

The Impact of Entrepreneurship and Mental Accounting on Business Sustainability: Exploring the Influence of Financial Performance

Sri Mulyani ^{1,2}, Rahmawati ², Djuminah ², Evi Gantowati ² and Endang Dwi Amperawati ³

¹ Department of Management, Faculty of Economics and Business, Universitas Muria Kudus, Kudus 59327, Indonesia;

² Department of Management, Faculty of Economics and Business, Universitas Sebelas Maret, Solo 57126, Indonesia;

³ Department of Management, Faculty of Economics and Business, Universitas Primagraha, Banten 15339, Indonesia;

Corresponding author*: e-mail: s.mulyani@umk.ac.id.

ABSTRACT: The primary objective of this study is to explore and understand the impact of entrepreneurship (EP) and mental accounting (MA) on financial performance (FP) and business sustainability (BS) in Micro, Small, and Medium Enterprises (MSMEs) in Central Java, Indonesia. This study assesses how these factors contribute to the long-term success of MSMEs, the backbone of a country's economy. The quantitative methodology relies on the Partial Least Squares Structural Equation Modeling (PLS-SEM) to predict and confirm the relationships among variables. A purposive sampling technique was chosen to collect data from 473 MSME respondents in Central Java, ensuring that the selected sample had characteristics relevant to the research focus. This study fills a research gap by focusing on the role of financial performance as a mediator between entrepreneurship, mental accounting, and business sustainability, which has not been extensively explored in prior literature. The study results indicate that EP and MA positively impact the FP and BS of MSMEs. The specific finding that FP mediates the positive relationship between EP and MA with BS provides new insights that can be used to design policies and programs supporting the growth and sustainability of MSMEs. The implications of these findings are highly relevant for stakeholders and policymakers involved with MSMEs. By strengthening entrepreneurial capacities and accounting practices, MSMEs can enhance financial performance to support long-term business sustainability. This research suggests that targeted interventions in entrepreneurial training and accounting education could be effective strategies to improve the sustainability of MSMEs. This study contributes significantly to the existing literature and paves the way for further research on factors affecting business sustainability in the MSME sector.

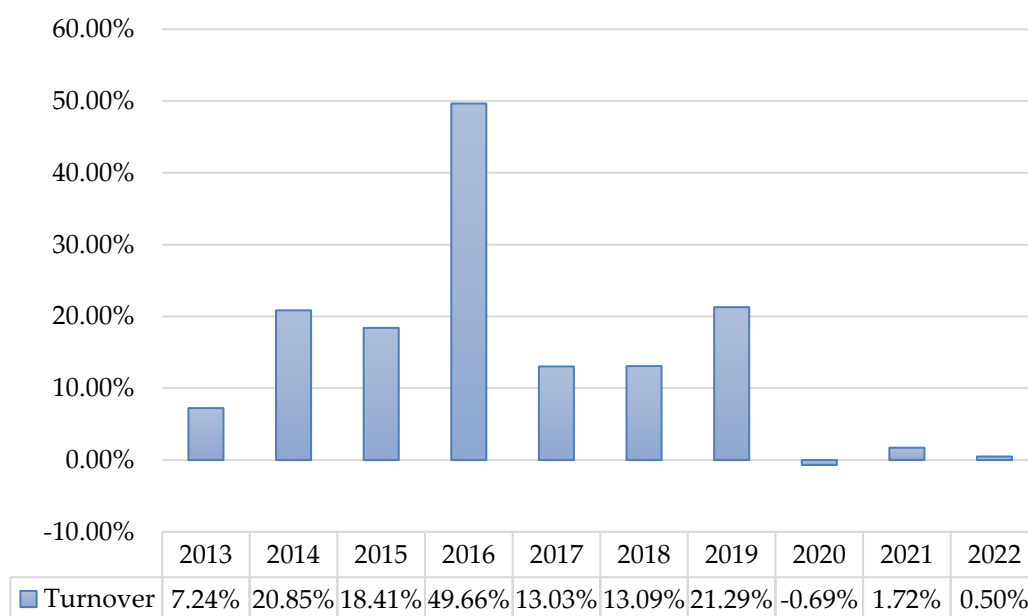
Keywords: Entrepreneurship, mental accounting, financial performance, MSMEs sustainability.

I. INTRODUCTION

Business sustainability (BS) is a topic that has been widely discussed by various professionals and academics to support sustainable economic growth [1]. According to Ye & Kulathunga [2], a sustainable company undergoes continuous development and generates long-term benefits. Therefore, the examination of BS from an economic perspective aid in pursuing sustained economic expansion over an extended period. The government needs to prioritize and devote attention to Micro, Small, and Medium Enterprises (MSMEs) sector. Based on the Coordinating Ministry for Economic Affairs of Indonesian website, MSMEs have a significant influence on economic development. Moreover, about 90% of the business units in Indonesia account for 60.5% of Gross Domestic Product (GDP) and 96.9% of the total employment [3]. These data serve as significant indicators for the Indonesian economy and warrant attention from multiple stakeholders, particularly the government [4-6]. Globally, Indonesia holds the third position

in terms of contribution to GDP of economic sector [7]. According to International Labor Organization (ILO) report from August 2019, MSMEs and entrepreneurs provide about 70% of job opportunities in 99 countries [8].

During the COVID-19 pandemic, MSMEs faced a downturn in business operations due to the restrictions imposed on economic and social activities, which undermined the ability to maintain long-term viability [9]. MSMEs that experienced the most significant financial setbacks as a result of the COVID-19 pandemic were mainly hindered by insufficient resources, particularly in terms of finance and management [4, 10]. Additionally, these enterprises were not adequately equipped to handle the prolonged interruptions caused by the pandemic. After the COVID-19 pandemic, a report showed that 84.8% of MSMEs have resumed regular operations [11]. However, after the COVID-19 pandemic, MSMEs in Central Java still experienced significant fluctuations in sales turnover, as shown in Figure 1, wherein in 2022, sales turnover decreased by 0.5% from 2021. Facing this challenge, understanding entrepreneurial (EP) and mental accounting (MA) can provide insights into improving financial performance (FP) and business sustainability (BS).



