Entrepreneurial mindset and SME performance: The mediating role of entrepreneurial behavior

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ABSTRACT

This study aims to examine the effect of an entrepreneurial mindset on SME performance and explore the mediating role of entrepreneurial behavior from an Attribution Theory perspective. The study explains that entrepreneurial behavior mediates entrepreneurial mindset and SME performance. This adds depth to the understanding of the mechanisms through which mindset impacts performance, shedding light on the importance of actual behavior in translating mindset into tangible outcomes. To accomplish these objectives, a quantitative research approach was adopted. Data were collected through a structured questionnaire administered to owners/managers of Micro, Small, and Medium Enterprises (MSMEs). To analyze the data and test the proposed hypotheses, Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed due to its suitability for exploring complex relationships with relatively small sample sizes. The dataset comprised responses from 382 owners/managers of MSMEs. Our findings suggest that while having an entrepreneurial mindset is crucial for performance, entrepreneurial behavior acts as the intermediary, guiding and directing the impact of mindset on actual business outcomes. In conclusion, by confirming Attribution Theory within the entrepreneurial context, this study extends the theory's applicability beyond traditional domains.

Keywords: Entrepreneurial Mindset; Entrepreneurial Behavior; SME Performance; Attribution Theory; PLS-SEM

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Introduction

It is generally acknowledged that entrepreneurship is a source of economic growth and thus contributes to prosperity. Countries that can increase and encourage entrepreneurial activity will benefit from economic growth (Asenge et al., 2018); entrepreneurship is a significant growth strategy to maintain a country's economy (Israel & Johnmark, 2014). Therefore, more individuals are needed who are willing to become entrepreneurs (Kouakou et al., 2019). In the last few decades, academics have conducted studies to understand what factors drive an entrepreneur's success. One of the factors that has become the focus and contribution to entrepreneurship studies is the entrepreneurial mindset. A better understanding of the entrepreneurial mindset for individuals will advance the study of entrepreneurship and related disciplines (Daspit et al., 2023; Kwapisz et al., 2022; Morris & Tucker, 2023). Although research on the entrepreneurial mindset in recent years has developed rapidly, the conceptualization of the entrepreneurial mindset still needs to be completed, and the conceptual basis of the entrepreneurial mindset still needs to be developed (Pidduck et al., 2023).

Experts argue that businesses in the future will exploit the entrepreneurial mindset, and its implementation will lead to ways of acting and behaving like entrepreneurs (Kouakou et al., 2019). Kuratko et al. (2021) proposed three aspects of the entrepreneurial mindset: cognitive, behavioral, and emotional. Specifically for the behavioral aspect, or the behavior of individuals involved in finding and exploiting opportunities through creating and developing new businesses, this is known as entrepreneurial behavior (Daspit et al., 2023). An entrepreneurial mindset will direct how a person behaves, acts as an opportunity, and creates a business (Kuratko et al., 2021). However, research on the mediating role of entrepreneurial behavior on the relationship between entrepreneurial mindset and performance still needs to be completed. This study aims to fill the gap by exploring the role of entrepreneurial behavior as a mediator of the influence of an entrepreneurial mindset on SME performance.

Literature Review

Entrepreneurs will have a greater chance of success with a robust entrepreneurial mindset (Manafe et al., 2023). An entrepreneurial mindset can direct a person towards potential business opportunities. Consequently, an increase in business performance will be achieved; even in growing economic conditions, an entrepreneurial mindset significantly impacts business performance (Asenge et al., 2018). This mindset makes SMEs more
innovative and open to risk, thus having a positive impact on performance (Agyapong et al., 2021). Daspit et al. (2023) revealed that the consequences of an entrepreneurial mindset are results for the individual, results for the group, and results for the company. The benefits or results for the company include achieving competitive advantage and firm performance.

H1: Entrepreneurial mindset has a positive effect on SME performance

An entrepreneurial mindset is the ability to identify and exploit opportunities (McMullen & Kier, 2016), as an opportunity-based dispositional scheme will further stimulate goal-oriented entrepreneurial behavior (Pidduck et al., 2023). Entrepreneurial behavior is a set of values that entrepreneurs believe in, which provide intrinsic motivation to determine their success (Kirkley, 2016). Entrepreneurial behavior is determined by founders' meaning in opening a new business (Gruber & MacMillan, 2017). An entrepreneurial mindset shows how to act as an opportunity and create a business (Kuratko et al., 2021).

