

# “Innovative work behavior and self-efficacy: Does entrepreneurial leadership impact MSME business performance?”

<b>AUTHORS</b>	Aniek Rumijati   Arif Rahman Hakim  
<b>ARTICLE INFO</b>	Aniek Rumijati and Arif Rahman Hakim (2023). Innovative work behavior and self-efficacy: Does entrepreneurial leadership impact MSME business performance?. <i>Problems and Perspectives in Management</i> , 21(4), 304-315. doi: <a href="https://doi.org/10.21511/ppm.21(4).2023.24">10.21511/ppm.21(4).2023.24</a>
<b>DOI</b>	<a href="http://dx.doi.org/10.21511/ppm.21(4).2023.24">http://dx.doi.org/10.21511/ppm.21(4).2023.24</a>
<b>RELEASED ON</b>	Friday, 03 November 2023
<b>RECEIVED ON</b>	Friday, 18 August 2023
<b>ACCEPTED ON</b>	Tuesday, 24 October 2023
<b>LICENSE</b>	 This work is licensed under a <a href="https://creativecommons.org/licenses/by/4.0/">Creative Commons Attribution 4.0 International License</a>
<b>JOURNAL</b>	"Problems and Perspectives in Management"
<b>ISSN PRINT</b>	1727-7051
<b>ISSN ONLINE</b>	1810-5467
<b>PUBLISHER</b>	LLC “Consulting Publishing Company “Business Perspectives”
<b>FOUNDER</b>	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

62



NUMBER OF FIGURES

1



NUMBER OF TABLES

5

© The author(s) 2023. This publication is an open access article.



## BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"  
Hryhorii Skovoroda lane, 10,  
Sumy, 40022, Ukraine  
[www.businessperspectives.org](http://www.businessperspectives.org)

**Received on:** 18<sup>th</sup> of August, 2023

**Accepted on:** 24<sup>th</sup> of October, 2023

**Published on:** 3<sup>rd</sup> of November, 2023

© Aniek Rumijati, Arif Rahman Hakim, 2023

Aniek Rumijati, Dr., Associate Professor, Management Department, Faculty of Economics and Business, University of Muhammadiyah Malang, Indonesia. (Corresponding author)

Arif Rahman Hakim, Master, Assistant Lecturer, Management Department, Faculty of Economics and Business, University of Muhammadiyah Malang, Indonesia.



This is an Open Access article, distributed under the terms of the [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

**Conflict of interest statement:**

Author(s) reported no conflict of interest

Aniek Rumijati (Indonesia), Arif Rahman Hakim (Indonesia)

# INNOVATIVE WORK BEHAVIOR AND SELF-EFFICACY: DOES ENTREPRENEURIAL LEADERSHIP IMPACT MSME BUSINESS PERFORMANCE?

## Abstract

The current business performance of micro, small, and medium enterprises (MSMEs) must be able to innovate in business strategies in a competitive era. MSMEs are at the forefront of contributing to Indonesia's Gross Domestic Product (GDP) and have a considerable role in the Indonesian economy. The study aimed to assess factors contributing to the business performance of MSMEs in Sidoarjo Regency, Indonesia. The total population was 277 MSME owners; using the purposive sampling technique with the Slovin formula, 144 respondents were obtained with an error rate of 5%. Data analysis used SEM-PLS with SmartPLS-3 software. The findings show that entrepreneurial leadership directly affects business performance and innovative work behavior, and innovative work behavior affects business performance. Then, entrepreneurial leadership influences business performance through innovative work behavior. Interestingly, there is no moderating effect of self-efficacy on the effect of entrepreneurial leadership on business performance. MSMEs need to have innovative work behavior to improve their business performance by applying entrepreneurial leadership to increase innovation in business strategies to compete and survive in a competitive era.

## Keywords

innovative work behavior, self-efficacy, entrepreneurial leadership, business performance, MSMEs

## JEL Classification

O15, L25, L26

## INTRODUCTION

Micro, small, and medium enterprises (MSMEs) are the foundation of Indonesia's economy, substantially contributing to GDP growth (Anatan & Nur, 2023). MSMEs accounted for 60.5% of Indonesia's GDP and employed 96.9% of the country's total workforce (Limanseto, 2022). MSMEs are essential because they can absorb many workers. However, the tight competition and the many types of businesses require business owners always to be ready to be competitive, creative, and innovative. In addition, doing business now requires MSMEs to make several creative and innovative changes to survive and compete with other businesses to produce maximum business performance.

Despite their significant contribution to Indonesia's GDP, MSMEs in Indonesia face numerous challenges (Anatan & Nur, 2023), thus making their business performance unstable and shaken. Although MSMEs have a potential role, many problems still need to be solved in their growth and development (Widagdo & Sa'diyah, 2023). MSMEs often experience a decline in business sales, which can lead to a shortage of capital for operations and growth (Suminah et al., 2022). MSMEs also face difficulties in adopting new technol-

ogies and tools, hampering their ability to innovate and remain competitive. Limited competence and the availability of reliable human resources are problematic for MSMEs in welcoming the digitalization era.

Other MSME problems include misalignment between business strategy and innovation (Latifah et al., 2021), negative consequences of the COVID-19 pandemic (Achmadi et al., 2023; Mehralian & Khazae, 2022), ineffective use of digital marketing (Mehralian & Khazae, 2022), lack of knowledge and competence of human resources (Anatan & Nur, 2023), and the fact that MSMEs experience more sales declines than sales increases (Sudjatmoko et al., 2023). Ebersberger and Kuckertz (2021) mentioned that innovation could overcome the problems of MSMEs discussed above. Entrepreneurial leaders have the potential to foster innovative behaviors, leading to enhanced performance, success, and business growth (Megawaty et al., 2022; Taleb et al., 2023). Entrepreneurial behavior for a leader is essential to create a dynamic and competitive environment since it encourages organizations to be adaptable and innovative (Utoyo et al., 2020). Leadership as entrepreneurial behavior is critical considering its role in recognizing someone in the entrepreneurial process, which is associated with organizational sustainability and adaptation to changing environment (Dama & Ogi, 2018).

