JURNAL STIE SEMARANG
VOL 16 No 2 Edisi Juni 2024
ISSN: 2085-5656, e-ISSN :22527826
DOI: 10.33747

Impacts of Strategic Orientation and Knowledge Management on Firms' Performance of SMEs in Surabaya

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Abstract. *The importance of SMEs as the driver of economic growth globally has become more crucial over recent decades because of the constantly changing business environment. SMEs especially in Indonesia have supported the government in fighting the unemployment rate. Nevertheless, the common problem of SMEs is sustaining their businesses because of ineffective operations and exploring competitive advantage. The objective of this study is to identify the performance of SMEs in Surabaya City, Indonesia. Three strategic orientations: market orientation, technology orientation, entrepreneurial orientation, and knowledge management were used to test firms' performance. This study applies the multiple linear regression analysis, classic assumption test, and purposive sampling technique. The findings of this study encompass that technology orientation, entrepreneurial orientation, and knowledge management variables significantly influence firms' performance. Only the market orientation variable was found not significant on firms' performance.*

Keywords: ***SMEs, Strategic Orientation, Knowledge Management, Firms' performance***

Abstrak. *Pentingnya UKM sebagai penggerak pertumbuhan ekonomi global menjadi semakin penting dalam beberapa dekade terakhir karena lingkungan bisnis yang terus berubah. UKM khususnya di Indonesia telah mendukung pemerintah dalam memerangi angka pengangguran. Namun demikian, permasalahan umum yang dihadapi UKM adalah kelangsungan usaha mereka karena operasional yang tidak efektif dan eksplorasi keunggulan kompetitif. Tujuan dari penelitian ini adalah untuk mengidentifikasi kinerja UKM di Kota Surabaya, Indonesia. Tiga orientasi strategis: orientasi pasar, orientasi teknologi, orientasi kewirausahaan, dan manajemen pengetahuan digunakan untuk menguji kinerja perusahaan. Penelitian ini menggunakan analisis regresi linier berganda, uji asumsi klasik, dan teknik purposive sampling. Temuan penelitian ini mencakup bahwa variabel orientasi teknologi, orientasi kewirausahaan, dan manajemen pengetahuan berpengaruh signifikan terhadap kinerja perusahaan. Hanya variabel orientasi pasar yang ditemukan tidak signifikan terhadap kinerja perusahaan.*

Kata Kunci*: UMKM, Orientasi Strategis, Manajemen Pengetahuan, Performa Perusahaan*

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Introduction

Small-medium-enterprises or SMEs sector holds a critical position in the development of developing economies, contributing not only to the economic aspect but also playing a pivotal role in fighting poverty and producing employment opportunities. SMEs promote private ownership and entrepreneurial skills, display the ability to adjust to dynamic changing market conditions, foster employment, distribute economic activities, and significantly increase the numbers of exports and trade. An initial investigation conducted by Putra and Santoso (2020) discovered that SMEs collectively make up 95% of businesses globally, particularly in Indonesia, where 99% are SMEs-scale. Moreover, SMEs also play a crucial role in reducing the unemployment rate by contributing to 60% of global employment, particularly in Indonesia accounting for 97%. Various, for instance by Manzor et al. (2021) and Erdin and Ozkaya (2020), have further confirmed the important influence of SMEs on economic aspects, particularly in emerging economies like Indonesia.

The competition in the business environment has become more intense over the past few decades. Firms are encouraged to explore catalysts to uphold their competitive advantage to maintain and even improve their performance (Gotteland et al, 2020). This leads many researchers studying this phenomenon to find the contributor to firms' performance. Several past studies have found that some factors including business strategy (Morgan and Strong, 2003; Avci et al, 2011; Aragon-Sanchez and Sanchez-Marin, 2005), and knowledge management styles (Darroch, 2005; Pour and Asarian, 2018).

