
ANALYSIS OF THE EFFECT OF TOTAL QUALITY MANAGEMENT (TQM) ON ORGANIZATIONAL PERFORMANCE IN SMALL AND MEDIUM ENTERPRISES (SMES) WITH INNOVATION PROCESS SPEED AS A MEDIATING VARIABLE IN SMES IN THE CULINARY SECTOR IN BOGOR CITY

Andini Sih Afsari Utami¹, Unggul Purwohedi², Rida Prihatni³

Faculty of Economics, Universitas Negeri Jakarta, Indonesia

andiniacc22@gmail.com¹, upurwohedi@gmail.com², ridaprihatni@unj.ac.id³

ABSTRACT

The increasing competitiveness of the business environment, especially in the culinary industry, has encouraged small and medium-sized enterprises to focus on improving their organizational performance. This study aims to determine and analyze the effect of total quality management on organizational performance in small and medium enterprises with the speed of the innovation process as a mediating variable in culinary SMEs in Bogor City. The method used in this research is quantitative. The population in this study were 100 respondents of culinary SMEs in Bogor City. This study uses purposive sampling technique to determine the sample. Based on the results showed that TQM significantly has a positive influence on organizational performance, TQM significantly has a positive influence on the speed of the innovation process, the speed of the innovation process significantly has a positive influence on organizational performance, and there is a positive relationship and influence between Total Quality Management and organizational performance mediated by the speed of the innovation process. The results of this study provide implications for SMEs regarding the application of Total Quality Management. SMEs are expected to focus on services and products that meet consumer demand, reduce production costs, and offer affordable prices without sacrificing quality, thereby increasing consumer loyalty and business competitiveness. This research has implications for the need for SMEs to invest in training and development of effective TQM systems and pay attention to market dynamics to continue to innovate and meet consumer expectations.

Keywords: Total Quality Management, Organizational Performance, Small and Medium Enterprises, Innovation.

Corresponding Author: Andini Sih Afsari Utami

E-mail: andiniacc22@gmail.com



INTRODUCTION

The main indicator of the independence of an economy in the eyes of the world is the role of entrepreneurs, namely entrepreneurs of Small and Medium Enterprises (MSMEs) (Hoque & Awang, 2019). SMEs, or Small and Medium Enterprises (SMEs), are the world's most important basis for economic independence (Hoque & Awang, 2016). In order to advance the industrial economic sector in a developing country, the role of SMEs is considered to have the most important role. The development and demands in the age of rapid globalization require business people to be able to compete quickly and innovate to achieve competitive advantage. The existence of a climate of uncertainty from changes in the increasingly dynamic business environment and even high customer demand, business people are required to continue to be able to innovate in order to produce products and goods of the highest quality, and not to forget that they are also required to have

competitive prices. Nowadays, consumers are getting smarter and choosing products worthy of their consumption. To answer this unrest, SMEs need to make improvements in all fields to improve quality so that they can attract a lot of interest from consumers, then maintain it so that the company's value automatically rises to be optimal (Manzoor et al., 2019).

Thus, SMEs strongly support sustainable development goals, including creating new jobs, supporting industrialization and the creative economy, encouraging the desire for entrepreneurship and eliminating poverty in developing countries (Manzoor et al., 2019). According to (Dowling et al., 2019), companies are always required to create products or services that are "new" to face increasingly fierce competition between competitors, especially in the age of technology where everything moves fast. SMEs have a very significant contribution value to increasing economic activity and business growth; on the other hand, SMEs also have obstacles in producing new products or services. According to (Tajudin et al., 2014), there are several important ways that developing countries can improve their economy, including increasing productivity and creating jobs, which can reduce inequality. According to (Kirkham et al., 2014), organizations are also pressured to achieve and maintain excellence to improve performance and competitiveness.

According to Libaihaqy (2023), the number of SMEs in Indonesia has decreased since March 2020 and finally increased again in 2021. SME data in Indonesia from 2015 to 2021 experienced a growth of ten per cent (10%). According to (Zakiah et al., 2022), the number of SMEs decreased by one point five million (1.5 million) from 2019 to 2020 due to the COVID-19 pandemic.

According to (Al-Dhaafri et al., 2016) Globally, TQM theory is a strategy to achieve results by producing goods or services of good value with high quality so that the value of operational performance also has a good impact on business performance. Applying TQM improves things like processes, products, services, and culture. According to (Aziz et al., 2019), in Indonesia, many companies have implemented TQM but, in fact, still have an ineffective impact on its application. Furthermore, a lack of empirical research has been conducted systematically to address the implementation of TQM in Indonesia through academic literature reviews. The most important aspect in the successful implementation of TQM is the presence of organizational culture, according to (Cameron & Quinn, 1999). According to (Sadikoglu and Olcay, 2014), the concept of TQM is aimed at continuously improving the quality of processes, products and services with a focus on meeting the expectations of consumers. According to (Michael et al., 2018), implementing TQM is the right solution in the current conditions to answer the challenges of global competition. Research by (Hilman et al., 2020) and (Sawaeen & Ali 2020) showed a positive relationship between TQM and organizational performance. Research conducted by (Niyi Anifowose et al., 2022) and Dhall, 2020) showed a positive relationship between TQM and the speed of the innovation process.