Source: Office of Cooperatives, Small and Medium Enterprises of Central Java Province (processed 2023).

FIGURE 1. Growth in Total Turnover of MSMEs in Central Java Indonesia

Entrepreneurship in Central Java, characterized by innovation and a willingness to take risks, is a crucial factor that enables MSMEs to survive in uncertain market conditions. Furthermore, adopting mental accounting, an approach introduced by Richard H. Thaler [12], allows entrepreneurs to manage finances more effectively, make profitable decisions, and ultimately support long-term sustainability.

It is crucial to ensure the long-term viability of MSMEs without negatively influencing the country's economy and social standing [13]. Therefore, enhancing BS in Central Java, Indonesia is very significant because it is a practice adopted by other nations worldwide. According to several studies, successfully managing company involves persistence, innovative thinking, and resourcefulness, which can be provided by the community [13, 14].

MSMEs are categorized as entrepreneurs who are innovative, willing to take risks, and possess substantial expertise and knowledge. To become an entrepreneur, an individual needs a strong work ethic and reading skills [15]. The invention enables MSMEs to foster innovation to enhance financial performance (FP) and ensure long-term viability [16]. Moreover, not all entrepreneurs can instantaneously achieve success, necessitating commitment and attitude [17]. An entrepreneur needs to possess entrepreneurial mindset which includes knowledge that can influence the thought process associated with entrepreneurship (EP) [18]. MSMEs actors in business management need

adequate knowledge and business drive [19]. As a fundamental element in starting a business, assistance from the surrounding environment is crucial in terms of moral support and material resources [20]. Therefore, businesses should be started on a concept that necessitates adjustment to the opportunities and capabilities of MSMEs actors. An inexperienced entrepreneur should have the capacity to endure and thrive in the commercial world. In addition, BS is essential for growth and expansion [21].

MSMEs actors need to enhance mental accounting (MA) and EP to improve FP and actively cultivate good financial habits. MA is an economic concept introduced by Nobel winner Richard H. Thaler [12]. The actors need to establish a well-defined psychological accounting system similar to large company. This frequently leads to an unforeseen influence on decision-making, as individual actions contradict sensible economic choices [22,23]. Therefore, MSMEs actors need to enhance MA to improve business performance [24].

Research on entrepreneurship and financial performance has been extensively conducted [25–29]. However, there is still a lack of studies that examine the impact of EP on BS in MSMEs, which creates a knowledge and contextual gap in the literature on entrepreneurship, financial performance, and business sustainability. Based on a study conducted by Gomes et al. [30] across many industrial sectors in Brazil, companies that showed strong performance could sustain business continuity. Gomes et al. [30] also proposed that implementing a management system and producing products that adhere to global market standards are crucial for ensuring the long-term viability of industrial businesses. Several studies have been conducted on companies' FP and long-term viability [31–33]. Previous research results indicate that a company's financial performance significantly impacts long-term survival [31–33]. Therefore, sustainability can be influenced by long-term FP [34].

Given the above gap, this research examines the impact of EP and MA on FP and BS in MSMEs in Central Java, Indonesia. The results of this study will provide two significant contributions. Firstly, it enhanced the existing body of literature by emphasizing the factors that influence the long-term viability of MSMEs in Central Java, Indonesia. Secondly, this study established a correlation between EP, mental accountability, FP, and BS in one model, a relationship not explored in previous surveys. Studies such as Menne et al. [31], Soytaş et al. [32], and Trarintya et al. [33]) did not examine the correlation between EP, mental accountability, FP, and BS. This study explored the concept of BS and showed the significance of EP, MA, and FP. A goal-setting theory that had not been used in previous surveys was employed. It is hoped that this study will provide benefits for MSMEs to improve performance and maintain sustainability by optimizing EP and MA.

II. LITERATURE REVIEW

The fundamental concept of the goal-setting theory is that life is the pursuit of objectives through deliberate processes and actions [35]. This theory is a widely acknowledged conceptual framework that elucidates how goals can effectively motivate individuals and enhance overall performance [36]. According to Locke [37], implementing more specific, precise, and challenging strategies will improve performance outcomes. Furthermore, this hypothesis states that performance is more likely to be elevated when individuals are dedicated to attaining objectives [37,38]. The established objectives will incentivize an individual to adopt appropriate conduct in achieving the target goals [39]. Also, MSMEs actors should select appropriate strategies based on behavioral factors [40]. The actors can anticipate achieving the required objectives by cultivating a resilient entrepreneurial mindset and employing effective MA techniques. The goal-setting method includes both performance and the long-term viability and sustainability of company operations [39].

