



Relationship of Information Technology, Total Quality Management, Training, Reward, and Education on MSME Performance

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Abstract: MSMEs are critical to economic growth but often face challenges that limit their performance. The research examines the influence of information technology, Total Quality Management (TQM), training, rewards, and level of education on the performance of Micro, Small, and Medium Enterprises (MSMEs) in Padang. The research population comprised all MSME business actors in Padang, totaling 42,452 business units. The number of samples was determined using the Slovin formula; therefore, the number of samples in this study was 397 units. Data collection was carried out by distributing questionnaires. Data analysis will be performed using Structural Equation Modeling (SEM) with Smart-PLS software. The research results show that information technology, training, and education levels positively and significantly influence the MSME's performance. However, TQM and reward do not have a significant influence on MSMEs in Padang. This research recommends that MSMEs utilize and use information technology in their operations. Then, MSME business people must include employees in functional training and select employees with a higher level of education. This research contributes to understanding how Information Technology, Total Quality Management, Training, Reward, and Education collectively impact MSMEs' performance, providing valuable insights for improving their operational efficiency and growth.

Keywords: education; information technology; msme performance; reward; total quality management; training

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INTRODUCTION

In the business world, performance is the center of attention for big and small businesses. Therefore, much research is related to performance in various studies. Performance is a condition that must be known and communicated to certain parties to determine the level of achievement of an agency's results concerning the vision carried out by an organization and the positive and negative impacts of an operational policy (Tahir et al., 2014). The need for skilled workers in various fields is a global demand that cannot be postponed any longer. To overcome this very complex problem, companies, both large and small scale, must improve their company performance by improving their employees' performance. A company's success in enhancing its performance depends on the quality of Human Resources (HR) involved in work or work, so companies must have competent employees (Goswami, 2018).

The problem is that the turnover of MSMEs in Padang remains relatively low, indicating underlying performance issues within these enterprises. Although MSMEs in Padang have significant growth potential, with an estimated turnover of 1.3 trillion IDR in 2023, this figure still falls short compared to other larger cities in Sumatra, Indonesia. According to data from the Department of Cooperatives and MSMEs, Padang's MSMEs struggle to reach their full market potential, which is a critical concern for local economic development. The relatively low turnover could be attributed to several factors, such as limited access to technology, inadequate management practices, lack of skilled workforce, and inefficient operational strategies. Furthermore, while the growth potential is evident, MSMEs in Padang have not fully capitalized on opportunities for innovation, quality management, and employee development. Addressing these performance gaps is essential for improving the competitiveness of MSMEs in Padang, enhancing their contribution to the regional economy, and bridging the performance gap with other major cities in the region.

For MSMEs, information technology is the primary choice for expanding market share (Chae et al., 2014). In today's digital age, where market competition is increasingly fierce, information technology offers businesses the tools necessary to survive and thrive. It facilitates the development of innovative business models, enhances operational efficiency, and allows MSMEs to engage with a broader customer base, leading to more significant growth opportunities (Behl et al., 2022). Information technology must be utilized optimally to make more accurate decisions and more effective and efficient operations. The use of information technology needs to be researched because business people need this in evaluating performance. Information technology can also increase turnover and achieve more expansive growth (Mithas & Rust, 2016). Implementing TQM in MSMEs is one of the factors that can increase sales (Gupta et al., 2016). Total Quality Management (TQM) is a business strategy involving all organization members to increase customer satisfaction. Effective implementation

of TQM in MSMEs will influence the quality of MSME managerial performance, increasing productivity, competitiveness, and sales profits (Gupta et al., 2017). The implementation of TQM starts from the strategic decisions of company leaders (Mukhopadhyay, 2016). Therefore, TQM will succeed if top managers have visionary leadership, communication, and good strategic planning skills. TQM also will not run well without the participation of all organization members. Therefore, the implementation of TQM must be implemented well.