Organizational performance and the speed of the innovation process have a major influence on the relationship between TQM and SME performance. The role of TQM on the operational performance of SMEs has a maximum impact, according to research conducted (Sharma & Modgil, 2020). According to (Neely et al., 1995), performance theory is closely related to the word "process", which measures business activities to achieve the vision and mission. This is done in a way that gets effective and efficient value from business activities to achieve a higher level of performance than its competitors. According to (Gilmore et al., 2013), SMEs account for nearly ninety-nine per cent (99%) of economic growth in developing and developed countries. According to (Herzallah et al., 2014), SMEs that implement TQM succeed in their business, namely getting a competitive position

in the market. Studies conducted by (Wang et al., 2021) on the relationship between company performance and speed of Innovation as mediation found that there is a positive relationship between the two and has a significant influence. According to research results (Al-Dhaafri et al., 2016) and (Sahoo & Yadav, 2018), there is a positive relationship between TQM and the operational performance of SMEs.

Almost every product market sector has customers prioritising speed with basic product and benefit criteria. The role of Innovation as a mediator has a significant impact on the TQM process based on the findings of research conducted by (Mahmud et al., 2019). Modern industry has improved organizational performance. Many studies have investigated the philosophy of Total Quality Management and the methods of quality practitioners. According to (Brown, 1994), Total Quality Management has helped companies deliver first-class services and improve manufacturing processes by providing quality products that meet customer satisfaction standards, offer competitive advantages, and win better market share.

Culinary business is the most common type of SME in Indonesia. This type of business will never die because every human needs to eat. The culinary business can also be developed further. The capital needed to start a culinary SME can be done with minimal capital. The strategy to develop a culinary business is in the quality of taste, service, price, and marketing strategy.

According to the Office of Cooperatives, Small and Medium Enterprises, Trade and Industry of Bogor City, the number of MSMEs in Bogor City in 2023 reached 73,336. An increase compared to 2021, which was only 68,992 MSMEs. The business sector that is developing and existing is a strategic step in strengthening the economic foundation of Indonesian society SMEs. Based on data from the Ministry of Cooperatives and SMEs of the Republic of Indonesia, the SME business sector in Indonesia has increased to 843,834 units and absorbed a workforce of 9,602,091 people in 2018. In addition, SMEs managed to contribute to Indonesia's GDP by 23.3 per cent, so it has considerable potential to drive the Indonesian economy. According to (Statistics, 2017), the distribution of the largest number of SMEs on the island of Java is in West Java province, with a total of 483,405 business units. However, these SMEs still experience several obstacles in developing their business. Based on data from the Bogor City Statistics Agency, there are around 7,530 small and medium enterprises in Bogor City. The SMEs are divided into several clusters, as shown in Figure 1.

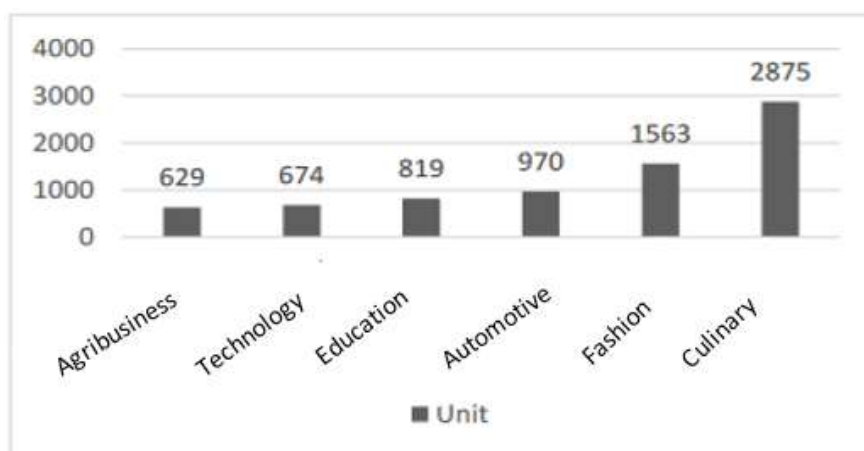



Figure 1. Number of SMEs by business type in Bogor City in 2019

Number of SMEs by business type in Bogor City in 2019. Based on Figure 1, the culinary SME cluster is a rapidly growing business in the Bogor City area, where there are around 2875 small and medium enterprises. Many cafes, shops, and restaurants have sprung up in strategic areas around Bogor City. The tight competition causes culinary SMEs in Bogor City to apply the right marketing strategy to avoid losing out to their competitors.



The screenshot shows a table titled 'Banyaknya Usaha Mikro dan Kecil menurut Kabupaten/Kota (Unit)'. The table has columns for the years 2020, 2021, and 2022. The rows list various districts in West Java, including Bogor. The data for Bogor is as follows:

Kabupaten/Kota	2020	2021	2022
Bogor	6.698	5.669	4.620

Figure 2. Data from the Central Bureau of Statistics of West Java province

According to the data source above, Bogor City's number of SMEs decreased from 6,698 in 2020 to 5,669 in 2021. It fell back to 4,620 in 2022, according to the Office of Cooperatives, Small and Medium Enterprises, Trade and Industry of Bogor City.

Most of the literature discusses the object of manufacturing-based SMEs, and no one has discussed SMEs engaged in the culinary field, such as restaurants and cafes. Bogor has mushrooming restaurants and cafes because it is a weekend tourist destination for Jabodetabek residents. Further study and research are needed, so this study aims to determine and analyze the effect of Total Quality Management (TQM) on organizational performance in Small and Medium Enterprises (SMEs) with the speed of the innovation process as a mediating variable in culinary SMEs in Bogor City. This research provides insight to SME owners and managers regarding the importance of TQM implementation in improving organizational performance. In addition, this research is also expected to provide information for business people about how the speed of the innovation process can mediate the relationship between TQM and organizational performance to increase competitiveness and business sustainability amid increasingly fierce competition.

