Impact of Total Quality Management on Operational Performance in Nepalese Commercial Bank

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Abstract

This study examines the impact of total quality management on operational performance in Nepalese commercial bank. Operational performance is the dependent variable. The selected independent variables are TQM practices, organizational culture, technology and process improvement, customer relationship management and regulatory compliance. The primary source of data is used to assess the opinions of respondents regarding TQM practices, organizational culture, technology and process improvement, customer relationship management, regulatory compliance and operational performance. The study is based on primary data of 125 respondents. To achieve the purpose of the study, structured questionnaire is prepared. The correlation and multiple regression models are estimated to test the significance and importance of impact of total quality management on operational performance of Nepalese commercial bank.

The study shows that TQM practices is positively correlated to operational performance indicating that better TQM practices lead to increase in operational performance of commercial bank. Similarly, organizational culture is positively correlated to operational performance. It indicates that supportive organizational culture leads to increase in operational performance. Likewise, technology and process improvement are positively correlated to operational performance. It indicates that use of updated technology and process improvement lead to increase in operational performance. Further, customer relationship management is also positively correlated to operational performance. It indicates that practice of customer relationship management lead to increase in operational performance. In addition, regulatory compliance is positively correlated to operational performance. It indicates that effective regulatory compliance leads to increase in operational performance.

Keywords: TQM practices, organizational culture, technology and process improvement, customer relationship management, regulatory compliance, operational performance

1. Introduction

Total quality management describes a management approach to long- term success through customer satisfaction. TQM is an important aspect in the modern business environment because it is a management approach that seeks to promote the `long-term success of an organization along with the customer satisfaction. In TQM, all members in an organization provide their contribution in order to improve the process, products and services and the culture which they used to work. TQM uses different strategies, data and effective communication modes to integrate the quality discipline to the culture and the activities of an organization. TQM utilizes both quantitative (technical) methods and human resource (behavioral) practices to improve material and service inputs, intra and inter organizational processes, and to sharpen the focus on meeting customers' needs (Forker, 1997). The idea behind TQM implemented in organization to bring the quality of performance in terms of financial, operational, organizational and employees. The customer usually chooses the product or services that have high quality. Same as in TQM, when the TQM is appropriately implemented in the organization, it could bring to the quality of performance in terms of financial, operational, organizational and employees. TQM is one of the business

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management strategy which play an important role to gain awareness of the quality in all organization processes (Abdul, 2018). Similarly, every product or services have their own desired quality that should be achieve by the organization through the cooperation of employees and employer. Likewise, Alsaidi (2014) highlighted the challenges to implement TQM that can come from the top management commitment. Further, Magd (2014) explored the benefit of total quality management and implementation in manufacturing organizations through promoting exports, improving business performance, holding competitive advantage alongside customer and employee satisfaction.

Saffar *et al*. (2020) examined the effect of total quality management practices on employee performance. The study found that TQM practices with its dimensions had effects on employee performance through knowledge sharing. Similarly, Shafiq *et al. (*2019) analyzed the effect of TQM on organizational performance: empirical evidence from the textile sector of a developing country using SEM. The study found that TQM have a strong positive effect on organizational performance. Likewise, Abbas (2020) examined the impact of total quality management on corporate sustainability through the mediating effect of knowledge management. The study found that TQM have a significant and positive impact on corporate sustainability and all three of its dimensions. Al Shraah *et al*. (2021) analyzed the impact of quality management practices on knowledge management processes: a study of a social security corporation in Jordan. The study found that customer focus, people management, strategic planning, process management, employee involvement and leadership have a significant impact on the knowledge management processes. Likewise, Munir *et al*. (2020) investigated on supply chain risk management and operational performance: The enabling role of supply chain integration. The study found that supply chain risk management partially mediates the relationship between internal integration and operational performance and fully mediates the association between supplier and customer integration and operational performance. Moreover, Ahmed *et a*l. (2020) examined intellectual capital and business performance: the role of dimensions of absorptive capacity. The finding of the study showed that positive and significant impacts of organizational and human capital on business performance. Lee *et al*. (2022) investigated the effect of digital supply chain on organizational performance: An empirical study in Malaysia manufacturing industry. The study found that there is the relationship between digital supply chains (DSC), supply chain performance and organizational performance.

