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Transforming organizational performance through e-procurement

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ABSTRACT

Procurement, a vital organizational process, involves acquiring goods and services to support operational activities such as planning, purchasing, storage, and shipping. E-procurement, a web-based communication system, has revolutionized procurement operations by streamlining processes, enhancing transparency, and reducing costs. E-procurement encompasses e-sourcing, e-ordering, and e-payment activities, facilitating efficiency and fostering stronger supplier relationships. While it offers numerous benefits, including improved organizational performance, customer satisfaction, and environmental sustainability, challenges remain, particularly in developing countries, where technological infrastructure and management support are critical hurdles. This study investigates the impact of e-procurement on organizational performance, emphasizing key variables like managerial commitment, data quality, and stakeholder engagement. Using IBM SPSS as a quantitative methodology, the research reveals that successful adoption of e-procurement optimizes resource utilization and transforms supply chain operations, making them more competitive and sustainable. These findings provide valuable insights for organizations aiming to implement e-procurement and enhance operational efficiency.

Keywords: E-procurement, Organizational performance, Supply chain management, Web-based procurement, Operational efficiency, Sustainability, Managerial commitment

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1. Introduction

1.1 Background of Study

Procurement is the process of acquiring a firm's goods and services. Its primary purpose is to obtain goods and services required by the organization while carrying out its operational activities, such as storage, receiving, planning, shipping, inspection, and purchasing. There are two primary methods of procurement of goods: traditional and electronic procurement. E-procurement is an integrated, web-based communication structure to manage procurement processes. Ibem et al. (2017) state that procurement operations include ordering, negotiating, and sourcing raw materials. The increasing adoption of web-based information and communication technologies (ICTs) by individuals and businesses has significantly expanded the scope of supply chain management operations. E-procurement employs electronic communication technology and transactional processes to purchase services, goods, and works or facilitate construction tendering. Brown and Thompson (2011) highlighted that in developing countries, adopting new technologies in procurement has become a significant challenge concerning management and IT infrastructure. Additionally, e-procurement is a subset of e-commerce that involves actions and methods such as e-informing, e-sourcing, e-tendering, e-reverse auctioning, e-ordering, and e-payment.

The successful implementation of e-procurement significantly influences a company's performance by enhancing operational activities and optimizing resource utilization. Akaba et al. (2020) noted that e-procurement improves organizational efficiency, satisfaction, and relationship-building across various operational aspects. However, e-procurement requires continuous innovation and development as a relatively new concept. These advancements often disrupt traditional procurement processes and introduce new dynamics, such as limited customer bases, high initial costs, and the need for quality assurance during early implementation phases. Key resources such as technology, product design, branding, customer and supplier relationships, and marketing efforts play a vital role in e-procurement. Critical processes, including supervisory rules and coordination patterns, support the smooth operation of e-procurement systems. Furthermore, organizational cultural values, belief systems, and assumptions significantly contribute to the successful adoption of e-procurement, as discussed by Harelimana (2018).

A study by Masudin et al. (2021) revealed that organizations increasingly focus on e-procurement due to its potential for cost savings, which directly impacts firm performance. E-procurement covers various stages of the procurement cycle, from sourcing and purchasing to post-purchase evaluation. The use of internet-based technology, combined with the global expansion of the Internet, has enhanced connectivity between individuals and businesses. According to Belisari et al. (2020), implementing e-procurement can also contribute to a more sustainable and environmentally friendly approach to procurement. It aligns with supply chain globalization, disruptive technologies like artificial intelligence, robotics, 3D printing, and the growing demand for a triple-bottom-line approach that emphasizes environmental sustainability. Implementing an e-procurement system offers numerous benefits. It improves transparency, efficiency, and fairness in procurement processes. Direct benefits include enhanced operational efficiency, data accuracy, and streamlined application processes, while indirect benefits include improved customer service. Furthermore, e-procurement fosters better relationships with business partners and makes procurement processes more competitive.