METHOD

This research was conducted using quantitative methods. The population in this study consisted of 100 respondents from SMEs in the culinary field in Bogor City. This study uses a purposive sampling technique to determine the sample and data collection using a questionnaire. The questionnaire in this study consisted of 4 structures. The first structure of the questionnaire consists of SME information. The second structure consists of questions related to the dependent variable, namely TQM. The third structure consists of questions related to the independent variable: Organizational Performance in the study. The data analysis method in this study uses descriptive analysis and SEM analysis, which is processed using SmartPLS 4.0 software using PLS methods, namely Evaluation of Measurement Model (Outer Model), Evaluation of Structural Model (Inner Model), Goodness of Fit Model and Important performance Map Analysis.

RESULTS AND DISCUSSION

Convergent Validity

Convergent validity measures the magnitude of the correlation between constructs and latent variables. The reliability of individual items can be checked by assessing the standardized loading factor value. The standardized loading factor describes the correlation magnitude between each measurement item (indicator) and its construct. The loading factor value is ≥ 0.7 , which means that the indicator is said to be valid in measuring the construct and if < 0.7 , it means that the indicator is said to be invalid in measuring the construct. The square value of the loading factor value is called mentality; this value indicates the percentage of the construct that can explain the variation in the indicator. The following are the results of the convergent validity test:

Table 1. Loading Factor Value Before Reduction

Variables	Item	Cut Off	Outer Loadings	Conclusion
TQM	A1	0.7	0.740	Valid
	A2	0.7	0.699	Invalid
	A3	0.7	0.735	Valid
	A4	0.7	0.757	Valid
	B5	0.7	0.408	Invalid
	B6	0.7	0.855	Valid
	B7	0.7	0.698	Invalid
	B8	0.7	0.769	Valid
	B9	0.7	0.748	Valid
	B10	0.7	0.745	Valid
	C11	0.7	0.666	Invalid
	C12	0.7	0.730	Valid
	C13	0.7	0.809	Valid
	C14	0.7	0.738	Valid
	C15	0.7	0.889	Valid
	C16	0.7	0.526	Invalid
	D17	0.7	0.736	Valid
	D18	0.7	0.773	Valid
	D19	0.7	0.757	Valid
	E20	0.7	0.876	Valid
	E21	0.7	0.703	Valid
	F22	0.7	0.107	Invalid
	F23	0.7	0.815	Valid
	F24	0.7	0.811	Valid
	F25	0.7	0.846	Valid
	F26	0.7	0.836	Valid
	G27	0.7	0.710	Valid
	G28	0.7	0.834	Valid
	G29	0.7	0.791	Valid
	G30	0.7	0.820	Valid
	G31	0.7	0.210	Invalid
	H32	0.7	0.725	Valid
	H33	0.7	0.710	Valid
	H34	0.7	0.681	Invalid
	I35	0.7	0.756	Valid
	I36	0.7	0.893	Valid
	I37	0.7	0.824	Valid
	J38	0.7	0.819	Valid
	J39	0.7	0.793	Valid

Variables	Item	Cut Off	Outer Loadings	Conclusion
KO	J40	0.7	0.565	Invalid
	K41	0.7	0.719	Valid
	K42	0.7	0.563	Invalid
	K43	0.7	0.889	Valid
	K44	0.7	0.818	Valid
	K45	0.7	0.828	Valid
	A46	0.7	0.872	Valid
	A47	0.7	0.904	Valid
	A48	0.7	0.865	Valid
	A49	0.7	0.785	Valid
	A50	0.7	0.775	Valid
	A51	0.7	0.670	Invalid
	B52	0.7	0.901	Valid
	B53	0.7	0.877	Valid
	C54	0.7	0.884	Valid
	C55	0.7	0.875	Valid
	C56	0.7	0.793	Valid
	C57	0.7	0.099	Invalid
	D58	0.7	0.453	Invalid
	D59	0.7	0.863	Valid
KPI	D60	0.7	0.882	Valid
	D61	0.7	0.837	Valid
	D62	0.7	0.115	Invalid
	E63	0.7	0.580	Invalid
	E64	0.7	0.852	Valid
	E65	0.7	0.877	Valid
	E66	0.7	0.869	Valid
	A67	0.7	0.829	Valid
	A68	0.7	0.865	Valid
	A69	0.7	0.903	Valid
	A70	0.7	0.890	Valid
	A71	0.7	0.587	Invalid
	B72	0.7	0.744	Valid
B73	0.7	0.836	Valid	
B74	0.7	0.852	Valid	
B75	0.7	0.665	Invalid	
B76	0.7	0.769	Valid	
B77	0.7	0.500	Invalid	
B78	0.7	0.836	Valid	
C79	0.7	0.838	Valid	
C80	0.7	0.847	Valid	
C81	0.7	0.620	Invalid	

Table 2. Loading Factor Value After Reduction

Variables	Item	Cut Off	Outer Loadings	Conclusion
TQM	A1	0.7	0.740	Valid
	A3	0.7	0.735	Valid
	A4	0.7	0.757	Valid
	B6	0.7	0.855	Valid
	B8	0.7	0.769	Valid
	B9	0.7	0.748	Valid
	B10	0.7	0.745	Valid
	C12	0.7	0.730	Valid