To improve MSME performance, business and product innovation can be done to gain a competitive advantage (Imaroh & Widiyani, 2020). Innovation positively mediates business strategy and MSME performance (Latifah et al., 2021). Overall, business performance problems in MSMEs are complex and diverse and require a comprehensive approach to overcome them. Therefore, it is interesting to study whether entrepreneurial leadership, innovative work behavior, and self-efficacy can impact MSME business performance.

---

## 1. LITERATURE REVIEW AND HYPOTHESES

Work performance is the outcome of work evaluated based on the quality and quantity a person achieves in carrying out his responsibilities (Mangkunegara, 2013). Employees, organizations, and businesses measure work performance. Performance measurement is an effort to determine and measure resources effectively, guiding strategic decisions regarding an organization's future development (Rivai & Mulyadi, 2009). Business performance results from existing activities to achieve the stated goals, which have been influenced by certain factors (Wicaksono & Nuvriasari, 2012). MSME performance could be viewed from several aspects: added value, business units, labor and productivity, and export value (Lanang et al., 2014).

Entrepreneurial leadership entails leaders' capacity to formulate a compelling vision for their organization and motivate and guide employees to exert considerable effort to realize that vision (Bagheri, 2017). This leadership style equips leaders to effectively coordinate their organizations and solve

problems as they progress through the various stages of organizational development and improvement (Chen, 2007). According to Thornberry (2006), there exists a correlation between entrepreneurial leadership and business performance, as described by those who assert that entrepreneurial leadership involves business owners leading change efforts to compete effectively with other companies, considering that transition would help the company establish and survive. Alterations implemented by business owners could positively impact enhancing business performance. There is a link between entrepreneurial leadership and SME performance. Entrepreneurial leadership is imperative for micro-enterprises, as it positively and substantially influences business performance and sustainability (Al Mamun et al., 2018; Wijaya & Harjanti, 2013).

Innovative work behavior encompasses both the physical and cognitive work activities carried out by employees, individually or collectively, to accomplish tasks required for innovative development (Boerner et al., 2007). According to employees, the effectiveness of innovative work behaviors is related to employees' observations of anticipat-

ed work problems and co-workers' responses to proposed alternative solutions (De Jong & Den Hartog, 2010). It is concluded that employees with innovative work behavior generate, introduce, and implement new ideas that benefit individuals and companies. This innovative behavior is a complex behavior consisting of three stages: "idea generation, idea promotion, and idea realization" (Vargas, 2015).

Entrepreneurial leadership is critical in determining the direction of a business venture (Lubis, 2017). Entrepreneurial leadership represents a relatively recent concept in the realm of leadership. This concept is a combination of leadership and entrepreneurship. All theories and implications about innovative behavior focus on the benefits of better and more effective performance for individuals and organizations. Sub-factor of innovation may stem from entrepreneurial behavior (Miller, 2011). Numerous studies emphasize the role of entrepreneurial leaders in nurturing innovative behavior. Akbari et al. (2021) and Javed et al. (2018) discovered that entrepreneurial leadership encourages people to be innovative at work. Likewise, Freeman and Siegfried (2015) identified entrepreneurial leadership's influence on innovative behavior. Innovation has an impact on company performance (Soleh, 2008). For this reason, this study uses creative work behavior to mediate the relationship between entrepreneurial leadership and business performance.

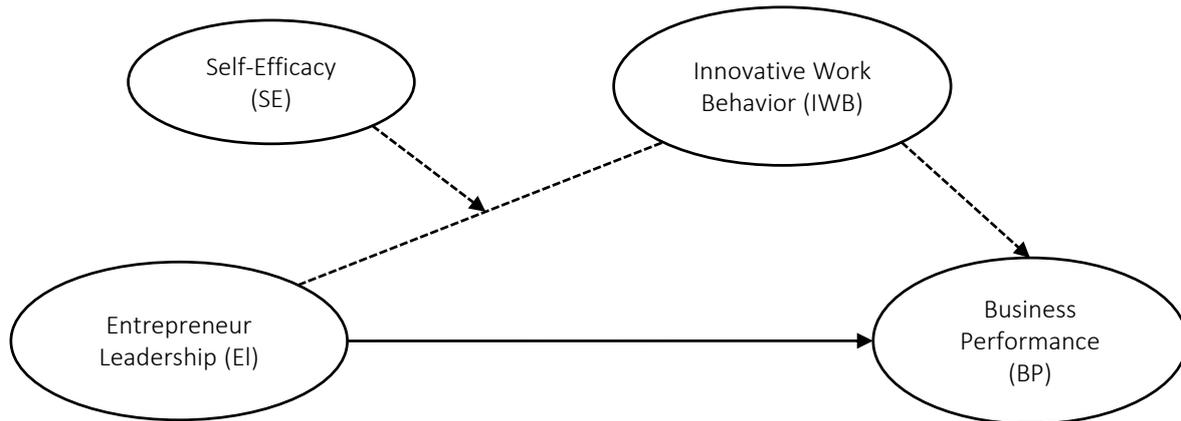
Self-efficacy refers to an individual's belief and confidence to carry out tasks and responsibilities (Appelbaum et al., 2004). An entrepreneur must have strong self-confidence, motivation, or personality traits to carry out tasks and roles in the face of change. MSMEs that encourage and incentivize innovative work behavior among their employees are more likely to attain elevated levels of business performance (Srimulyani & Hermanto, 2022). In addition, entrepreneurs have cognitive abilities in mobilizing sustainable interactions with the environment. This is because the central core of self-efficacy is individual characteristics through increased entrepreneurial awareness necessary for entrepreneurial activities (Asbari et al., 2020). So, an entrepreneur needs to have self-efficacy to become more confident and sensitive and take advantage of the opportunities around him (Erikson, 2002).

Self-efficacy is a predictor in encouraging innovative work behavior. This is because self-efficacy indicates that a person's self-confidence will produce high creativity (Hsu et al., 2011). Leaders possessing an entrepreneurial mindset can cultivate innovative behavior. However, self-efficacy remains critical in the relationship between creative behavior and entrepreneurial leadership (Mehmood et al., 2020). When assessing the impact of entrepreneurial leadership, it is essential to consider individual traits, as their effectiveness may vary among individuals (Chen, 2007). Individuals with elevated self-efficacy are more inclined to partake in innovative behavior because they possess confidence in their ability to innovate (Li et al., 2020; Othumary Mgeni, 2015).