1.2 Problem Statement

The main problem found in this study regarding e-procurement is application. Several variables contribute to the effectiveness of e-procurement in its implementation. According to Masudin et al. (2018), management commitment to financial and technological assistance is important in successfully adopting e-procurement. Further, Croom and Brandon-Jones (2018) stated that Organizational relationships and information technology infrastructure difficulties are two possible subjects for enhancing the performance of the supply chain through implementing e-procurement. In contrast, internal management sustenance stakeholder participation, besides the supply chain, played an important influence on the espousal of e-procurement in government enterprises. As per Roehrich et al. (2019), managers should promote technological innovation with new approaches to coordinate and connect organizational operations, according to the authors. This would assist management in their innovation development activities to boost the company's performance. In developing nations, using new technology in procurement has become a serious problem regarding business administration and information technology infrastructure (Brown & Thompson, 2011). This indicates that technical infrastructure is one of three major obstacles in emerging economies regarding e-government implementation. Meanwhile, in underdeveloped nations, managerial support for bettering infrastructure quality is less important (Masudin et al., 2021). As an outcome, this research looks into the outcome of e-procurement on firms' productivity, considering managerial support and data quality. IBM SPSS is based on elements used in this work as a quantitative technique. Therefore, the core objective of this investigation is to recognize the relationship between E-procurement and organizational performance. Moreover, it reveals how E-procurement can help increase the organization's performance.

1.3 Significance of the Study

This research will aid supply chain management in purchasing goods/services through electronic technology to reduce time. The efficiency of e-procurement is determined by the platforms used in the firm. Moreover, the E-procurement system enables nationwide government entities to acquire vendors' products and services electronically. It also converts manual procurement into an electronic, web-based process. Additionally, it is helpful for suppliers to gain from showcasing their products on the Internet; suppliers may use the e-procurement system to receive, manage, and develop government purchase orders and get payment from government organizations.

1.4 Outline of the Study

This report is divided into six pieces. The Introduction is the first section. This discusses the research's background, problem statement, and details about the purpose of the study, the significance and significance of the study, and the definitions of the terms. Section two will describe the underpinning and supporting theories, empirical review of the dependent variable, gap, and drive of the current research, research framework, and this study's hypothesis. The last two sections, which emphasize research design, research approach, and sampling method, will cover the data collection method, explore the data collection technique, and discuss findings.

1.5 Definition of Terms

1.5.1 E-procurement

E-procurement is a web-based integrated communication system used to carry out procurement activities such as ordering, purchasing, negotiating, and searching for raw materials.

1.5.2 Organizational performance

The performance of the organizational is a comprehensive picture of the firm's state over time, as

an outcome of accomplishment impacted by its operational actions in employing its sales, customer satisfaction, Proficiency, resources., success, and building relationships are all aspects of the company performance (Rashid et al., 2025)

2. Literature Review

2.1 Underpinning & Supporting Theories

In previous research, Mali et al. (2020) revealed that the espousal of e-procurement has been debated from the standpoint of procurement firms. To buy products and resources, the company used blockchain technology in e-tendering. In prior research, a blockchain was used in proffering operations to create an unbiased and clear proffering process. Further, Mohd Nawi et al. (2016) described that organizations are paying increasing attention to e-procurement because prospective savings are a significant measure of corporate efficiency. This is because e-procurement can efficiently handle numerous aspects, such as purchasing and selling operations, from the initial search, sourcing, discussing, purchasing, and delivery through the post-purchase evaluation. The use of internet-based technology for electronic procurement, as well as a large worldwide online presence development, offers the ability to link more individuals and businesses; more stakeholder linkages could result in cost savings, restructuring procedures, contract fulfilment, and increased expenditure under management.

According to Belisari et al. (2020), e-procurement enhances a company's value chain by improving effectiveness, efficiency, and productivity. It also plays a significant role in business process transformation by facilitating and automating the entire procurement process for products and services. This is achieved by streamlining and shortening procurement procedures, reducing red tape and administrative expenses, and increasing transparency while promoting a focus on sustainability. E-procurement positively impacts organizational sustainability by incorporating environmental, social, and economic requirements into procurement processes. Specifically, it focuses on resource efficiency, product and service quality, and cost optimization. Moreover, e-procurement can reduce a company's carbon footprint and environmental waste, improve public perception, extend the lifecycle of items, and decrease waste disposal and cleanup costs (Khan & Qianli, 2017).