Variables	Item	Cut Off	Outer Loadings	Conclusion
	C13	0.7	0.809	Valid
	C14	0.7	0.738	Valid
	C15	0.7	0.889	Valid
	D17	0.7	0.736	Valid
	D18	0.7	0.773	Valid
	D19	0.7	0.757	Valid
	E20	0.7	0.876	Valid
	E21	0.7	0.703	Valid
	F23	0.7	0.815	Valid
	F24	0.7	0.811	Valid
	F25	0.7	0.846	Valid
	F26	0.7	0.836	Valid
	G27	0.7	0.710	Valid
	G28	0.7	0.834	Valid
	G29	0.7	0.791	Valid
	G30	0.7	0.820	Valid
	H32	0.7	0.725	Valid
	H33	0.7	0.710	Valid
KO	A46	0.7	0.872	Valid
	A47	0.7	0.904	Valid
	A48	0.7	0.865	Valid
	A49	0.7	0.785	Valid
	A50	0.7	0.775	Valid
	B52	0.7	0.901	Valid
	B53	0.7	0.877	Valid
	C54	0.7	0.884	Valid
	C55	0.7	0.875	Valid
	C56	0.7	0.793	Valid
	D59	0.7	0.863	Valid
	D60	0.7	0.882	Valid
	D61	0.7	0.837	Valid
	E64	0.7	0.852	Valid
	E65	0.7	0.877	Valid
	E66	0.7	0.869	Valid
KPI	A67	0.7	0.829	Valid
	A68	0.7	0.865	Valid
	A69	0.7	0.903	Valid
	A70	0.7	0.890	Valid
	B72	0.7	0.744	Valid
	B73	0.7	0.836	Valid
	B74	0.7	0.852	Valid
	B76	0.7	0.769	Valid
	B78	0.7	0.836	Valid
	C79	0.7	0.838	Valid
	C80	0.7	0.847	Valid

The table's convergent validity test results state that the items in 61 instruments are declared valid / pass. The results of the outer loadings test on the exogenous construct in this study, namely TQM, where 34 statement items have an outer loadings value ≥ 0.7 , meaning that the statement items are valid and can be used for further testing. However, 10 TQM statement items have an outer loadings value < 0.7 , meaning that the statement item is invalid (drop) and cannot be used for further testing.

Furthermore, the results of the endogenous construct test in this study, namely Organizational Performance (KO), which consists of 21 statement items, have an outer loadings value ≥ 0.7 for as many as 16 items, meaning that the statement items are valid and can be used for further testing. However, 5 KO statement items have an outer loadings value <0.7 , meaning that the statement item is invalid (drop) and cannot be used for further testing.

Finally, the outer loadings test results on the Innovation Process Speed (KPI) have 15 statement items with an outer loadings value ≥ 0.7 , meaning that the statement item is valid and can be used for further testing. However, 4 KPI statement items have an outer loadings value <0.7 , meaning that the statement item is invalid (drop) and cannot be used for further testing.

Based on the table, it can be seen that the indicators above have a factor loading value of more than 0.7 and likewise, with the results of each variable on the AVE value showing a number greater than 0.5,

Discriminant Validity

Comparing the cross-loading value is how to determine discriminant validity, or it can be seen from the AVE root, which must be greater than the correlation between constructs. In this study, the results are as follows:

Table 3. Discriminant Validity

Variables	Item	Cut Off	Outer Loadings
TQM	A1	0.5	0.712
	A3	0.5	0.708
	A4	0.5	0.728
	B6	0.5	0.866
	B8	0.5	0.745
	B9	0.5	0.726
	B10	0.5	0.718
	C12	0.5	0.725
	C13	0.5	0.825
	C14	0.5	0.736
	C15	0.5	0.901
	D17	0.5	0.729
	D18	0.5	0.750
	D19	0.5	0.756
	E20	0.5	0.888
	F23	0.5	0.831
	F24	0.5	0.827
	F25	0.5	0.857
	F26	0.5	0.848
	G27	0.5	0.704
	G28	0.5	0.848
G29	0.5	0.811	
G30	0.5	0.836	
H32	0.5	0.717	
H33	0.5	0.709	
I35	0.5	0.836	
I36	0.5	0.710	
I37	0.5	0.834	
J38	0.5	0.791	
J39	0.5	0.820	
K41	0.5	0.722	
K43	0.5	0.901	

Variables	Item	Cut Off	Outer Loadings
KO	K44	0.5	0.833
	K45	0.5	0.842
	A46	0.5	0.844
	A47	0.5	0.889
	A48	0.5	0.879
	A49	0.5	0.806
	A50	0.5	0.781
	B52	0.5	0.883
	B53	0.5	0.888
	C54	0.5	0.867
	C55	0.5	0.890
	C56	0.5	0.815
	D59	0.5	0.839
	D60	0.5	0.865
D61	0.5	0.855	
KPI	E64	0.5	0.823
	E65	0.5	0.858
	E66	0.5	0.881
	A67	0.5	0.809
	A68	0.5	0.848
	A69	0.5	0.886
	A70	0.5	0.900
	B72	0.5	0.753
	B73	0.5	0.820
	B74	0.5	0.864
	B76	0.5	0.781
	B78	0.5	0.847
	C79	0.5	0.819
	C80	0.5	0.854

According to the information in Table 4, discriminant validity is said to be good if it constructs each variable. This is indicated by the fact that each indicator on the modified variable has a good value.