Many researchers are attracted to conducting the exploration of the strategy-performance relationship nowadays (Avci et al, 2011; Otache 2019; Aloulou, 2019). According to Dahan and Shoham (2023), the conceptualization of strategic orientation is increasingly gaining concentration in the fields of strategic management, marketing, and entrepreneurship. It is acknowledged as a foundation concept that crucially plays a role in shaping the performance of organizations. Strategic orientation serves as a pivotal approach for many firms to maintain their competitive advantage and achieve revitalization (Aloulou and Fayolle, 2005). However, from several studies, the results were inconsistent. Parhizgar and Saravi-Moghadam (2017) found the significance of appropriate strategy in improving firms' performance, on the other hand, Morgan and Strong (2003) failed to discover the significant relationship between strategic orientations and performance.

Furthermore, knowledge management is also a crucial and contributing aspect to firms' performance as explored in various research (Obeso et al, 2020; Gharakhani and Mousakhani, 2012; Tseng and Lee, 2014). Many large enterprises have successfully combined knowledge management into their strategies, as elaborated by Cantu et al (2009). There are many different types of knowledge management according to its focus, scope, source, and type. Wang et al

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(2016) examined the knowledge management strategies and performance relationship. Qasrawi et al (2017) on the other hand, analyzed knowledge management processes and performance relationships. McIver and Lepisto (2017) explored the relationship between knowledge management practices and the performance of organizations. Chadha and Kapoor (2010) explained that the effective transfer and sharing of knowledge within a firm can significantly and positively influence its competitive strength and overall business performance.

This study intends to do exploratory research to fill the theoretical gaps in the fields of strategic orientation, knowledge management, and firms' performance of SMEs in Surabaya. Surabaya was chosen because it is one of the metropolitan cities in Indonesia and fundamental in providing jobs for neighboring cities such as Gresik, Sidoarjo, Mojokerjo, Lamongan, etc (Purmiyati et al, 2022). Moreover, this study highlights three major strategic orientations: market orientation, entrepreneurial orientation, and technology orientation. The simultaneous investigation of these orientations aims to identify theoretical gaps related to multiple strategic orientations and their impact on performance. Finally, this study seeks to contribute to the field of strategic management and SMEs.

Literature Review and Hypothesis Development

Strategic Orientation

To get a comprehensive understanding of the term "strategic orientation" and its connection to firms' performance, it is essential to first elaborate the conceptualization of strategy. This is crucial as strategy plays an important role in shaping strategic orientation; indeed, strategic orientation cannot stand without a well-defined strategy (Batra et al, 2023). Moreover, strategy is formed to simplify the achievement of a firm's mission, vision, and objectives. Ndubisi and Agarwal (2014) characterized strategy as the dynamic relationship between an organization and its environment, including actions taken by the organization to attain its objectives and achieve extraordinary performance through the effective and efficient management of resources. Additionally, Chung et al (2008) defined it as the alignment of organizational resources and capabilities with the opportunities and threats presented by the external environment. In essence, the strategy requires a thoroughly studied action plan, decisions, and guidelines developed in advance to secure a sustainable competitive advantage (Anwar et al, 2016).

Furthermore, Hakala (2011) defined strategic orientations refer to principles, processes, practices, and decision-making styles that utilize impact on a firm's activities, shaping intended behaviors to ensure viability and performance. These orientations exhibit a philosophy guiding how businesses are done, rooted in a set of values and beliefs that push a firm's chase of superior performance (Zhou et al, 2005; Wiklund and Shepherd, 2005). Aloulou (2018) added that strategic orientations are portrayed as how an organization responds to dynamic external factors and participates in its environments to maintain a competitive advantage. In this paper, the authors focus on three major strategic orientations: market orientation, technology orientation,

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and entrepreneurial orientation. Those three roles of strategic orientations have been researched thoroughly about their importance in enhancing firms' performance (Hsu et al, 2014; Lee et al, 2014; Zhou et al, 2005; Paladino, 2007; Lee et al, 2019).