Kiprotich *et al.* (2018) examined the relationship between total quality management practices and operational performance of Kenya revenue authority. The study found that there is a positive relationship between total quality management practices and operational performance. The study also concluded that operational performance can be regarded as the ability of a company in reducing management costs, order cycle time, improving raw material efficient use and distribution capacity. Similarly, Buni *et al.* (2023) examined the effects of total quality management on the operational performance. The study concluded that TQM practices have significant impact on operational performance. Likewise, Pradabwong *et al*. (2017) concluded that there is a positive relationship between business process management and organizational performance. Further, Eckstein *et al*. (2015) analyzed the performance impact of supply chain agility and supply chain adaptability: the moderating effect of product complexity. The finding of the study showed that supply chain agility and supply chain adaptability positively affect both cost performance and operational performance.

Moreover, Ahmed *et al*. (2015) investigated on impact of knowledge management practices on organizational performance: an empirical study of banking sector in Pakistan. The study found that there is a positive impact of knowledge acquisition, knowledge conversion, knowledge application, knowledge protection on organizational performance.

Pambreni *et al.* (2019) investigated the influence of total quality management toward organization performance. The study found that TQM elements; namely customer focus, continuous improvement, strategically based, and total employee involvement have a positive and significant effects on organization performance. Similarly, Shafiq *et al. (*2019) analyzed the effect of TQM on organizational performance: empirical evidence from the textile sector of a developing country using SEM. The study found that TQM have a strong positive effect on organizational performance. Likewise, Udriyah *et al*. (2019) examined the effects of market orientation and innovation on competitive advantage and business performance of textile SMEs. The study found that market orientation and innovation have a positive and significant effects on business performance directly through competitive advantage. Moreover, Ramadhanty *et al*. (2023) analyzed the influence of total quality management on organizational performance on bank services. The study found that there is a direct relationship and interrelationship between total quality management and organizational performance. Likewise, Modgil and Sharma (2016) found that there is the relationship between TPM, TQM and operational performance with reference to pharmaceutical industry. Similarly, Lamine and Lakhal (2018) concluded that there is a positive impact of TQM/Six Sigma practices on performance. Likewise, Singh *et al.* (2018) found that there is a positive relationship between total quality management practices and organization performance.

Salah (2018) concluded that there is a positive and significant relationship between customer focus, top management commitment, continuous improvement and employee involvement and operational performance. Similarly, Khan *et al.* (2020) found that there is a positive relationship between TQM practices and operational performance of hotels in the context of developing countries. Likewise, Zaidi *et al.* (2020) assessed total quality management (TQM) practices and operational performance in manufacturing company. The study found that all five dimensions of TQM practices (Organizational Leadership, Customer Satisfaction and Relationship, Human Resources Focus, Strategic Planning and Development, Supplier Quality Management) has a significant and positive relationships with operational performance. Further, Tanjoyo *et al.* (2021) examined the role of total quality management and organizational culture on operational performance. The study found that there is a positive relationship between elements of TQM and organizational culture on operations and corporate performance.

In the context of Nepal, Nepal and Deb (2022) examined board characteristics and firm performance: Indian textiles sector panorama. The study found that there is a significant positive association between the board size and firm performance. Likewise, Jaiswal (2023) examined impact of human resource management practices on employee performance in Nepalese commercial banks. The study found that compensation practices, training and development, performance evaluation, promotion practices and employee relation have a positive effect on employee performance. Moreover, Pandey (2023) analyzed original paper sustainable HRM and employee performance: An Operational Analysis through AMO Model in Nepalese Hotel Industry. The study found that sustainable human resource management is significant predictor of the employee performance, customer satisfaction and innovation.

The study had found the relationship between job satisfaction and employees' commitment.

The above discussion shows that empirical evidences vary greatly across the studies on the impact of total quality management on operational performance of Nepalese commercial banks. Though there are above mentioned empirical evidences in the context of other countries and in Nepal, no such findings using more recent data exist in the context of Nepal. Therefore, in order to support one view or the other, this study has been conducted.