Table 4. Discriminant Validity

Variables	AVE	Conclusion
TQM	0.639	Valid
KO	0.741	Valid
KPI	0.717	Valid

Composite Reliability and Cronbach Alpha

Composite reliability and Cronbach's alpha of the indicator block that measures the construct are methods for testing construct reliability. The construct is considered reliable if the composite reliability and Cronbach's alpha are greater than 0.70. For each variable, the composite reliability calculation is shown below:

Table 5. Composite Reliability

Variables	Cronbach's Alpha	Composite Reliability	Conclusion
TQM	0.983	0.983	Reliable
KO	0.977	0.982	Reliable
KPI	0.960	0.965	Reliable

The table above is a reference for the final results. Based on the results of the composite reliability and Cronbach alpha tests, it can be seen that all constructs in the composite reliability value and the composite reliability value have a value of more than 0.7, meaning that all variables in this study can be said to be reliable. All variables in the composite reliability and Cronbach alpha tests have sufficient internal consistency in measuring a construct. Therefore, all constructs in this study are declared reliable and can carry out further analytical testing. Based on the results of testing the evaluation of the measurement model (outer model), it can be concluded that this study has adequate and acceptable convergent validity and discriminant validity test results. In addition, the composite reliability and Cronbach alpha tests have adequate internal consistency reliability results. Therefore, researchers can conduct further analytical testing.

Evaluation of Structural Model (Inner Model)

Coefficient of Determination (R2)

R² is defined as a measure to evaluate the inner model. The model represents the variance in the endogenous and associated exogenous constructs. R² is the model predictive power, assessed as the squared correlation between the actual value and the predicted value of the construct on a particular endogenous. R² also represents the amount of variance in an endogenous construct that is explained by all the associated exogenous constructs. That way, the R² value consists of 0.75 strong meaning, 0.50 moderate meaning, and 0.25 weak meaning. The following is a table of R Square values.

Table 6. Coefficient of Determination (R2)

Variables	R-square	Adjusted R-square
KO	0.364	0.352
KPI	0.310	0.304

From the table above, the R-squared value of the competitiveness variable is 0.364. This means that 36.4 per cent of the Organizational Performance variable is influenced by TQM. Then, the Adjusted R-Square value of the Innovation Process Speed variable is 0.304. This means that TQM and organisational performance influence 30.4 per cent of the Innovation Process Speed variable. From these results, the model determination results are obtained as follows:

$$\begin{aligned}
 [R^2_{\text{model}}] &= 1 - (1 - R^2_1) (1 - R^2_2) \\
 &= 1 - (1 - 0,364) (1 - 0,304) \\
 &= 1 - (0,636) (0,696) \\
 &= 1 - 0,442 \\
 &= 0.558 \text{ or } 55.8\%
 \end{aligned}$$

These results obtained an R2 model del of 55.8%, meaning that the effect of TQM on organizational performance with Innovation Process Speed as a mediating variable is 55,8%. In contrast, other variables influence the remaining 44.2.

Path Coefficient

Table 7. Path Coefficient

	Original sample (O)	Sample Mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	Conclusion
TQM -> KO	0.411	0.415	0.093	4.406	Significant
TQM -> KPI	0.557	0.559	0.065	8.595	Significant
KPI -> KO	0.269	0.270	0.076	3.520	Significant
TQM -> KPI	0.150	0.151	0.049	3.073	Significant

	Original sample (O)	Sample Mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	Conclusion
-> KO					

The Effect of TQM on Organizational Performance

From Table 7 above, t-statistic 4.406 is obtained. These results show that the t-statistic (4.406) > t table (1.982) in the original sample column (O) can be seen that there is no negative sign, so it is concluded that TQM has a positive and significant effect on Organizational Performance. Then, the path coefficient value is 0.415. Increasing TQM by one unit will increase Organizational Performance by 0.270 and vice versa, assuming other variables remain.

Effect of TQM on Innovation Process Speed (KPI)

From Table 7 above, the t-statistic is obtained at 8.595. These results show that the t-statistic (8.595) > t table (1.982), in the original sample column (O), it can be seen that there is no negative sign, so it is concluded that TQM has a positive and significant effect on the Speed of the Innovation Process. Then, the path coefficient value is 0.559. Increasing TQM by one unit will increase the Innovation Process Speed by 0.559 and vice versa, assuming other variables remain constant.

Effect of Innovation Process Speed (KPI) on Organizational Performance (KO)

From Table 7 above, a t-statistic of 3.073 is obtained. These results show that the t-statistic (3.520) > t table (1.982), in the original sample column (O), it can be seen that there is no negative sign, so it is concluded that the Innovation Process Speed has a positive and significant effect on Organizational Performance. Then, the path coefficient value is 0.270. This means that every increase in Innovation Process Speed by one unit will increase Organizational Performance by 0.270 and vice versa, assuming other variables remain constant.

The effect of Innovation Process Speed mediates the effect of TQM on Organizational Performance

From Table 7 above, a t statistic of 3.520 is obtained. These results show that t statistics (3.520) > t table (1.982). In the original sample column (O), there is no negative sign, so it is concluded that Innovation Process Speed mediates positively and significantly on TQM and Organizational Performance.

P-Value

Table 8. P-Value

	P values	Conclusion
TQM -> KO	0.000	Significant
TQM -> KPI	0.000	Significant
KPI -> KO	0.000	Significant
TQM -> KPI -> KO	0.002	Significant

The test results with bootstrapping from PLS analysis are as follows:

The Effect of TQM on Organizational Performance (KO)

From Table 8 above, the P value is 0.000. These results show that the P value (0.000) < 0.05, in the original sample column (O), it can be seen that there is no negative sign, so it is concluded that TQM has a positive and significant effect on Organizational Performance.

Effect of TQM on Innovation Process Speed (KPI)

From Table 8 above, the P value is 0.000. These results show the P value (0.000) <0.05; in the original sample column (O), it can be seen that there is no negative sign, so it is concluded that TQM has a positive and significant effect on Innovation Process Speed.

