

COMPARISON OF THE EFFECT OF ENTREPRENEURIAL ORIENTATION ON THE PERFORMANCE OF SMES/MSMES IN INDONESIA IN THE PRE-PANDEMIC PERIOD AND PANDEMIC: A META-ANALYSIS APPROACH

Akhmad Ali Rusdi¹, Lily Sudhartio

Faculty of Economics & Business, Universitas Indonesia
Jl Prof. Dr. Sumitro Djojohadikusumo, Depok, West Java 16424, Indonesia

Article history:

Received
19 July 2024

Revised
26 September 2024

Accepted
16 October 2024

Available online
22 January 2025

This is an open access article under the CC BY license (<https://creativecommons.org/licenses/by/4.0/>)



Abstract:

Background: The number of research publications examining the correlation between entrepreneurial orientation and performance in Indonesia increased significantly from January 2015 to June 2023. However, the findings have been inconsistent, with entrepreneurial orientation reported to have large, medium, small, neutral, or even negative effects on the performance of SMEs/MSMEs. This variation has led to confusion regarding the actual strength of the correlation between these two variables.

Purpose: This study aims to determine the actual influence of entrepreneurial orientation on the performance of SMEs/MSMEs in Indonesia under two different turbulent business environments.

Method: A meta-analysis approach was employed, utilizing secondary data sourced from research articles in Indonesia indexed in the Science and Technology Index (SINTA), Copernicus, EBSCO, Google Scholar, and Scopus.

Findings: During the pre-pandemic period (Industrial 4.0 boom), entrepreneurial orientation had a positive influence on the performance of SMEs/MSMEs in Indonesia, with an effect size of $r=0.25-0.34$ ($r = 0.25 - 0.34$) (mean $r=0.30$ ($r = 0.30$), $p<0.001$ ($p < 0.001$)). In the pandemic period, the effect size was $r=0.24-0.32$ ($r = 0.24 - 0.32$) (mean $r=0.28$ ($r = 0.28$), $p<0.001$ ($p < 0.001$)). According to Cohen's classification, these effects are small to moderate but significant. Subgroup analysis revealed no significant difference between the two periods ($p=0.71$, >0.05) ($p = 0.71$, > 0.05).

Conclusion: The influence of entrepreneurial orientation on SME/MSME performance remains consistent across different turbulent business environments, with a small to moderate effect.

Originality/Value (State of the Art): This study demonstrates how meta-analysis can synthesize varying research findings in the field of management to provide more robust conclusions. It offers a clearer understanding of the extent to which entrepreneurial orientation impacts the performance of SMEs/MSMEs in Indonesia.

Keywords: entrepreneurial orientation, business performance, variations, meta-analysis

How to Cite:

Rusdi A. A., & Sudhartio L. (2025). Comparison of The Effect of Entrepreneurial Orientation on The Performance of SMES/MSMEs in Indonesia in The Pre-Pandemic Period and Pandemic: A Meta-Analysis Approach . Jurnal Aplikasi Bisnis Dan Manajemen (JABM), 11(1), 165. <https://doi.org/10.17358/jabm.11.1.165>

¹Corresponding author:
Email: rusdi_ipt@yahoo.co.id

INTRODUCTION

Currently, entrepreneurial orientation is the scientific field of strategic management that attracts the most attention of researchers in the discipline of management. Over the past nearly fifty years, entrepreneurial orientation has risen as a prominently researched topic within the field of entrepreneurship, garnering significant attention in scholarly literature (Ferreira et al. 2019).

At the beginning of its appearance in 1974 to 2000, it seemed that the publication of entrepreneurial orientation research was still small, this is inseparable from the fact that this science is in the process of forming definitions, methods, measurements, contingencies and measuring their impact (Wales et al. 2021). The increase in research interest began to be seen from the period 2002–2009 which resulted in 122 research publications. However, a more rapid increase occurred starting in 2010, at least 700 publications with a focus to the correlation between entrepreneurial orientation and company achievement have been published in English (Wales et al. 2021). This increase in interest is due to globalization and the growing popularity of entrepreneurship around the world which motivates curiosity in comprehending how entrepreneurial orientation is demonstrated and applied across various socio-cultural environments (Wales et al. 2019).

The rapidly increasing trend of research interest in these topics that occurs globally, encourages researchers in Indonesia to participate in researching the influence from entrepreneurial orientation on performance. It is marked by the emergence of publications conducted by Suci (2009) on same topic with the object of study being business at the SME level. In the first five-year period since first publication (2009–2014) the results of his research, precisely in the early period of industry 4.0 issues, there were only 26 publications. However, when the industry 4.0 booming began to be felt in Indonesia in 2015, there was a significant increase in the publication numbers indicating an increase in research interest in these topics. At least 400 research journals have been published from 2015 to June 2023. More than 95% of the study objects published in research on this topic are SMEs / MSMEs, this is inseparable from the portion of SMEs / MSMEs which reach 99.9% of all business units in Indonesia based on BPS data.