E-procurement is ordering products and services within an organization via the Internet. It is an integral component of the supply chain that enables vendors to market their goods and services effectively. Research highlights various factors influencing the adoption of e-procurement in organizations. For instance, survey findings indicate that most organizations plan to adopt e-procurement in the future. E-procurement is regarded as a valuable tool for enhancing selling efficiency, streamlining the procurement process, reducing administrative costs, improving job performance and productivity, and strengthening management systems. According to Rahman et al. (2019), e-procurement has proven to be an excellent tool for increasing efficiency and simplifying processes. It improves job performance and creates opportunities for employment and investment in the current corporate environment. Organizations are now focusing on e-procurement to meet client demands for performance and job creation in their investments.

2.2 Empirical Review

2.2.1 E-procurement

E-procurement is highly significant, especially in the public sector, as it aids supplier management. It allows organizations to strategically plan their interactions with suppliers, resulting in improved cooperation and enhanced supplier performance. The transparency of information throughout the process further facilitates these benefits. As noted by Chepng'etich et al. (2020), e-procurement

enables managers to compare prices and leverage past agreements to secure more competitive quotes. It also standardizes and makes all transactions traceable, providing structured and accessible information that aids decision-making. E-procurement reduces costs by eliminating duplication and paperwork since all records are stored online, making it quicker to retrieve past orders. Furthermore, the transparency provided by e-procurement platforms enables businesses to regionalize operational procurement processes while centralizing strategic procurement decisions. According to Muriuki et al. (2019), e-procurement significantly reduces the time, labour, and effort required for purchasing transactions. This leads to lower procurement costs and increased productivity among clerical staff. However, their study primarily focused on e-procurement techniques rather than the broader impacts of e-procurement, which this study seeks to address. Similarly, Tutu et al. (2019) found that e-procurement has increased efficiency, cost savings, faster procurement processes, reduced corruption, better compliance, and standardization across various regions. Despite substantial progress, Tutu et al. (2019) highlighted that implementing and accepting e-procurement in Ghana's public sector remains slow due to persistent challenges.

2.2.2 E-procurement and organizational performance

Organizational performance is a comprehensive depiction of a company's status within a specific period due to accomplishments affected by its operational actions in employing its assets. A firm's performance includes sales, customer satisfaction, relationship development and efficiency (Chang & Wong, 2010). Furthermore, companies are becoming increasingly interested in implementing e-procurement because of possible savings and significant measures of firms' performance. This is because numerous parts of procurement, for instance, sales and buy operations, such as searching, sourcing, negotiating, purchasing, and receiving, may be competently covered by e-procurement (Mohd Nawi et al., 2016).

Over the years, the globe has witnessed a massive shift in business management, with firms increasingly relying on specialized in-house service activities, traditional multipurpose service functions, and outsourced services. Many firms have improved their operational efficiency thanks to information technology (IT), which has given internet-based technologies and technological solutions for its supply chain networks (Harelimana, 2018). In a prior investigation, Kauppi et al. (2013) exposed that an efficient -procurement system assists a company in organizing its relationships with its most crucial suppliers, dropping supplier issues, and refining customer service. To expedite and enhance the purchase procedure. E-procurement also improves the suppliers' side, allowing companies to eradicate low-rated suppliers, for instance, expanding vendor-rating tools and upgrading supplier information, reducing issues and collusion between them by boosting the likelihood of obtaining "longer-term partnerships. On the other hand, the impact of e-procurement adoption is not always apparent positively (Belisari et al., 2019). Implementing information technologies in procurement necessitates superior coordination between organizations' logistical companions throughout the supply chain to ensure the fulfilment of the primary aims of the organization (Rolas et al., 2019). E-procurement can help to slow environmental degradation, raw material shortages, and growing pollution levels; its adoption enables enterprises to reduce their reliance on paper-based processes (Haim Faridian, 2015).

People in the firm strive to avoid embracing e-procurement technologies and reject the organization's changing of process and rebalancing of relationships. The benefits of Change management issues stifle the use of e-procurement systems. Because the accompanying investment is likely to be a sunken expenditure, the cost will likely exceed the benefits. Resistance is a protective mechanism that humans use to protect themselves. Furthermore, it may minimize the firm's environmental waste and carbon footprint, enhance public reputation, make products last longer, and lower trash disposal and cleanup costs, as Binci et al. (2019) highlighted. Hence, the following hypothesis is proposed:

H1: E-procurement has a significant impact on organizational performance.

Figure 1 below represents the research framework.