Effect of Innovation Process Speed (KPI) on Organizational Performance (KO)

From Table 8 above, the P value is 0.002. These results show the P value (0.002) <0.05; in the original sample column (O), it can be seen that there is no negative sign, so it is concluded that Innovation Process Speed has a positive and significant effect on Organizational Performance.

The effect of Innovation Process Speed mediates the effect of TQM on Organizational Performance

From Table 8 above, the P value is 0.000. These results show the P value (0.000) <0.05; in the original sample column (O), it can be seen that there is no negative sign, so it is concluded that Innovation Process Speed mediates positively and significantly on TQM and Organizational Performance.

Goodness of Fit Model

The NFI value is between 0 and 1, i.e. the model has a high fit if the value is close to 1.

Table 9. Goodness of Fit Model

Variables	Saturated Model	Estimated Model
SUMMER	0.118	0.118
d_ ULS	26.155	26.155
D_ G	n/a	n/a
Chi-Square	Infinite	Infinite
NFI	n/a	n/a

Importance Performance Map Analysis (IPMA)

Importance Performance Map Analysis (IPMA) is an analytical technique used to evaluate the performance of a product or service based on its importance and performance. Importance Performance Map Analysis (IPMA) can be used to evaluate the influence of the speed of the innovation process that mediates between TQM and organizational performance.

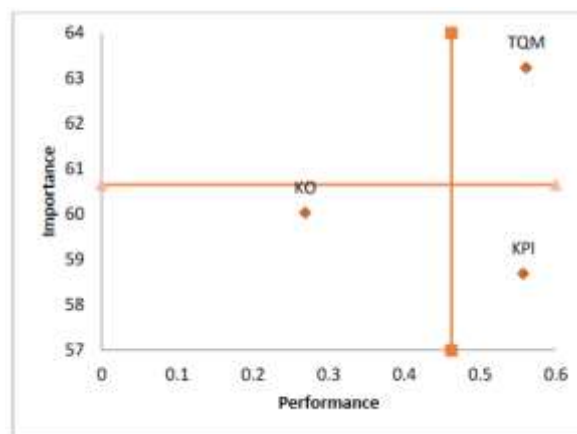


Figure 4. Importance of Performance Map Analysis

Source: Primary Data Processed (2024)

Based on Figure 4, the value results based on the importance of the performance map model (IPMA) analysis can be explained. The results of the importance performance map model (IPMA) analysis can describe the results of the analysis of the effect of Total Quality Management (TQM) on Organizational Performance with Innovation Process Speed as a mediating variable. The results of

the IPMA influence on the speed of the innovation process that mediates between TQM and organizational performance can be seen in Table 10.

Table 10. Importance of Performance Map Analysis per Variable

	Importance	Performance	Quadrant
KO	0.269	60.034	III
KPI	0.557	58.691	IV
TQM	0.561	63.235	II

Source: Primary Data Processed (2024)

Based on Figure 5 above regarding the importance-performance analysis technique, it can be seen that there are three parts, namely:

1. Quadrant I (Keep Up the Good Work): Variables in this quadrant are considered to have an important influence on SMEs, and their performance is also very good. Therefore, companies need to maintain and improve the quality of these variables. In this position, there are no variable attributes in the diagram above.
2. Quadrant II (Opportunity for Improvement): Variables in this quadrant are considered to have an important influence on SMEs, but their performance is not optimal. Therefore, the company needs to make improvements to these variables. Where in this position there are TQM variables.
3. Quadrant III (Possible Overkill): variables in this quadrant are considered to have less important influence by SMEs, but their performance is very good. Where in this position there are KO variables.
4. Quadrant IV (Low Priority): Variables in this quadrant are considered to have a less important influence on SMEs, and their performance is also not optimal. In this position, there are KPI variables.

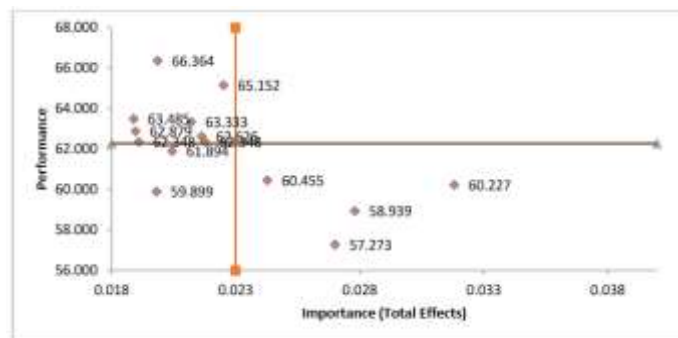


Figure 5. Importance Performance Map Analysis KO

Source: Primary Data Processed (2024)

Table 11. Importance Performance Map Analysis KO

No.	Indicator	Importance	Performance	Quadrant
1.	Strategy-based	0.022	65.152	II
2.	Customer-focused	0.022	66.667	II
3.	Obsession with quality	0.022	62.348	IV
4.	Scientific approach	0.021	62.626	IV
5.	Long-term commitment	0.021	63.333	II
6.	Teamwork	0.019	62.879	I
7.	Continuous process improvement	0.019	62.348	III
8.	Education and training	0.024	60.455	IV
9.	Controlled freedom	0.020	59.899	III
10.	Unity in purpose	0.019	63.485	I

No.	Indicator	Importance	Performance	Quadrant
11.	Employee engagement and empowerment	0.020	61.894	III

Source: Primary Data Processed (2024)

Based on the picture above regarding the importance-performance analysis technique, it can be seen that there are three parts, namely:

1. Quadrant I (Keep Up the Good Work): The indicators in this quadrant are considered to have an important influence on SMEs, and their performance is also very good. Therefore, companies need to maintain and improve the quality of these indicators. In this position, there are indicators: Strategy-based, customer-focused, quality obsession, scientific approach, long-term commitment, teamwork, continuous process improvement, unity in purpose, and employee involvement and empowerment.
2. Quadrant II (Opportunity for Improvement): The indicators in this quadrant are considered to have an important influence on SMEs, but their performance is not optimal. Therefore, the company needs to make improvements to these indicators. In this position, there are no indicators in the diagram above.
3. Quadrant III (Possible Overkill): SMEs consider the indicators in this quadrant to have a less important influence, but their performance is very good. In this position, there is an indicator of controlled freedom.
4. Quadrant IV (Low Priority): The indicators in this quadrant are considered to have a less important influence on SMEs, and their performance is also not optimal. In this position, there are research and development indicators, commercialization, diffusion or dissemination, and education and training.