Market Orientation

According to Amin et al (2016), market orientation is an acknowledged term in the field of marketing, providing an indicator of the level to which a firm applies the marketing concept and philosophy. Narver and Slater (1990) developed a measurement of market orientation which evaluating its impact on performance through empirical analysis. Their approach encompasses treating market orientation as a one-dimensional foundation, comprising three behavioral components: customer orientation, competitor orientation, and inter-functional coordination. Market orientation has gained significant attention from a diverse community of academics and researchers, who have investigated its consistency, theoretical robustness, and empirical evidence across various sectors.

A study by Gaur et al (2011) in India found that three dimensions of market orientation significantly influences SMEs performance. Firms with strong market orientations may be able to obtain higher profit margins than those with weaker ones (Amin et al, 2016). Similarly, in their study, Li et al (2008) emphasize the connection between market orientation and the performance of Chinese SMEs. Their study verifies that the orientation of small firms on the market can drive them to satisfy customer demands and obtain elevated performance levels. Moreover, Mokthar et al (2009) surveyed a sample of 158 to find out the what are critical dimensions of the market orientation of Malaysian manufacturing companies. Five dimensions were found to the important success factors: market focus, market action, market planning, market feedback, and market coordination which highlighted its significance on financial performance. Thus, we propose hypothesis 1 namely:

H1: Market Orientation has a significant influence on Firms' Performance

Technology Orientation

Batra et al (2015) described technology orientation as a firm's inclination to participate in monitoring and adopting technological innovations, denoting its propensity to regularly take part in emerging technologies. Firms with a solid technology orientation tend to adjust themselves through innovation, maintain a dedicated commitment to conduct research and development regularly (Yousaf et al, 2020), invest in the latest technologies to improve their decision-making capability, design technologically refined products and services, pinpoint the crucial of obtaining new technological skills, recognized organizational members' efforts in skill acquisition, drive risk-taking and knowledge-sharing among employees, explore ideas from both internal and external sources, prioritize providing superior products to customers, and recognize the

significance of adapting to an intensively dynamic changing business environment to explore new opportunities (Kocak et al, 2017). Therefore, such firms are represented by a high level of experimentation, utilizing their technological expertise to discover novelty of technical solutions, regardless of the common patent protection in their field. Naala et al (2017) added that firms with high technology orientation applications demonstrate the capability to expect technological changes within their industry, enabling them to catch the opportunities that might be overlooked by organizations with weaker technological bases. Ultimately, these firms excel in developing a technology strategy aligning synergistically with their companies' strategy.

Gao et al (2007) conducted a study that highlighted the positive association between technology orientation and firms' performance in China. Additionally, Mu and Di Benedetto (2011) found the significance of technology orientation on the new product commercialization performance. Similarly, Aloulou (2019) found a positive linkage between technology orientation and firms' performance after surveying 292 random companies in the Kingdom of Saudi Arabia. Therefore, we propose hypothesis 2 namely:

H2: Technology Orientation has a significant influence on Firms' Performance

Entrepreneurial Orientation

Erista et al, (2020) stated that in the current highly competitive business environment, individuals and organizations must be able to apply entrepreneurial orientation competencies to function as entrepreneurs and effectively manage firms' performance. First developed by Miller (1983), entrepreneurial orientation encompasses three dimensions: risk-taking, proactiveness, and innovativeness, which serve as precursors for examining and chasing new business opportunities (Wahyuni and Sara, 2020). This three-dimensional model, brought up by Miller, has been widely agreed upon and adopted by various academics and researchers worldwide (Rafiki et al, 2023). Mason et al (2015) emphasized that entrepreneurially oriented SMEs adhere to a high level of these dimensions, consequently, positioning entrepreneurial orientation as a crucial resource for SMEs. It offers a solid foundation for making entrepreneurial choices and decisions that can affect overall SME performance positively (Widyanti and Mahfudz, 2020).