The major objective of the study is to examine the impact of total quality management on operational performance of Nepalese commercial banks. Specifically, it examines the relationship of TQM practices, organizational culture, technology and process improvement, customer relationship management and regulatory compliance with operational performance in Nepalese commercial banks.

The remainder of this study is organized as follows: section two describes the sample, data, and methodology. Section three presents the empirical results and final section draws the conclusion.

2. Methodological aspects

The study is based on the primary data which were collected from 129 respondents through questionnaire. The study employed convenience sampling method. The respondents' views were collected on bonus, compensation, pay, incentives, recognition, and employee commitment. This study is based on descriptive as well as causal comparative research designs.

The model

The model estimated in this study assumes that the operational performance depends on total quality management practices, organizational culture, technology and process improvement, customer relationship management, regulatory compliance. Therefore, the model takes the following form:

Operational performance = *f* (total quality management practices, organizational culture, technology and process improvement, customer relationship management, regulatory compliance).

This study estimates a regression model to examine the operational performance of Nepalese commercial bank, which is specified as under:

$$OP = \beta_0 + \beta_1 TQMP + \beta_2 OC + \beta_3 TPI + \beta_4 CRM + \beta_5 RC + e$$

Where,

OP = Operational performance

TQMP = Total quality management practices

OC = Organizational culture

TPI = Technology and Process improvement

CRM = customer relationship management

RC = Regulatory compliance

Operational performance was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "The operational performance depends on the TQM practices", "Organizational culture affects the operational performance" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.900$)

TQM practices were measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "Lack of TQM practices impact on operational performance", "It is important to access TQM practices for better operational performance" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.823$).

Organizational culture were measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "There is a high level of openness to change and innovation within our organization", "Employee involvement and empowerment in decision-making processes are prioritized in our organization", and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.780$).

Technology and process improvement were measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "Technology and process improvement are important for the success of a commercial bank", "Employees are provided with adequate training and resources to adapt to technological changes and process improvements", and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.822$).

Customer relationship management was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "Feedback from customers is actively sought and used to improve products and services", "Our organization has established processes to measure and monitor customer satisfaction levels", and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.775$).

Regulatory compliance was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 5 for strongly agree and 1 for strongly disagree. There are 5 items and sample items include "Compliance with regulatory standards is considered essential for business operations and reputation", "Our organization has designated personnel responsible for overseeing regulatory compliance efforts", and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.829$).

The following section describes the independent variables used in this study along with the hypothesis formulation.

TQM practices

TQM is a management approach aimed at continuously improving the quality of products and services through improving all employees in the organization in a process of constant improvement. Sarkees and Hulland (2009) found that there is a positive relationship among TQM and the operational performance. Similarly, Sharma and Modgil (2020) revealed that TQM practices have a direct impact on operational performance. Likewise, Irfan *et al.* (2012) showed that selected TQM practices has a significant positive impact on TQM implementation and also on operational performance. Moreover, Mohammed *et al.* (2019) found that there is a strong relationship between TQM practices and operational performance. Further, Singh *et al.* (2018) showed a positive impact of TQM on organizational performance (OP). Zaidi and Ahmad (2020) indicated that TQM practices have significant and positive relationships with operational performance. In addition, Ali and Alolayyan (2013) indicated that there is a positive relationship between TQM practices and hospital performance. Based on it, this study develops the following hypothesis:

H_1: There is a positive relationship between TQM practices and operational performance.

Organizational culture

Organizational culture is the collective personality and values of a company, shaping how people behave and work together. Saruchera and Asante (2021) found that implementing reverse logistics practices positively influences the operational performance of the firm, while organizational culture strengthens such influence. Similarly, Iranmanesh *et al.* (2021) found a positive relationship between innovation capability and operational performance. Likewise, Ahmad (2012) revealed that organizational culture has a significantly positive relationship with the performance management practices. Further, Wambugu (2014) indicated that there is a positive relationship between organization culture and employee performance. AlShehhi *et al.* (2021) showed that there is a positive relationship between organizational culture and performance. Likewise, Uddin *et al.* (2013) showed that organizational culture has a significant positive influence over the performance of organization. Based on it, this study develops the following hypothesis:

H_2: There is a positive relationship between organizational culture and operational performance.