Training is essential to strengthen the competitiveness of MSMEs (Bhat et al., 2021). MSMEs that invest in training programs benefit from acquiring new technical or managerial skills and expanding their professional networks. Training sessions allow business owners to connect with fellow entrepreneurs, sharing insights and experiences and creating opportunities for collaboration, partnerships, and resource sharing (Aulia et al., 2024). By making new acquaintances with other entrepreneurs, MSMEs can establish business collaborations. The central and regional governments often conduct various training sessions for MSME businesspeople. Several previous studies stated that multiple trainings carried out by MSMEs have been able to improve the performance of MSMEs (Ebitu et al., 2016; Nursini, 2020).

A reward is a form of appreciation or remuneration given to a person or group for behaving well, performing excellence or achievement, contributing, or successfully carrying out the assigned tasks according to the targets set (Ngwa et al., 2019). Rewards can be cash, bonuses, allowances, salary increases, vacations, or non-monetary awards such as certificates, trophies, or public recognition (Fisher, 2015). Rewards can come from the MSMEs or the central or regional government. In MSMEs, rewards can come from multiple sources, including the business owners themselves or external entities such as the central or regional governments. Many governments offer reward programs or financial incentives to encourage innovation, entrepreneurship, or performance excellence within the MSME sector. These rewards may include grants, subsidies, tax relief, or special recognition through awards and public ceremonies.

Education is essential to improve the performance of MSMEs (Esubalew & Raghurama, 2020). Company leaders must not only have a proper level of education; every company member must have it (Kotter, 2017). Education is a learning process obtained by every human being (student) to be able to make that human being (student) understand and be more mature and able to make humans (students) more critical in thinking (Martaida et al., 2017). Previous research shows a relationship between information technology, Total Quality Management (TQM), training, rewards, and education on MSME performance. However, there has been no comprehensive research on MSMEs in Padang. Apart from that, the turnover of MSMEs in Padang is still lower than in other cities on the island of Sumatra, making this research worth continuing.

Information technology (IT) uses computers, storage, networks, and other physical devices, infrastructure, and processes to create, process, store, secure, and exchange electronic data (Rajaraman, 2018). Often, the term IT is applied to computers and computer-based systems. However, the root of the word technology shows that it is a "tool" to achieve goals (Fishman et al., 2016). Various previous studies have found that IT can improve the performance of MSMEs (Behl et al., 2022; Chae et al., 2014; Mithas & Rust, 2016). Performance improvements that occurred include increasing sales, increasing the number of customers, and increasing the number of partners. However, previous research conducted by Adinigrat (2023) stated that the use of IT at the small business level does not significantly influence the performance of MSMEs. It happened because the implementation and use of IT cost more than the company's profits (Adinigrat et al., 2023).

H1: Information Technology has a significant influence on MSME performance

Total Quality Management (TQM) is a business strategy involving all organization members to increase customer satisfaction. Effective implementation of TQM in MSMEs will influence the quality of MSME managerial performance, increasing productivity, competitiveness, and sales profits (Gupta et al., 2017). There are five main elements in implementing TQM, namely: (1) Focusing on customers, (2) Systematic process improvements, (3) Long-term thinking, (4) Human resource development, and (5) commitment to quality (Ebitu et al., 2016; Bouranta et al., 2017). Previous studies have found that implementing TQM can improve company and organizational performance (Gupta et al., 2016, 2017); (Qasrawi et al., 2017). However, several previous studies have found that implementing TQM did not significantly affect performance (Shafiq et al., 2019).

H2: Total Quality Management (TQM) has a significant influence on MSME Performance

MSME training is provided to small and medium businesses in various forms (Durst & Henschel, 2024). Usually, the forms of training are adjusted to the field the business is entering (Mukherjee, 2018). MSME training includes (1) Business and Financial Management Training, (2) Marketing Management Training, (3) Operational and HR Management Training, (4) Branding Strategy Training, and (5) Public Speaking and Business Negotiation Training (Indarti, 2021). Several previous studies stated that various trainings carried out by MSMEs have been able to improve the performance of MSMEs (Ebitu et al., 2016); (Nursini, 2020). However, the results of other research conducted by Ebitu et al. (2016) found that training could not significantly affect the performance of MSMEs.