The results of research conducted in Indonesia show the same trend, which shows varied results such as those published by Andika et al. (2019), Arjawa (2016), Borshalina et al. (2020), Daengs and Soemantri (2020) which confirm that it has a positive also significant impact to the achievement of SMEs/MSMEs, but in publications conducted by Akramiah and Fibriyani (2018), Arifin and Komaryatin (2020), Arraniri et al. (2020), Herlinawati et al. (2019), who found a different fact, namely that it does not have a significant direct impact on business performance. Varied findings also occurred in research on this topic conducted during the pandemic period (March 11, 2020 – June 21, 2023) as reported by Niode (2022) who conducted a study on 377 respondents with the results: it had a significant positive impact to business performance, while Dewi (2022) with 318 respondents reported a negative effect.

These varying results raise a problem, namely academic confusion regarding which research results should be used as a reference to assess the influence of entrepreneurial orientation on performance because there is no unanimous conclusion or consensus on this issue. It also causes confusion for managers, whether to apply entrepreneurial orientation or not, which is caused by varying research results. One way out in analyzing the varying research results, researchers use research with a meta-analysis model approach. Meta-analysis is a quantitative research model approach that involves the use of secondary data from previous studies that works by combining statistics from various studies with a particular topic that is used as the main data, and identifying differences in estimates from each research result by calculating the aggregate influence or summary effect. In this way, Meta-analysis evaluates quantitative data from previous studies to test or reject the hypotheses raised in each study (Retnawati et al. 2018).

A meta-analysis study conducted by Laily et al. (2023) involving 23 articles published nationally and internationally showed that entrepreneurial orientation has a positive and significant effect. That study is general in nature and does not involve any control variables. As far as the author knows, there is currently no study comparing the effect of entrepreneurial orientation on two different types of business environmental pressures in Indonesia using the meta-analysis method whose research articles only involve SMEs/MSMEs in Indonesia, so this study is needed to obtain a comparative picture of the influence with strong conclusion that involve more than 200 articles.

This study aims to obtain strong conclusions regarding the influence of entrepreneurial orientation on the performance of SMEs/MSMEs in Indonesia with meta-analysis approach. This meta-analysis research was only carried out on entrepreneurial orientation research conducted in Indonesia, by analyzing the immediate effect of this variables on business performance whose research or publication took place prior to the onset of the Covid-19 health crisis period (2015–2020) as well as research conducted during the pandemic period and its publication was carried out between March 2020 – June 2023, with the aim of inferring the cumulative correlation magnitude and comparing the magnitude correlation between research conducted before the pandemic period and during the pandemic period. Then compare the results of this meta-analysis with meta-analysis studies from abroad that have been done previously.

METHODS

This study examines research journals that publish the impact from this variable on the business performance of SMEs / MSMEs throughout Indonesia with a meta-analysis approach. The research is carried out in stages, starting from the formation of ideas in mid-2022 to June 2023. The place of research is only carried out in one place which is Google Search Engine to collect all relevant research journals.

This study uses secondary data obtained from research journals in Indonesia that have been published in journals indexed in SINTA, Copernicus, EBSCO, Google scholar, Scopus, and contains research related to the impact of this variable on business performance whose research only uses research units from Indonesia from 2015 to June 2023.

Data collection in this study was carried out by searching and collecting research journal journals contained in databases recognized by academics in Indonesia such as SINTA, Copernicus, EBSCO, Google scholar, Scopus through Google Search Engine. The collected journals are codified in the form of authors, year published, title, publisher, index data base, research province, number of respondents, business size, type of business, statistical methods, independent variables of entrepreneurial orientation, dependent variables of business performance, and t-test scores. Sorting of relevant journals and not based on inclusion criteria

and the main exclusion criteria are whether the journal describe entrepreneurial orientation directly correlates with business performance, the number of respondents, t value and index data base (Figure 1).

Data processing in this research was carried out in two ways, namely using a manual calculation process and using JASP meta-analysis software. Manual calculations were carried out to obtain the z-fisher value and standard error to be entered. The Z-fisher value is obtained from the correlation r value which was previously obtained from data presented by the article in the form of T-test values and the number of samples involved. The r value is obtained by converting the T-test value and sample size using a formula derived from an introductory meta-analysis book written by Retnawati et al. (2018). Apart from obtaining data that will be input into the meta-analysis software, manual calculations are also used when calculating subgroup analysis which is useful for assessing whether there are differences in the influence value of r in the two groups that are used as the object of meta-analysis. The use of JASP meta-analysis software is used to obtain a summary effect and conclude whether there is publication bias in this meta-analysis or not. Data processing for meta-analysis in research is carried out with JASP software. The measurement of the strength of the correlation value r using the Cohen 1988 standard in Table 1, which can be elucidated within 3 categories.

