



Business Performance of MSMEs: an Analysis of the Effect of Entrepreneurial Orientation, Market Orientation, and Technology Orientation

Antony Sentoso¹, Tiara Plorist Sibarani², Evi Silvana Muchsinati³

Faculty of Business and Management, Batam International University, Batam, Indonesia¹

Faculty of Business and Management, Batam International University, Batam, Indonesia²

Faculty of Business and Management, Batam International University, Batam, Indonesia³

Info Article

History Article:

Submitted 18 June 2024

Revised 2 August 2024

Accepted 5 September 2024

Keywords:

Business Performance, Entrepreneurial Orientation, Market Orientation, MSMEs, Technology Orientation

Abstract

This study aims to evaluate the business performance of MSMEs in Batam City, focusing on the influence of entrepreneurial orientation, market orientation, and technology orientation, with the role of organizational culture as a mediating factor. The research methodology involves hypothesis testing through a structural equation model, with the research respondents being managers and owners of MSMEs in Batam who have been operating for more than one year. The sample was proportionally selected using purposive sampling, with a total of 260 MSMEs from various sectors in Batam City that met the criteria for analysis. The analysis results show that seven out of eight hypotheses have significant relationships, where entrepreneurial orientation and technology orientation have a positive impact on business performance. However, the hypothesis testing the influence of market orientation on business performance did not show a significant relationship. These findings highlight that in the context of MSMEs in Batam City, entrepreneurial and technology orientation play a more crucial role in enhancing business performance compared to market orientation.

Kinerja Bisnis UMKM: Analisis Pengaruh Orientasi Kewirausahaan, Orientasi Pasar, dan Orientasi Teknologi

Abstrak

Penelitian ini bertujuan untuk mengevaluasi kinerja bisnis UMKM di Kota Batam dengan menyoroti pengaruh orientasi kewirausahaan, orientasi pasar, dan orientasi teknologi, serta peran budaya organisasi sebagai faktor mediator. Metodologi penelitian mencakup pengujian hipotesis menggunakan model persamaan struktural, dengan responden penelitian adalah manajer dan pemilik UMKM di Batam yang telah beroperasi selama lebih dari satu tahun. Sampel dipilih secara proporsional melalui metode purposive sampling, dengan total 260 UMKM dari berbagai sektor di Kota Batam yang memenuhi syarat untuk dianalisis. Analisis menunjukkan bahwa tujuh dari delapan hipotesis memiliki hubungan yang signifikan, di mana orientasi kewirausahaan dan orientasi teknologi memiliki dampak positif terhadap kinerja bisnis. Namun, hipotesis tentang pengaruh orientasi pasar terhadap kinerja bisnis tidak menunjukkan hubungan yang signifikan. Temuan ini menegaskan bahwa dalam konteks UMKM di Kota Batam, orientasi kewirausahaan dan teknologi lebih berperan penting dalam meningkatkan kinerja bisnis dibandingkan orientasi pasar.

JEL Classification: L26, M13, M31

How to Cite: Sentoso, A., Sibarani, T. P., & Muchsinati, E. S. (2024). Business Performance of MSMEs: an Analysis of the Effect of Entrepreneurial Orientation, Market Orientation, and Technology Orientation. *JDM (Jurnal Dinamika Manajemen)*, 15(2), 318-333.

Correspondence Address

Institutional address: Baloi-Sei Ladi, Jl. Gajah Mada, Tiban Indah,
Kec. Sekupang, Kota Batam, Kepulauan Riau
Email: 2141315.tiara@uib.edu

ISSN
2337-5434 (online)

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in driving economic growth and creating job opportunities within society (Ahmatang & Sari, 2022). One of the strategic measures to address economic and social disparities is to advance MSMEs. MSMEs not only help reduce poverty levels but also have a significant role as contributors to national foreign exchange (Putri & Nailufar, 2022). According to data from the Central Bureau of Statistics (BPS), the number of MSMEs in Indonesia has reached 64 million, representing 99.9% of the total businesses operating in Indonesia. The role of the MSME sector in boosting Indonesia's economy is substantial, as evidenced by the employment of 97% of the workforce and an investment integration of 60.4% (Putri & Nailufar, 2022).

Although the role of MSMEs (Micro, Small, and Medium Enterprises) has a significant impact on the formation of Gross Domestic Product (GDP) and job creation, their contribution is still considered insufficient in driving economic growth and increasing community income (Lestari et al., 2021). MSMEs in Indonesia continue to face several challenges, such as limited capital, low levels of human resources, and limited understanding of science and technology (Sedyastuti, 2018). The growth of MSMEs is likely to decline due to increasing market competition and the lack of optimal strategies by business actors (Arabeche et al., 2022). In today's highly competitive landscape, MSMEs are forced to explore tactics aimed at enhancing their level of innovation and competitiveness. This push stems from the need to adapt and thrive amidst ever-changing market dynamics (Covin & Slevin, 1989). The sustainability and performance improvement of the MSME sector highly depend on policies that support the enhance-

ment of organizational performance and entrepreneurial orientation to encourage and develop the industry (Arabeche et al., 2022)

One of the cities with the largest number of SMEs in Indonesia is Batam. Batam is one of the main economic centers in Indonesia, with many SMEs operating in various sectors such as manufacturing, tourism, and trade. In 2021, the growth of micro-enterprises in the Riau Islands increased by 18,025. According to the Online Data System (ODS) presented by the Indonesian Ministry of Cooperatives and SMEs, the total number of SMEs in the Riau Islands as of 2023 reached 81,486. This indicates a substantial presence of SMEs in the region, highlighting their significant contribution to the local economy. Batam's strategic location, close to Singapore, makes it a unique area with specific challenges and opportunities that may differ from other regions in Indonesia. SMEs in Batam also play a significant role in supporting both the local and national economies. With increasingly tight competition and rapid technological changes, SMEs need to adopt a more strategic approach to improve their performance.