Entrepreneurial leadership, in particular, stimulates and increases the innovative work behavior of employees in high-tech SMEs (Bagheri, 2017). The influence of entrepreneurial leadership on innovative work behavior is also moderated by creative self-efficacy. Strong entrepreneurial leadership influences employee self-efficacy and innovative behavior (Newman et al., 2018). Entrepreneurial leadership and self-confidence, which are high, make innovative behavior higher (Akbari et al., 2021). If self-efficacy is high, entrepreneurial leadership encourages innovative work behavior (Mehmood et al., 2020). Entrepreneurial self-efficacy moderates the strong relationship between entrepreneurial leadership and creative behavior (Renko et al., 2015). Mehmood et al. (2020) argued that entrepreneurial leadership positively affects employee innovative behavior, and creative self-efficacy plays a critical role in the influence of entrepreneurial leadership on employee innovative behavior.

This study analyzes whether entrepreneurial leadership affects MSMEs business performance, with innovative work behavior as mediation and self-efficacy as moderating variables. Based on empirical relationships and literature review, as well as Figure 1, the following research hypotheses are built:

- H1: *Entrepreneurial leadership has a significant effect on business performance.*
- H2: *Entrepreneurial leadership has a significant effect on innovative work behavior.*



**Figure 1.** Research framework

- H3: Innovative work behavior has a significant effect on business performance.*
- H4: Entrepreneurial leadership has a significant effect on business performance with innovative work behavior as a mediator.*
- H5: Self-efficacy moderates the effect of entrepreneurial leadership on innovative work behavior.*

include the ability to motivate, achievement-oriented, persistent, visionary, innovative, risk-taking, and pro-active behavior. Individual behavior that aims to reach the introduction stage is known as innovative work behavior, which seeks to “introduce new and valuable ideas, processes, products, or procedures in work, groups, or organizations” (De Jong & Den Hartog, 2010). Meanwhile, the indicators in this study include opportunity exploration, idea generation, champion, and applications.

## 2. METHOD

This study was conducted on MSMEs in Sidoarjo Regency, Indonesia. Through hypotheses testing, it seeks to explain the causal relationship between the variables. The population includes 227 MSME business owners in Sidoarjo Regency, Indonesia. Purposive sampling was used to collect the sample, and the sample size was calculated using the Slovin formula at 5%, resulting in 144 samples. The sample size was considered representative. Data were collected using a questionnaire instrument. Variables were rated using a Likert scale with five scales ranging from strongly disagree (score 1) to strongly agree (score 5).

The research variables include entrepreneurial leadership, innovative work behavior, self-efficacy, and business performance. Entrepreneurial leadership entails an individual’s capacity to influence subordinates by implementing changes to enhance the company’s growth and adapting to market trends by discovering effective methods for imparting skills (Goossen, 2007). The indicators

Business performance measurement, as the actual result of an organization, was done by comparing it with the proposed goals and objectives (Ali, 2003), business performance is the capability of a business to execute strategies for reaching organizational objectives (Amoako et al., 2023). Business performance indicators include sales production growth, sales growth, profits, and product innovation. Self-efficacy refers to an individual’s belief in competence to perform tasks and fulfill responsibilities effectively (Bandura, 1997). The indicators are magnitude, generality, and strength.

Inferential statistics using SEM-PLS and Smart-PLS 3 software are used for data analysis. The goal is to investigate the direct and indirect effects (mediation). Meanwhile, the moderation test examined self-efficacy’s role in strengthening entrepreneurial leadership’s impact on innovative work behavior. Loading factor > 0.7 is highly recommended to determine convergent validity (Hair et al., 2019). However, this study used a loading factor of > 0.5, so convergent validity was accepted (Chin, 1998; Ghazali & Latan, 2015).

### 3. RESULTS

The analysis was conducted on MSMEs in Sidoarjo, especially targeting the bakery business. The bakery business in Sidoarjo has an association group that shares information and discusses existing problems. Each bakery has unique characteristics in the products they produce, offering various product variants. Many similar companies now have developed a demand that business owners constantly innovate to make their businesses survive and compete because of the advantages they create. The association group comprises 227 businesses as members. The participants in this study consisted of both owners and employees of micro, small, and medium businesses in Sidoarjo. The number of items determined by Solvin's formula with a 5% error rate was 144. Only 103 questionnaires were returned, so the respondent's participation rate was 71.53%.

**Table 1.** Respondent demographics

Category	Demographic item	Frequency	Percentage
Gender	Male	16	15.7%
	Female	87	84.3%
Education	S1/Undergraduate	45	43.7
	Junior High School	58	56.3
Length of business	< 5 year	63	61.5%
	> 5 year	40	38.5%
Age	< 21-30 year	40	38.6%
	31-40 year	37	35.7%
	> 40 year	26	25.7%

Based on the age criteria of respondents in Table 1, 38.6% were aged 21-30, 35.7% were aged 31-40, and 25.7% were over 40. This shows that most respondents are in their productive age range. In other words, they can do the work they are responsible for more optimally. Based on the latest education level, the data show that 43.7% of respondents are undergraduate graduates, and 56.3% are junior high school graduates. This finding indicates that there needs to be higher education level among actors in micro, small, and medium enterprises. Thus, the will and skills take precedence over the status of education.

Judging from how long the business had been established, it was found that the majority, or 61.4% of the respondents, had managed their business for five years. This shows that the bakery business is still relatively new. Most respondents, or 84.3%,

are female, which shows that the bakery business is more attractive to women. The bakery business in this study generally started from a preference for baking. This baking hobby then developed into a commercial bakery business that is not only managed for the family. According to the number of employees, most respondents, or 54.3%, have two. Thus, this bakery business is a micro business mainly managed by family members. However, some entrepreneurs already have employees outside family members who help run the business.