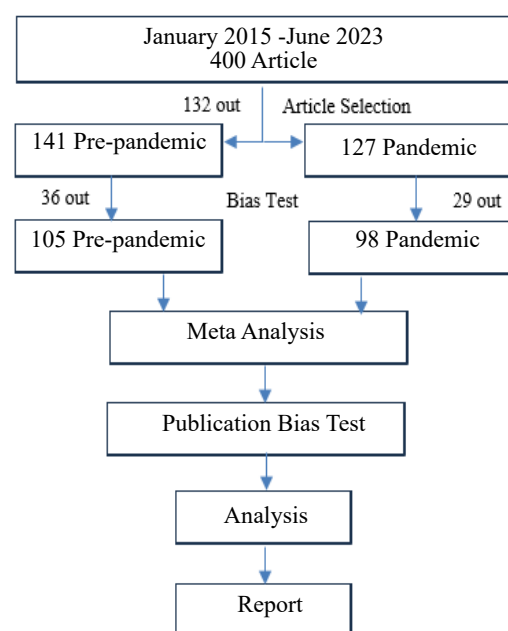


Figure 1. Flow process meta-analysis

The research model used as a research framework (Figure 2) is inseparable from the dominant view of arguing that entrepreneurial orientation has positive correlation to performance (Rauch et al. 2009). From the research model we propose 3 hypotheses:

- Hypothesis 1: Entrepreneurial orientation positively affects business performance based on meta-analysis in the pre-pandemic period
- Hypothesis 2: Entrepreneurial orientation positively affects business performance based on meta-analysis in the period during the pandemic
- Hypothesis 3: There is a difference in the influence of entrepreneurial orientation in the period of pre-pandemic compared to the pandemic period on business performance

RESULTS

Based on the disaggregation, 105 articles were obtained before the pandemic period and 98 journals during the pandemic period with a total of 203 journals that became relevant data to assess directly impact entrepreneurial orientation variable to the SMEs/MSMEs work achievement in Indonesia. Based on the Table 2, most research journals on this topic in Indonesia both pre-pandemic period and the pandemic period, most of which are published by journals indexed in Sinta.

In the pre-pandemic period, journals that examined SME business scales were 77 (73%) while MSME businesses were 28 (27%) with a total of 15,683 business units involved, this shows that research data in the pre-pandemic period used more SME business scales. However, during the pandemic period, journals that examined the scale of business that became research were not much different, where there were 46 (47%) SMEs and 52 (53%) MSMEs that were the object of research with a total of 14,073 business units involved. While the businesses studied have shifted, if the number of MSMEs studied in the pre-pandemic period was only 27%, in the pandemic period it increased to 53%. This is inseparable from negative effect of the Covid-19 pandemic which has hit MSMEs, which are the majority of businesses in Indonesia.

Table 3 show the types of SMEs/MSMEs that are used as research objects both in the pre-pandemic period and during the pandemic period are very diverse such as food & beverage businesses, fashion, creative industries, agriculture, trade, manufacturing, services, technology and a mixture of various types of businesses (Mix). This difference in business types allows research results to vary, this is because companies in different industrial sectors often experience different levels of environmental dynamism, hostility, and complexity (Huang et al. 2023). Rauch et al. (2009) in his meta-analysis suggests the fact that entrepreneurial orientation gives a higher correlation to companies that produce high technology products including computer software and hardware, biotechnology, electricity and electronic products, pharmaceuticals, and new energy than low technology companies with significant differences. However, Soares and Perina (2020) in his meta-analysis found differences in the influence of entrepreneurial orientation on performance that were not significant between the manufacturing industries compared to the services industry.

Table 1. Cohen effect

Interpretation	Correlation Value r
Small	0.1 - 0.299
Medium	0.3 - 0.499
Large	0.5 - 1.0

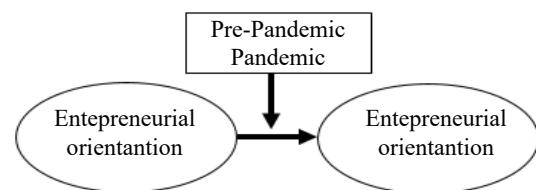


Figure 2. The research model was adopted from Rauch et al. (2009)

Table 2. Distribution of journal indexes

Data Base	Pre-pandemic	Pandemic
Copernicus	7	12
EBSCO	5	6
Google scholar	12	9
Sinta	50	53
Scopus	31	18
Total Articles	105	98

Based on Table 4, most journals that become the unit of analysis in this meta-analysis use 3 dimensions, namely innovation, proactive, risk taking developed by Miller 1983 (unidimensional) is the most widely used dimension for research on this topic with object study SMEs / MSMEs in Indonesia. From the relevant journals used in this meta-analysis, there were 60 journals in the pre-pandemic group and 64 in the pandemic period that used unidimensional. Then followed by research that uses 5 dimensions, namely proactivity, risk-taking, innovation, aggressiveness, and autonomy (multidimensional) developed by Lumpkin and Dess (1996) (Yanto, 2021). Both unidimensional and multidimensional perspectives hold equal validity as they highlight distinct phenomena (Huang et al. 2021, Covin & Wales, 2019). According to Rauch et al. (2009) entrepreneurial orientation research using both unidimensional and multidimensional produces the

same level of influence on business performance. This is reinforced by Soares and Perina (2020) who found the same conclusion. Thus, the independent variable dimension in the journal used in this study deserves to be the object of meta-analysis.