Many studies have discussed Business Performance (BP), Entrepreneurial Orientation (EO), Market Orientation (MO), Technology Orientation (TO), and Organizational Culture (OC). Among them, Arabeche et al. (2022) investigated the influence of EO and TO on BP, research by Cuevas-Vargas et al. (2019) and Perera et al. (2019) also explored the effects of EO on BP, Khedhaouria et al. (2020) explored the relationship between OC, EO, and BP, Ali et al. (2020) and Ahmatang & Sari (2022) researched the impact of EO and MO on BP. Additionally, Ramírez-Solis et al. (2022) and Abdulrab et al. (2021) focus on the influence of TO on BP, while Masa'deh et al. (2018), Prata-ma et al. (2021) and Abdulrab et al. (2021)

examined the effects of MO, TO, and EO on organizational performance (Lita et al., 2020) focused on the effects of OC on BP.

Previous studies have extensively examined the individual effects of EO, TO, OC, or MO on the performance of SMEs. However, there are only a few studies that have investigated the combined influence of EO, MO, and TO on the performance of SMEs, mediated by OC, particularly in the Batam area. This provides a new perspective that not only considers a single factor but also the complex interaction between these three orientations.

Relationship between Entrepreneurial Orientation and Business Performance

According to Cuevas-Vargas et al. (2019) the effect of EO on BP is a concept that examines the extent to which entrepreneurial traits in an organization can affect its BP outcomes. EO typically encompasses five primary dimensions: innovativeness, proactiveness, willingness to take risks, orientation towards opportunities, and readiness to confront uncertainty (Perera et al., 2019). Considering EO impact on BP, it implies that companies can gain advantages by fostering attitudes that embrace risk-taking, proactive behavior, and innovation. This underscores the importance of cultivating a corporate culture that encourages entrepreneurial qualities to thrive in today's dynamic business environment (Arabeche et al., 2022).

According to María del Rosario et al. (2017), EO enables companies to accelerate their pace and maintain a competitive edge. This suggests that EO facilitates agility and proactive strategies, positioning firms to lead in their respective industries. Lita et al. (2020) states that EO can increase organizational innovation which in turn will affect organizational performance. In general, companies with a strong EO are likely to exhibit enhanced BP as they

demonstrate agility in responding to shifts in the business landscape, recognize emerging prospects, and innovate to distinguish themselves from rivals. This adaptability enables them to not only survive but also thrive in dynamic market conditions, ultimately leading to sustained success.

H1: Entrepreneurial Orientation has positive effects on Business Performance

Relationship between Entrepreneurial Orientation and Organizational Culture

EO refers to organizational attitudes and behaviors that encourage innovation, risk-taking, proactivity, and opportunity orientation. The influence of EO on OC can be very significant and shape the characteristics and values shared by organizational members (Shehu & Mahmood, 2014). Organizational orientation is considered a crucial strategy that can assist companies in achieving a competitive advantage by promoting and sustaining entrepreneurial orientation (EO) (Cherchem, 2017). Small companies that successfully encourage and develop innovation and adopt risk-taking behavior and proactive behavior can certainly have a strong OC and value employee (Khedhaouria et al., 2020). Innovative companies have indeed integrated innovation orientation into their OC to guarantee that the frequency and steadfastness of inventive actions are strengthened across all areas, departments, and personnel within the organization (Fernández-Mesa & Alegre, 2015). This strategic alignment fosters a culture where creativity is not only encouraged but also consistently practiced, leading to a sustained innovative environment throughout the company (Abdullah Kaid Al-Swidi, 2012).

H2: Entrepreneurial Orientation has positive effects on Organizational Culture

Relationship between Market Orientation and Business Performance

Market orientation (MO) refers to a company's orientation towards the market or customers. It encompasses a company's efforts to deeply understand customer needs and desires, as well as the ability to adapt strategies and products in response to changes in the market. Aziz & Samad (2016) argue that for MSMEs to stay competitive in the market, they need to actively embrace innovation (Han et al., 1998). This strategic approach not only enables them to stand out from competitors but also enhances their ability to meet evolving market demands and customer preferences. Embracing innovation fosters agility and adaptability, key attributes necessary for MSMEs to thrive in today's dynamic business landscape. According to Abbu & Gopalakrishna (2021) companies that adopt MO are expected to excel, given their heightened ability to anticipate market trends and connect with customers, especially when compared to emerging or inactive firms. Conversely, a deficiency in MO implementation could hinder firms from enhancing their capacity for gathering and processing information (Kohli, 2017).

Such limitations in sensing shifts in customer preferences and a lack of dedication to delivering superior value to customers might impede companies from devising strategies that effectively address market needs (Abbu & Gopalakrishna, 2021). As MO can yield intricate and varied outcomes, further research is warranted to explore the association between MO and BP across diverse settings (Udriyah et al., 2019).

H3: Market Orientation has positive effects on Business Performance

Relationship between Market Orientation and Organizational Culture

MO can have a correlation with OC,

because MO refers to the orientation of an organization towards customer needs, wants, and expectations (Abdulrab et al., 2021). When organizations have a strong MO, this tends to create a customer-oriented OC (Wahyuni & Sara, 2020). Organizational members will place more importance on understanding customer needs, collaborating to provide better solutions, and focusing on product or service innovation to meet market demands (Nilasari et al., 2021). In the context of SME research, the relationship between MO and OC indicates that MO can both shape and be shaped by the existing OC. MO, which emphasizes a deep understanding of customer needs and wants (Sahibzada Jawad et al., 2020), can create an OC that is more responsive to market changes (Kurniawan et al., 2021). For example, SMEs that implement MO tend to develop a culture focused on innovation, team collaboration, and adaptability to meet customer demands. This fosters an atmosphere where every member of the organization is dedicated to enhancing the quality of products and services and working to deliver greater value to customers (Abdulrab et al., 2021). Thus, MO not only serves as a business strategy but also as a key element in shaping an adaptive and customer-oriented OC.