Wiklund & Shepherd [41] stated that EP is an effective strategy for enhancing FP of MSMEs. Malesev & Cherry [42] defined FP as the ability of company to increase the financial resources effectively. According to the goal-setting theory, MSMEs actors who establish clear and quantifiable objectives are motivated to work hard to achieve the desired outcomes. Individuals with entrepreneurial mindset will continue to generate new ideas and adopt creativity to improve FP. Deku et al. [25] showed that EP improved FP of MSMEs in Ghana. Furthermore, Imran et al. [26] in Pakistan found that EP had a positive influence on financial success. The following hypothesis was formulated:

H1: Entrepreneurship has a positive influence on financial performance

EP is a systematic approach that produces controlled outcomes through originality and novelty in addressing market demands and possibilities [43]. Organizational continuity is the practice of ensuring long-term viability by implementing a comprehensive management process that identifies potential threats to business activities and provides solutions [44]. According to the goal-setting theory, actors who have well-defined goals would be highly motivated to take action to achieve their aspirations. Therefore, MSMEs actors that possess strategies for BS typically have a robust entrepreneurial mindset. Previous studies showed that EP has a positive influence on BS. The study conducted by Suriyankietkaew [34] investigated the influence of EP on the long-term viability of small business owners in developing nations, specifically in Thailand. The results showed EP influenced the long-term viability of a business. Furthermore, the results of Asriati et al. [45] on entrepreneurs on the Malaysian Border showed that EP had a beneficial influence on the long-term success of craft businesses. The following hypothesis was formulated:

H2: Entrepreneurship has a positive influence on MSMEs sustainability

According to Radianto et al. [24], MA refers to the financial management practice of examining, categorizing, and handling company finances based on the capacity to generate revenue. When developing expenses, it is crucial to consider the source of money generation. MA is intricately related to human psychological factors and can serve as a valuable tool in company management. Furthermore, it indirectly instructs MSMEs to differentiate between funds allocated for business purposes and funds designated for personal use. MSMEs that effectively utilize MA will facilitate good decision-making. According to the goal-setting theory, establishing FP targets motivates MSMEs to engage in suitable MA. FP assessment of MSMEs would influence the mentality of a businessman. The following hypothesis was formulated:

H3: Mental accounting has a positive influence on financial performance

MA refers to the cognitive processes used by individuals to manage, evaluate, and sustain financial activities [12]. Adopting a positive MA behavior can incentivize MSMEs to be cautious when managing business finances, thereby contributing to long-term viability. According to the goal-setting theory, MSMEs strive to achieve the goals established by the company by following the objectives. MSMEs are more prudent in managing company finances by setting long-term business viability goals. Positive MA behavior is expected to contribute to the long-term viability of MSMEs. Radianto et al. [24] found that using practical MA had a beneficial influence on enhancing and maintaining financial literacy. In addition, Talab et al. [46] showed that MA influenced decision-making in commercial endeavors to achieve BS. The following hypothesis was formulated:

H4: Mental accounting has a positive influence on MSMEs sustainability

MSMEs sustainability refers to the ability to maintain a consistent positive FP over a period of time. MSMEs are motivated by positive performance to contemplate future prospects. Moreover, achieving optimal performance can promote the longevity of BS [31]. Based on the goal-setting theory, long-term objectives can facilitate greater actions than short-term. When MSMEs have sustainability goals for the next generation, then they will work hard to improve FP. Therefore, good FP has an influence on long-term BS. The results of Poursoleyman et al. [47] showed that FP positively influenced businesses sustainability. Menne et al. [31] showed that FP of MSMEs positively influenced BS. Furthermore, Wiagustini et al. [48] found a direct correlation between FP and the ability of company to maintain long-term viability. The formulated hypotheses are as follows:

H5: Financial performance has a positive influence on MSMEs sustainability

MSMEs actors with robust entrepreneurial characteristics will demonstrate innovative behaviors, embrace risk-taking, and show proactive tendencies [49]. MSMEs actors with a robust entrepreneurial mindset can effectively uphold BS. Moreover, MSMEs achieve strong sustainability by experiencing expansion and higher income, manufacturing high-quality products, demonstrating competitiveness in the market, and operating in favorable business conditions [31]. Company that can ensure business continuity needs to demonstrate solid financial success. Consistently achieving high performance in each era ensures prolonged business continuity. Based on the theory of goal setting, optimistic MSMEs actors are always innovative, proactive, and show good entrepreneurial spirit. The theory also posits that BS is the result of current actions. Therefore, BS is due to good performance and a high entrepreneurial spirit. The hypothesis was formulated as follows:

H6: Entrepreneurship has a positive influence on MSMEs sustainability through financial performance

Asriati et al. [45] defined BS as a continuous and enduring state that ensures the existence and resilience of a business. Therefore, effectively implementing MA will positively benefit the long-term viability of MSMEs. The long-term viability is influenced by the company's positive FP, and longevity is contingent upon prevailing circumstances [39]. Consequently, company FP at each time is intrinsically related to BS. Based on the goal-setting theory, high determination leads to strong behavior in realizing the set goals. Actors who set long-term goals for the business will last for a long time, thereby promoting MSMEs to strengthen the application of MA. Also, long-term business is determined by current events [39]. This means that BS is inseparable from FP. The hypothesis was formulated as follows:

H7: Mental accounting has a positive influence on MSMEs sustainability through financial performance

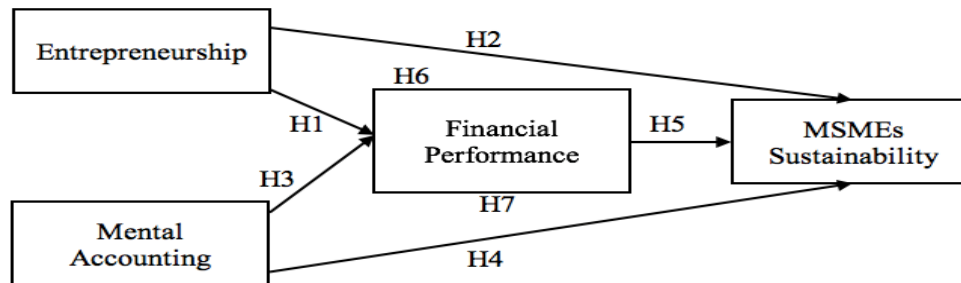


FIGURE 2. Study model

III. MATERIAL AND METHOD

1. DATA COLLECTION

This study used a purposive sampling method, and the eligibility criteria included individuals in the production sector of MSMEs, as well as those whose companies have been operational for a minimum of 3 years. The data were collected using questionnaires distributed to the respondents in Central Java through two channels, namely online and physically. Furthermore, the data were obtained for five months, starting from May to September 2023, and the sample was 473 respondents.