Table 3. Distribution of SME/MSME business types

Type	Pre-pandemic	Pandemic
Mix	33	36
Food & Beverages	19	32
Fashion	16	10
Creative	20	6
Agriculture	3	4
Trading	4	4
Manufacture	5	1
Service	3	4
Tech	2	1
	105	98

Table 4. Dimension of entrepreneurial orientation

Before pandemic	Number	Pandemic	Number
Proactive, risk taker, innovation	62	Proactive, risk taker, innovation	65
Proactive, risk taker, innovation, autonomy, aggressive	21	Proactive, risk taker, innovation, autonomy, aggressive	16
Proactive, risk taker, innovation, autonomy	4	Proactive, risk taker, innovation, autonomy	1
Proactive, risk taker, innovation, aggressive	6	Proactive, risk taker, innovation, aggressive	1
Proactive, risk taker, innovation, creative	2	Proactive, risk taker, autonomy	3
Proactive, risk taker, innovation, autonomy, aggressive, competition	1	Proactive, risk taker, autonomy, aggressive	1
Proactive, innovation, creative	1	Proactive, risk taker, innovation, flexible	1
Proactive, innovation, autonomy, aggressive	1	Proactive, risk taker, aggressive, business ethic	1
Proactive, risk taker, flexible	1	Proactive, risk taker	3
Proactive, risk taker, flexible, anticipatory, try experience	1	Proactive, risk taker, innovation, autonomy, cooperation	1
Proactive, risk taker, innovation, opportunity oriented	1	Risk taker, innovation, competitive, independence, positive attitude	1
Risk taker, flexible, anticipatory	1	Risk taker, responsible, problem solving	1
Need achievement, self-reliance, extroversion, internal locus control	2	Risk taker	1
Confidence, task & result oriented, take risk, leadership, vision, innovation	1	Need achievement, self-reliance, extroversion, internal locus control	1
	105	Confidence, task & result oriented, take risk, leadership, vision, innovation	1
			98

Based on Table 5, most of the relevant journals that are the object of this meta-analysis use the mixture of financial performances with non-financial performances dimensions with the composition as in the table. There has been a rise in the quantity of research conducted that only measure financial performance during the pandemic periods, this is inseparable from the health crisis situation which has a negative effect on SME/MSME finances (Yao and Liu, 2023). However, differences in business performance dimensions have no effect on variable bias so that it can still be used as meta-analysis data.

According to Rauch et al. (2009), financial performance and non-financial performance do not differ significantly in their effect on business performances, Soares and Perina (2020) also demonstrated same thing. Thus, 105 journals in the pre-pandemic group and 98 in the pandemic group have equivalent variable dimensions that can be used as meta-analysis objects.

Heterogeneity Test

Based on the Q test of 105 journals for pre-pandemic period and 98 journals for the pandemic period in Table 6, showing a p value of <0.05, this shows that these two groups of journals have the same heterogeneity effect size, so that the calculation of the summary effect in these two groups is more appropriate using the random effect method.

To see the magnitude of data heterogeneity, an I² test was carried out. The value of I² square contained in Table 7 shows that the journal group before the pandemic period had a very high heterogeneity of 85%, and the journal group during the pandemic period also had a high heterogeneity of 78%.

Publication Bias Test

This testing is very important in meta-analysis research to determine whether or not the outcome of the research is valid. In the absence of publication bias, the outcome of the meta-analysis can be concluded to be valid and vice versa (Retnawati et al. 2018). It tests in this study by comparing the form of Funnel Plot and Egger's Test.

Funnel Plots Method

Figure 3 show if publication bias is absence, then the study will be distributed symmetrically related to the

summary effect like plot (a), because sampling error is random. Conversely, if there is publication bias, then the study will follow an asymmetric model like plot (b).

Based on the funnel plot above, both in pre-pandemic groups (Figure 4) and groups during the pandemic period (Figure 5) it is difficult to conclude symmetric or asymmetric. So another method is needed to assess whether there is publication bias or not. Another method that can be used is the Eger Test. This method provides publication bias or does not refer to the p value. When the p-value smaller than 0.05, it is determined that there is a publication bias, when the p-value is greater than 0.05, the findings suggest that publication bias is absence.

Table. 5 Dimension of performance

Dimension	Pre-pandemic	Pandemic
Financial Performance & Non-Financial Performance	86 (82%)	63 (64%)
Financial Performance	15 (14%)	33 (33%)
Non-Financial Performance	4 (4%)	2 (2%)
	105	98

Table 6. Heterogeneity Test

Fixed and Random Effects	Before pandemic			During pandemic		
	Q	df	p	Q	df	p
Omnibus test of Model Coefficients	183.786	1	< .001	203.28	1	< .001
Test of Residual Heterogeneity	773.248	104	< .001	476.19	97	< .001

Note. Using Restricted ML method.