H3: Training has a significant influence on MSME Performance

Rewards in the work context can be interpreted as a form of appreciation or appreciation given by the company to employees as a form of recognition for their above-and-beyond performance or achievement of predetermined targets (Ebitu et al., 2016). Providing incentives is a stronger motivation for employees to improve the quality of their performance (Shuming et al., 2024). Awards given by the company significantly influence the productivity and tendency of employees to stay with the organization. Rewards include salary increases, holidays, bonuses, and employee profit sharing (Reddy, 2020). Several previous studies have examined the relationship between rewards and performance. Research conducted by McGraw (2015) and Malik et al. (2015) states that high rewards will lead to increased performance. Meanwhile, research conducted by Hameed et al. (2014) found no relationship between rewards and increased performance.

H4: Reward has a significant influence on MSME Performance

The definition of education is the process of changing the attitudes and behavior of a person or group of people to mature humans through teaching and training efforts (Burns, 2020). Meanwhile, according to Ikhwan et al. (2020), education is conscious guidance or mentoring by educators to provide physical and spiritual development toward forming a primary personality. Education pathways in Indonesia are divided into three parts: formal, non-formal, and informal (Fakhruddin, 2019). It can be concluded that formal, non-formal, and informal education can only be distinguished but cannot be separated because the success of education in the sense of realizing educational output in the form of human resources depends on the relationship of these three sub-systems to success. Based on previous research conducted by Bunce et al. (2017) and Pascal et al. (2017), education will influence performance. Meanwhile, other research by Babalola (2016) stated that education level has no relationship to performance.

H5: Education has a significant effect on MSME performance

This research presents a novel approach by exploring the combined influence of information technology, Total Quality Management (TQM), training, rewards, and education on the performance of MSMEs, particularly within the context of Padang. While existing studies have examined these factors individually, few have analyzed their collective impact on MSME performance in an integrated manner. By applying Structural Equation Modeling (SEM) with Smart-PLS software, this study provides a robust statistical framework for understanding the interrelationships between these variables. Furthermore, the focus on MSMEs in Padang adds a regional dimension, offering insights specific to local economic conditions and challenges. This research fills a gap in the literature by providing empirical evidence on how these key business practices can drive performance in MSMEs, which has been less explored in similar regional studies.

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This study contributes to the scientific field by enhancing the understanding of the factors that influence MSME performance, especially in emerging markets. The research offers valuable insights into how MSMEs can leverage these elements to improve their operational efficiency and growth by investigating the relationships between information technology, TQM, training, rewards, and education. The findings provide practical implications for policymakers, business owners, and academics aiming to strengthen MSMEs' competitive edge. Additionally, the research methodology using SEM with Smart-PLS offers a comprehensive and statistically rigorous approach to evaluating complex relationships, serving as a model for future studies in the field. This study has several limitations that may affect the generalizability of its findings. First, the research focuses solely on MSMEs in Padang, which may not fully represent MSMEs in other regions or countries with different economic conditions. Second, the data collection relies on self-reported questionnaires, which may introduce biases based on participants' perceptions or responses.

METHODS

This research uses a quantitative approach. A quantitative approach explains phenomena by collecting numerical data and analyzing it using mathematical methods (Bergin, 2018). The population comprised all MSME business people in Padang, totaling 42,452 business units. The number of samples was determined using the

Slovin formula; therefore, the number of samples in this study was 397 units. The respondents of this research are owners or directors of MSMEs. Distribution The questionnaire was distributed using Google Forms. The research instrument for collecting data was a questionnaire compiled using a Likert scale. Likert Scale consisting of (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree were used in the answer section.