**Table 2.** Convergent validity test

Indicator	Item	Outer Loading	Information
Entrepreneur Leadership (EL)	EL1.1	0.871	Acceptable
	EL1.2	0.896	Acceptable
	EL1.3	0.881	Acceptable
	EL1.4	0.889	Acceptable
	EL1.5	0.650	Acceptable
	EL1.6	0.508	Acceptable
Innovative Work Behavior (IWB)	IWB1.1	0.926	Acceptable
	IWB1.2	0.933	Acceptable
	IWB1.3	0.903	Acceptable
	IWB1.4	0.701	Acceptable
Self-Efficacy (SE)	SE1.1	0.687	Acceptable
	SE1.2	0.705	Acceptable
	SE1.3	0.925	Acceptable
Business Performance (BP)	BP1.1	0.856	Acceptable
	BP1.2	0.786	Acceptable
	BP1.3	0.866	Acceptable
	BP1.4	0.736	Acceptable
	BP1.5	0.689	Acceptable
	BP1.6	0.543	Acceptable

Table 2 shows that all constructs resulted in a loading value of 0.6. It demonstrated that all constructs were correct. The reliability of the constructs was assessed using the AVE (average variance extracted) and composite reliability tests. An AVE value of 0.50 or higher signifies that the construct meets the reliability criteria. Conversely, a composite reliability value of 0.70 or above is considered highly reliable (Ghozali & Latan, 2015). If an instrument measuring data and the resulting data consistently produces the same results every time a measurement is taken, the instrument is reliable (Ferdinand, 2013; Hair et al., 2019). The measurement model underwent assessment through various tests, including average variance extracted (AVE), Cronbach's Alpha (CA), and composite reliability (CR). A construct is deemed reliable if the AVE exceeds 0.5 and Cronbach's Alpha surpasses 0.7.

**Table 3.** Model measurement analysis

Variable	AVE	CR	rho_A	CA	Description
EL	0.635	0.910	0.910	0.877	Reliable
IWB	0.759	0.926	0.913	0.890	Reliable
SE	0.608	0.820	0.907	0.705	Reliable
BP	0.569	0.886	0.871	0.847	Reliable

Note: EL = Entrepreneur Leadership; IWB = Innovative Work Behavior; SE = Self-Efficacy; BP = Business Performance.

As per the findings presented in Table 3, the AVE and Cronbach's Alpha values exceeded 0.5 and 0.7, respectively. Similarly, both composite reliability and rho A were above 0.7. As a result, all of the variables investigated are reliable. The predictive relevance (Q2) value was calculated to be 0.5928 or 59.28%; these results indicate that the model is feasible and possesses predictive value. The values account for the diversity of the data generated by the variables studied by the PLS model to be 59.28% and 40.72%, respectively, with the remainder caused by variables not studied. Based on these findings, the developed PLS model is effective, as it can account for 59.28% of the total information.

The direct impact of entrepreneurial leadership on business performance exhibited a t-statistic of 3.513 and a p-value of 0.000. Therefore, entrepreneurial leadership significantly affects business performance. These results proved that entrepreneurial leadership directly and significantly affected business performance. Business performance will improve as entrepreneurial leadership becomes better or more effective. In contrast, the lower the business performance, the worse or more ineffective the entrepreneurial leadership.

Therefore, H1 is accepted: entrepreneurial leadership significantly affects business performance.

The regression coefficient produced a t-statistic of 13.097 and a p-value of 0.000. This result evidences entrepreneurial leadership's exceptionally noteworthy and consequential influence on innovative work behavior. Better or more effective entrepreneurial leadership will increase innovative work behavior and vice versa, whereas worse entrepreneurial leadership will reduce the performance of creative work behavior. So, H2 is accepted: entrepreneurial leadership significantly affects innovative work behavior.

The path coefficient for the effect of innovative work behavior on business performance was obtained with a t-statistic of 2.770 and a p-value of 0.006, so innovative work behavior is declared to affect business performance significantly. This negative path coefficient indicates that higher innovative work behavior will reduce business performance and vice versa, whereas lower innovative work behavior will improve business performance. So, H3 is accepted: innovative work behavior significantly affects entrepreneurial leadership.

**Table 4.** Direct effect hypotheses testing results

Variable	Path coefficient	t-statistic	p-value	Description
H1. Entrepreneurial Leadership → Business Performance	0.436	3.513	0.000	Significant
H2. Entrepreneurial Leadership → Innovative Work Behavior	0.696	13.097	0.000	Significant
H3. Innovative Work Behavior → Business Performance	-0.358	2.770	0.006	Significant

**Table 5.** Mediation and moderation test

Variable	Path coefficient	t statistic	p-value	Description
<b>Mediation Test</b>				
H4. Entrepreneurial Leadership → Innovative Work Behavior → Business Performance	-0.249	2.629	0.009	Significant
<b>Moderation Test</b>				
H5. EL-SE*IWB → Innovative Work Behavior → Business Performance	-0.054	1.458	0.145	Insignificant

Note: EL = Entrepreneur Leadership; IWB = Innovative Work Behavior; SE = Self-Efficacy.

Table 5 shows the findings of the mediation and moderation analyses. The study found a t-statistic of 2.629 and a p-value of 0.009 for the effect of entrepreneurial leadership on business performance, with innovative work behavior as an intervening variable. So, innovative work behavior mediates the effect of entrepreneurial leadership on business performance. Using the examination method, the nature of the mediation correlation indicates that it is partial mediation. Entrepreneurial leadership will directly improve business performance and innovative work behavior. Meanwhile, the negative direction of the correlation explains that better entrepreneurial leadership will increase creative work behavior and reduce business performance. According to this data analysis, H4 is accepted: entrepreneurial leadership significantly affects business performance with innovative work behavior as a mediator.

The results of self-efficacy moderation testing on the influence of entrepreneurial leadership on innovative work behavior revealed a t-statistic of 1.458 and a p-value of 0.145; the results are insignificant, indicating that self-efficacy does not moderate the effect of entrepreneurial leadership on innovative work behavior. In other words, H5 is rejected.