Technology and process improvement

Demeter (2014) found that there is a positive relationship between the level of internationalization and operational performance improvement. Similarly, Usman *et al.* (2020) found that entrepreneurial leadership and good governance affect business process improvement and operational performance. Likewise, Janjić *et al.* (2019) found that Kaizen is rated as an effective strategy for improving performance and mechanisms for improving the organization and working environment. Moreover, Zelbst *et al.* (2010) found that RFID technology utilization directly and positively impact on operational performance. Further, Ye and Wang (2013) showed that both IT alignment and information sharing have direct and positive impact on operational performance. Salam (2017) showed that both trust and technology are found to have significant impact on supply chain collaboration and on firms' operational performances, Based on it, this study develops the following hypothesis:

H_3: There is a positive relationship between process improvement and operational performance.

Customer relationship management

Customer relationship management is a strategy and technology for managing a company's interactions with current and potential customers. There is a positive and significant relation between a superior CRM capability and firm operational performance (Coltman *et al.*, 2011). Zeynep and Toker (2012) examined the effect of customer relationship management adoption in business-to-business markets. The study found that customer relationship management adoption have a significant positive effect on both customer satisfaction and organizational performance. Similarly, Haghshenas and Ahmadi (2015) stated that there is a positive relationship between the dimensions of customer relationship management and organizational performance improvement. Likewise, Wibowo (2023) found that implementation of Customer Relationship Management (CRM) in operational management has a positive impact on customer relationships and operational efficiency. Moreover, Josiah and Nkamare (2019) examined the effect of customer relationship management on the Performance of SMES. The study showed that customer management have a significant relationship with performance of Small and medium scale enterprises. Further, Kefyalew (2022) found that customer relationship management implementation influences operations performance. Based on it, this study develops the following hypothesis:

H_4: There is a positive relationship between customer relationship management and operational performance.

Regulatory compliance

Regulatory compliance refers to the process of ensuring that an organization follows laws, regulations, guidelines and standards relevant to its industry and operations. The findings revealed that enterprise risk management framework implementation and regulatory compliance have significant positive effects on the operational performance (Ahmed and Manab, 2016). Similarly, Adedayo (2023) found that there is a significant inverse correlation between the level of regulatory compliance and the occurrence of operational risks. Likewise, Okiro (2014) showed a positive significant moderating effect of regulatory compliance on the relationship between corporate governance and operational performance. Moreover, Tariq and Abbas (2013) found that there is a significant positive impact of compliance on operational performance. Further, Zhu and Ahamat (2023) showed that e-commerce adoption have a significant and positive impact on regulatory compliance. Based on it, this study develops the following hypothesis:

H_5: There is a positive relationship between regulatory compliance and operational performance..

3. Results and discussion

Correlation analysis

On analysis of data, correlation analysis has been undertaken first and for this purpose, Kendall's Tau correlation coefficients along with mean and standard deviation has

been computed and the results are presented in Table 1.

Table 1

Table 2.8: Kendall's Tau correlation coefficient matrix

This table presents Kendall's Tau correlation coefficients between dependent variable and independent variables. The correlation coefficients are based on 125 observations. The dependent variable is OP (Operational Performance). The independent variables are TQM (Total quality management practices), TPI (Technology and process improvement), OC (Organizational culture), CRM (Customer relationship management), and RC (Regulatory Compliance).

Variables	Mean	S.D.	OP	TQMP	OC	TPI	CRM	RC
OP	1.734	0.435	1					
TQMP	1.668	0.461	0.452	1				
OC	1.848	0.577	0.530	0.521	1			
TPI	1.814	0.553	0.546	0.495	0.516	1		
CRM	1.761	0.462	0.485	0.484	0.581	0.541	1	
RC	1.824	0.575	0.602	0.451	0.537	0.537	0.508	1

Notes: The asterisk signs (**) and (*) indicate that the result are significant at one percent and five percent levels respectively.