The variables used in this research consist of dependent and independent variables. The dependent variable is the MSME performance (Y). The independent variables used in this study are information technology (X1), Total Quality Management (TQM) (X2), reward (X3), and education (X4). MSME performance (Y) consists of seven dimensions (1) Effectiveness, (2) Efficiency and utilization, (3) Productivity, (4) quality, (5) quality of work life, (6) innovation (7) profitability and budget compliance (Bagodi et al., 2021); (Adiningrat et al., 2023) The information technology (X1) variable consists of four dimensions: (1) IT infrastructure, (2) organizational structure, (3) strategic alignment, and (4) individual learning (Nikoloski, 2014). Total Quality Management (TQM) (X2) consists of eight dimensions: (1) executive commitment, (2) adopting philosophy, (3) closer to the customer, (4) closer to the supplier, (5) benchmarking, (6) training, (7) open organization, (8) employee empowerment, (Sanjaya & Mayola, 2019). Training (X3) consists of five dimensions: (1) objectives, (2) trainee, (3) instructor, (4) materials, and (5) method (Ritzmann et al., 2014). Reward (X4) consists of five dimensions: (1) wages, (2) salary, (3) incentives, (4) allowance, and (5) recognition (Abera, 2017). Education consists of three dimensions: (1) Formal, (2) Non-formal, and (3) Informal (Fakhruddin, 2019). The operational definition and measurement of variables is presented in Table 1.

Table 1. Operational Definitions and Measurement

Variables	Operational Definition	Indicators	Reference
MSME performance (Y)	The overall ability of MSMEs to satisfy their stakeholders from a financial and non-financial perspective	1. Effectiveness 2. Efficiency and utilization 3. Productivity 4. Quality 5. Quality of work life 6. Innovation 7. Profitability and budget compliance	(Bagodi et al., 2021); (Adiningrat et al., 2023)
Information Technology (X1)	All forms of technology are used to create, store, change, and use information in all its forms.	8. IT Infrastructure 9. Organizational structure 10.Strategic alignment 11.Individual learning	(Nikoloski, 2014)
Total Quality Management (X2)	The management approach to an organization is focused on quality, based on the participation of all human resources, and aimed at long-term success.	12.Executive commitment 13.Adopting philosophy 14.Closer to customer 15.Closer to supplier 16.Benchmarking 17.Training 18.Open organization 19.Employee empowerment	(Sanjaya & Mayola, 2019)
Training (X3)	Training that is specific to the field into which the MSMEs are entering	20.Objectives 21.Trainee 22.Instructor 23.Materials 24.Method	(Ritzmann et al., 2014)
Reward (X4)	A form of appreciation or remuneration given to a person or group for having performed well or excellently or achieved, contributed, or succeeded in carrying out the assigned tasks according to the targets set.	25.Wages 26.Salary 27.Incentives 28.Allowance 29.Recognition	(Abera, 2017)
Education (X5)	The process of changing the attitudes and behavior of a person or group of people to mature humans through teaching and training efforts, educational processes, methods, and actions	30.Formal 31.Non-formal 32.Informal	(Fakhruddin, 2019)

The analysis used in this study consists of convergent validity test, discriminant validity test, reliability test, composite reliability test, multicollinearity test, the goodness of fit test, coefficient determination test, direct effect, and an indirect effect by using Smart-PLS.

RESULT AND DISCUSSION

This section describes the research results and analysis of data collected through distributing questionnaires that the author carried out in October - November 2023. The author will analyze the data that has been collected according to the main problem. The results of data processing are information that will later show whether the hypothesis that has been formulated can be accepted or rejected. The respondents in this research were all MSMEs in Padang who participated. The demographic results from 397 respondents are in Table 2.