Discussion

Effect of TQM on Organizational Performance

The analysis shows a positive relationship between Total Quality Management and organizational performance. Based on the results of the estimated coefficient value in the original sample of 0.415 and t-count of 4.406, which is greater than the t-table (1.982). The test results produced a p-value of 0.000, which is smaller than 0.05, so it can be concluded that there is a positive influence between Total Quality Management and Organizational Performance (H_0 is rejected). This shows that the better the implementation of TQM in SMEs, the more SMEs' performance will increase, providing a competitive advantage.

According to (Si, 2012), it is a description of the level of achievement of implementing a program of activities or policies in realizing the goals, objectives, vision, and mission of the organization as outlined in an organization's strategic planning. The application of TQM in SMEs is important for optimal organizational performance. Good output quality and organisational performance assessment are expected by determining the vision and mission and implementing TQM.

Ade Samsinar's research in 2021 explains that Total Quality Management, based on research that has been conducted, is successfully implemented with the cooperation of employees and management. In meeting customer needs and satisfaction, the company provides costs to improve the quality of its production. The limitation of this study is that respondents are not open to filling out questionnaires, so sometimes, some answers do not reflect the actual situation. Some indicators

of the variables tested in this study are of low value, so modifications must be made. This shows that the indicators in TQM do not fully affect performance.

Research (Libaihaqy, 2023) This research focuses on the owner of SME Penatu (Laundry) in Yogyakarta. The owner of SME Penatu (Laundry) must select employees and provide job guidance so that employees can understand, which will strengthen the impact of total quality management on operational performance. To increase customer satisfaction, business actors should accept customer complaints or complaints that will affect the performance of Penatu (Laundry) SMEs in Yogyakarta. In line with research (Marini et al., 2021), research results show that TQM has a significant positive effect on organizational performance, and Innovation does not mediate the effect of Total Quality Management on organizational performance.

With the implementation of TQM, it is expected that SMEs can meet customer expectations by building a good reputation and maintaining market share, as well as creating good human resources, which can increase SMEs' productivity and overall performance. With TQM, SMEs can always evaluate their performance to correct if something is wrong immediately. TQM is an approach to maximizing competitiveness through continuous improvement of services, people, products, and the environment. The combination of efforts to implement the TQM system to improve quality can help SMEs survive in the market so that SMEs can compete with good performance. TQM affects organizational performance, where the organisation's performance will also increase with better and optimal TQM.

Effect of TQM on Innovation Process Speed

It is known that the results of the second hypothesis have an estimated coefficient value of the original sample of 0.473 and a t-count of 2.716, which is greater than the t-table of 1.96. This test's results indicate a relationship between Innovation Speed and Operational Performance with a p-value of 0.007 ($p < 0.05$). This means that Innovation Speed positively influences Operational Performance (H_0 is rejected). Innovation speed is the time that elapses between the discovery of an innovative idea and the results entering the market (Allocca & Kessler, 2006). The speed of the innovation process is the time it takes to turn ideas into new products ready to be marketed. In a competitive market, the speed of Innovation becomes the main focus for companies. The degree to which companies use new concepts and conduct experiments to produce new products is considered an index of Innovation. The speed of Innovation also involves the time elapsed between the discovery of the innovative idea and the new product being launched in the market. TQM plays an important role in implementing an effective and efficient speed of innovation process for SMEs. Innovation is a way for SMEs to maintain their value and advantage in the competitive market.

This is not in line with research (Marini et al., 2021), which explains that based on statistical testing, it appears that Innovation does not mediate the effect of TQM on organizational performance in Bengkulu City MSMEs; it is concluded that Innovation is not a mediating variable. The study results found that TQM implementation is not in line with Innovation because emphasising continuous improvement efficiency will ultimately minimize and eliminate the resources needed to innovate. The efforts made by SMEs to bring about changes in process innovation have no impact on improving organizational performance. This is due to process innovation, marketing, and products produced by the company can be copied quickly by competitors, so the innovations made by the company are only considered special in a very short time, which has an impact on Innovation

does not have a direct impact on improving design performance, process quality, product quality, and customer satisfaction.

In contrast to research conducted by (Khan and Naem, 2018) the (Innov, the foundation can mediate the effect of TQM on organizational performance. In the bu, inss world, competition is inevitable and must be faced with all existing capabilities. The development of the business world with the support of today's increasingly rapid information technology certainly requires creativity and Innovation from management so that competitors do not leave behind companies. Innovation is seen as important in improving organizational performance in the business world (Titioka & Titioka, 2021).

The speed of Innovation is very important for SMEs. It is mandatory for SMEs to be able to choose and implement innovations effectively to face competition and fulfill market desires that often experience erratic demand fluctuations. Therefore, it can be concluded that TQM affects the speed of the innovation process, and the better and more optimal TQM is, the speed of the innovation process will also increase.