Table 1 shows that TQM practices is positively correlated to operational performance. It indicates that better TQM practices lead to increase in operational performance. Similarly, organizational culture is positively correlated to operational performance. It indicates that supportive organizational culture leads to increase in operational performance. Likewise, technology and process improvement are positively correlated to operational performance. It indicates that use of updated technology and process improvement lead to increase in operational performance. Further, customer relationship management is also positively related to operational performance. It indicates that practice of customer relationship management lead to increase in operational performance. In addition, regulatory compliance is positively correlated to operational performance. It indicates that effective regulatory compliance leads to increase in operational performance.

Regression analysis

Having indicated the Kendall's Tau correlation coefficients, the regression analysis has been carried out and the results are presented in Table 2. More specifically, it shows the regression results of TQM practices, organizational culture, technology and process improvement, customer relationship management, and regulatory compliance on operational performance of Nepalese commercial banks.

Table 2

Estimated regression results of TQM practices, organizational culture, technology and process improvement, customer relationship management, and regulatory compliance on operational performance of Nepalese commercial bank

The results are based on 125 observations using linear regression model. The model is $OP = \beta_0 + \beta_1 TQMP + \beta_2 OC + \beta_3 TPI + \beta_4 CRM + \beta_5 RC + e$ where the dependent variable is OP (Operational performance). The independent variables are TQM (Total quality management practices), TPI (Technology and process improvement), OC (Organizational culture), CRM (Customer relationship management), and RC (Regulatory Compliance).

Model	Intercept	Regression coefficients of					Adj. R_bar^2	SEE	F-value
		TQMP	OC	TPI	CRM	RC			
1	0.784 (6.678)**	0.570 (8.402)**					0.359	0.348	70.597
2	0.822 (8.275)**		0.494 (9.617)**				0.425	0.330	92.490
3	0.730 (7.646)**			0.553 (10.989)**			0.491	0.310	120.760
4	0.627 (5.542)**				0.629 (9.959)**		0.442	0.325	99.181
5	0.627 (5.542)**					0.527 (10.740)**	0.480	0.314	115.351
6	0.615 (5.554)**	0.291 (3.610)**	0.343 (5.320)**				0.476	0.315	57.283
7	0.490 (4.742)**	0.137 (1.738)	0.218 (3.466)**	0.338 (5.246)**			0.569	0.285	55.664
8	0.410 (3.760)**	0.130 (1.664)	0.159 (2.328)*	0.272 (3.826)**	0.181 (2.050)*		0.581	0.281	43.904
9	0.86 (3.775)**	0.86 (3.775)**	0.140 (1.583)	0.258 (3.850)**	0.102 (1.191)	0.246 (4.024)**	0.628	0.265	42.808

Notes:

i. Figures in parenthesis are t-values.
ii. The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
iii. Operational performance is dependent variable.

The regression results show that the beta coefficients for TQM practices are positive with operational performance. It implies that TQM practices have positive impact on operational performance. This finding is consistent with the findings of Sarkees and Hulland (2009). Likewise, the beta coefficients for organizational culture are positive with operational performance. It indicates that organizational culture has a positive impact on operational performance. This finding is consistent with the findings of Wambugu (2014). In addition, the beta coefficients for technology and process improvement are positive with operational performance. It indicates that technology and process improvement has a positive impact on operational performance. This finding is consistent with the findings of Demeter (2014). Further, the beta coefficients for customer relationship management are positive with operational performance. It indicates that customer relationship management has a positive impact on operational performance. This finding is consistent with the findings of Wibowo (2023). In addition, the beta coefficients for regulatory compliance are positive with operational performance. It indicates that regulatory compliance has a positive impact on operational performance of commercial bank. This finding is similar to the findings of Okiro (2014).

4. Summary and conclusion

Total quality management describes a management approach to long- term success through customer satisfaction. TQM is an important aspect in the modern business environment because it is a management approach that seeks to promote the long-term success of an organization along with the customer satisfaction. In TQM, all members in an organization provide their contribution in order to improve the process, products and services and the culture which they used to work. TQM uses different strategies, data and effective communication modes to integrate the quality discipline to the culture and the activities of an organization. TQM utilizes both quantitative (technical) methods and human resource

(behavioral) practices to improve material and service inputs, intra and inter organizational processes, and to sharpen the focus on meeting customers' needs. TQM is empowering employees to be more involved in their jobs and to participate in TQM decision- making activities.