H4: Market Orientation has positive effects on Organizational Culture

Relationship between Technology Orientation and Business Performance

The connection between TO and BP may be a crucial factor for a company's success in the digital age. TO refers to the degree to which an organization focuses on leveraging technology to meet its business objectives (Chae et al., 2014). According to Masa'deh et al. (2018) TO also known as innovation orientation, occurs when an organization can implement new ideas, products, and processes. TO is vie-

wed as a crucial element for introducing innovative and high-quality products to the market (Borodako et al., 2022). This orientation is crucial not only for product development but also acts as a primary driver for company growth and market advancement across various dimensions. By focusing on TO, companies can more easily adapt to market changes and remain competitive (Borodako et al., 2022). This indicates that the ability to innovate and integrate new technologies is key to the long-term sustainability and success of a company (Masa'deh et al., 2018). The use of technology in the current era forms a technology strategy for companies, especially since the growth, development, and application of technology is very important for the progress of MSMEs (Alfulailah & Soehari, 2020). Careful application of technology can result in efficiency in business processes such as, reducing operational costs, and increasing employee productivity.

H5: Technology Orientation has positive effects on Business Performance

Relationship between Organizational Culture and Business Performance

The connection between OC and BP can be pivotal in determining a company's success. According to Lita et al. (2020), OC plays a crucial role in facilitating collaboration, knowledge sharing, and the exchange of experiences and ideas among team members. Effective management of organizational performance as a management instrument can influence and encourage employees to have a positive, dedicated, and productive attitude (Lestari et al., 2021). Consequently, this heightened engagement serves as a catalyst for employees to further nurture their creativity and innovation, thereby contributing to an overall enhancement in organizational performance. With such a culture in place, the company can create a conducive work

environment, encourage employees to work more efficiently, and establish a positive reputation in the eyes of customers (Mon et al., 2023).

Organizational change often involves changes in the values and beliefs on which the OC is based (Suwandi & Setyawan, 2024). Changes in values and beliefs can be in the form of changes in vision, mission, or values that are considered important by the organization. In order to achieve optimal employee performance, it is crucial to consider their satisfaction. When employees feel uncomfortable or undervalued, they are likely to not maximize their potential, ultimately affecting their overall concentration and productivity (Lestari & Muchsinati, 2022).

H6: Organizational Culture has positive effects on Business Performance

Relationship between Entrepreneurial Orientation, Business Performance, and Organizational Culture

EO, known as entrepreneurial attitudes and behaviors that include innovation, proactivity, and orientation (Arabeche et al., 2022) can create an environment that values new ideas. Nevertheless, the impact of EO on BP may not always manifest directly (Tran, 2021). This suggests that while EO is a significant factor, its influence on business outcomes might be mediated by various other factors or processes within the organizational context. When EO is aligned with OC, it can guide strategies and approaches for building new products, developing markets, and developing commercial operations (Cuevas-Vargas et al., 2019). Implementing appropriate cultural values will instill enthusiasm, boost morale, and foster a deep commitment to the company and its objectives (Wang, 2019). Furthermore, it serves to elucidate the expected conduct of employees, thereby stimulating their potential productivity (Giri et al., 2022). According to Arabeche et al.

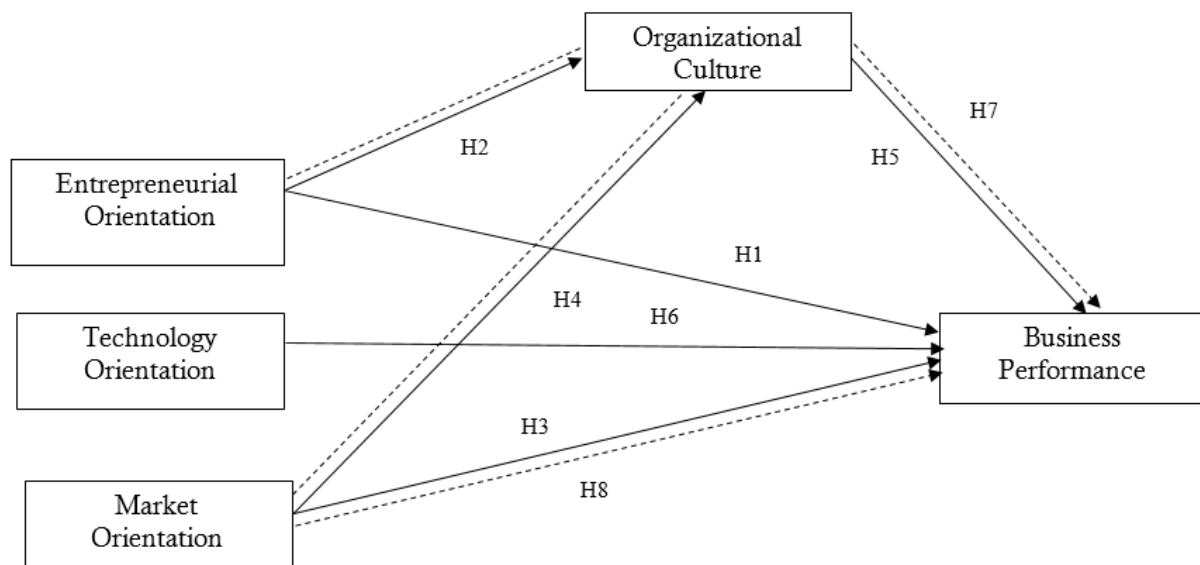


Figure 1. Research Framework

(2022) the main role of leaders in an organization is seen from the way culture is formed and maintained to build a culture that is in accordance with organizational goals.