The Effect of Innovation Process Speed on Organizational Performance

The analysis results show that the relationship between the speed of the innovation process and organizational performance is positive. Based on the results of the estimated coefficient value in the original sample of 0.270 and the t-count of 3.073, it is greater than the t-table (1.982). The test results produce a p-value of 0.000, which is smaller than 0.05, so it can be concluded that there is a positive influence between the speed of the innovation process and organizational performance (H_0 is rejected). This is in line with research (Libaihaqy, 2023), which concluded that innovation speed positively influences operational performance. Speed in innovation can be the key to excellence against competitors because innovation can improve operational performance. The speed of Innovation can be the key to facing competition; with an increase in operational performance, the company will be able to meet the expectations of consumers so that the SME's goal of making a profit and a growing business will be achieved.

Performance is the result and sum of labour. Furthermore, it can be the result achieved by a person, team, organization, or process (Abu-Mahfouz, 2019). According to (Vesey, 1991), Innovation velocity, also called time to market, is cycle time. Speed-to-market is a term used in the literature to describe the time elapsed between the definition of a new product and the availability of the product. Performance encompasses an individual or industry's achievement against set goals. This can be seen from the results and the amount of labour. Individuals, teams, organizations, or processes can achieve performance. Innovation speed refers to time-to-market, cycle time, and speed-to-market. It describes the time between defining a new product and product availability. A company's level of Innovation can be seen in its ability to use new concepts and conduct experiments. The speed of the innovation process is important for creating good organizational performance. SMEs need to maintain consistency in implementing the speed of the innovation process to achieve optimal performance.

In line with what has been done (Al-Sa'di et al., 2017), process innovation has a positive effect on operational performance. Therefore, a conclusion is drawn: the higher the process innovation is implemented, the higher the operational performance of a business. Process innovation is something that a business should implement.

With good process innovation, by giving birth to a product that has superior value and can provide consumer satisfaction, a business that implements process innovation well will improve operational performance. Process innovation also leads to new methods with the development of resource skills owned by a business, so the development of resources that have been owned also positively affects the performance of SMEs. With this, the higher the innovation process is implemented, the operational performance of a business will also continue to increase. SMEs also need to choose wisely the innovations that will be used in supporting operational performance, whether using these innovations needs to be developed with other combinations or only focus on existing innovations. So, the speed of the innovation process affects organizational performance, where the better and more optimal the speed of the M innovation process, the performance will also increase.

The effect of Innovation Process Speed mediates the effect of TQM on Organizational Performance

The results of hypothesis testing show that the relationship between Total Quality Management (TQM) variables on company performance mediated by Innovation has a value of t-count obtained of $3.073 > 1,982$ (t-table). The test results show that the relationship between variables has a p-value of 0.008 ($p < 0.05$), meaning that the speed of the innovation process is said to be able to mediate the relationship between Total Quality Management (TQM) and organizational performance. From these results, H4 is accepted, which means that total quality management (TQM) has been proven to positively affect organizational performance through the speed of the innovation process.

Total Quality Management (TQM) practices can improve organizational performance by involving all levels of employees to make continuous improvements. TQM is an approach to improve business efficiency, flexibility, and competitiveness. However, there is also a view that TQM does not influence financial performance. In addition, Innovation also plays an important role in improving organizational performance. Previous studies show that Innovation can improve organizational performance through competitive advantage. However, more research must be done to understand the mechanism underlying the relationship between Innovation, speed, and quality in influencing firm performance (Mahmood et al., 2014).

The results of this study are in line with research conducted by (Antunes et al., 2017) and (Arshad et al., 2016), which proves the mediating effect of Innovation on the influence between Total Quality Management (TQM) and company performance. Effective implementation of Total Quality Management (TQM) by MSMEs can drive Innovation in processes, marketing and products. Innovation is carried out in the hope of maintaining quality, meeting consumer needs, and making improvements on an ongoing basis so that these SMEs can survive market competition.

In line with Libaihaqy (2023), the speed of Innovation plays an important role in creating more value for the organization and securing the company's advantage in meeting market demands. The speed of innovation will allow companies to implement TQM optimally to improve operational performance. Innovation speed can mediate the relationship between total quality management and operational performance.

Thus, the effective application of Total Quality Management (TQM) by SMEs can increase the speed of the innovation process, which impacts SME performance. TQM is a structured system that improves managerial performance by continuously improving the company's activities, strategies, performance, and quality of service to increase customer satisfaction.

CONCLUSION

This study aims to determine whether Total Quality Management (TQM) has an effect on Organizational Performance with the mediation of Innovation Process Speed. Primary data was obtained from several SMEs in Bogor City, with the population used in this study being SMEs in Bogor City, and the number of samples used in the observation was 110. This study analyzes the effect of Total Quality Management (TQM) on Organizational Performance and the effect of TQM on Innovation Process Speed. In addition, this study analyzes the effect of organizational performance on innovation process speed and the role of KPI in mediating the influence between TQM and KO. The main objective of this research is to prove the effect of Total Quality Management (TQM) on Organizational Performance in Small and Medium Enterprises (SMEs), with Innovation Process Speed as a mediating variable, in a case study of SMEs in Bogor City. Based on the research results described in the previous chapters, it can be concluded that (1) TQM significantly has a positive influence on organizational performance, (2) TQM significantly has a positive influence on the speed of the innovation process, (3) The speed of the innovation process significantly has a positive influence on organizational performance, and (4) there is a positive relationship and influence between Total Quality Management and organizational performance mediated by the speed of the innovation process.

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