This study attempts to examine the impact of total quality management on operational performance in Nepalese commercial banks. The study is based on primary data of 125 respondents.

The major conclusion of the study is that TQM practices, organizational culture, technology and process improvement, customer relationship management, and regulatory compliance have a positive impact on operational performance. It indicates that higher the TQM practices, organizational culture, technology and process improvement, customer relationship management and regulatory compliance, higher would be the operational performance. The study also concludes that customer relationship management is the most significant factor followed by TQM practices that determines the change in the level of operational performance.

References

Abbas, J., 2020. Impact of total quality management on corporate sustainability through the mediating effect of knowledge management. *Journal of Cleaner Production* 24(4), 1-26.

Abdul, O. S., 2018. An overview of the relationship between total quality management and employee performance in a selected Nigerian company. *Texila International Journal of Management* 4(1), 1-15.

Adedayo, M., 2023. Evaluating the influence of regulatory compliance on operational risks in healthcare. *International Journal of Modern Risk Management* 1(1), 1-12.

Ahmad, M. S., 2012. Impact of organizational culture on performance management practices in Pakistan. *Business Intelligence Journal* 5(1), 50-55.

Ahmed, I., and N. A. Manab, 2016. Moderating effects of board equity ownership on the relationship between enterprise risk management, regulatory compliance and firm performance: Evidence from Nigeria. *International Journal of Economics, Management and Accounting* 24(2), 163-187.

Ahmed, S. S., J. Guozhu, S. Mubarik, M. Khan, and E. Khan, 2020. Intellectual capital and business performance: The role of dimensions of absorptive capacity. *Journal of Intellectual Capital* 21(1), 23-39.

Ahmed, S., M. Fiaz, and M. Shoaib, 2015. Impact of knowledge management practices on organizational performance: an empirical study of banking sector in Pakistan. *FWU Journal of Social Sciences* 9(2), 147-167.

Al Shraah, A., A. Abu-Rumman, F. Al Madi, F. A. F. Alhammad, and A. A. AlJboor, 2021. The impact of quality management practices on knowledge management processes: a study of a social security corporation in Jordan. *The TQM Journal* 34(4), 605-626.

Aljaffan, A. H., 2017. A review of the tripartite model linking associations between TQM, organizational learning, and performance. *International Business Research* 10(8), 11-30.

Alsaidi, A., 2014. The effect of total quality management on overcoming some production problems in the oil industry In Libya. *International Journal of Engineering Research and Science and Technology* 3(2), 163-171.

AlShehhi, N., F. AlZaabi, M. Alnahhal, A. Sakhrieh, and M. I. Tabash, 2021. The effect of organizational culture on the performance of UAE organizations. *Cogent Business and Management* 8(1), 1-22.

Bon, A. T., and E. M. Mustafa, 2013. Impact of total quality management on innovation in service organizations: Literature review and new conceptual framework. *Procedia Engineering* 53(3)*,* 516-529.

Buni, M. B., B. Mohammed, Y. Abdulsalam, U. M. Ibrahim, and Y. A. Geidam, 2023. Effects of total quality management on the operational performance of listed deposit money bank in Nigeria*. Fane-Fane International Multi-Disciplinary Journal* 7(2) 524-533.

Coltman, T., T. M. Devinney, and D. F. Midgley, 2011. Customer relationship management and firm performance. *Journal of Information Technology* 26(3), 205-219.

Demeter, K., 2014. Operating internationally-The impact on operational performance improvement. *International Journal of Production Economics* 149(10), 172-201.

Eckstein, D., M. Goellner, C. Blome, and M. Henke, 2015. The performance impact of supply chain agility and supply chain adaptability: the moderating effect of product complexity. *International Journal of Production Research* 53(10), 3028-3046.

Forker, L. B., 1997. Factors affecting supplier quality performance. *Journal of operations management* 15(4), 243-269.

Haghshenas, M., and S. M. Ahmadi, 2015. The effects of customer relationship management dimensions on organizational performance (Case study: shipping organization of Iran). *WALIA Journal* 31(4), 134-141.