PLS-SEM required a minimum sample size, and G*Power is a software tool used to determine the sample size by considering statistical power. The statistical power value for this sample was 0.95, above the minimum threshold of 0.8 [50, 51]. Therefore, the sample size in this study was deemed satisfactory. Before data collection, construct validity testing of the questionnaire was conducted with a limited sample of representative respondents ($n = 30$) through face-to-face and in-person interviews [52]. The purpose of the pretest was to assess whether any questions were too challenging to answer due to lengthy phrases, complex expressions, or technical terminology [53]. The questionnaire was then revised using a back-translation method from English to Indonesian. Subsequently, the questionnaire was split into two sections, where the first and primary section had 21 items about the theoretical concept, while the second focused on gathering demographic information. Table 1 shows the specifications of respondents.

Table 1. Respondents' demographics

Characteristics of Respondents	Information	Frequency	Percentage
Gender	Male	228	48.20%
	Female	245	51.80%
Education	Basic Scholl	54	11.42%
	Junior High School	77	16.28%
	Senior High School	232	49.05%

Age	Bachelor	13	2.75%
	Postgraduate degree	88	18.60%
	Post-graduate	9	1.90%
	<25 years	112	23.68%
	25 – 30 years	29	6.13%
	31 – 35 years	67	14.16%
	36 – 40 years	42	8.88%
	41 – 45 years	106	22.41%
Types of business	>45 years	117	24.74%
	Food industry	13	2.75%
	Fashion	146	30.87%
Business life	Handicrafts	314	66.38%
	1 – 3 years	0	0.00%
	3 – 7 years	132	27.91%
	7 – 10 years	164	34.67%
	>10 years	177	37.42%
Turnover per year	<2 Billion	449	94.93%
	2 – 15 Billion	21	4.44%
	15 – 50 Billion	1	0.21%
	>50 Billion	2	0.42%
Domicile	Kudus Regency	178	37.63%
	Banyumas Regency	19	4.02%
	Batang Regency	3	0.63%
	Blora Regency	20	4.23%
	Boyolali Regency	3	0.63%
	Brebes Regency	3	0.63%
	Cilacap Regency	1	0.21%
	Demak Regency	41	8.67%
	Grobogan Regency	28	5.92%
	Jepara Regency	70	14.80%
	Karangayar Regency	5	1.06%
	Kebumen Regency	4	0.85%
	Klaten Regency	4	0.85%
	Magelang City	14	2.96%
	Pati Regency	64	13.53%
	Surakarta City	4	0.85%
	Semarang Regency	12	2.54%

Table 1 presents a comprehensive summary of the data about the respondents who participated in the study. In the Survey, 51.80% of respondents were females, 49.05% possessed a Senior High School education, 24.74% were above the age of 45, 66.38% operated a craft enterprise which is a significant majority in this industry and most of the

business establishments have operated for over ten years, accounting for 37.42%. The analysis also showed that 94.93% had a yearly turnover of less than 2 billion.

2. RESEARCH DESIGN

This study used a quantitative method with PLS-SEM to examine the influence of EP and MA on BS. Furthermore, it explored the mediating influence of FP. The primary benefit of utilizing PLS-SEM was to enhance the variance analyzed on the dependent variable and estimate the data based on the dimensions of the calculation model.

A survey method was used to gain insight into the phenomena of MSMEs sustainability in Indonesia. The instruments were modified from prior study papers and important literature. Furthermore, the questionnaire was initially translated from English to Bahasa Indonesia, with slight adjustments to suit the Indonesian context. EP was measured using six statement items obtained from references [25, 54]. Meanwhile, MA calculation included five statement items from references [55, 56]. To assess FP, five statement items were used from references [31, 57]. BS was assessed using five statement items from references [58, 59]. Moreover, respondents were asked about the rating scale for each statement criterion, ranging from 1 (strongly disagree) to 5 (strongly agree). This study utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) method, explicitly employing SmartPLS (version 3.0) software for data processing. The data analysis approach using PLS-SEM involves two steps: the first stage assesses the measurement model, while the second stage examines the relationships between constructs in the structural model [51].

IV. DATA ANALYSIS

1. EVALUATION OF EXTERNAL MODELS

The data analysis started by establishing PLS outer model, which aimed to ascertain the presence of dependable instruments utilized. The model's parameters for achieving dependability are met when composite reliability (CR) and Cronbach's Alpha are above the threshold of 0.05 [51]. Furthermore, the investigation showed that CR value for each construct was in the range of 0.861-0.887, indicating a high level of dependability (Table 2). According to Fornell & Larcker [60], the Convergent validity should be examined upon assessing reliability, and average variance extracted (AVE) value should not exceed 0.5. The results showed that each construct AVE was above 0.5, ranging from 0.553 to 0.611. This showed that convergent validity had been achieved. Discriminant validity was evaluated by examining cross-loading coefficients and analyzing convergence validity. Table 3 shows the cross-loading values of all variables (BS, EP, FP, and MA) fall in the range of 0.744 to 0.782, surpassing the threshold of 0.70. This indicated that the variables met the requirements for discriminant validity.

Table 2. Measurement of the outer model

Construct	Items	λ	α	CR	AVE
Entrepreneurship (EP)	EP1	0.703	0.840	0.882	0.555
	EP2	0.743			
	EP3	0.764			
	EP4	0.712			
	EP5	0.806			
	EP6	0.738			
Mental Accounting (MA)	MA1	0.785	0.841	0.887	0.611
	MA2	0.844			

Financial Performance (FP)	MA3	0.784			
	MA4	0.723			
	MA5	0.768			
	FP1	0.711	0.830	0.881	0.596
	FP2	0.811			
Business Sustainability (BS)	FP3	0.784			
	FP4	0.789			
	FP5	0.763			
	BS1	0.750	0.798	0.861	0.553
	BS2	0.710			
	BS3	0.784			
	BS4	0.762			
	BS5	0.709			

Source: SmartPLS data processing results (2023).