Jia et al. (2014) elaborated that entrepreneurial orientation assists SMEs in discovering market demands and customer requirements by promoting the novelty of products or services, adapting existing offerings, producing innovative ideas, assisting in process management, and improving operational practices and activities. Martens et al. (2018) defined entrepreneurial orientation as a strategic initiative within an enterprise encompassing the application of fundamental policies and practices to sustain entrepreneurial actions, contributing significantly to gaining a competitive advantage. Initial research by Karami and Tang (2019) pinpoints the conceptual use of entrepreneurial orientation by firms to drive

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entrepreneurship development, explore new business opportunities, and enhance associated benefits. They highlighted the importance of entrepreneurial orientation in positively impacting a company's business performance.

Pulka et al (2021) studied the linkage between entrepreneurial orientation and SME performance in 470 Nigerian SMEs. The result shows the direct influence of entrepreneurial orientation on SME performance. Similarly, Mantok et al (2019) found a positive and significant influence of entrepreneurial orientation on SME performance in the Indian context. After carefully reviewing the theoretical review above, we propose hypothesis 3 namely:

H3: Entrepreneurial Orientation has a significant influence on Firms' Performance

Knowledge Management

Over the recent decades, scholars such as Ode and Ayavo (2020) and Liu et al. (2019) have recognized the fundamental role of knowledge in conferring a competitive edge to organizations as a result of the dynamic changing business environment. Knowledge is generally categorized into explicit knowledge, referring to academic or theoretical knowledge expressed through formal language and media, and tacit knowledge, referring to practical know-how acquired through personal experience (Santoso et al, 2023). Acknowledged as a leading asset for modern businesses, knowledge is critical for firms to gain a competitive advantage as elaborated by Sundiman et al (2019), which leads to increased interest in the field of knowledge management among scholars.

Kor and Maden (2013) defined knowledge management as a business process that stresses gaining new knowledge and making sure it is effectively used within firms. According to Martins et al (2019), knowledge management has four key competencies, namely: knowledge acquisition, knowledge creation, knowledge storage, and knowledge sharing. These dimensions highlight an organization's capacity to analyze, apply, and derive benefits from knowledge. In the context of SMEs, the crucial role of knowledge management is underscored by the need for resiliency, emphasizing strategic managerial thinking for effective knowledge storage (Santoso et al, 2023).

A study by Aliyu et al (2015) found a positive and significant influence of knowledge management on the business performance of SMEs in Nigeria after disseminating and analyzing 640 questionnaires to SME owners/managers. Additionally, the study conducted by Gharakhani and Mousakhani (2012) highlighted the significance and positive effects on organizational performance with the SME scale for each of the three dimensions of knowledge management capabilities: acquiring knowledge, sharing knowledge, and applying knowledge. Consistently, Obeso et al. (2020) also revealed in their research that knowledge management, particularly in terms of knowledge generation and knowledge flow, shows a significant and positive influence on the performance of SMEs in Spain.

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Hence, we formulate hypothesis 4 based on the research findings and theory above as the following:

H4: Knowledge Management has a significant influence on Firms' Performance

Firms' Performance

The goal of any enterprise is the improvement of its performance. Hence, the linkage between strategic management and firm performance is indistinguishable, resulting in the majority of improvements originating from the domain of strategic management. Consequently, there is a prevalent inclination for firms to put substantial efforts into this realm (Tseng and Lee,2014). However, academics and researchers are facing challenges in both conceptualizing and measuring firms' performance. Syahdan et al (2020) highlighted that divergent opinions, conceptual frameworks, and measurement instruments further make the issue difficult.