H2: Entrepreneurial mindset has a positive effect on entrepreneurial behavior

Entrepreneurial behavior is a set of values that encourage individuals to achieve the necessary knowledge, skills, and experience (Kirkley, 2016). Entrepreneurial behavior is not only the behavior of starting a business, both from the perspective of personal economic interests and for other people or society at large (Gruber & MacMillan, 2017). The study of entrepreneurial behavior studies human behavior involved in finding opportunities and realizing them through the creation and development of new businesses (Bird & Schjoedt, 2017), and is one of the factors that influence business performance bisnis (Amir et al., 2018; Ekaputri et al., 2018; Kim & Lee, 2017; Rante, 2010), entrepreneurial behavior is explicitly behavior in risk-taking, proactiveness, and flexibility (Kusa et al., 2022), effectuation as a description of entrepreneurial behavior is proven to influence the performance of new businesses (Cai et al., 2017). This mindset will foster entrepreneurial behavior, and more robust innovation behavior and risk-taking in entrepreneurial behavior will improve business performance (Agyapong et al., 2021).

H3: Entrepreneurial behavior has a positive effect on SME performance.

H4: Entrepreneurial behavior mediates the influence of an entrepreneurial mindset on SME performance.

Methods

The study employed a quantitative research approach utilizing a survey method, targeting micro and small business operators in Malang City, Batu, and Malang Regency. Data were
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sourced from the Department of Cooperatives and Micro, Small, and Medium Enterprises (MSMEs) in each region, yielding 60,870 MSMEs. Subsequently, the sample size was determined using a sample size calculator at a 95% confidence level, resulting in a sample size of 382. Following this, the allocation of samples in each region was conducted through Proportional Random Sampling, with 62 MSMEs from Malang City, 94 from Batu City, and 226 from Malang Regency. The questionnaire employed in data collection was structured to measure various constructs. Specifically, the entrepreneurial mindset construct, adapted from the works of Manafe et al. (2023) and Sun et al. (2023), was assessed using five indicators. These indicators included dispositional optimism (a general tendency to expect positive outcomes and maintain a positive attitude towards the future), need for achievement (the desire and motivation to set and accomplish challenging goals, striving for success and excellence), risk propensity (the inclination or willingness to take risks in decision-making and pursue opportunities despite potential uncertainties or adverse outcomes), alertness to opportunity (the ability to recognize and seize opportunities as they arise, often characterized by being attentive to market trends and changes in the business environment), and ambiguity tolerance (the capacity to tolerate and effectively manage situations characterized by uncertainty, complexity, or lack of clarity, without becoming overwhelmed or excessively anxious). The entrepreneurial mindset construct was rated on a 5-point Likert scale, where respondents indicated their level of agreement with each item, ranging from 1 (strongly disagree) to 5 (strongly agree).

Furthermore, MSME performance variables, adapted from Sarwoko and Nurfarida (2021), were measured by three indicators, namely market growth, sales growth, and profitability, measured on a 5-point Likert Scale. Entrepreneurial behavior was assessed using the Entrepreneurial Behavior Scale from Neto et al. (2018) and Kuratko et al. (2021) consisting of opportunity recognition (the active process of seeking and identifying potential opportunities by assessing the compatibility between existing needs and available resources), initiative (the proactive behavior of taking action upon recognizing an opportunity, demonstrating a readiness to pursue and capitalize on potential opportunities), and risk management (the evaluation and tolerance of calculated risks associated with pursuing opportunities, including the assessment of potential drawbacks and uncertainties, and the implementation of strategies to mitigate adverse outcomes). Respondents rated their agreement with each item on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Table 1 shows the details of item measurement of each construct.
Table 1. Item, Loading Factor (LF), Average Variance Extracted (AVE), and Cronbach Alpha (CA)

<table>
<thead>
<tr>
<th>Code</th>
<th>Item Measurement</th>
<th>LF</th>
<th>AVE</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>X11</td>
<td>I believe that good things will happen to me in the long run</td>
<td>0.624</td>
<td>0.848</td>
<td></td>
</tr>
<tr>
<td>X12</td>
<td>I feel a strong drive to excel and accomplish challenging tasks</td>
<td>0.841</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X13</td>
<td>I am comfortable taking risks in pursuit of my goals</td>
<td>0.740</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X14</td>
<td>I often notice new business opportunities before others do</td>
<td>0.701</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X15</td>
<td>I remain calm and composed when faced with uncertain situations in my business</td>
<td>0.794</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X21</td>
<td>I actually implemented plans I had made</td>
<td>0.905</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X22</td>
<td>I took the initiative even when others did not</td>
<td>0.917</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y1</td>
<td>Our market share has expanded significantly</td>
<td>0.913</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y2</td>
<td>Sales figures have consistently surpassed our expectations</td>
<td>0.935</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y3</td>
<td>We have observed a positive trend in our profit margins over time</td>
<td>0.929</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Discriminant Validity