Table 2. Respondent Profile

Demographic	Frequency	Percentage (%)
Gender		
Male	255	64.23
Female	142	35.77
Marital Status		
Single	207	52.14
Married	190	47.85
Age		
<25	43	10.83
26≤ 30	69	17.38
31≤35	36	9.00
36≤40	54	13.60
41≤45	99	24.93
46≤50	47	11.83
51≤55	27	6.8
> 55	22	5.54
Type of Business		
Culinary	241	60.70
Fashion	60	15.11
Agribusiness	96	24.18

Source: Data processed by authors, 2024

The results of data processing with Smart-PLS are presented in Figure 1.

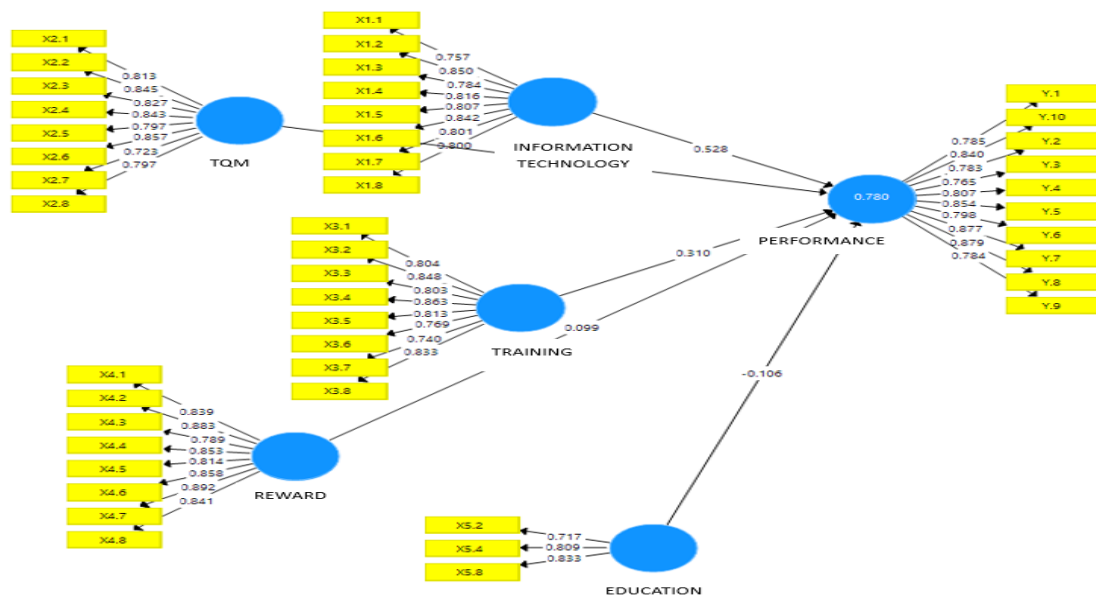


Figure 1. Smart-PLS Analysis Result

The results of the convergent validity test contained in Figure 1 indicate that the indicators used in this study are classified as valid. This can be seen from the factor loading value in each variable, which is > 0.5.

Based on the structure of the outer model, the following model equation can be formed: $Y = 0.528 X_1 - 0.043 X_2 + 0.310 X_3 + 0.099$. The results of the discriminant validity test are shown in Table 3.

Table 3. Discriminant Validity Test Result

Variables	X ₁	X ₂	X ₃	X ₄	X ₅	Y
X ₁	0.719					
X ₂	0.554	0.754				
X ₃	0.655	0.601	0.687			
X ₄	0.541	0.301	0.422	0.697		
X ₅	0.430	0.544	0.523	0.459	0.718	
Y	0.453	0.701	0.510	0.532	0.710	0.735

Source: Data processed by authors, 2024

Based on Table 3 above, it can be seen that the data is classified as valid because the average variance is > the correlation of the latent variables. Then, The reliability test and composite reliability test results are shown in Table 4.