According to Tseng and Lee (2014), the term 'performance' represents the degree to which an organization or company achieves its goals or the efficacy of individuals, groups, and the overall organization. Individual performance involves several factors such as job satisfaction, goal attainment, and personal adjustment. At the group level, it encompasses morale, cohesion, efficiency, and productivity. Moreover, at the organizational or firm level, performance includes making sure of efficiency, maintaining productivity, absenteeism rate, turnover rate, and adaptability. Thus, Lee et al (2019) defined firm performance as a company's capacity to attain its objectives by efficiently and effectively managing resources. Le and Inkram (2022) further elaborated that the establishment of clear measurement systems is essential, facilitating explicit guidance for managers and employees. This clarity in measurement systems allows firms to scrutinize areas demanding improvement and redirect attention based on evaluations of cost, quality, and time.

Research Method

Types of Research

This study employs a quantitative descriptive investigation to establish the correlation between three strategic orientation majors which are market orientation, technology orientation, entrepreneurial orientation, knowledge management, and the performance of firms within the SME scale. The examination applies multiple linear regression analysis to verify five hypotheses, by using IBM SPSS Statistic version 22 software for the analysis. Furthermore, the study will incorporate classical assumption tests to examine the relationship between variables (Ainiyah et al, 2016), including tests for multicollinearity, heteroscedasticity, and normality.

Furthermore, the data collection of this study encompassed administering questionnaires to the target participants. The Likert scale, ranging from 1 to 5 adopted from a study by Sunyoto et al. (2024), was adopted as the measurement tool to assess respondents' feedback. A rating of 1 means "strongly disagree" while a rating of 5 means "strongly agree".

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Respondents received the questionnaires through their company email and were asked to complete them. Upon completing the questionnaires, respondents were requested to return the filled questionnaires to the researcher. Subsequently, the researcher filtered the completed questionnaires for further analysis, selecting those that adhered to the provided instructions and were comprehensively filled out. Additionally, readability issues were addressed to enhance clarity and accuracy after the selection process.

The distributed questionnaire includes two sections. The initial part has the objective to collect general information about the respondents, encompassing demographic details to assess their eligibility for inclusion in the sample. The second section comprised items on market orientation, technology orientation, entrepreneurial orientation, knowledge management (independent variables), and firms' performance (dependent variable) statements built by the researcher. This aims to find out the significance of independent variables on the dependent variable aligns with the goal of the multiple linear regression analysis (Uyanik and Guler, 2013).

The items used as statements for the questionnaire were adopted from past studies as listed below in Table 1:

Table 1. Statements for Variable Measurement

Variable	Number of Statements	Source
Market Orientation	4	Narver and Slater (1990)
Technology Orientation	4	Hakala and Kohtamaki (2011)
Entrepreneurial Orientation	6	Nasution et al (2021); Masa'deh et al (2018)
Knowledge Management	4	Nasution et al (2021
Firms' Performance	6	Franco and Prata (2019)

Source: Processed Data

The population of this study is SMEs in Surabaya, nevertheless, the exact number of the population cannot be determined. This leads the researcher to apply a non-probability sampling technique with the purposive sampling technique allowing authors to freely choose the samples that can give the most appropriate information based on their judgment. Moreover, a total of 120 samples were used as a result of 24 indicators multiplied by 5. This technique was adopted from a study by Hair et al (2010) where they suggested determining appropriate samples by multiplying total items/indicators by 5 to 10. The respondents of this study are CEOs/Managers/Business owners of SME e-commerce in Surabaya from several industries. The criteria of the SME in Indonesia is the firms with annual revenue of not more than 4.8 billion IDR. The research framework of this study can be seen below in Figure 1:

Figure 1. Research Framework

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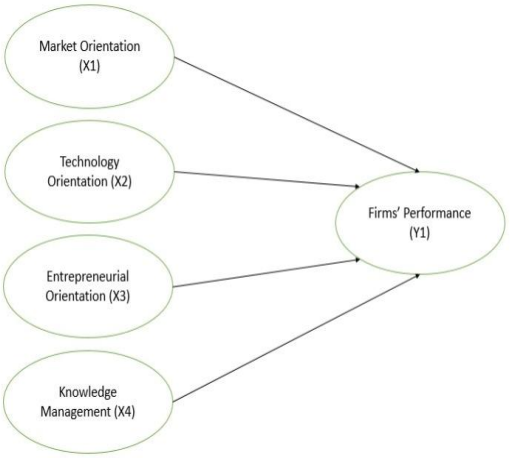