## 4. DISCUSSION

The results of the path analysis study regarding the impact of entrepreneurial leadership on business performance in MSMEs indicate a noteworthy positive effect of entrepreneurial leadership on business performance. Furthermore, better entrepreneurial leadership of business actors would increase business performance. The results of the study were corroborated by the findings of Al Mamun et al. (2018), Wijaya and Harjanti (2013), and Othumary Mgeni (2015). Micro-enterprises necessitate entrepreneurial leadership, which can positively and significantly impact business performance. These findings further corroborate the study results of Rahim et al. (2015); this statement highlights the importance of comprehending the relationship between entrepreneurial leadership and business performance. SME owners can improve business performance by adopting a better entrepreneurial leadership style.

According to the test results, entrepreneurial leadership significantly affects innovative work behavior. Research findings consistently demonstrate that entrepreneurial leadership enhances employees' innovative work behavior, supporting Bagheri, Akbari, et al. (2022), Bagheri, Newman, et al. (2022) and Malibari and Bajaba (2022). Entrepreneurial leadership plays a vital role in promoting innovative work behavior among employees. These findings also support that entrepreneurial leadership promotes innovative work behavior among employees. This suggests that when MSME managers or leaders encourage and support part of the company to think creatively, take risks, motivate, be visionary, and generate new ideas, it positively impacts the innovative work behavior of MSME employees. This finding demonstrates the importance of organizational leaders, especially in MSMEs, who adopt entrepreneurial leadership and will contribute significantly to employees who constantly innovate in work and tasks in their organizations. Entrepreneurial leadership is becoming increasingly important for organizations seeking to maintain competitiveness and adaptability in a volatile and evolving business environment.

Further findings show that innovative work behavior affects business performance significantly. This result implies that a workforce implementing innovative work behavior will contribute to the organization's business performance. These findings support Almaududi Ausat et al. (2021) and Jankelová et al. (2021) that innovative work behavior significantly positively affects business performance. Organizational performance depends on innovation because it allows them to respond quickly to market changes and remain competitive (Almaududi Ausat et al., 2021; Farrukh et al., 2023). These findings indicate that when employees engage in innovative work behaviors by generating new ideas, solving problems creatively, and taking the initiative, this would positively impact MSMEs' business performance. Moreover, in MSMEs, product output is needed, incredibly creative and contemporary. Innovative work behaviors contribute to organizational success by encouraging adaptability, competitiveness, growth, and existence. These findings highlight that it is essential for MSMEs to foster a culture that encourages and supports innovation in their workforce.

The influence of entrepreneurial leadership on business performance, with innovative work behavior as a mediating factor, produced noteworthy results. These results indicate that the higher the quality or effectiveness of entrepreneurial leadership, the more pronounced the innovative work behavior becomes. These results support Javed et al. (2018) and Akbari et al. (2021) that entrepreneurial leadership will encourage someone to show innovative behavior at work. Entrepreneurial leadership significantly provokes and enhances innovative work behavior (Bagheri, 2017). Other findings revealed that innovative work behavior does have a negative impact on business performance. This correlation means that better innovative behavior would reduce business performance. The result is similar to the opinion of Naranjo-Valencia et al. (2016), who mentioned that the company is a critical factor influencing a company's success, particularly in today's more competitive market conditions. However, such behavior also depends on the cultural values developed by the company. Certain types of culture can foster innovation and improve business performance but can also hinder company performance. The adhocratic culture encourages innovation and produces the best performance, while the hierarchical culture will have a negative influence and reduce performance. The findings of this study differ from those of Leong and Rasli (2014), who found that innovative work behavior significantly affects performance.

The importance of innovative work behavior mediating between entrepreneurial leadership and

business performance cannot be overstated. Better entrepreneurial leadership will increase creative work behavior, ultimately impacting business performance. The intervening variable, partial mediation, indicated that entrepreneurial leadership directly improves business performance and innovative work behavior and affects business performance. This study's findings support Sawaeen and Ali (2020), who demonstrated that innovation mediates entrepreneurial leadership's effect on organizational performance. Bagheri (2017) found that entrepreneurial behavior increased work innovative behavior to produce higher performance.

Research findings on entrepreneurial leadership's impact on business performance with self-efficacy moderation show insignificant results, implying that self-assurance cannot strengthen entrepreneurial leadership's enhancement of innovative work behavior. This is different from Mehmood et al. (2020), Bagheri, Newman, et al. (2022), and Akbari et al. (2021), who demonstrate the importance of self-efficacy in the connection between entrepreneurial leadership and innovative work behavior. Another finding (Li et al., 2020) is that entrepreneurial self-efficacy moderates the correlation between entrepreneurial leadership and innovative employee behavior. This study does not prove that self-efficacy impacts MSME business performance. When MSMEs have leaders who adopt entrepreneurial leadership, this is more instrumental in contributing to employee work innovative behavior without the need to moderate self-efficacy.

---

## CONCLUSION

This study examined how entrepreneurial leadership affects business performance, considering innovative work behavior as an intervening variable and self-efficacy as a moderating factor. The result shows that entrepreneurial leadership affects business performance; innovative work behavior mediates the effect of entrepreneurial leadership on business performance; and self-efficacy does not moderate the effect of entrepreneurial leadership on innovative work behavior. The greater the leader's entrepreneurial leadership, the more it will improve business performance. Innovative work behavior is vital in influencing entrepreneurial leadership and business performance.

This study provides critical practical implications in micro, small, and medium enterprises, especially entrepreneurial leadership's importance in improving business performance and innovative work behavior. It takes a leader with an entrepreneurial spirit for an MSME so that innovating behavior continues to be encouraged and that business performance is more optimal. It is vital to note that MSME leaders need entrepreneurial leadership so that employees constantly improve their innovative work

behavior to compete. An entrepreneur must have strong motivation or personality traits to deal with various changes that may occur. In this study, self-efficacy could not strengthen entrepreneurial leadership's influence on business performance.

Other factors, such as supporting existing organizational culture, must be considered in the correlation between innovative behavior and business performance. Therefore, it is recommended for further researchers to add organizational culture variables, especially the type of corporate culture needed for innovative work behavior to improve performance. This study's respondents came from various educational backgrounds (dominated by junior high school and undergraduate as the last education). For this reason, further research should consider respondent characteristics by adding employee performance factors and education levels as control variables.

## AUTHOR CONTRIBUTIONS

Conceptualization: Aniek Rumijati, Arif Rahman Hakim.