Table 4. Reliability Test and Composite Reliability Test Result

Variables	Cronbach's Alpha	rho_A	Composite Reliability
X1	0.839	0.892	0.906
X2	0.875	0.879	0.890
X3	0.832	0.835	0.860
Y	0.875	0.888	0.891
Z	0.895	0.899	0.902

Source: Data processed by authors, 2024

Based on Table 4 above, it can be concluded that the variables are classified as reliable because of Cronbach's value and composite reliability value > 0.7. The result of the multicollinearity test is shown in Table 5.

Table 5. Multicollinearity Test Result

Indicator	VIF	Indicator	VIF	Indicator	VIF	Indicator	VIF	Indicator	VIF	Indicator	VIF
X1.1	1.355	X2.1	2.556	X3.1	2.302	X4.1	1.189	X5.2	2.236	Y.1	2.201
X1.2	1.223	X2.2	2.723	X3.2	1.863	X4.2	1.620	X5.4	2.220	Y.10	2.386
X1.3	1.258	X2.3	2.223	X3.3	1.225	X4.3	1.688	X5.8	2.225	Y.2	2.332
X1.4	2.112	X2.4	1.663	X3.4	1.988	X4.4	1.356			Y.3	1.679
X1.5	2.225	X2.5	2.112	X3.5	3.203	X4.5	1.994			Y.4	1.782
X1.6	2.112	X2.6	1.922	X3.6	2.102	X4.6	1.763			Y.5	2.330
X1.7	2.582	X2.7	1.618	X3.7	2.963	X4.7	2.533			Y.6	1.730
X1.8	2.002	X2.8	3.976	X3.8	2.655	X4.8	1.902			Y.7	2.303
										Y.8	3.446
										Y.9	3.100

Source: Data processed by authors, 2024

Based on the calculations in Table 5, the data does not have symptoms of multicollinearity because the value of each VIF indicator is < 10. The results of the goodness of fit test from the proposed model are in Table 6 below:

Table 6. The Goodness of Fit Test Result

Method	Saturated Model	Estimation Model
SRMR	0.081	0.081
d_ULS	14.518	14.518
d_G	6.484	6.484
Chi-Square	2.412.107	2.412.107
NFI	0.242	0.242

Source: Data processed by authors, 2024

Based on Table 6 above, it can be concluded that the model is feasible because of the value of Standardized Root Mean Square Residual (SRMR) < 0.1. Furthermore, the Normed Fit Index (NFI) value is between 0 and 1. The result of the coefficient determination test is shown in Table 6.

Table 6. Coefficient Determination Test

Model	R Square	Adjusted R Square
X1, X2, X3, X4, X5 -> Y	0,780	0,768

Source: Data processed by authors, 2024

Based on Table 6, it can be seen that the Adjusted R Square value is 0.768 or 76.8%. In the table above, it can be seen that the R-Square value for the MSME performance (Y) construct is 0.768 or 76.8%, indicating the magnitude of influence exerted by the constructs of Information Technology (IT) (X1), Total Quality Management (TQM) (X2), Training (X3), Reward (X4) and Education (X5) in explaining or influencing MSME performance (Y) and the remainder is 23.2 % influenced by other variables not examined in this study. Then the path coefficient is shown in Table 7 below:

Table 7. Path Coefficients

Relationship	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Information Technology (X1)-> MSME performance (Y)	0,528	0,502	0,159	3,313	0,001
Total Quality Management (TQM) (X2) -> MSME performance (Y)	-0,043	-0,023	0,206	0,207	0,836
Training (X3)-> MSME performance (Y)	0,310	0,319	0,155	1,999	0,046
Reward (X4)-> MSME performance (Y)	0,099	0,097	0,118	0,840	0,401
Education (X5)-> MSME performance (Y)	0,106	0,103	0,052	2,030	0,043