H7: Entrepreneurial Orientation has positive effects on Business Performance, which is mediated by Organizational Culture

Relationship between Market Orientation, Business Performance, and Organizational Culture

According to Masa'deh et al. (2018) A strong cultural orientation can influence how MSMEs interact with local and global markets. For example, if MSMEs have a strong cultural orientation towards hospitality and togetherness, they may tend to be more successful in building strong relationships with local customers and expanding their business networks (Lestari et al., 2021). On the other hand, if MSMEs have a more conservative or closed cultural orientation (Altindag et al., 2011), they may face challenges in adapting to the

changing market and competing with other businesses (Al-Ansaari et al., 2015).

In addition, cultural orientation can also mediate the BP of MSMEs in Batam City. A culture that encourages innovation, creativity and entrepreneurship can provide impetus for MSMEs to create unique and high-quality products and services, thereby increasing their competitiveness in the market (Ali et al., 2020). However, a culture that is overly rigid or resistant to change can obstruct MSMEs' ability to quickly adapt to market and technological shifts. Therefore, a deep understanding of how cultural orientation affect MO and BP is crucial for MSMEs in Batam City to develop appropriate and sustainable strategies for their growth amidst the ever-changing market dynamics (Kurniawan et al., 2021).

H8: Market Orientation has positive effects on Business Performance, which is mediated by OC

Based on the above explanation, the research framework can be outlined as Figure 1.

METHOD

The population in this research includes managers and owners of MSMEs, especially those based in Batam City. This study employed non-probability sampling due to the diversity of the selected samples and the varying sample sizes. The number of elements chosen as samples is also unknown due to limited information. The selection of MSMEs in Batam City was done randomly, focusing on MSMEs engaged in production, services, culinary, trade, and retail businesses. The researcher applied a random sampling method to ensure that all samples had an equal chance of being selected. This study follows the method outlined by Hair et al. (2019) to determine the sample size, using the formula $n \times 10$. A questionnaire with 26 items was used, requiring 260 respondents for the sample. To account for potential errors or incomplete responses, 280 questionnaires will be distributed. The questionnaires used a Likert Scale to assess each measurement instrument in the questionnaire (Afthanorhan et al., 2021). The interval measurement scale consists of five levels, ranging from (1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, to (5) Strongly Agree.

The data collection process involved using primary data gathered by distributing questionnaires to managers and owners of MSMEs in Batam City, provided proportionally via Google Forms. The measurement indicators used in the questionnaire were adapted from previous studies, where the EO, OC, and BP variables were measured using 5 questions each, adopted from Arabeche et al. (2022), while the MO and TO variables were measured using 6 and 5 questions, respectively, adopted from Masa'deh et al. (2018).

The descriptive analysis method was employed to analyze the data, enabling the researcher to describe the characteristics

of the collected data. The researcher used SPSS and Smart PLS software to examine the relationships between the independent variables and the dependent variables through the mediating variable (Hamid & Anwar, 2019).

RESULT AND DISCUSSION

The demographic breakdown of the sample, including gender, age, education level, position within SMEs, and the duration of SME operations, is shown in Table 1. The majority of respondents in the sample are Owners (74.6%), Female (56.9%), aged 18-25 (28.8%), holding a bachelor's degree (43.5%), and have been running their SME businesses for 3 to 5 years (51.2%). Based on the information in Table 2, the retained items are shown. Items MO2, MO4, TO1, and TO5 were removed because they did not meet the testing criteria.

This research has 8 hypotheses, including 6 hypotheses that discuss variables directly and two hypotheses that discuss variables indirectly. Table 2 will display the suitability between the research instrument and the measurement concept used. The results for convergent validity, discriminant validity, and reliability are obtained by testing the outer model (Hair et al., 2019).

The general guideline for confirming convergent validity based on AVE indicates that the AVE value should be >0.5 (Ghozali & Latan, 2014). After analyzing the data presented in Table 2, the findings of this study reveal an AVE value greater than >0.5 , thus meeting the convergent validity criteria.

In the context of PLS-SEM, reliability assessment is carried out using two methods: Cronbach's Alpha and Composite Reliability. Henseler & Chin (2010) states that composite reliability is a better measurement than Cronbach's Alpha with

Table 1. Respondent Demographics

Category	Number	Percentage
Age		
18-25	75	28.8 %
26-35	105	20.4 %
41-50	62	23.8 %
>51	18	6.9%
Gender		
Male	112	43.1 %
Female	148	56.9 %
Last Education		
Senior high school	113	15.4 %
Diploma	107	41.2 %
Bachelor's degree	40	43.5 %
Position		
Owner	194	74.6 %
Manager	66	25.4 %
Length of business (Years)		
<2	53	20.4 %
3-5	133	51.2 %
6-10	55	21.2 %
>10	19	7.3%

Source: Data Processed (2024)

Table 2. Convergent Validity

Variable	Indicator	Loading Factor	AVE	Standard Deviation
Business Performance	BP 1 My enterprise is usually satisfied with the profit margin	0.786	0.582	0.744
	BP 2 My company is usually satisfied with the increase in the number of employees	0.756		0.784
	BP 3 Respect for the environment and sustainable development	0.786		0.736
	BP 4 The quality of service offered to customers is satisfactory	0.734		0.759
	BP 5 The variety of service offered to the customers is satisfactory	0.751		0.803
Entrepreneurial Orientation	EO 1 My company emphasizes research and development (R&D), technological change and innovation	0.808	0.694	0.720