Table 2. Discriminant validity

Construct	BS	EP	FP	MA
BS	0.744			
EP	0.458	0.745		
FP	0.430	0.398	0.772	
MA	0.512	0.508	0.353	0.782

Source: SmartPLS data processing results (2023).

2. COLLINEARITY TEST

Collinearity test was used to ascertain the level of collinearity among the variables under investigation, as reflected by variance inflation coefficient (VIF). To pass collinearity test, VIF value needs to be less than 5.00 [51]. As determined from the initial scoring data, VIF coefficient values of all input variables were in the range of 1.508 to 2.323, which was below the threshold of 5.00. Therefore, it can be concluded that there was no collinearity among the configuration variables, and they were deemed genuine.

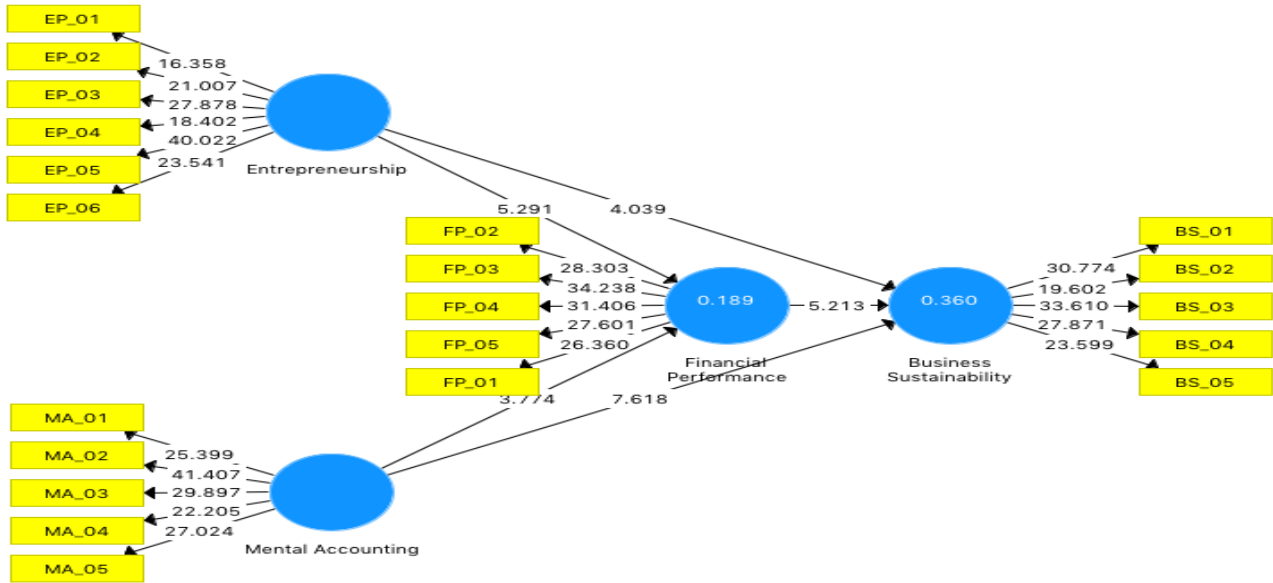
3. HYPOTHESIS TESTING

The model hypotheses were tested using SEM. The t statistic was used for bootstrapping, and the experts provided a comprehensive presentation of the data with 5000 bootstrap samples. Table 4 and Figure 2 show that all seven hypotheses in this study satisfied the criteria, with t-values ranging from 2.994 to 7.618, all exceeding the threshold of 1.96 for each respective association.

Table 4. Hypothesis testing

Hypotheses	Relationship	T-value	P-values	Supported
H1	EP → FP	5.291	0.000	Yes
H2	EP → BS	4.039	0.000	Yes
H3	MA → FP	3.774	0.000	Yes
H4	MA → BS	7.618	0.010	Yes
H5	FP → BS	5.213	0.000	Yes
H6	EP → FP → BS	3.487	0.000	Yes
H7	MA → FP → BS	2.994	0.003	Yes

Source: SmartPLS data processing results (2023).



Source: SmartPLS data processing results (2023).

FIGURE 3. Structural equation modeling calculation

This study used R-square (R^2) model, which showed the precision of the model's prediction. The coefficient of determination R^2 is a measure used to evaluate the extent to which the external structure can account for the internal. The coefficient of determination R^2 is estimated to range between 0 and 1 [51]. R^2 values more than or equal to 0.75 can be considered significant, while values of 0.50 and 0.25 are classified as moderate and weak, respectively [51]. The computation demonstrated that EP and MA contributed to 18.9% of the variance in FP and exhibited a lack of predictability. The variables EP, MA, and FP accounted for 36% of the variance in BS, but their ability to predict was minimal. Moreover, f^2 aims to ascertain the extent to which external constructs significantly influence endogenous constructs. The f^2 values of 0.02, 0.15, and 0.35, as discussed by Hair et al. [51], indicated the influence of external structures on small, medium, and extensive internal structures, respectively. The influence of EP and MA on FP is

minimal, as seen by the modest f^2 value of 0.079. In addition, EP, MA, and FP influence on BS was minimal, as indicated by a modest influence size (f^2 value of 0.120).