Source: Processed Data

Results and Discussion

Descriptive Statistics

This research encompasses collecting data by exploring information from participants through questionnaire statements. The main data used in this research originated from business owners, CEOs, and managers of SMEs in Surabaya, Indonesia. A total of 120 respondents actively engaged in the data collection process. The classification of respondents based on industry field is presented in Table 2 below:

Table 2. Respondents' classification

Business Category	Number	Percentage
Food and Beverage	40	33.4%
Fashion	21	17.5%
Services	10	8.3%
Manufacturing	10	8.3%
E-commerce retailer	18	15%
Automotive	11	9.2%
Others	10	8.3%
Total	120	100%

Source: Processed primary data.

The respondents from the food and beverage industry accounted for 33.5% which was the highest among other industries followed by fashion and e-commerce retailers accounted for 17.5% and 15% respectively. This result is understandable because it can be said that those industries may have the lowest entry barrier. Any people with low capital may SME a food and beverage stall on the street and get low-interest loans from national banks as programmed by the Indonesian government to drive SME growth. Opening an SME in the fashion industry through e-commerce is also relatively easy to start but hard to sustain.

Table 3. Mean and Deviation Standard

Variable	Mean	Deviation Standard
Market Orientation	3.375	.6498
Technology Orientation	3.858	.6956
Entrepreneurial Orientation	3.612	.7588
Knowledge Management	3.818	.7086
Firms' Performance	3.616	.6679

Source: Processed data.

The food and beverage sector constituted the highest share at 33.5%, surpassing other industries, with fashion and e-commerce retailers

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following closely at 17.5% and 15%, respectively. This trend can be attributed to the relatively low entry barriers in these three industries. Opening a small food and beverage stall on the street is accessible to many, and similarly, starting an e-commerce venture in fashion is relatively straightforward, although sustaining it proves to be challenging.

In Table 3 displayed above, it is shown that the variables exhibiting the highest mean averages are technology orientation and knowledge management, registering 3.858 and 3.818, respectively. This exhibits a consensus among respondents regarding the indicators related to technology orientation and knowledge management compared to the remaining variables. Conversely, the entrepreneurial orientation variable displays the highest standard deviation score of 0.7588. Following an interpretation suggested by Cronk (2019), this implies that respondents' responses regarding entrepreneurial orientation are less consistent or homogeneous compared to the other variables.

Validity and Reliability Test

Table 4. Validity Test

Variable	Indicator	Pearson Correlation	Sig	Interpretation
Market Orientation	X1.1	.770	.000	Valid
	X1.2	.793	.000	Valid
	X1.3	.867	.000	Valid
	X1.4	.790	.000	Valid
Technology Orientation	X2.1	.755	.000	Valid
	X2.2	.829	.000	Valid
	X2.3	.775	.000	Valid
	X2.4	.790	.000	Valid
Entrepreneurial Orientation	X3.1	.814	.000	Valid
	X3.2	.897	.000	Valid
	X3.3	.843	.000	Valid
	X3.4	.859	.000	Valid
	X3.5	.847	.000	Valid
	X3.6	.862	.000	Valid
Knowledge Management	X4.1	.685	.000	Valid
	X4.2	.810	.000	Valid
	X4.3	.729	.000	Valid
	X4.4	.858	.000	Valid
Firms' Performance	Y1.1	.828	.000	Valid
	Y1.2	.861	.000	Valid
	Y1.3	.794	.000	Valid
	Y1.4	.722	.000	Valid
	Y1.5	.785	.000	Valid
	Y1.6	.830	.000	Valid

Source: Processed Data

Table 4 above shows that all of the indicators are valid because the Pearson correlation value accounted for higher than the guidance level of 0.05 as interpreted by Cronk (2019).