Data curation: Aniek Rumijati, Arif Rahman Hakim.

Formal analysis: Aniek Rumijati, Arif Rahman Hakim.

Investigation: Aniek Rumijati, Arif Rahman Hakim.

Methodology: Aniek Rumijati, Arif Rahman Hakim.

Project administration: Aniek Rumijati, Arif Rahman Hakim.

Resources: Aniek Rumijati, Arif Rahman Hakim.

Supervision: Aniek Rumijati.

Validation: Aniek Rumijati, Arif Rahman Hakim.

Writing – original draft: Aniek Rumijati, Arif Rahman Hakim.

Writing – review & editing: Arif Rahman Hakim.

## REFERENCES

1. Achmadi, H., Jayanagara, O., & Sutawijaya, A. H. (2023). What was the impact of business performance on MSMEs during the COVID-19 pandemic? *Asian Economic and Financial Review*, 13(4), 279-292. <https://doi.org/10.55493/5002.V13I4.4772>
2. Akbari, M., Bagheri, A., Imani, S., & Asadnezhad, M. (2021). Does entrepreneurial leadership encourage innovation work behavior? The mediating role of creative self-efficacy and support for innovation. *European Journal of Innovation Management*, 24(1), 1-22. <https://doi.org/10.1108/EJIM-10-2019-0283>
3. Al Mamun, A., Ibrahim, M. D., Yusoff, M. N. H. Bin, & Fazal, S. A. (2018). Entrepreneurial leadership, performance, and sustainability of micro-enterprises in Malaysia. *Sustainability*, 10(5), 1591. <https://doi.org/10.3390/su10051591>
4. Ali, I. (2003). *A performance measurement framework for a small and medium enterprise*. University of Alberta.
5. Almaududi Ausat, A. M., Widayani, A., Rachmawati, I., Latifah, N., & Suherlan, S. (2021). The effect of intellectual capital and innovative work behavior on business performance. *Journal of Economics, Business, & Accountancy Ventura*, 24(3). <https://doi.org/10.14414/jebav.v24i3.2809>
6. Amoako, G. K., Coffie, I. S., & Ocloo, E. C. (2023). Social media communication and sustainability perception in business: The moderating role of social media influencers. In I. Gigauri, M. Palazzo, & M. Ferri (Eds.), *Handbook of Research on Achieving Sustainable Development Goals with Sustainable Marketing* (pp. 129-148). IGI Global. <https://doi.org/10.4018/978-1-6684-8681-8.ch007>
7. Anatan, L., & Nur. (2023). Micro, small, and medium enterprises' readiness for digital transformation in Indonesia. *Economies*, 11(6), 156. <https://doi.org/10.3390/economies11060156>
8. Appelbaum, S., Bartolomucci, N., Beaumier, E., Boulanger, J., Corrigan, R., Doré, I., Girard, C., & Serroni, C. (2004). Organizational citizenship behavior: A case study of culture, leadership and trust. *Management Decision*, 42(1), 13-40. <https://doi.org/10.1108/00251740410504412>
9. Asbari, M., Purwanto, A., & Budi, P. (2020). Pengaruh iklim organisasi dan kepemimpinan transformasional terhadap produktivitas kerja inovatif pada industri manufaktur di pati Jawa tengah [The influence of organizational climate and

- transformational leadership on innovative work productivity in the manufacturing industry in Central Java]. *Jurnal Produktivitas*, 7(1), 62-69. (In Indonesian). Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3984826](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3984826)
10. Bagheri, A. (2017). The impact of entrepreneurial leadership on innovation work behavior and opportunity recognition in high-technology SMEs. *Journal of High Technology Management Research*, 28(2), 159-166. <https://doi.org/10.1016/j.hitech.2017.10.003>
  11. Bagheri, A., Akbari, M., & Artang, A. (2022). How does entrepreneurial leadership affect innovation work behavior? The mediating role of individual and team creativity self-efficacy. *European Journal of Innovation Management*, 25(1), 1-18. <https://doi.org/10.1108/EJIM-07-2020-0281>
  12. Bagheri, A., Newman, A., & Eva, N. (2022). Entrepreneurial leadership of CEOs and employees' innovative behavior in high-technology new ventures. *Journal of Small Business Management*, 60(4), 805-827. <https://doi.org/10.1080/00472778.2020.1737094>
  13. Bandura, A. (1997). *Self-efficacy: The exercise of control* (1<sup>st</sup> ed.). Worth Publishers.
  14. Boerner, S., Eisenbeiss, S. A., & Griesser, D. (2007). Follower behavior and organizational performance: The impact of transformational leaders. *Journal of Leadership & Organizational Studies*, 13(3), 15-26. <https://doi.org/10.1177/10717919070130030201>
  15. Chen, M. H. (2007). Entrepreneurial leadership and new ventures: Creativity in entrepreneurial teams. *Creativity and Innovation Management*, 16(3), 239-249. <https://doi.org/10.1111/j.1467-8691.2007.00439.x>
  16. Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods of business research*. Lawrence Erlbaum Associates.
  - Retrieved from <https://psycnet.apa.org/record/1998-07269-010>
  17. Choi, W. S., Kang, S. W., & Choi, S. B. (2021). Innovative behavior in the workplace: An empirical study of moderated mediation model of self-efficacy, perceived organizational support, and leader-member exchange. *Behavioral Sciences*, 11(12), 182. <https://doi.org/10.3390/bs11120182>
  18. Dama, J., & Ogi, I. W. J. (2018). Pengaruh inovasi terhadap dan kreativitas terhadap kinerja karyawan pada PT Bank Mandiri (Persero) Tbk. Manado [The influence of innovation and creativity on employee performance at PT Bank Mandiri (Persero) Tbk. Manado]. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 6(1), 41-50. (In Indonesian). Retrieved from <https://ejournal.unsrat.ac.id/index.php/emba/article/view/18759>
  19. De Jong, J. P. J., & Den Hartog, D. N. (2010). Measuring innovative work behaviour. *Creativity and Innovation Management*, 19(1), 23-36. <https://doi.org/10.1111/j.1467-8691.2010.00547.x>
  20. Ebersberger, B., & Kuckertz, A. (2021). Hop to it! The impact of organization type on innovation response time to the COVID-19 crisis. *Journal of Business Research*, 124, 126-135. <https://doi.org/10.1016/j.jbusres.2020.11.051>
  21. Erikson, T. (2002). Entrepreneurial capital: The emerging venture's most important asset and competitive advantage. *Journal of Business Venturing*, 17(3), 275-290. [https://doi.org/10.1016/S0883-9026\(00\)00062-8](https://doi.org/10.1016/S0883-9026(00)00062-8)
  22. Farrukh, M., Meng, F., Raza, A., & Wu, Y. (2023). Innovative work behaviour: The what, where, who, how and when. *Personnel Review*, 52(1), 74-98. <https://doi.org/10.1108/PR-11-2020-0854>
  23. Ferdinand, A. (2013). *Metode penelitian manajemen: Pedoman penelitian untuk penulisan skripsi, tesis dan disertasi ilmu manajemen [Management research methods: Research guidelines for writing theses, theses and dissertations in management science]*. (In Indonesian). Undip Press.
  24. Freeman, D., & Siegfried, R. (2015). Entrepreneurial leadership in the context of company start-up and growth. *Journal of Leadership Studies*, 8(4), 35-39. <https://doi.org/10.1002/jls.21351>
  25. Ghozali, I., & Latan, H. (2015). *Partial least square: Konsep, teknik, dan aplikasi menggunakan program SmartPLS 3.0 [Partial least square: Concepts, techniques, and applications using the SmartPLS 3.0 program]*. (In Indonesian). Badan Penerbit Undip.
  26. Goossen, R. J. (2007). *Entrepreneurial leaders reflections on faith and work*. Trinity Western University.
  27. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. W. (2019). *Multivariate data analysis* (8<sup>th</sup> ed.). Cengage Learning EMEA.
  28. Hsu, M. L. A., Hou, S. T., & Fan, H. L. (2011). Creative self-efficacy and innovative behavior in a service setting: Optimism as a moderator. *Journal of Creative Behavior*, 45(4), 258-272. <https://doi.org/10.1002/j.2162-6057.2011.tb01430.x>
  29. Imaroh, T. S., & Widiyani, K. (2020). Improving performance and competitive advantage through innovation and design of UMKM products. *International Journal of Innovative Science and Research Technology*, 5(8), 1336-1346. <https://doi.org/10.38124/ijisrt20aug445>
  30. Jankelová, N., Joniaková, Z., & Mišún, J. (2021). Innovative work behavior – A key factor in business performance? The role of team cognitive diversity and teamwork climate in this relationship. *Journal of Risk and Financial Management*, 14(4), 185. <https://doi.org/10.3390/jrfm14040185>
  31. Javed, B., Khan, A. K., & Quratulain, S. (2018). Inclusive leadership and innovative work behavior: Examination of LMX