Table 7. Heterogeneity test

Residual Heterogeneity	Pre-pandemic	Pandemic
	Estimate	
τ^2	0.041	0.028
τ	0.203	0.168
I ² (%)	85.755	78.713
H ²	7.02	4.698

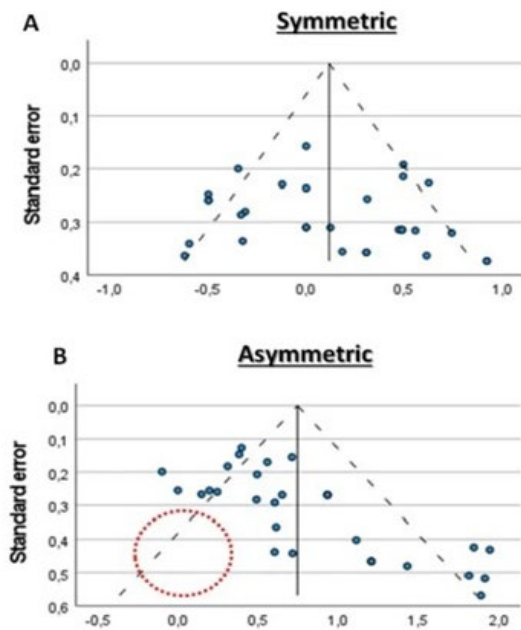


Figure 3. Standard plot

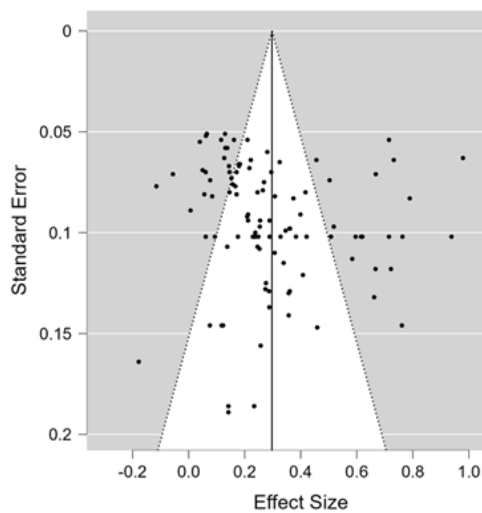


Figure 4. Pre-pandemic

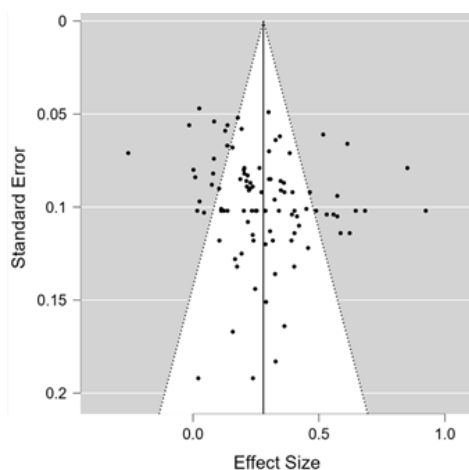


Figure 5. During pandemic

Table 8 show the data from Egger's test, it's evident that the Z value is 1.362 for the pre-pandemic period with p-value 0.173 and 1.571 during the pandemic with p-value of 0.116 (during the pandemic). These are greater than the significant value of 5% (0.05). This shows that the H0 hypothesis of both periods is rejected, because true effect size is not equal to 0. Thus, the meta-analysis study conducted does not show any indication of publication bias, thus leading to the conclusion.

Effect size

Based on meta-analysis calculations of 105 articles that published research from 2015 – 2020 (the pre-pandemic period that coincided with the strong influence of the industrial revolution 4.0 in Indonesia), The study showed that entrepreneurial orientation positively impact on SME/MSME business performance with a correlation range (r) is 0.298 (0.25-0.34) which means that the influence is at a small to medium level based on Cohen standards with an average influence is at a small but significant level ($P < 0.001$). When compared with a finding of the Rauch et.al (2009) meta-analysis conducted on research in the era of the industrial revolution 3.0 with an r value of 0.242, it can be said that an impact of entrepreneurial orientation to company achievement in Indonesia in the era of the industrial revolution 4.0 is greater with an r value of 0.298

This greater influence is in line with the fact that acknowledged as a significant for entrepreneurial accomplishment in a variety of contexts, also applicable in an era of turbulence caused by advances in digital technology. Environmental dynamism encourages the adoption of entrepreneurial orientation (EO) to enhance efficiency and effectiveness in identifying and capitalizing on new opportunities. It also amplifies the demand for information processing and innovation, showing a positive relationship with the development of new products, risk-taking, and proactive behavior (Yildirim-Öktem et al. 2023). The firm opts to navigate the unpredictable environment by launching new products or technologies, aiming to gain market share, meet customer needs, and establish itself as an industry leader (Wang et al. 2021)

Table 8. Regression test

Period	Z	p
sei Pre-pandemic	1.362	0.173
sei Pandemic	1.571	0.116

This greater influence is also inseparable from the role of the relevant dimensions of entrepreneurial orientation dimensions applied in the digital era. The digital age has changed the business environment, creating new opportunities and challenges for entrepreneurs. In the digital age, entrepreneurial orientation is influenced by technological factors. Technological knowledge and market knowledge are very important in order to be able to see and identify business opportunities, because technology-based opportunities are generated based on the capacity of technology to provide products or services with better attributes than those already available on the market, so entrepreneurs need to apply a proactive dimension in seeing technological changes (Vargas et al. 2021). Entrepreneurs must also be creative, innovative and willing to experiment with new ideas to create a unique value proposition and differentiate themselves from their competitors (Ipsmiller et al. 2022).