Table 5. Reliability Test

Variables	Cronbach Alpha	Interpretation
Market Orientation	.890	Reliable
Technology Orientation	.872	Reliable
Entrepreneurial Orientation	.947	Reliable

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Knowledge Management	.857	Reliable
Firms' Performance	.920	Reliable

Source: Processed Data.

Cronk (2019) explained that the significance level for the reliability test is sought from the Cronbach alpha value and must exceed 0.60. Based on Table 5 above, all of the variables are reliable because all of the Cronbach alpha are higher than the guided significance level.

The Multiple Linear Regression Analysis

Table 6. Multiple Linear Regression Analysis Result

Hypotheses		Coeff.	t sig	Expected Hypothesis	Result
H1	Market Orientation has a significant influence on Firms' performance	-.119	.169	Significant	Rejected
H2	Technology Orientation has a significant influence on Firms' performance	.283	.001	Significant	Accepted
H3	Entrepreneurial Orientation has a significant influence on Firms' performance	.190	.028	Significant	Accepted
H4	Knowledge Management has a significant influence on Firms' performance	.225	.010	Significant	Accepted

Source: Processed Data.

Cronk (2019) pointed out that the guidance level for the multiple linear regression analysis is sought from the t-sig value which must be below than .050. Table 6 above shows that only H1 is rejected which is market orientation does now influence firms' performance. The other 3 hypotheses are accepted as seen from the guidance level.

Classic Assumption Test

Figure 2. Normality Test: One sample Kolmogorov-Smirnov

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		120
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.60544999
Most Extreme Differences	Absolute	.067
	Positive	.067
	Negative	-.062
Test Statistic		.067
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Source: Processed Data 2024

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According to Ainiyah et al (2016), a normality test is utilized to examine if the distribution of data is normal. In SPSS software, it is done by applying a one-sample Kolmogorov-Smirnov test, and if the Asymp sig value is higher than the significance level of 0.05, it means that the data is distributed normally. The result of the test as seen in Figure 2 above is that the Asymp sig value accounted for 0.200 and is higher than the significance level. Therefore, the interpretation is that the residual data is distributed normally.

Table 7. Multicollinearity and Heteroscedasticity test result

Variables	Sig.	VIF
Market Orientation	1.000	1.039
Technology Orientation	1.000	1.013
Entrepreneurial Orientation	1.000	1.027
Knowledge Management	1.000	1.031

Source: Processed Data

Ainiyah et al (2016) explained that a multicollinearity test serves the purpose of finding a significant correlation among variables and is generally utilized in multiple regression analysis models. The authors emphasize that an ideal regression model should point out minimal correlation among independent variables, allowing for collinearity, if any, to be moderate rather than highly pronounced. Table 7 above shows that the VIF is below 10, surpassing 1, and the tolerance value exceeds 0.05. The interpretation is there is an absence of multicollinearity among the VIF values, which represent the independent variables (Ainiyah et al, 2016).

Additionally, Ainiyah et al (2016) pointed out that the heteroscedasticity test aims to ascertain if absolute residuals across all examinations display uniformity. Failure to meet the homoscedasticity assumption exhibits a diminished effectiveness of the estimator, which leads to inaccurate coefficient estimates. The regression model's quality hinges on its ability to maintain homoscedasticity. Additionally, all significance levels depicted in Figure 3 register as 1.000, surpassing the significance level of 0.05, advocating the absence of heteroscedasticity concerns.