- perspective in small capitalized textile firms. *Journal of Psychology: Interdisciplinary and Applied*, 152(8), 594-612. <https://doi.org/10.1080/00223980.2018.1489767>
32. Lanang, I. P. E. S., Kirya, I. K., & Cipta, I. W. (2014). Analisis faktor-faktor yang mempengaruhi kinerja usaha mikro kecil dan menengah (UMKM) di kabupaten bangli [Analysis of factors affecting the performance of micro, small and medium enterprises (msmes) in bangli regency]. *E-Journal Bisma Universitas Pendidikan Ganesha*, 2(1), 11-21. (In Indonesian).
33. Latifah, L., Setiawan, D., Aryani, Y. A., & Rahmawati, R. (2021). Business strategy – MSMEs' performance relationship: Innovation and accounting information system as mediators. *Journal of Small Business and Enterprise Development*, 28(1), 1-21. <https://doi.org/10.1108/JS-BED-04-2019-0116>
34. Leong, C. T., & Rasli, A. (2014). The relationship between innovative work behavior on work role performance: An empirical study. *Procedia – Social and Behavioral Sciences*, 129, 592-600. <https://doi.org/10.1016/j.sbspro.2014.03.717>
35. Li, C., Makhdoom, H. U. R., & Asim, S. (2020). Impact of entrepreneurial leadership on innovative work behavior: Examining mediation and moderation mechanisms. *Psychology Research and Behavior Management*, 2020(13), 105-118. <https://doi.org/10.2147/PRBM.S236876>
36. Limanseto, H. (2022). *Perkembangan UMKM sebagai critical engine perekonomian nasional terus mendapatkan dukungan pemerintah [The development of MSMEs as a critical engine of the national economy continues to receive government support]*. Coordinating Ministry for Economic Affairs Indonesia. (In Indonesian).
37. Lubis, R. L. (2017). Assessing entrepreneurial leadership and the law: Why are these important for graduate students in Indonesia? *International Journal of Arts & Sciences*, 10(2), 41-76.
38. Malibari, M. A., & Bajaba, S. (2022). Entrepreneurial leadership and employees' innovative behavior: A sequential mediation analysis of innovation climate and employees' intellectual agility. *Journal of Innovation and Knowledge*, 7(4), 100255. <https://doi.org/10.1016/j.jik.2022.100255>
39. Mangkunegara, A. P. (2013). *Manajemen sumberdaya manusia perusahaan [Corporate human resource management]*. (In Indonesian). PT. Remaja.
40. Megawaty, M., Hendriadi, H., & Salam, K. N. (2022). The impact of entrepreneurial leadership on the performance of small and medium enterprises enterprises. *Point of View Research Management*, 3(4), 388-397. Retrieved from <https://journal.accountingpointofview.id/index.php/POVREMA/article/view/237>
41. Mehmood, M. S., Jian, Z., & Gilal, F. G. (2020). Entrepreneurial leadership and employee innovative behavior: Intervening role of creative self-efficacy. *Human Systems Management*, 39(3), 329-343. <https://doi.org/10.3233/HSM-190783>
42. Mehralian, M. M., & Khazaee, P. (2022). Effect of digital marketing on the business performance of MSMEs during the COVID-19 pandemic: The mediating role of customer relationship management. *37th Digital Marketing and Customer Behavior Science Conference*. <https://doi.org/10.2139/ssrn.4195985>
43. Miller, D. (2011). Miller (1983) revisited: A reflection on EO research and some suggestions for the future. *Entrepreneurship: Theory and Practice*, 35(5), 873-894. <https://doi.org/10.1111/j.1540-6520.2011.00457.x>
44. Naranjo-Valencia, J. C., Jiménez-Jiménez, D., & Sanz-Valle, R. (2016). Studying the links between organizational culture, innovation, and performance in Spanish companies. *Revista Latinoamericana de Psicología*, 48(1), 30-41. <https://doi.org/10.1016/j.rlp.2015.09.009>
45. Newman, A., Tse, H. H. M., Schwarz, G., & Nielsen, I. (2018). The effects of employees' creative self-efficacy on innovative behavior: The role of entrepreneurial leadership. *Journal of Business Research*, 89, 1-9. <https://doi.org/10.1016/j.jbusres.2018.04.001>
46. Othumary Mgeni, T. (2015). Impact of entrepreneurial leadership style on business performance of SMEs in Tanzania. *Journal of Entrepreneurship & Organization Management*, 4(2). <https://doi.org/10.4172/2169-026x.1000142>
47. Rahim, H. L., Abidin, Z. Z., Mohtar, S., & Ramli, A. (2015). The effect of entrepreneurial leadership towards organizational performance. *International Academic Research Journal of Business and Technology*, 1(2), 193-200. Retrieved from <https://www.iarjournal.com/wp-content/uploads/IBTC2015-p193-200.pdf>
48. Renko, M., El Tarabishy, A., Carsrud, A. L., & Brännback, M. (2015). Understanding and measuring entrepreneurial leadership style. *Journal of Small Business Management*, 53(1), 54-74. <https://doi.org/10.1111/jsbm.12086>
49. Rivai, V., & Mulyadi, D. (2009). *Kepemimpinan dan perilaku organisasi [Leadership and organizational behavior]* (3<sup>rd</sup> ed.). Rajagrafindo Persada. (In Indonesian).
50. Sarwoko, E. (2020). Entrepreneurial leadership and innovative work behavior: The role of creative self-efficacy. *Journal of Economics, Business, & Accountancy Ventura*, 23(2). <https://doi.org/10.14414/jebav.v23i2.2282>
51. Sawaeen, F. A. A., & Ali, K. A. M. (2020). The impact of entrepreneurial leadership and learning orientation on organizational performance of SMEs: The mediating role of innovation capacity. *Management Science Letters*, 10(2), 369-