Source: Data processed by authors, 2024

Hypothesis testing results are accepted if the original sample value is positive, t-statistics > 1.96, and P values < 0.05. Meanwhile, hypothesis testing is rejected if the t-statistic value is < 1.96 and the P value is > 0.05. Based on the results of data processing using SmartPLS in Table 7, the t-statistic value for the variable use of information technology is 3.313 > t-table 1.96, and the p-value is 0.001 < 0.05, so it is concluded that the use of information technology has a significant effect on the performance of MSMEs. Thus, the hypothesis is accepted. The higher the use of information technology, the higher managerial performance will be. Integrating Information Technology (IT) in Micro, Small, and Medium Enterprises (MSMEs) has become a key driver of business performance in today's digital age. Information technology (X1) plays a crucial role in enhancing the operational efficiency of MSMEs by streamlining processes, improving communication, and facilitating data management. In the context of MSMEs, adopting IT can significantly improve productivity, reduce operational costs, and enable better decision-making. This aligns with the [Rajaraman \(2018\)](#) theory, which states that companies that utilize computer software (software) will help them more easily organize, store, change, and receive financial reports electronically. So that activities are carried out effectively and efficiently. The effective and efficient execution of activities is fundamental for the growth and success of MSMEs, and the integration of Information Technology (IT) plays a pivotal role in achieving this goal. By adopting IT solutions, MSMEs can automate routine tasks, streamline workflows, and enhance the overall management of operations. This saves valuable time and reduces human error, ensuring that resources are utilized optimally. IT tools such as enterprise resource planning (ERP) systems, customer relationship management (CRM) software, and accounting applications provide businesses with real-time data and insights, enabling them to make informed decisions. In the end, this will improve the organization's performance and influence the performance of its employees. These results are in line with previous research conducted by [Behl et al. \(2022\)](#), [Chae et al. \(2014\)](#), and [Mithas and Rust \(2016\)](#)

Based on the results of data processing using SmartPLS in Table 7, the t-statistic value for the TQM variable is 0.207 < t-table 1.96, and the p-value is 0.836 > 0.05, so it is concluded that TQM has no significant effect on managerial performance; thus hypothesis rejected. TQM is a system that elevates quality as a business strategy and is oriented towards customer satisfaction involving all organization members. The implementation of TQM cannot be separated from employee performance assessment. Focus on customers does not affect the performance of MSMEs. For many MSMEs, the resources and capacity to fully implement TQM practices may be limited, leading to a lack of systematic, organization-wide commitment to quality improvement. TQM typically requires a strong, continuous commitment from top management, extensive employee involvement, and investment in training and infrastructure—resources that may not be readily available in smaller enterprises.

This result does not align with research conducted by Gupta et al. (2016) and Qasrawi et al. (2017). However, this result aligns with research conducted by Shafiq et al. (2019). Implementing TQM requires quite a large amount of money, so implementing TQM in MSMEs will increase costs so that it does not have a significant impact on performance. For many MSMEs, adopting a systematic, organization-wide approach to quality improvement can be difficult due to resource constraints, including financial limitations and a lack of dedicated personnel. Moreover, TQM demands a high level of commitment from top management, a continuous focus on quality improvement, and substantial investments in employee training and infrastructure, all of which can be overwhelming for smaller organizations. Without these foundational elements, customer satisfaction and quality management focus may not translate into improved performance.

Based on the results of data processing using SmartPLS in Table 7, the t-statistic value for the training variable is $1.999 > t\text{-table } 1.96$, and the p-value is $0.046 < 0.05$, so it is concluded that training has a significant effect on the performance of MSMEs; thus the hypothesis accepted. This is in line with research conducted by Ebitu et al. (2016) and Nursini (2020), which stated that training significantly influenced the performance of MSMEs. Training has a significant effect on the performance of MSMEs because it has a positive effect on the performance of operational employees. Operational employees feel that the owner has adjusted the training material provided to the existing work processes in the business. Therefore, the match between training and the needs of MSMEs is crucial and must be improved. If the training does not suit the needs of MSMEs, it will not be able to improve performance and will waste time. In Padang, where MSMEs face increasing competition and rapidly changing market dynamics, training becomes a key tool for fostering innovation and adapting to new industry trends. When employees are well-trained, they are better able to contribute to the growth and development of the organization, which directly enhances business performance (Y). Training also helps reduce errors, improve problem-solving skills, and foster a culture of continuous improvement within the business, all of which can contribute to increased customer satisfaction and loyalty (Rane et al., 2023).