Iranmanesh, M., K. M. Kumar, B. Foroughi, R. K. Mavi, and N. H. Min, 2021. The impacts of organizational structure on operational performance through innovation capability: innovative culture as moderator. *Review of Managerial Science* 15(5), 1885-1911.

Irfan, S. M., A. Ijaz, D. M. H. Kee, and M. Awan, 2012. Improving operational performance of public hospital in Pakistan: A TQM based approach. *World Applied Sciences Journal* 19(6), 904-913.

Janjić, V., J. Bogićević, and B. Krstić, 2019. Kaizen as a global business philosophy for continuous improvement of business performance. *Ekonomika* 65(2), 13-25.

Josiah, J. U., and S. E. Nkamare, 2019. Effect of customer relationship management (CRM) on the performance of SMES on hospitality industry in Cross River State. *International Journal of Marketing and Communication Studies* 4(2), 17-36.

Khan, R. A., A. Mirza, and M. Khushnood, 2020. The role of total quality management practices on operational performance of the service industry. *International Journal for Quality Research* 14(2), 439–454.

Kiprotich, A. M., R. Njuguna, and J. Kilika, 2018. Total quality management practices and operational performance of Kenya revenue authority. *International Journal of Contemporary*

Aspects in Strategic Management (IJCASM) 2(1), 91-105.

Lam, S. Y., V. H. Lee, K. B. Ooi, and K. Phusavat, 2012. A structural equation model of TQM, market orientation and service quality: Evidence from a developing nation. Managing Service Quality: *An International Journal* 22(3), 281-309.

Lamine, K., and L. Lakhal, 2018. Impact of TQM/Six Sigma practices on company's performance: Tunisian context. *International Journal of Quality and Reliability Management* 35(9), 1881-1906.

Lee, K., N. Azmi, J. Hanaysha, H. Alzoubi, and M. Alshurideh, 2022. The effect of digital supply chain on organizational performance: An empirical study in Malaysia manufacturing industry. *Uncertain Supply Chain Management* 10(2), 495-510.

Magd, H. A., 2014. TQM constructs development and validation in the context of Egyptian Manufacturing Sector: A snapshot Perspective. *UiTM-Sarawak. OMAN*, 1-13.

Modgil, S., and S. Sharma, 2016. Total productive maintenance, total quality management and operational performance: An empirical study of Indian pharmaceutical industry. *Journal of Quality in Maintenance Engineering* 22(4), 353-377.

Mohammad M. R. A., 2006. The impact of organizational culture on the successful implementation of total quality management. *The TQM magazine* 18(6), 606-625.

Mohammed, D. S., D. G. J. Brahma, and S. Aderaw, 2019. Impact of total quality management (TQM) on operational performance of Ethiopian pharmaceutical manufacturing plants. *International Journal of Engineering and Management Research* 2(1), 2250-0758.

Munir, M., M. S. S. Jajja, K. A. Chatha, and S. Farooq, 2020. Supply chain risk management and operational performance: The enabling role of supply chain integration. *International Journal of Production Economics* 27(6), 107667, 1-14.

Nepal, M., and R. Deb, 2022. Board characteristics and firm performance: Indian textiles sector panorama. *Management and Labour Studies* 47(1), 74-119.

Osman, Z., and I. Sentosa, 2014. Influence of customer satisfaction on service quality and customer loyalty relationship in Malaysian commercial banking industry. *International Journal of Economics, Finance and Management* 3(2), 1-6.

Pambreni, Y., A. Khatibi, S. Azam, and J. J. M. S. L. Tham, 2019. The influence of total quality management toward organization performance. *Management Science Letters* 9(9), 1397-1406.

Pandey, D. L., N. Risal, and S. Bhandari, 2023. Original paper sustainable HRM and employee performance: An Operational Analysis through AMO Model in Nepalese Hotel Industry. *International Social Science and Humanities Studies* 3(1)*,* 1-19.

Pradabwong, J., C. Braziotis, J. D. Tannock, and K. S. Pawar, 2017. Business process management and supply chain collaboration: effects on performance and competitiveness. *Supply Chain Management: An International Journal* 22(2), 107-121.