Market Orientation	EO 2 My company is introducing several new product lines or services	0.836		0.756
	EO 3 My company takes actions that competitors replicate	0.877		0.715
	EO 4 My company adopts a very competitive position to reduce competition	0.817		0.730
	EO 5 I believe that because of the nature of the business environment, far-reaching actions are necessary to achieve my company's goals	0.825		0.715
	MO 1 Our organization is better than competitors in knowing the wants and needs of customers	0.796	0.616	0.810
	MO 3 Information about customers is used in our organization to make technological improvements	0.786		0.738
	MO 5 Employees in the sales and/or marketing department of our organization spend much time exchanging information on strategies of competitors	0.788		0.820
	MO 6 We react quickly to competitors' actions	0.769		0.844
	OC 1 Leaders make decisions and consider options in terms of how to act, options for work behaviours are minimal	0.820	0.663	0.779
	OC 2 A model leader is a coordinator and organizer who is efficiency-oriented	0.825		0.732
Technology Orientation	OC 3 It is centered around results, profit and task implementation	0.805		0.756
	OC 4 I can quickly recall the symbol or logo of this restaurant	0.818		0.743
	OC 5 Leaders are hard drivers, ruthless, and demanding. They encourage the staff to aggressive competition	0.802		0.757
	TO 2 Advanced technologies and methods are used to develop new products in our firm	0.845	0.691	0.731
	TO 3 We intend to develop new technologies in order to respond to the changing expectations of our customers	0.845		0.761
	TO 4 We have better technological knowledge than our competitor	0.804		0.768

Source: Data Processed (2024)

Table 3. Composite Reliability and Cronbach's Alpha Testing

Variable	Cronbach's Alpha	Composite Reliability	Conclusion
Business Performance	0.821	0.874	Reliable
Entrepreneurial Orientation	0.889	0.919	Reliable
Market Orientation	0.793	0.865	Reliable
Organizational Culture	0.873	0.908	Reliable
Technology Orientation	0.777	0.870	Reliable

Source: Data Processed (2024)

each construct >0.6 . According to the data in Table 3, all tested variables have met the criteria for Cronbach's Alpha and Composite Reliability > 0.6 .

The results of the Standardized Root Mean Square Residual (SRMR) test in Table 5 indicate that the tested model meets the criteria with a value below 0.1 (Hu & Bentler, 1999). Based on the SRMR value, it can be concluded that the model has a good fit and minimal residuals, indicating that the model's validity is acceptable. This gives confidence that the model used in this study is accurate in describing the relationship between the variables tested.

Table 4 reveals that each indicator achieved the highest loading value for its latent component, which is an essential requirement for validity. Discriminant

validity is also evident as the square root of each component's AVE is greater than the correlation between the components. In addition, to test for multicollinearity, the VIF value parameter was used. In this study, the VIF value obtained was <5.0 (Hair et al., 2020) in accordance with the standard employed in this study. These results indicate that multicollinearity is not a problem, so further research can be conducted without concerns about the significant impact of multicollinearity on the analysis results.

In addition, the R Square test results in table 5 have met the criteria set by Hair et al. (2020) which is more than 0.50 in the moderate category. The R Square value meeting these criteria indicates that over 50% of the variability in the dependent variable can be explained by the inde-

Table 4. Discriminant Validity

Variable	Business Performance	Entrepreneurial Orientation	Market Orientation	Organizational Culture	Technology Orientation
Business Performance	0.763				
Entrepreneurial Orientation	0.719	0.833			
Market Orientation	0.649	0.684	0.785		
Organizational Culture	0.679	0.683	0.773	0.814	
Technology Orientation	0.712	0.630	0.556	0.582	0.831

Source: Data Processed (2024)

Table 5. R Square

Variable	R Square	R Square Adjusted
Business Performance	0.666	0.661
Organizational Culture	0.644	0.641

Source: Data Processed (2024)

Table 6. SRMR

	SRMR
Saturated Model	.046
Estimated Model	.046

Source: Data Processed (2024)

pendent variables in the model. Therefore, the model demonstrates a moderate level of prediction, providing evidence that the selected variables have a significant and relevant impact on the observed results.

The results of the Standardized Root Mean Square Residual (SRMR) test in Table 6 indicate that the tested model meets the criteria with a value below 0.1 (Hu & Bentler, 1999). Based on the SRMR value, it can be concluded that the model has a good fit and minimal residuals, so the validity of the model can be accepted. This gives confidence that the model used in this study is accurate in describing the relationship between the variables tested.

Hypothesis Testing

Tables 7 and 8 below will present the results of hypothesis testing based on path coefficients and p-values. The results of the hypothesis or inner model can be assessed based on T statistics and P values. The rule of thumb for hypothesis test results is that the T statistic value must be >1.96 and the P value must be <0.05 to be considered significant; this rule applies to both direct and indirect effects (Henseler & Chin, 2010).

The findings reveal a significant correlation between EO variable and BP in MSMEs (H1). A robust and inventive EO, signified by a high EO, correlates with enhanced BP among MSMEs. These results underscore the pivotal role of EO in bolstering the BP of MSMEs, emphasizing the necessity for these enterprises to cultivate a resilient and innovative entrepreneurial mindset to enhance their business outcomes. This assertion is supported by a study conducted by Cuevas-Vargas et al. (2019); Perera et al. (2019); Ali et al. (2020); Khedhaouria et al. (2020); Arabeche et al. (2022) which also emphasize the significant impact of EO on the BP of MSMEs. Given the paramount importance of BP for Owners/CEOs/Managers of MSMEs, a lack of precise comprehension and information regarding entrepreneurial facets significantly impairs MSMEs' performance.