V. DISCUSSIONS

This study successfully tested seven hypotheses related to the relationships between EP, MA, FP, and BS in the context of MSMEs. The first hypothesis examined the relationship between EP and FP, showing a significant influence with p-value of 0.000 and t-value of 5.291. This correlated with studies conducted by Deku et al. [25] and Imran et al. [26], which showed a robust entrepreneurial mindset enhanced FP of MSMEs. The second hypothesis examines the relationship between EP and BS; p-value for EP and BS was 0.000, and t-value was 4.039. This was in accordance with Suriyankietkaew [34] and Asriati et al. [45], which showed a positive influence of EP on BS. MSMEs actors possess ample motivation and creativity, consistently driving them to innovate in their business [16,19].

The results of the third hypothesis examine the relationship between MA and FP, indicating a significant relationship between MA and FP, as evidenced by p-value of 0.000 and t-value of 3.774. This showed that practical MA can stimulate the enhancement of FP in MSMEs. The fourth hypothesis examines the relationship between MA and BS with p-value of 0.000 and t-value of 7.618, showing that MSMEs actors who effectively use MA contribute to sound decision-making. This study suggested that MSMEs actors demonstrated practical decision-making skills in managing their business finances, in accordance with Radianto et al. [24].

The fifth hypothesis showed a significant relationship between FP and BS, with a p-value of 0.000 and a t-value of 5.213, which suggested that solid FP can maintain company over time. This is in accordance with Poursoleyman et al. [47], Menne et al. [31], and Wiagustini et al. [48], which demonstrated that FP positively influenced BS. Also, the results showed that good FP contributes to the long-term viability of a business [30]. These results corresponded with sustainability hypothesis, which posits that positive FP can significantly influence the environment, society, and economy [61].

The sixth hypothesis demonstrated a significant relationship between EP and BS mediated by FP, with p-value of 0.000 and t-value of 3.487. The results from the seventh hypothesis investigation indicated that MA significantly influenced BS through FP, as evidenced by p-value of 0.003 and t-value of 2.994. Nevertheless, this study showed that financial success can mediate EP, MA, and sustainability in MSMEs.

This study presents findings that underscore the importance of developing entrepreneurial passion and effective financial management among MSMEs. Based on these results, it is recommended that MSMEs adopt approaches that can strengthen these aspects in their business operations, including enhanced training and mentoring related to entrepreneurship and financial management. Additionally, the government has a strategic role in formulating policies that support innovation and the sustainability of MSMEs. Better financial management will enable MSMEs to improve their financial performance, indirectly supporting their future business sustainability. Therefore, these actions will contribute to the long-term stability and sustainability of MSMEs, strengthening the economy and encouraging sustainable innovation.

VI. CONCLUSION

In conclusion, this study examined the relationship between EP, MA, FP, and BS of MSMEs. The results showed that sustainability of MSMEs can be elucidated by factors such as EP and MA. Furthermore, FP connects EP, MA, and the long-term viability of company. This study emphasized how the actions of MSMEs actors who possess entrepreneurial drive and practical MA can enhance FP. It was also found MSMEs actors with a robust entrepreneurial mindset consistently adjust to changing circumstances. Therefore, actors with a constructive financial mindset can make good judgments to enhance FP, as well as incentivize growth, advancement, and long-term viability. The results of this study supported the goal-setting theory which promotes setting ambitious long-term goals to realize sustainable businesses.

Theoretically, these results supported the goal-setting theory created by Locke [38]. This study showed the importance of setting short-term and long-term goals for BS. Moreover, challenging goals can motivate MSMEs actors

to strengthen EP and MA. In addition, strong motivation to achieve long-term goals can directly improve FP of MSMEs.

The results have practical implications since they emphasized the importance of instilling an entrepreneurial mindset in MSMEs actors to ensure sustainability in a fast-growing environment. Additionally, the government can offer assistance to actors through training and dissemination of information on business finance, enabling them to make informed decisions and promote FP. The government and institutions can also offer training and infrastructural assistance to improve FP and sustainability of MSMEs.

This study has some limitations, first, the distribution of questionnaires was carried out in two ways, namely online and physically, hence, it could not be ascertained whether business owners or employees filled the questions. Also, the object was limited to business actors in Central Java, Indonesia, a developing country. These geographical limitations can influence a variety of external factors, such as business culture, government regulations, and local economic conditions.

It is recommended to investigate whether these results apply to other developing countries, as this study was only conducted on MSMEs in Indonesia. Conducting studies in several developing countries with different economic characteristics can provide broader insights into the influence of EP and MA on FP and BS.

Funding statement

This research did not receive any specific grant from any funding agency, whether public, commercial, or non-profit.

Author contribution

All authors made an equal contribution to the development and planning of the study.

Conflict of Interest

The authors have no potential conflicts of interest or divergences related to this research.

Data Availability Statement

Data are available from the authors upon request.

Acknowledgements

The authors extend their appreciation to the Editor and Reviewers for their assistance in preparing the article for publication.

REFERENCES

1. Hidalgo, A., & Albors, J. (2008). Innovation management techniques and tools: A review from theory and practice. *R&D Management*, 38(1), 113–127.
2. Ye, J., & Kulathunga, K. M. M. C. B. (2019). How does financial literacy promote sustainability in SMEs? A developing country perspective. *Sustainability*, 11(1), 1–21.
3. Coordinating Minister Airlangga. (2023, October 31). Government continues to encourage strengthening economic foundations by establishing digital transformation of MSMEs as one of the priorities. Retrieved from <https://ekon.go.id/publikasi/detail/4065/coordinating-minister-airlangga-government-continues-to-encourage-strengthening-economic-foundations-by-establishing-digital-transformation-of-msmes-as-one-of-the-priorities>
4. Lestari, E. D., Hamid, N. A., Rizkalla, N., Purnamaningsih, P., & Urus, S. B. T. (2022). The effect of financial literacy, cost of technology adoption, technology perceived usefulness, and government support on MSMEs' business resilience. *GATR Global Journal of Business Social Sciences Review*, 10(1), 132–147.
5. Najib, M., Rahman, A. A. A., & Fahma, F. (2021). Business survival of small and medium-sized restaurants through a crisis: The role of government support and innovation. *Sustainability*, 13(16).
6. Selase, A. M., Selase, A. E., Ayishetu, A.-R., Comfort, A. D., Stanley, A., & Ebenezer, G.-A. (2019). Impact of technology adoption and its utilization on SMEs in Ghana. *International Journal of Small and Medium Enterprises*, 2(1), 1–13.
7. Santoso, R., & Fianto, A. Y. A. (2022). Creative industry and economic recovery strategies from pandemic disruption. *Jurnal Ilmu Ekonomi Terapan*, 7(1), 47–62.