The consistency of a function of entrepreneurial orientation is again tested in the period of the health crisis. The emergence of the Covid-19 outbreak followed by large-scale social restrictions and lockdowns has caused uncertainty. The health crisis has resulted in MSMEs facing several production problems, including decreased demand, production obstacles, difficulty obtaining raw materials, and capital difficulties (Lipi, 2020 in Fitri, 2022).

Based on meta-analysis calculations of 98 research articles conducted during the pandemic period that qualified to see entrepreneurial orientation to performance correlation of SMEs / MSMEs in Indonesia, a conclusion drawn was that entrepreneurial orientation exerts a beneficial correlation with an r value of 0.28 (0.24 – 0.32) which according to Cohen standards this influence is relatively small but statistically this influence is significant with a p value of <0.001 .

This positive influence is inseparable from the consideration that uncertainty factors during this pandemic require strategies to maintain performance growth and maintain business continuity (Sudalyo et al. 2022). This variable is able to be perceived as the formulation of entrepreneurial strategies employed by decision-makers to attain organizational objectives, uphold their vision, and establish a competitive edge (Putra et al. 2021), which SMEs/MSMEs need to maintain their performance during the face of business

pressures due to Covid-19. Furthermore, in the midst of large-scale social restrictions, innovating marketing models by utilizing online technology that began to grow rapidly in the era of industry 4.0 such as marketplaces, social medias, also e-commerce to reach a wider range of consumers so as to get enough profit from production so that MSMEs can survive amid the pressure of the Covid-19 pandemic.

SMEs/MSMEs will continue to exist amid the turbulence of the business environment as long as they are willing to implement the proactive dimension of entrepreneurial orientation which is the most important dimension for SMEs/MSMEs (Lomberg et.al, 2017) which is an important bridge for the innovation dimension and the risk taker dimension (Omar, 2022). By having a good proactive nature such as the willingness to see opportunities in times of crisis, willing to analyze and anticipate any changes in the business environment, the organization can create innovations that are in accordance with market conditions at that time and are able to take more measurable risks, to achieve maximum organizational performance.

Summary effect

From the processing of JASP data, the amount of influence in the pre-pandemic period was obtained in the range of r 0.25 – 0.34 (0.30), and the amount of influence during the pandemic period was r 0.24 – 0.32 (0.28).

Based on the Table 9, the amount of influence (r) on the group before the pandemic period was 0.298 or 29.8% with a z value is 13.6 with a p -value of < 0.001 and 0.28 or 28% with a z value is 14.3 with a p -value of < 0.001 in the group during the pandemic period. The p -value of both groups looks smaller than the significant value of 5% (0.05), it implies the rejection of the null hypothesis (H_0), because true effect size is not equal to 0. In other words, entrepreneurial orientation in the period before and during the pandemic had a positive correlation to business achievement.

In comparison to the extent of the impact of this variable to business performance based on the r value between before the pandemic period which was 0.25 – 0.34 (0.30) with the amount of influence during the pandemic period r 0.24 – 0.32 (0.28), it can be said that the uncertainty pressure caused by the impact of Covid-19 slightly lowered the effect, but from the

subgroup analysis calculations, the conclusion was drawn that this decrease was not significant with a p value of 0.71 (> 0.05).

When compared with the meta-analysis conducted by Rauch et al. (2009) with an r value of 0.242, Soares and Perina (2020) with an r value of 0.299, the results of the meta-analysis of research results in Indonesia both before and during the Covid-19 pandemic crisis strengthen the conclusion that the influence of it has a positive and significant role to the achievement of SMEs / MSMEs in various turbulent conditions of the business environment such as market turbulence, technological turbulence, fierce competition and turbulence due to the Covid-19 pandemic crisis conditions.

Managerial Implications

This study provides two implications, both theoretical and applied. Theoretical implications show that entrepreneurial orientation has a positive and significant effect on various turbulent business environments. In a dynamic environment, entrepreneurial orientation is very important for company survival. Entrepreneurial orientation is seen as the basis for creating better company performance (Rofiaty et al. 2023).

The implications applied from this study are SMEs/MSMEs Manager must continue to apply entrepreneurial orientation to various situations of business environment uncertainty. However, this can happen if the company is able to process its human resources to be able to plan proactive and innovative strategies to become a pioneer in implementing them (Sutrisno et al. 2021). Of the three dimensions that make up this variable, SMEs / MSMEs Manager must apply the proactive dimension as a dimension that must be prioritized considering that this dimension is a bridge for the innovation dimension and risk taker in order to have a maximum impact on performance.