Ramadhanty, D. A., M. U. Putri, and M. Asbari, 2023. The influence of total quality management on organizational performance on bank services. *Journal of Information Systems and*

Management (JISMA) 2(1), 15-20.

Saffar, N. A. G. A., and A. Obeidat, 2020. The effect of total quality management practices on employee performance: The moderating role of knowledge sharing. *Management Science Letters* 10(1), 77-90.

Salah, S. A., 2018. Total quality management practices and performance of commercial banks in Garissa County, Kenya. *International Academic Journal of Human Resource and Business Administration* 3(1), 52-67.

Salam, M. A., 2017. The mediating role of supply chain collaboration on the relationship between technology, trust and operational performance: An empirical investigation. *Benchmarking: An International Journal* 24(2), 298-317.

Sarkees, M., and J. Hulland, 2009. Innovation and efficiency: It is possible to have it all. Business Horizons, *Journal of Small Business and Enterprise Development* 25(6), 45- 55.

Saruchera, F., and D. Asante-Darko, 2021. Reverse logistics, organizational culture and firm operational performance: Some empirical evidence. *Business Strategy and Development* 4(3), 326-342.

Shafiq, M., F. Lasrado, and K. Hafeez, 2019. The effect of TQM on organizational performance: empirical evidence from the textile sector of a developing country using SEM. *Total Quality Management and Business Excellence* 30(1-2), 31-52.

Sharma, S., and S. Modgil, 2020. TQM, SCM and operational performance: an empirical study of Indian pharmaceutical industry. *Business Process Management Journal* 26(1), 331-370.

Singh, V., A. Kumar, and T. Singh, 2018. Impact of TQM on organizational performance: The case of Indian manufacturing and service industry. *Operations Research Perspectives* 5(1), 199-217.

Tanjoyo, C., E. Harianto, and T. F. C. W. Sutrisno, 2021. The Role of TQM and Organizational Culture on Operational Performance. *Journal of Applied Management* 19(4), 938-948.

Tariq, Y. B., and Z. Abbas, 2013. Compliance and multidimensional firm performance: Evaluating the efficacy of rule-based code of corporate governance. *Economic Modelling* 35(1), 565-575.

Uddin, M. J., R. H. Luva, and S. M. M. Hossian, 2013. Impact of organizational culture on employee performance and productivity: A case study of telecommunication sector in Bangladesh. *International Journal of Business and Management* 8(2), 63.

Udriyah, U., J. Tham, and S. J. M. S. L. Azam, 2019. The effects of market orientation and innovation on competitive advantage and business performance of textile SMEs. *Management Science Letters* 9(9), 1419-1428.

Usman, I., N. H. Hartani, and M. Sroka, 2020. Operational performance of SME: the impact of entrepreneurial leadership, good governance and business process management. *Polish Journal of Management Studies* 21(1), 408-418.

Wambugu, L. W., 2014. Effects of organizational culture on employee performance (case study of Wartsila-Kipevu ii power plant). *European Journal of Business and Management* 6(32), 1-14.

Wibowo, I., 2023. Implementation of customer relationship management (CRM) in operational management. *Science Info Journal: Informatics and Science* 13(03), 1182-1195.

Ye, F., and Z. Wang, 2013. Effects of information technology alignment and information sharing on supply chain operational performance. *Computers and Industrial Engineering* 65(3), 370-377.

Zaidi, Z. M., and N. Ahmad, 2020. Total Quality Management (TQM) practices and operational performance in manufacturing company. *Research in Management of Technology and Business* 1(1), 13-2.

Zelbst, P. J., K. W. Green, and V. E. Sower, 2010. Impact of RFID technology utilization on operational performance. *Management Research Review* 33(10), 994-1004.

Zeynep, U., and A. Toker, 2012. The effect of customer relationship management adoption in business-to-business markets. *Journal of Business and Industrial Marketing* 27(6), 497-507.

Zhu, B., and H. Ahamat, 2023. The role of e-commerce adoption in enhancing regulatory compliance in information systems of foreign investment management in Malaysia-A moderating effect of innovation management. *Journal of Information Systems Engineering and Management* 8(3), 1-17.