<table>
<thead>
<tr>
<th></th>
<th>Entrepreneurial Mindset</th>
<th>Entrepreneurial Behavior</th>
<th>SME Performances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial Mindset</td>
<td>0.790*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial Behavior</td>
<td>0.655</td>
<td>0.911*</td>
<td></td>
</tr>
<tr>
<td>SME Performances</td>
<td>0.564</td>
<td>0.586</td>
<td>0.925*</td>
</tr>
</tbody>
</table>

Data analysis and hypothesis testing were performed using Partial Least Squares Structural Equation Modeling (PLS-SEM). For outer model evaluation or known as measurement model evaluation is an analysis stage in PLS-SEM, a construct is declared to have satisfactory reliability if it meets the criteria for a loading factor value (reliability indicator) or has a Cronbach's Alpha value greater than 0.7. The results of the analysis as in Table 1 show that the indicator for each construct has a loading factor value greater than 0.7. Likewise, if you look at the Cronbach's Alpha value for each construct, it is greater than 0.7,
thus it can be stated that each construct has met the reliability criteria. Furthermore, for the validity testing results, there are two tests, namely convergent validity with the criteria that the AVE value must be more than 0.5. Table 1 shows that each construct's AVE value is greater than 0.5, so the construct meets the convergent validity criteria.

The discriminant validity assessment, outlined in Table 2 and conducted using the Fornell-Larcker criteria, indicates that each construct's Average Variance Extracted (AVE) root value (* sign) exceeds the highest correlation value between constructs. This finding suggests that the variance captured by each construct's indicators exceeds the shared variance between constructs. Consequently, the study concludes that discriminant validity is established, indicating that each construct measures a distinct underlying concept and is not unduly influenced by correlations with other constructs.

**Result and Discussion**

The table presents the results of hypothesis testing for the relationships between entrepreneurial mindset, entrepreneurial behavior, and SME performance. Firstly, hypothesis $H_1$ posited a positive association between entrepreneurial mindset and SME performance, with a regression coefficient ($\beta$) of 0.316 and a p-value of 0.000 ($< 0.05$), indicating a statistically significant relationship. Thus, $H_1$ is accepted, suggesting that a robust entrepreneurial mindset positively influences SME performance. In simpler terms, it means that a robust entrepreneurial mindset tends to lead to better SME performance. Accepted as true, hypothesis $H_1$ suggests that when business owners or managers possess qualities associated with an entrepreneurial mindset—such as optimism, goal orientation, and a willingness to take risks—it tends to positively impact the overall performance of their small and medium enterprises. As stated by Daspit et al. (2023), the consequences of an entrepreneurial mindset are results for the individual, results for the group, and results for the company (competitive advantage and firm performance). An entrepreneurial mindset can direct a person towards more significant business opportunities, resulting in increased business performance. The research findings support the findings of previous researchers that an entrepreneurial mindset will have a more significant opportunity to achieve business success (Manafe et al., 2023), because it will make SMEs more innovative and open to risk, thus having a positive impact on performance (Agyapong et al., 2021; Asenge et al., 2018). Research findings also reveal that dispositional optimism, as well as the need for achievement, are the dimensions that contribute the most to the formation of the entrepreneurial mindset of SME owners and/or managers.
Table 3. Hypothesis Testing Result

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>β</th>
<th>p-Value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_1$: Entrepreneurial Mindset $\rightarrow$ SME Performances</td>
<td>0.316</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>$H_2$: Entrepreneurial Mindset $\rightarrow$ Entrepreneurial Behavior</td>
<td>0.655</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>$H_3$: Entrepreneurial Behavior $\rightarrow$ SME Performances</td>
<td>0.379</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>$H_4$: Entrepreneurial Mindset $\rightarrow$ Entrepreneurial Behavior $\rightarrow$ SME Performances</td>
<td>0.248</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Figure 1. PLS-SEM Graph Result

Hypothesis $H_2$ proposed a positive connection between entrepreneurial mindset and entrepreneurial behavior. This hypothesis was supported by a regression coefficient of 0.655 and a p-value of 0.000 ($< 0.05$), leading to its acceptance. In simpler terms, this means that strong evidence suggests that entrepreneurial mindset influences how entrepreneurs behave in their business ventures. Specifically, it guides how they identify and seize opportunities, innovate to gain a competitive edge, and adapt to changing market conditions. This finding aligns with previous research, such as studies by Pidduck et al. (2023), which suggest that having an opportunity-focused entrepreneurial mindset encourages goal-oriented behavior, leading to the creation and success of businesses, as indicated by research by Kuratko et al. (2021) and McMullen & Kier (2016).