The data test results indicate that EO has a positive effect on OC (H2). This assertion is supported by studies conducted by Kartika et al. (2017); Khedhaouria et al. (2020); Arabeche et al. (2022) MSMEs with strong EO and OC tend to have the ability to adapt to market changes, enhan-

Table 7. Direct Relationship Between Variables

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDV)	T Statistics (O/STDEV)	P Values	Decision
Entrepreneurial Orientation -> Business Performance	0.292	0.287	.057	5.074	0.000	Supported
Entrepreneurial Orientation -> Organizational Culture	0.289	0.280	0.058	4.985	0.000	Supported
Market Orientation -> Business Performance	0.100	0.102	0.074	1.356	0.175	Not Supported
Market Orientation -> Organizational Culture	0.575	0.583	0.060	9.630	0.000	Supported
Organizational Culture -> Business Performance	0.193	0.197	0.078	2.487	0.013	Supported
Technology Orientation -> Business Performance	0.360	0.360	0.058	6.184	0.000	Supported

Source: Data Processed (2024)

Table 8. Indirect Relationship Between Variable

Hypothesis	T Statistics	P Values	Decision
Entrepreneurial Orientation -> Organizational Culture -> Business Performance	0.514	0.608	Supported
Market Orientation -> Organizational Culture -> Business Performance	0.545	0.586	Supported

Source: Data Processed (2024)

ce product and service innovation, and improve service quality. Therefore, developing strong EO and OC becomes an effective strategy to improve MSME performance and enhance competitiveness in a competitive market.

Referring to previous research Kurniawan et al. (2021) and Nilasari et al. (2021) it was found that MO and BP did not result in a significant relationship (H3). While MO is frequently regarded as a critical element for improving BP, the findings suggest that its influence may not be as potent as anticipated, particularly within the context of MSMEs. Numerous other factors could exert a more substantial

impact on the BP of MSMEs, including operational adaptability, product innovation, and managerial effectiveness (Kurniawan et al., 2021). The dynamic market conditions and resource constraints often faced by MSMEs may also reduce the effectiveness of MO in improving BP. These results contradict previous research (Sahibzada Jawad et al., 2020; Abdulrab et al., 2021; Borodako et al., 2022) that stated MO has a positive impact on BP.

The relationship between MO and OC (H4) shows a positive and significant influence. This assertion is supported by studies conducted by Borodako et al. (2022);Margaretha & Soelaiman (2022).

A strong alignment of MO with OC enables MSMEs to gain deeper insights into their markets, encourage the creation of products and services tailored to market demands, and establish enduring value propositions for both customers and stakeholders.

The research findings reveal that MSMEs with high levels of TO tend to demonstrate better BP (H5) compared to those with low TO. This assertion is supported by a study conducted by Masa'deh et al. (2018); Alfulailah & Soehari (2020); Abdulrab et al. (2021); Ramírez-Solis et al. (2022). This is due to the ability of technology to improve operational efficiency, expand market reach, and enhance product and service quality. Thus, TO plays a crucial role in driving superior BP in the MSME sector.

Based on the data analysis, the relationship between the variables OC and BP resulted in a positive and significant correlation. This result is supported by previous research (Khedhaouria et al., 2020); (Lita et al., 2020); (Paais & Pattiruhu, 2020); (Arabeche et al., 2022) which also indicated that OC positively impacts BP. A positive OC creates a supportive work environment where employees feel valued and motivated. Motivated and satisfied employees tend to work harder, be more creative, and more efficient, ultimately enhancing overall business performance.

The mediation relationships in Table 7 show that the variable EO and BP, mediated by OC, result in a positive relationship (H7). This result is supported by previous research (Arabeche et al., 2022), which also stated that these variables are positively correlated. Furthermore, the relationship between MO and BP, mediated by OC, also shows a positive effect, as supported by previous research (Borodako et al., 2022), which confirms this finding. A supportive OC serves as a facilitator that strengthens the connection between EO

and MO with business success. This ensures that entrepreneurial principles and market focus can be seamlessly integrated into company strategies and daily operations. As a result, the synergy among these three elements leads to a significant improvement in BP within the realm of MSMEs.

CONCLUSION AND RECOMMENDATION

In terms of direct relationships, this study accepts five hypotheses: EO on BP, EO on OC, MO on OC, OC on BP, and TO on BP. Meanwhile, one hypothesis is rejected: the relationship between market orientation and business performance. Referring to the indirect relationships, all hypotheses are accepted, including the relationship between entrepreneurial orientation and business performance mediated by organizational culture, as well as the relationship between market orientation and business performance mediated by organizational culture.

The practical implementation of this study provides valuable insights for MSME owners and managers to enhance their BP through the adoption of EO, MO, TO, and OC. Based on the study's findings, strategic development has been shown to significantly contribute to the improvement of MSME BP. The theoretical implementation of this research highlights the importance of entrepreneurial and TO in strengthening BP, emphasizes the role of OC as a significant mediator, and enhances the understanding of how the combination of these three orientations can create synergy that leads to an overall improvement in business performance. Although this study makes a significant contribution, there are limitations that should be noted. The sample is limited to MSMEs in Batam City, so the results may not be fully generalizable to MSMEs in other regions. Future research is recommended to ex-

pand the geographical scope by involving MSMEs from various areas to obtain a more comprehensive understanding. Additionally, future studies should consider a longitudinal approach to observe how entrepreneurial, market, and technology orientations develop and impact business performance over the long term.