380. <https://doi.org/10.5267/j.msl.2019.8.033>
52. Soleh, M. (2008). *Analisis strategi inovasi dan dampaknya terhadap kinerja perusahaan (Studi kasus: UKM manufaktur di kota semarang)*. Universitas Diponegoro.
53. Srimulyani, V. A., & Hermanto, Y. B. (2022). Impact of entrepreneurial self-efficacy and entrepreneurial motivation on micro and small business success for food and beverage sector in East Java, Indonesia. *Economies*, 10(1), 10. <https://doi.org/10.3390/economies10010010>
54. Sudjatmoko, A., Ichsan, M., Astriani, M., Mariani, & Clairine, A. (2023). The impact of COVID-19 pandemic on the performance of Indonesian MSME with innovation as mediation. *Cogent Business and Management*, 10(1), 2179962. <https://doi.org/10.1080/23311975.2023.2179962>
55. Suminah, S., Suwanto, S., Sugihardjo, S., Anantanyu, S., & Padmaningrum, D. (2022). Determinants of micro, small, and medium-scale enterprise performers' income during the Covid-19 pandemic era. *Heliyon*, 8(7), e09875. <https://doi.org/10.1016/j.heliyon.2022.e09875>
56. Taleb, T. S. T., Hashim, N., & Zakaria, N. (2023). Entrepreneurial leadership and entrepreneurial success: The mediating role of entrepreneurial opportunity recognition and innovation capability. *Sustainability*, 15(7), 5776. <https://doi.org/10.3390/su15075776>
57. Thornberry, N. (2006). *Lead like an entrepreneur*. The McGraw-Hill Companies, Inc.
58. Utoyo, I., Fontana, A., & Satrya, A. (2020). The role of entrepreneurial leadership and configuring core innovation capabilities to enhance innovation performance in a disruptive environment. *International Journal of Innovation Management*, 24(6), 2050060. <https://doi.org/10.1142/S1363919620500607>
59. Vargas, M. I. R. (2015). Determinant factors for small business to achieve innovation, high performance and competitiveness: Organizational learning and leadership style. *Procedia – Social and Behavioral Sciences*, 169, 43-52. <https://doi.org/10.1016/j.sbspro.2015.01.284>
60. Wicaksono, G., & Nuvriasari, A. (2012). Meningkatkan kinerja UMKM industri kreatif melalui pengembangan kewirausahaan dan orientasi pasar: Kajian pada peran serta wirausaha wanita di kecamatan moyudan, kabupaten sleman, propinsi DIY [Improving the performance of creative industry MSMEs through entrepreneurship development and market orientation: A study on the participation of women entrepreneurs in Moyudan sub-district, Sleman district, DIY province]. *Jurnal Sosio Humaniora*, 3(4), 27-39. (In Indonesian). Retrieved from <https://ejournal.mercubuana-yogya.ac.id/index.php/soshum/article/view/102>
61. Widagdo, B., & Sa'diyah, C. (2023). Business sustainability: Functions of financial behavior, technology, and knowledge. *Problems and Perspectives in Management*, 21(1), 120-130. [https://doi.org/10.21511/ppm.21\(1\).2023.11](https://doi.org/10.21511/ppm.21(1).2023.11)
62. Wijaya, Y. H., & Harjanti, D. (2013). Enterpreneurial leadership dan hubungannya dengan kinerja bisnis pada usaha mikro kecil di wilayah Jawa timur [Entrepreneurial leadership and its relationship with business performance in micro small enterprises in the East Java region]. *Agora*, 1(3). (In Indonesian). Retrieved from <https://www.neliti.com/publications/35960/enterpreneurial-leadership-dan-hubungannya-dengan-kinerja-bisnis-pada-usaha-mikr>