Based on the results of data processing using SmartPLS in Table 7, the t-statistic value for the reward variable is $0.840 < t\text{-table } 1.96$, and the p-value is $0.401 > 0.05$, so it can be concluded that rewards do not have a significant effect on managerial performance, thus hypothesis rejected. This aligns with previous research (Hameed et al., 2014). If the reward cost exceeds the reward, employees are not motivated to improve their performance. So, the performance of MSMEs also did not experience a significant increase. MSME employees prefer to work as usual rather than having to improve their performance to get rewards. This happens because employees are already in a comfort zone when working in MSMEs, so the motivation to improve performance is lost (Maheshwari et al., 2020). MSMEs often face budget constraints, limiting their ability to offer substantial financial incentives or attractive reward packages compared to larger enterprises. This might result in employees not perceiving rewards as a significant motivator, particularly if the rewards are not directly tied to performance or are perceived as insufficient. Additionally, non-monetary rewards, such as recognition and career development opportunities, may not be adequately emphasized, which could diminish their effectiveness in motivating employees.

Based on the results of data processing using SmartPLS in Table 7, the t-statistic value for the education level variable is $2.030 > t\text{-table } 1.96$, and the p-value is $0.043 < 0.05$, so it is concluded that the level of education has a significant effect on managerial performance, with Thus the hypothesis is accepted. These results align with previous research (Bunce et al., 2017; Pascal et al., 2017). Formal education can shape employee character for the better. Non-formal education helps develop employee potential, emphasizing mastering functional knowledge and skills and developing professional attitudes and personality. Informal education forms employee character and personality adapted to needs, abilities, and development. In Padang, MSMEs with educated business owners and employees often exhibit enhanced problem-solving abilities, better operational management, and a deeper understanding of market trends and customer needs. Educated individuals are more likely to adopt modern management techniques, improve product quality, and use advanced technologies to streamline operations. Furthermore, finance, marketing, and entrepreneurship education enable business owners to navigate challenges more effectively, make data-driven decisions, and align their strategies with market demands.

CONCLUSION

Based on the data analysis and interpretation of research results and discussions presented previously, several conclusions can be drawn from the research results where information technology, training, and level of education have a significant positive effect on the performance of MSMEs. However, TQM and rewards do not significantly influence the performance of MSMEs in the city of Padang. This study recommends that MSME owners in Padang pay more attention to and encourage employee morale by improving the IT infrastructure. By leveraging information technology, MSMEs can streamline operations, enhance customer interactions, and access broader markets, directly contributing to higher efficiency and profitability. Then, MSMEs provide training that suits the needs of MSMEs and employees and recruit employees with good education. Whether technical

or managerial, training programs equip employees with the skills needed to improve productivity, reduce errors, and foster innovation, all of which positively impact business performance. High performance in MSMEs will be created when employees carry out tasks independently without coercion or intervention from other parties. MSME owners can support employee creativity, and employees will continue obeying regulations without supervision. Owners can also be involved in serving customers. For researchers, measurements of MSME performance can be expanded, or other factors can be added that can influence MSME performance both in Padang and the West Sumatra region. Applying the research results can help MSMEs in Padang focus on areas that have a proven positive impact on their performance—namely, the integration of information technology, investment in employee training, and fostering a culture of education. By doing so, MSMEs can enhance their competitiveness, increase operational efficiency, and achieve sustainable growth. At the same time, it may be necessary to reconsider how TQM and reward systems are applied to ensure they align more closely with MSMEs' specific needs and capacities.

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