A proactive and aggressive attitude enabling SMEs/MSMEs Manager to respond quickly, make quick

decisions, and the ability to reconfigure the resource base has helped companies during turbulence, as caused by the pandemic that caused rapid disruptive impacts for those unprepared for it (Kahkonena et al. 2023) or others challenging situation. MSMEs Managers are required to be proactive in seeing opportunities for the uncertainty environment to innovate to create the latest products (Humairoh et al. 2021).

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The meta-analysis study of 108 articles before the pandemic period and 98 during the pandemic crisis period, showed that the correlation value r the influence of entrepreneurial orientation in both periods of uncertainty of the business environment was the same, and when compared with 2 meta-analysis studies conducted previously abroad the results were also the same, namely in the correlation range r 0.2-0.3 which means the effect is at a small but significant level. This means that the entrepreneurial orientation both in the industry 3.0 period (Rauch et al. 2009), the early period of industry 4.0 (Soares and Perina, 2020) the digitalization boom period (pre-pandemic) and the COVID-19 pandemic crisis period have the same positive and significant influence.

Recommendations

This study only analyzes the influence of entrepreneurial orientation on the business performance of SMEs / MSMEs without analyzing the influence of mediating and moderating factors that can contribute to the relationship between the two, so it is imperative to carry out a meta-analysis study of the results of research in Indonesia involving mediators and moderators using all types of research both published in journals indexed, as well as unpublished research results in the form of theses and dissertations

Table 9. Summary effect

Coefficients	Estimate	Standard Error	z	p
Intercept Pre-pandemic	0.298	0.022	13.56	< .001
Intercept Pandemic	0.28	0.02	14.26	< .001

Note. Wald test.

FUNDING STATEMENT: This research did not receive any specific grant from public, commercial, or not-for-profit funding agencies.

CONFLICTS OF INTEREST: The author declares no conflict of interest.

REFERENCES

- Akramiah, N., & Fibriyani, V. (2018). Pengaruh orientasi wirausaha dan orientasi pasar terhadap kinerja usaha mikro Kota Pasuruan. *Jurnal Ekonomi Manajemen Akuntansi*, 3(1), 37-46.
- Andika, E. (2019). Pengaruh orientasi pasar dan orientasi kewirausahaan terhadap kinerja usaha (Studi pada usaha kecil tanaman hias di Desa Sidomulyo, Kota Batu, Jawa Timur). *Sketsa Bisnis*, 6(1), 22-34.
- Arechavala-Vargas, R., Núñez-López, V., & Madrigal-Torres, B. E. (2019). Technology-based business opportunity identification in a Latin American country. *Acta Universitaria*, 29, 1-14.
- Arifin, S., & Komaryatin, N. (2020). Entrepreneurial orientation, role of the government, and partnership on marketing performance of furniture export SMEs: A study on furniture export companies in Jepara. *Journal of Management and Entrepreneurship Research*, 1(1), 24-36.
- Arjawa, I. G., Setiawina, N. D., Budhi, M. S., & Budiasa, I. S. (2016). The role of government, social capital and entrepreneurial orientation to export performance of craft SME at Bali Province. *European Journal of Business and Management*, 8(27), 105-114.
- Arraniri, I., Syafrudin, O., & Susilawati, H. (2020). Finding ways to grow SMEs in West Java. *IJEBAR*, 4(3), 171-178.
- Borshalina, T., Aliansyah, M. I., Meilinda, S., Rafi, M., & Rezkia, M. (2020). The influence of entrepreneurial orientation through innovation on the performance of Indonesia fish cultivator micro enterprise. *Solid State Technology*, 63(3), 5207-5218.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Daengs, A., & Soemantri, A. I. (2020). Entrepreneurship orientation strategy, market orientation and its effect on business performance in MSMEs. *Jurnal Bisnis dan Manajemen*, 4(1), 1-10.
- Dewi, R. U. (2022). Pengaruh orientasi kewirausahaan, inovasi dan penggunaan teknologi informasi terhadap kinerja bisnis melalui keunggulan kompetitif pada pedagang pakaian di Pasar Kliwon Kabupaten Kudus. *Jurnal Studi Manajemen Bisnis (JSMB)*, 2(2), 54-72.
- Ferreira, J. J., Fernandes, C. I., & Kraus, S. (2019). Entrepreneurship research: Mapping intellectual structures and research trends. *Review of Managerial Science*, 13, 181-205.
- Fitri, R. U. (2022). Pengaruh orientasi kewirausahaan dan orientasi pasar terhadap inovasi produk dan kinerja perusahaan (Usaha Mikro Kecil Kabupaten Bandung Barat). *Jurnal Riset Bisnis dan Investasi*, 7(3), 137-149.
- Herlinawati, E., Ahman, E., & Machmud, A. (2019). The effect of entrepreneurial orientation on SMEs business performance in Indonesia. *Journal of Entrepreneurship Education*, 22(5), 1-15.
- Huang, S., Huang, Q., & Soetanto, D. (2023). Entrepreneurial orientation dimensions and the performance of high-tech and low-tech firms: A configurational approach. *European Management Journal*, 41(3), 375-384.
- Humairoh, Suharyadi, & Taufik, E. R. (2021). Orientasi kewirausahaan dan inovasi produk pada masa pandemi Covid-19 terhadap kinerja pemasaran UMKM di Kota Tangerang. *Organum: Jurnal Saintifik Manajemen dan Akuntansi*, 4(2), 125-141.
- Ipsmiller, E., Dikova, D., & Brouthers, K. D. (2022). Digital internationalization of traditional firms: Virtual presence and entrepreneurial orientation. *Journal of International Management*, 28(4), 1-15.
- Kähkönen, A. K., Evangelistab, P., Hallikasa, J., & Immonena, M. (2023). COVID-19 as a trigger for dynamic capability development and supply chain resilience improvement. *International Journal of Production Research*, 61(8), 2696-2715.
- Laily, I. N., Hindrayani, A., & Noviani, L. (2023). Studi meta-analisis pengaruh orientasi kewirausahaan terhadap kinerja UMKM. *Journal on Education*, 5(4), 15480-15489.
- Lomberg, C., Urbig, D., Steockmann, C., Marino, L. D., & Dickson, P. H. (2016). Entrepreneurial orientation: The dimensions' shared effects in explaining firm performance. *Entrepreneurship*

