21$, $p < .00$). So, H2 is also supported. Risk aversion is found to have a positive and significant effect on innovative behavior ($\beta = .16$, $p < .05$), indicating that H3 is supported. Furthermore, the test results show that financial literacy positively and significantly affects innovative behavior ($\beta = .73$, $p < .00$), indicating that H4 is accepted. Meanwhile, innovative behavior has a positive and significant effect on financial performance ($\beta = .39$, $p < .00$), indicating that H5 is supported.

The results of this study show that the relationship between financial literacy and financial performance is mediated by innovative behavior ($\beta = .04$, $p < .00$), indicating that H6 is supported. Furthermore, the relationship between risk aversion and financial performance is mediated by innovative behavior ($\beta = .34$, $p < .05$), indicating that H7 is supported. Following Hayes (2018), when innovative behavior entered the relationship between financial literacy and financial performance, the direct effect was significant. When innovative behavior entered the relationship between risk aversion and financial performance, the direct effect was significant. Hence, innovative behavior is considered as a mediator for financial literacy on financial performance and risk aversion on financial performance.

Discussion and Conclusion

This study aims to determine the innovation behavior of SME owners on their financial performance. The results show that innovative behavior can improve the financial performance of SME. To be discussed are seven interesting study findings. The first finding demonstrates that financial literacy positively affects financial performance — in other words, SME financial performance improves when the owners have a high level of financial literacy. Financially aware SME owners are able to organize resources to spur the financial performance of SMEs (Purnomo, 2019) and identify new opportunities for growth and financial performance improvements (Shepherd & DeTienne, 2005). Being financially aware will also help SME owners better grasp the market and customer demand, which will help them improve SME financial performance and competitiveness (Songling et al., 2018).

The second finding shows that risk aversion has a positive effect on financial performance. The risk-averse behavior of SME owners will affect the improvement of the company's financial performance.

Rooted in behavioral agency theory which was later developed to become an implicit assumption in the SEW model, previous empirical research has proven that maintaining SEW, one of which is by carrying out risk aversion, can build competitive advantage and have a positive impact on company's long-term financial performance (Berrone et al., 2010; King & Lenox, 2002). The third finding is that risk aversion affects innovative behavior positively, i.e., when SME owners undertake risk aversion, their innovative behavior also increases. In line with previous research (Huybrechts et al., 2013; Mishra & Mcconaughy, 1999), risk aversion is viewed as a long-term strategy by business owners to avoid resource exploitation and create sustained competitiveness.

The fourth finding shows a positive relationship between financial literacy and innovative behavior, revealing that SME owners with a high financial literacy level can encourage more innovation in their organizations. This finding is in line with previous research (Barker & Mueller, 2002), which proved a positive relationship between financial literacy and company innovation. Financially aware business owners are qualified to make better decisions about the trade-offs between the risks and returns of various replacement projects (García-Pérez-de-Lema et al., 2021) so that they may identify financial benefits that outweigh the investment (Liu et al., 2021). The fifth finding demonstrates how SME owners' innovative behavior can improve the financial performance of SMEs. It indicates that innovative SME owners typically have better financial results. This finding support Varis and Littunen (2010), who state that innovation and financial performance are positively related. In finance, innovative behavior is closely tied to reducing business operating expenses, leading to higher profits (Klewitz & Hansen, 2014).

The supported hypothesis 6 indicates that innovative behavior mediates the relationship between financial literacy and financial performance. It implies that SME owners with strong financial literacy will encourage innovative behavior and contribute to the financial performance of SMEs. This finding is in line with research by Wahyono and Hutahayan (2021), who found a significant relationship between financial literacy, innovation, and performance. When SME owners have good financial literacy, such as recognizing the potential financial returns from investment returns and how to operationalize finance according to their interests, they will be able to strategically identify and respond to business changes and economic and financial climates. Thus, the decisions will create innovative and well-directed solutions to improve financial performance and business sustainability. The last hypothesis of this study is also supported, which shows that innovative behavior is proven to mediate the relationship between risk aversion and financial performance. It indicates a significant relationship between the contribution of risk to innovation and performance. Managing risk aversion in SME impacts short-term decisions that are proven to affect performance (Meroño et al., 2018). The ability of SMEs to manage risks and allocate resources dynamically in response to shifting circumstances has a positive impact on the innovation process and ultimately helps SMEs perform financially better (Kijkasiwat & Phuensane, 2020; Lu & Chesbrough, 2022; Meroño-Cerdán et al., 2018).

Limitations

The gathering of cross-sectional data is one of the many limitations of this study. The conclusions drawn about the causal relationships between the constructs under consideration may be inaccurate. This limitation can be used to guide future research into longitudinal research. The following limitation is about the mediating variable used, innovative behavior. Future research can look at additional factors that could mediate the relationship between financial literacy and risk aversion.

Implication for Behavioral Science

The findings of this research have theoretical and practical implications for behavioral science. First, this study builds on previous research by creating a research model that combines knowledge, in this case financial literacy, decision making (risk aversion), and human behavior in the form of innovative behavior to predict financial performance. Second, this study adds to the literature on entrepreneurship theory (Acs et al., 2009; Schumpeter, 1947) by studying how SME owners' financial literacy can boost innovative behavior, which ultimately improves financial performance. Furthermore, by testing SEW in the setting of SMEs, this study broadened its application. This study looked into how SEW, as a research foundation, influenced SMEs' use of innovation measures (Fuetsch, 2022; Reina & Villar, 2022). From a practical standpoint, recent study shows that the stronger SME owners' grasp of finance, the better their innovative behavior. It is critical that SME owners are encouraged to increase their financial literacy by reading widely and attending finance classes or workshops organized by the government and the private sector, because the greater the knowledge, the more innovative behavior will be demonstrated, which will ultimately benefit their business. SMEs, on the other hand, must combine risk aversion with innovative activity to attain long-term competitive advantage.

Conclusion

Current research contributes to understanding the factors that can strengthen the financial performance of SMEs, especially SMEs in Lampung, Indonesia. The factors considered in this study are based on relevant previous research. The results of the study show that financial literacy and risk aversion have a positive effect on the financial performance, and it is proven that innovative behavior mediates this relationship. This shows that SME owners must understand that innovative behavior is needed in implementing financial literacy and risk aversion to improve financial performance.

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