REFERENCES

- Abbu, H. R., & Gopalakrishna, P. (2021). Synergistic Effects of Market Orientation Implementation and Internalization on Firm Performance: Direct Marketing Service Provider Industry. *Journal of Business Research*, 125, 851–863.
- Abdullah Kaid Al-Swidi. (2012). Total Quality Management, Entrepreneurial Orientation and Organizational Performance: The Role of Organizational Culture. *African Journal of Business Management*, 6(13).
- Abdulrab, M., Al-Mamary, Y. H. S., Alwaheeb, M. A., Alshammari, N. G. M., Balhareth, H., & Al-Shammari, S. A. (2021). Mediating Role of Strategic Orientations in The Relationship Between Entrepreneurial Orientation and Performance of Saudi SMEs. *Brazilian Journal of Operations and Production Management*, 18(4).
- Afthanorhan, A., Ghazali, P. L., & Rashid, N. (2021). Discriminant Validity: A Comparison of CBSEM and Consistent PLS using Fornell & Larcker and HTMT Approaches. In *Journal of Physics: Conference Series* (Vol. 1874, No. 1, p. 012085). IOP Publishing.
- Ahmatang, & Sari, N. (2022). Pengaruh Orientasi Kewirausahaan dan Orientasi Pasar Terhadap Kinerja Usaha Dimediasi Keunggulan Bersaing pada UMKM di Pulau Sebatik. *Ekonomi, Keuangan Dan Manajemen*, 18(3), 492.
- Al-Ansaari, Y., Bederr, H., & Chen, C. (2015). Strategic Orientation and Business Performance: an Empirical Study in the UAE Context. *Management Decision*, 53(10), 2287–2302.
- Alfulailah, F., & Soehari, T. D. (2020). Pengaruh Inovasi, Teknologi Informasi, dan Orientasi Kewirausahaan Terhadap Kinerja Usaha. *Akademika*, 9(02), 161–176.
- Ali, G. A., Hilman, H., & Gorondutse, A. H. (2020). Effect of Entrepreneurial Orientation, Market Orientation and Total Quality Management on Performance: Evidence from Saudi SMEs. *Benchmarking: An International Journal*, 27(4), 1503–1531.
- Altindag, E., Zehir, C., & Zafer Acar, A. (2011). Strategic Orientations and Their Effects on Firm Performance in Turkish Family-Owned Firms. *Eurasian Business Review*, 1, 18–36.
- Arabeche, Z., Soudani, A., Brahmi, M., Aldieri, L., Vinci, C. P., & Abdelli, M. E. A. (2022). Entrepreneurial Orientation, Organizational Culture and Business Performance in SMEs: Evidence from Emerging Economy. *Sustainability*, 14(9), 5160.
- Aziz, N. N. A., & Samad, S. (2016). Innovation and Competitive Advantage: Moderating Effects of Firm Age in Foods Manufacturing SMEs in Malaysia. *Procedia Economics and Finance*, 35, 256–266.
- Borodako, K., Berbeka, J., Rudnicki, M., Łapczyński, M., Kuziak, M., & Kapera, K. (2022). Market Orientation and Technological Orientation in Business Services: The Moderating Role of Organizational Culture and Human Resources on Performance. *Plos one*, 17(6), e0270737.
- Chae, H.-C., Koh, C. E., & Prybutok, V. R. (2014). Information Technology Capability and Firm Performance: Contradictory Findings and Their Possible Causes Appendix A List of IT Leaders and Control Companies IT Leader Sample SIC Code Control Sample SIC Code. *MIS quarterly*, 38(1), 305–326.
- Cherchem, N. (2017). The Relationship Between Organizational Culture and Entrepreneurial Orientation in Family Firms: Does Generational Involvement Matter?. *Journal of Family Business Strategy*, 8(2), 87–98.

- Covin, J. G., & Slevin, D. P. (1989). Strategic Management of Small Firms in Hostile and Benign Environments. *Strategic management journal*, 10(1), 75-87.
- Cuevas-Vargas, H., Parga-Montoya, N., & Fernández-Escobedo, R. (2019). Effects of Entrepreneurial Orientation on Business Performance: The Mediating Role of Customer Satisfaction—A Formative-Reflective Model Analysis. *SAGE open*, 9(2), 2158244019859088.
- Mon, M. D., Yuswardi, Y., & Tan, A. H. S. (2023). The Influence Of Organizational Culture, Work Environment, And Leadership On The Performance Of Restaurant Employees In Batam Mediated By Motivation. *Asian Journal of Management, Entrepreneurship and Social Science*, 3(04), 1058-1082.
- Fernández-Mesa, A., & Alegre, J. (2015). Entrepreneurial Orientation and Export Intensity: Examining The Interplay of Organizational Learning and Innovation. *International Business Review*, 24(1), 148–156.
- Ghozali, I., & Latan, H. (2014). Partial Least Squares : Konsep, Teknik dan Aplikasi Menggunakan Program SmartPLS 3.0, -2/E. Semantic Scholar.
- Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing Measurement Model Quality in PLS-SEM Using Confirmatory Composite Analysis. *Journal of Business Research*, 109, 101–110.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to Use and How to Report The Results of PLS-SEM. *European business review*, 31(1), 2-24.
- Hamid, S. R., & Anwar, M. S. (2019). Structural Equation Modeling (SEM) Based on Variance: Konsep Dasar dan Aplikasi dengan Program SmartPLS 3.2.8 dalam Riset Bisnis.
- Han, J. K., Kim, N., & Srivastava, R. K. (1998). Market Orientation and Organizational Performance: Is Innovation a Missing. *Journal of marketing*, 62(4), 30-45.
- Henseler, J., & Chin, W. W. (2010). A Comparison of Approaches for The Analysis of Interaction Effects between Latent Variables using Partial Least Squares Path Modeling. *Structural Equation Modeling*, 17(1), 82–109.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.
- Kartika, C., Manajemen Pemasaran, P., Ekonomi, F., & Wijaya Putra, U. (2017). Pengaruh Entrepreneurial Orientation, Culture Organization Internal Factor Terhadap Performance Organization Melalui Corporate Entrepreneurship Capability pada UMKM Batik Tulis di Jawa Timur. *Riset Akuntansi dan Keuangan Indonesia*, 2(1).
- Khedhaouria, A., Nakara, W. A., Gharbi, S., & Bahri, C. (2020). The Relationship between Organizational Culture and Small-Firm Performance: Entrepreneurial Orientation as Mediator. *European Management Review*, 17(2), 515–528.
- Kohli, A. K. (2017). Market Orientation in a Digital World. *Global Business Review*, 18(3_suppl), S203–S205.
- Kurniawan, R., Budiastuti, D., Hamsal, M., & Kosasih, W. (2021). Networking Capability and Firm Performance: The Mediating Role of Market Orientation and Business Process Agility. *Journal of Business and Industrial Marketing*, 36(9), 1646–1664.
- Lestari, D. A., Savitri, E., & Natariasari, R. (2021). Kinerja UMKM Ditinjau Dari Budaya Organisasi, Orientasi Kewirausahaan, Manajemen Kualitas Total, Dan Modal Sosial. *CURRENT: Jurnal Kajian Akuntansi Dan Bisnis Terkini*, 2(2), 217-238.
- Lestari, F. T., & Muchsinati, E. S. (2022). Inovbiz The Influence of Organizational Culture, Work Environment, Leadership Style, Employee Competence, and Motivation on Employee Performance Through Job Satisfaction in Starbucks and Excelso Employees in Batam City. *Inovbiz: Jurnal Inovasi Bisnis*, 10(2), 223-235.
- Lita, R. P., Faisal, R. F., & Meuthia, M. (2020). Enhancing Small and Medium