- Theory and Practice, 41(6), 973-998.
- Niode, I. Y. (2022). The effect of management capability and entrepreneurial orientation on business performance through business strategy as an intervening variable. *Jurnal Manajemen dan Pemasaran Jasa*, 15(2), 257-274.
- Omar, K. H. (2022). Environmental turbulence's effects on entrepreneurial orientation. *Information Sciences Letters*, 11(4), 1023-1031.
- Putra, M. R., Nuzula, N. F., & Mawardi, M. K. (2021). Pengaruh orientasi kewirausahaan dan akses keuangan terhadap kinerja usaha. *Administrasi Bisnis*, 15(1), 84-94.
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship Theory and Practice*, 33, 761-787.
- Retnawati, H., Apino, H., Kartianom, Djidu, H., & Anazifa, R. A. (2018). *Pengantar analisis meta*. Yogyakarta: Parama Publishing.
- Rofiaty, Rahmat, A. R., Nisa, K., & Nurcholifah, S. (2023). Exploring entrepreneurial orientation's impact on innovation and academic performance in Malang City's consumer cooperatives. *Jurnal Ilmiah Manajemen dan Bisnis*, 8(2), 249-266.
- Soares, C. M., & Perina, G. M. (2020). Entrepreneurial orientation and firm performance: An updated meta-analysis. *RAUSP Management Journal*, 55(2), 143-159.
- Suci, Rahayu, P. (2009). Peningkatan kinerja melalui orientasi kewirausahaan, kemampuan manajemen dan strategi bisnis. *Jurnal Manajemen dan Kewirausahaan*, 11(1), 46-58.
- Sudalyo, R. A., Prasetyaningrum, N. E., & Kusanti, J. (2022). Pemanfaatan teknologi e-commerce dalam memperkuat orientasi kewirausahaan dan customer relationship management terhadap kinerja UMKM di Surakarta. *GEMA EKONOMI*, 11(1), 162-172.
- Sutrisno, T. F., Gosal, G. G., & Surya, R. (2021). Peran entrepreneurial orientation terhadap kinerja perusahaan melalui total quality management (Studi di perusahaan mebel PT Kayan Jaya Tanjung). *Jurnal Aplikasi Bisnis dan Manajemen (JABM)*, 7(3), 655-664.
- Wales, W., Gupta, V. K., Marino, L., & Shirokov, G. (2019). Entrepreneurial orientation: International, global and cross-cultural research. *International Small Business Journal Researching Entrepreneurship*, 37(2), 95-104.
- Wales, W., Kraus, S., Filser, M., & Stoeckmann, C. (2021). The status quo of research on entrepreneurial orientation: Conversational landmarks and theoretical scaffolding. *Journal of Business Research*, 128, 564-577.
- Yanto, J. (2021). Pengaruh orientasi kewirausahaan terhadap kinerja UMKM di Jabodetabek dengan individualisme sebagai variabel moderasi. *Jurnal Manajemen Bisnis dan Kewirausahaan*, 5(2), 207-213.
- Yao, Z., & Liu, Y. (2023). How COVID-19 impacts the financing in SMEs: Evidence from private firms. *Economic Analysis and Policy*, 79(40), 1046-1056.
- Yildirim-Öktem, Ö., Erdogan, I., Calabrò, A., & Kiratli, O. S. (2023). Effect of environmental dynamism on entrepreneurial orientation in family firms: The moderating role of informal institutions. *Journal of Family Business Management*, 13(4), 1277-1305.
- Wang, M. C., Chen, P. C., & Fang, S. C. (2021). How environmental turbulence influences firms' entrepreneurial orientation: The moderating role of network relationships and organizational inertia. *Journal of Business & Industrial Marketing*, 36(1), 48-59.