Discussion of Findings

The primary objective of this empirical research is to investigate the performance of firms with the SME scale based in Surabaya by analyzing market orientation, technology orientation, entrepreneurial orientation, and knowledge management as the enhancer variables. Detailed insights and discussions based on the result will be provided below. Talking more deeply about the first variable, market orientation, the results of the multiple linear regression analysis indicate that there is no significant impact of market orientation on firms' performance. The significance value, at .169, exceeds the standard significance value of .050

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(Cronk, 2019). Consequently, hypothesis 1 is rejected and does not align with past studies by Amin et al (2016) and Mokthar et al (2009) where they found positive benefits for their performance as a result of applying market orientation. This can be understood that those firms may already have a good marketing efforts that works well and rely on the other variables such as technology orientation in adopting a new technology to their business.

The second variable that will be discussed is technology orientation. It was found that technology orientation has a significant influence on firms' performance because the significance value is accounted for .001, therefore, hypothesis 2 is accepted. Furthermore, this finding aligns with past studies by Aloulou (2019) and Gao et al (2007) where they highlighted the positive association between technology orientation and firms' performance. Actively engaging with the latest technology is critical in facing today's dynamic business environment (Hakala and Kohtamaki, 2011). Companies also need to surpass the technological knowledge of their competitors to enter first to the latest trend because it is more beneficial than just copying competitors as they lose in the first step (Pratono, 2016).

The third variable is entrepreneurial orientation where it was found that it significantly influences firms' performance because the significance value is accounted for .028 and is below the guidance level. Therefore, hypothesis 3 is accepted. This finding is consistent with past research by Pulka et al (2021) and Mantok et al (2019) where they both discovered a positive linkage between entrepreneurial orientation and firms' performance. To face uncertainty in today's business environment, firms are suggested to take calculated risks. Hesitancy in taking risks makes firms unable to grab potential opportunities (Kaukab, 2022). Regularly researching new products or services before competitors is also considered a crucial move in opportunity grabbing for SMEs (Hakala and Kohtamaki, 2011).

Lastly, knowledge management is found to have a significant influence on firms' performance as a result of its significance value of .010, which is below the guided level. Hence, hypothesis 4 is accepted. Consistently, this finding supports past studies by Aliyu et al (2015) and Obeso et al (2020) where they both highlighted the positive relationship between knowledge management and firms' performance respectively. Well-applied knowledge management by firms with SME-scale enables them to obtain relevant information about the business environment and will surpass their competitor. Santoso et al (2023) added that to activate knowledge management, SMEs need to apply good communication and provide knowledge circulation to employees.

Conclusion

This research has successfully displayed the positive influence of technology orientation, entrepreneurial orientation, and knowledge management on firms' performance with SME-scale in Surabaya, Indonesia. However, the market orientation variable was not found to

have a significant influence on firms' performance.

Furthermore, this research provides practical insights for SMEs in Surabaya, Indonesia. The findings pinpoint the importance for Indonesian SMEs to focus on the identified variables, considering the frequent trend changes in the global business environment. Constant responses and innovation are important for firms to capitalize on emerging opportunities. By stressing these variables, SMEs can calculate and minimize potential risks. The suggestion is not to evade risks but, instead, to formulate strategic plans to effectively confront and navigate them. Adopting a new technology is also suggested for firms because technology changes faster than other trends.

Limitation of Research and Recommendation

There are several limitations in this study, particularly the limited samples which is 120 and only scoping around firms with SME-scale in Surabaya. Moreover, the variables are also limited in the strategic orientation and knowledge management field even though there are many other enhancers of firms' performance. Future researchers may try to expand the scope to a bigger scale because this research is only at a city scale. Additionally, they may try other variables such as leadership styles, dynamic capability, learning organization, organization culture, etc. The research method also can be modified by adding a mediation variable by applying the Sobel test apart from this study which only applies multiple linear regression analysis.

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JURNAL STIE SEMARANG
VOL 16 No 2 Edisi Juni 2024
ISSN: 2085-5656, e-ISSN :22527826
DOI: 10.33747