8. Ma, Z., Liu, Y., & Gao, Y. (2021). Research on the impact of COVID-19 on Chinese small and medium-sized enterprises: Evidence from Beijing. *PLoS ONE*, 16(7), 1–22.
9. Widagdo, B., & Sa'diyah, C. (2023). Business sustainability: Functions of financial behavior, technology, and knowledge. *Problems and Perspectives in Management*, 21(1), 120–130.
10. Shafi, M., Liu, J., & Ren, W. (2020). Impact of COVID-19 pandemic on micro, small, and medium-sized enterprises operating in Pakistan. *Research in Globalization*, 2, 100018.
11. Limanseto, H. (2023, October 31). Perkembangan UMKM sebagai critical engine perekonomian nasional terus mendapatkan dukungan pemerintah. Retrieved from <https://www.ekon.go.id/publikasi/detail/4593/perkembangan-umkm-sebagai-critical-engine-perekonomian-nasional-terus-mendapatkan-dukungan-pemerintah>
12. Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making*, 12(3), 183–206.
13. Rosyadi, S., Kusuma, A. S., Fitrah, E., Zayzda, N. A., & Pimoljinda, T. (2022). Barriers of public policy faced by SMEs of creative economy in Indonesia. *International Journal of Law and Management*, 64(1), 32–48.
14. Cerisola, S., & Panzera, E. (2021). Cultural and creative cities and regional economic efficiency: Context conditions as catalyzers of cultural vibrancy and creative economy. *Sustainability*, 13(10).
15. Rusliati, E., Mulyaningrum, M., Wibowo, A., & Narmaditya, B. S. (2020). Does entrepreneurial leadership matter for micro-enterprise development?: Lesson from West Java in Indonesia. *Journal of Asian Finance, Economics and Business*, 7(4), 445–450.
16. Pham, T. T. T., Nguyen, K. S., Nguyen, H. H., Nguyen, L. T., & Vo, V. X. (2021). Dynamic entrepreneurship, planned innovation, and firm profitability: Evidence from a Southeast Asian country. *Heliyon*, 7(3), e06577.
17. Dinc, M. S., & Budic, S. (2016). The impact of personal attitude, subjective norm, and perceived behavioural control on entrepreneurial intentions of women. *Eurasian Journal of Business and Economics*, 9(2), 23–35.
18. Arvidsson, H. G. S., Coudounaris, D. N., & Arvidsson, R. (2020). The shift from causation to effectuation for international entrepreneurs: Attitudes and attitude change versus social representations. *International Journal of Entrepreneurship*, 24(1), 1–23.
19. Kumalasari, R. D., Lukiyanto, K., & Purnomo, A. (2020). External factors motivating successful women entrepreneurs: A study of women entrepreneurs community in a rural area. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18(10), 518–526.
20. Walker, A. M., Opferkuch, K., Roos Lindgreen, E., Raggi, A., Simboli, A., Vermeulen, W. J. V., Caeiro, S., & Salomone, R. (2022). What is the relation between circular economy and sustainability? Answers from frontrunner companies engaged with circular economy practices. *Circular Economy and Sustainability*, 2(2), 731–758.
21. Parida, V., Sjödin, D., & Reim, W. (2019). Reviewing literature on digitalization, business model innovation, and sustainable industry: Past achievements and future promises. *Sustainability*, 11(2), 394.
22. Thaler, R. (1985). Mental accounting and consumer choice. *Marketing Science*, 4(3), 199–214.
23. Thaler, R. (2015). *Misbehaving: The making of behavioral economics*. W.W. Norton & Company.
24. Radianto, W. E. D. D., Salim, I., Christian, S., Efrata, T. C., & Dewi, L. (2022). Does mental accounting play an important role in young entrepreneurs? Studies on entrepreneurship education. *Journal of Educational and Social Research*, 12(1), 140–151.
25. Deku, W. A., Wang, J., Danquah, E., & Narain, D. (2021). Correlation between business innovation environment (BIE) and entrepreneurial orientation dimension (EOD) on financial performance of manufacturing SMEs in Ghana. *World Journal of Entrepreneurship, Management and Sustainable Development*, 17(3), 787–803.
26. Imran, T., Ahmed, R. R., Streimikiene, D., Soomro, R. H., Parmar, V., & Veinhardt, J. (2019). Assessment of entrepreneurial traits and small-firm performance with entrepreneurial orientation as a mediating factor. *Sustainability*, 11(19), 5305.
27. Hanggraeni, D., & Sinamo, T. (2021). Quality of entrepreneurship and micro-, small-and medium-sized enterprises' (MSMEs) financial performance in Indonesia. *Journal of Asian Finance, Economics and Business*, 8(6), 897–907.
28. Dat, N. M., Dai, N. Q., & Ngoc, P. B. (2022). The impact of corporate social responsibilities (CSR), entrepreneurship, and financial factors on the financial performance of the banks in ASEAN countries. *Contemporary Economics*, 16(2), 227–240.
29. Li, X., Lou, S., & Zhu, H. (2022). The influence of media diversification model and entrepreneurship on enterprise financial performance under the environment of sustainable development. *Frontiers in Psychology*, 13, 953596.
30. Gomes, C. M., Kruglianskas, I., Scherer, L. A., Da, R. Neto, L., & Kneippe, J. M. (2011). Strategies for sustainable business and performance in Brazilian industrial companies. *Journal of Sustainable Development*, 8(3), 1–22.
31. Menne, F., Surya, B., Yusuf, M., Suriani, S., Ruslan, M., & Iskandar, I. (2022). Optimizing the financial performance of SMEs based on Sharia economy: Perspective of economic business sustainability and open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(1), 23.
32. Soytaş, M. A., Denizel, M., & Durak Usar, D. (2019). Addressing endogeneity in the causal relationship between sustainability and financial performance. *Business Strategy and the Environment*, 28(5), 762–774.
33. Wiagustini, N. L. P., Artini, L. G. S., & Ramantha, I. W. (2021). Intellectual capital on cultural sustainability practices in microfinance at Bali. *Academy of Strategic Management Journal*, 20(1), 1–19.
34. Suriyankietkaew, S. (2022). Effects of key leadership determinants on business sustainability in entrepreneurial enterprises. *Journal of Entrepreneurship in Emerging Economies*, 14(3), 489–506.
35. Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705–717.
36. Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting & task performance*. Prentice-Hall, Inc.
37. Locke, E. A. (2013). *New developments in goal setting and task performance* (1st ed.). Routledge.
38. Locke, E. A. (1968). Toward a theory of task motivation and incentives. *Organizational Behavior and Human Performance*, 3(2), 157–189.
39. Binswanger, H. (1990). *The biological basis of teleological concepts*. Tof Publications, Incorporated.
40. Setin, S., Sembel, R., Sudibyo, Y. A., & Purwanti, A. (2022). The roles of organizational politics and procedural fairness in the relationship between performance evaluation systems and budget gaming behavior. *Gadjah Mada International Journal of Business*, 24(2), 245–268.

41. Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: A configurational approach. *Journal of Business Venturing*, 20(1), 71–91.
42. Malesev, S., & Cherry, M. (2021). Digital and social media marketing—Growing market share for construction SMEs. *Construction Economics and Building*, 21(2), 65–82.
43. Wikström, P.-A. (2010). Sustainability and organizational activities - Three approaches. *Sustainable Development*, 18(2), 99–107.
44. Schoneveld, G. C. (2020). Sustainable business models for inclusive growth: Towards a conceptual foundation of inclusive business. *Journal of Cleaner Production*, 277, 124062.
45. Asriati, N., Syamsuri, S., Thoharudin, M., Wardani, S. F., & Kusuma Putra, A. H. P. (2022). Analysis of business behavior and HRM perspectives on post-COVID-19 SME business sustainability. *Cogent Business & Management*, 9(1), 2107235.
46. Talab, H. R., Hasan, S. I., Flayyih, H. H., & Hussein, N. A. (2017). Analysis of mental accounting: A case study of listed companies in Iraqi stock exchange. *International Journal of Economic Perspectives*, 11(3), 684–699.
47. Poursoleyman, E., Mansourfar, G., Homayoun, S., & Rezaee, Z. (2022). Business sustainability performance and corporate financial performance: The mediating role of optimal investment. *Managerial Finance*, 48(3), 348–369.
48. Wiagustini, N. L. P., Ramantha, I. W., & Putra, I. M. W. (2023). Financial literacy and financial behavior encouraging business sustainability by mediation of financial performance. *Quality - Access to Success*, 24(2), 226–234.
49. Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, 29(7), 770–791.
50. Carranza, R., Diaz, E., Martín-Consuegra, D., & Fernández-Ferrín, P. (2020). PLS–SEM in business promotion strategies. A multigroup analysis of mobile coupon users using MICOM. *Industrial Management & Data Systems*, 120(12), 2349–2374.
51. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.
52. Cook, T. D., Campbell, D. T., & Shadish, W. R. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Houghton Mifflin.
53. Colton, D., & Covert, R. W. (2007). *Designing and constructing instruments for social research and evaluation*. John Wiley & Sons.
54. Anwar, M., & Shah, S. Z. A. (2021). Entrepreneurial orientation and generic competitive strategies for emerging SMEs: Financial and nonfinancial performance perspective. *Journal of Public Affairs*, 21(1), e2375.
55. Antonides, G., & de Groot, I. M. (2022). Mental budgeting of the self-employed without personnel. *Journal of Behavioral and Experimental Economics*, 98, 101897.
56. Zeng, Y., & Herzfeld, T. (2021). The effects of mental budgeting on the intentions to switch to low-toxicity pesticides: Evidence from vegetable farmers in Sichuan, China. *China Agricultural Economic Review*, 13(4), 528–547.
57. Lassala, C., Apetrei, A., & Sapena, J. (2017). Sustainability matter and financial performance of companies. *Sustainability*, 9(1), 1–16.
58. Lehman, M. S., Hudson Jr., J. R., Appley, G. W., Sheehan Jr., E. J., & Slevin, D. P. (2011). Modified assessment center approach facilitates organizational change. *Journal of Management Development*, 30(9), 893–913.
59. Santos, B., Bernardes, Ó., Amorim, V., & Rua, O. L. (2021). Sustainable entrepreneurship and barriers: A comparison of perceived barriers in Portugal and Slovenia. *E-Revista de Estudos Interculturais*, 9(1), 104–118.
60. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
61. Yildiz Çankaya, S., & Sezen, B. (2019). Effects of green supply chain management practices on sustainability performance. *Journal of Manufacturing Technology Management*, 30(1), 98–121.