- Enterprises Performance through Innovation in Indonesia: A Framework for Creative Industries Supporting Tourism. *Journal of Hospitality and Tourism Technology*, 11(1), 155–176.
- Margaretha, C., & Soelaiman, L. (2022). Entrepreneurial Orientation, Market Orientation, and Organizational Culture on Business Performance. In *Tenth International Conference on Entrepreneurship and Business Management 2021 (ICEBM 2021)* (pp. 387–393). Atlantis Press.
- María del Rosario, R. S., Patricia S., S. M., & René, D. P. (2017). Eco-innovation and Organizational culture in the Hotel Industry. *International Journal of Hospitality Management*, 65, 71–80.
- Masa'deh, R., Al-Henzab, J., Tarhini, A., & Obeidat, B. Y. (2018). The Associations among Market Orientation, Technology Orientation, Entrepreneurial Orientation and Organizational Performance. *Benchmarking: An International Journal*, 25(8), 3117–3142.
- Nilasari, N., Wanto, H. S., & Susilo, A. (2021). The Influence of Product Innovation, Market Orientation, and Organizational Culture on Business Performance with Competitive Advantage as an Intervening Variable: Empirical Study of Agricultural Creative Industry MSMEs in Bojonegoro Regency, East Java, Indonesia. *Russian Journal of Agricultural and Socio-Economic Sciences*, 116(8), 170–177.
- Paais, M., & Pattiruhu, J. R. (2020). Effect of Motivation, Leadership, and Organizational Culture on Satisfaction and Employee Performance. *Journal of Asian Finance, Economics and Business*, 7(8), 577–588.
- Perera, D. N., Nag, D., & Venkateswarlu, P. (2019). A Study on the Relationship of Entrepreneurial Orientation and Business Performance in the SMEs of Kurunegala District in Sri Lanka. *Theoretical Economics Letters*, 09(07), 2324–2336.
- Pratama, A. N., Hariyati, & Harti. (2021). The Effect of Human Capital, Market Orientation, and Digital Marketing Technology on Business Performance in Optical SMEs in East Java. *Technium Soc. Sci. J.*, 20, 486.
- Putri, A., & Nailufar, N. (2022). Peran UMKM dalam Perekonomian Indonesia.
- Ramírez-Solis, E. R., Llonch-Andreu, J., & Malpica-Romero, A. D. (2022). How Beneficial are Relational Capital and Technology Orientation for Innovation? Evidence from Mexican SMEs. *International Journal of Innovation Studies*, 6(1), 1–10.
- Sahibzada Jawad, S. U. R., Naushad, S., Yousaf, S., & Yousaf, Z. (2020). Exploring Performance of Software Houses: Market Orientation and Mediating Role of Firm Innovativeness. *World Journal of Entrepreneurship, Management and Sustainable Development*, 16(1), 1–11.
- Sedyastuti, K. (2018). Analisis Pemberdayaan UMKM dan Peningkatan Daya Saing Dalam Kancah Pasar Global. *INOBI: Jurnal Inovasi Bisnis Dan Manajemen Indonesia*, 2(1), 117–127.
- Shehu, A. M., & Mahmood, R. (2014). The Relationship between Market Orientation and Business Performance of Nigerian SMEs: The Role of Organizational Culture. *International Journal of Business and Social Science*, 5(9), 159–168.
- Suwandi, E., & Setyawan, A. (2024). Organizational Performance in Batam's Food Industry: The Mediating Role of Organizational Culture. *International Journal of Economics Development Research (IJE-DR)*, 5(2), 1185–1207.
- Tran, Q. H. N. (2021). Organisational Culture, Leadership Behaviour and Job Satisfaction in the Vietnam Context. *International Journal of Organizational Analysis*, 29(1), 136–154.
- Udriyah, Tham, J., & Ferdous Azam, S. M. (2019). The Effects of Market Orientation and Innovation on Competitive Advantage and Business Performance of Textile SMEs. *Management Science Letters*, 9(9), 1419–1428.
- Wahyuni, N. M., & Sara, I. M. (2020). The Effect of Entrepreneurial Orientation Variables on Business Performance in the SME Industry Context. *Journal of Workplace Learning*, 32(1), 35–62.
- Wang, C. H. (2019). How Organizational Green Culture Influences Green Performance and Competitive Advantage: The Mediating Role of Green Innovation. *Journal of Manufacturing Technology Management*, 30(4), 666–683.