Additionally, hypothesis $H_3$ suggested that entrepreneurial behavior positively impacts SME performance, with a regression coefficient of 0.379 and a p-value of 0.000, which is below the typical significance level of 0.05, corroborating its acceptance. This implies that engaging in entrepreneurial behavior contributes positively to SME performance. Entrepreneurs who actively seek out and capitalize on opportunities, innovate to stay ahead of
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the competition, and demonstrate adaptability to changing market conditions are likelier to achieve higher levels of market growth, sales expansion, and profitability. By embracing entrepreneurial behavior, SMEs can enhance their competitive positioning, capitalize on emerging trends, and effectively respond to customer needs, leading to improved overall performance and sustainability.

Furthermore, hypothesis H₄ proposed a sequential relationship, suggesting that entrepreneurial mindset influences entrepreneurial behavior, affecting SME performance. This hypothesis is supported by a regression coefficient of 0.248 and a p-value of 0.000, which is below the typical significance level of 0.05, leading to its acceptance. The inherent dispositional optimism, need for achievement, risk propensity, alertness to opportunity, and ambiguity tolerance associated with an entrepreneurial mindset directly translate into tangible outcomes for SMEs through various mechanisms. Firstly, an entrepreneurial mindset fosters a proactive approach to identifying and capitalizing on opportunities, leading to increased innovation, market penetration, and customer acquisition. Moreover, individuals with an entrepreneurial mindset tend to exhibit resilience and persistence in the face of challenges, allowing them to navigate uncertainties and setbacks more effectively, ultimately contributing to sustained business growth. Importantly, entrepreneurial behavior, such as seizing opportunities, innovating, and adaptability, mediates this relationship by translating the mindset's intentions into concrete actions and strategies. By actively engaging in these behaviors, entrepreneurs can leverage their mindset to drive meaningful changes within their businesses, optimize resource allocation, and stay responsive to evolving market demands, thus enhancing SME performance over time. In essence, the combination of an entrepreneurial mindset and corresponding behaviors forms a powerful catalyst for SME success, as they enable owners/managers to harness their innate entrepreneurial drive and capabilities to overcome challenges, capitalize on opportunities, and ultimately achieve sustainable growth and profitability.

Lastly, this study's model suitability measurement is based on Hair et al. (2011), Namely using two criteria: R square and $f^2$. The R square value (Figure 1) for the endogenous entrepreneurial behavior is 0.429, and for the SME performance, it is 0.400. Thus, the model has a moderate level of accuracy Hair et al. (2011). The next criterion is effect size ($f^2$); the results of the analysis obtained an effect size value of 0.095 between entrepreneurial mindset on SME performance or a low influence size (Cohen, 2013), then an effect size value of 0.137 was obtained between entrepreneurial behavior on SME performance, or the effect size
is high (Cohen, 2013). Moreover, the very high effect size of 0.751 between entrepreneurial mindset and entrepreneurial behavior underscores the strong relationship between these constructs, implying that entrepreneurial mindset significantly influences the manifestation of entrepreneurial behavior. In summary, while entrepreneurial mindset may have a relatively modest direct effect on SME performance, its influence is primarily exerted through its impact on entrepreneurial behavior, which in turn has a significant and direct effect on SME performance.

**Conclusion and Suggestion**

The study results strengthen understanding of the role of an entrepreneurial mindset in achieving SME performance. Apart from that, SME performance is also determined by how an entrepreneur behaves to find opportunities and take advantage of these opportunities, as well as how behavior is directed to achieve business performance. An interesting finding from this research is that entrepreneurial behavior plays a mediating role in the effect of an entrepreneurial mindset on SME performance, so an entrepreneurial mindset has a direct and indirect influence on SME performance, namely through entrepreneurial behavior. Moreover, this study has the limitation of not distinguishing between the business fields of the SMEs studied, the characteristics of the owners/managers, and the length of the business. These three aspects need to be researched further about the entrepreneurial mindset, for example, to answer the question of whether different characteristics of the owner/manager will provide a different entrepreneurial mindset intensity or whether business experience will help strengthen the formation of an entrepreneurial mindset.

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**About the Authors**

**Juniardi**, a distinguished Master's in Management graduates from PGRI Kanjuruhan University, with cum laude honors, specializing in human resources topics. In his contributions to this study, he is recognized for providing comprehensive frameworks, leading data collection efforts, diligently addressing and incorporating feedback from reviewers and editors to ensure the rigor of the study.

**Endi Sarwoko**, is recognized for his expertise in entrepreneurship research. With a keen interest in this field, he actively engages with various international and national prestigious seminars and publications to share his insights and contribute to the advancement of entrepreneurial knowledge. Dr. Sarwoko's favorite topic of entrepreneurship research revolves around exploring the factors influencing small and medium-sized enterprises (SMEs) performance. He has made significant contributions to this study through his writing, providing in-depth discussions and analyses.

**Pieter Sahertian**, a prominent doctoral figure in human capital studies from PGRI Kanjuruhan University. In his contributions to this study, he is particularly involved to ensure the quality of data and refining the narrative of the study.