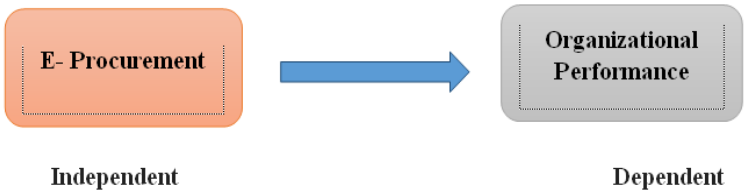

Figure 1: Conceptual framework

3. Research Methodology

The objective of this research is to explore how e-procurement impacts organizational performance. As a result, an explanatory research approach is applied to evaluate the concept and explain the relationship between e-procurement and organizational performance (Masudin et al., 2021). The primary purpose of this investigation is to examine how e-procurement affects organizational performance. Consequently, a descriptive research approach is employed, as it is well-suited for comparative research and helps investigate the relationship between e-procurement and organizational performance (Rotich & Okello, 2015; Rashid et al., 2024a). A descriptive study enables researchers to analyze the elements in their natural conditions without any modifications (Bell & Warren, 2023; Rashid et al., 2024b).

3.1 Data Collection

To determine the impact of e-procurement adoption on organizational performance, all enterprises registered on the Pakistan Stock Exchange will constitute the target population. Both local and global firms were selected to participate in the study. The sample will consist of 325 companies listed on the Pakistan Stock Exchange. The non-probability convenience sampling technique was employed to collect data from various businesses. This method eliminates bias and partiality to obtain effective results. The collected data will help firms improve their performance by adopting e-procurement systems (Rashid et al., 2021). The data was collected through a survey questionnaire filled out by representatives of companies listed on the Pakistan Stock Exchange to evaluate the influence of e-procurement on organizational performance (Muriuki et al., 2019). The Cronbach's alpha test assessed the questionnaire's reliability and validity. Subject matter experts will review the content validity and overall reliability (Masudin et al., 2018). The data was collected using a survey questionnaire based on a Likert scale. Respondents will rate their responses as follows: 1 for strongly disagree, 2 for disagree, 3 for neutral, 4 for agree, and 5 for strongly agree (Faheem & Siddiqui, 2019).

4. Results and Findings

4.1 Descriptive Profile of the Data

This chapter discusses the results and findings of the dependent variable, E-procurement, and the independent variable, organizational performance. Which we have found through multiple statistical tests. In a descriptive profile of the data, we describe the demographics of the study, in which 17% were female respondents and 83% were male respondents. As per Education, 7% of participants were certified with a diploma, 18% graduated, whereas 73% of the respondents fell in Master's and only 2% of respondents did a PhD. Moreover, in terms of level of experience, none of the respondents have 0-6 months of experience. Whereas 13% of the respondents have 2-3 years of experience, 5% have 4-5 years of work experience, and 82% have more than 4-5 years of experience.

4.2 Validation of Model

Table 1 shows the case processing summary.

Table 1: Case Processing Summary

		N	%
Cases	Valid	100	99.0
	Excluded	1	1.0
	Total	101	100.0

a. List-wise deletion based on all variables in the procedure.

Source*: SPSS output*

Table 2 describes the coefficient of the alpha variable as 0.868, signifying that the elements have relatively high internal consistency.

Table 2: Reliability Statistics

Cronbach's Alpha	N of Items
.868	2

Source*: SPSS output*

Table 3 denotes the validity of a questionnaire that was observed to check the impact of E-Procurement on organizational performance. The independent variable is organizational performance, and the dependent variable is E-Procurement.

Table 3: Scale Statistics

Mean	Variance	Std. Deviation	N of Items
7.4750	3.172	1.78101	2

Source*: SPSS output*

4.3 Hypotheses Testing

Table 4 indicates that the independent variable, organizational performance, was entered into the regression model to predict the dependent variable, E-Procurement.

Table 4: Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Organizational performance	.	Enter

a. All requested variables entered.
b. Dependent Variable: E-procurement

Source*: SPSS output*

Table 5 shows the strength of the model. The R value (0.771) indicates a strong positive correlation, while the R Square (0.594) suggests that Organizational Performance explains 59.4% of E-Procurement variation.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.771[a]	.594	.590	.63890

a. Predictors: (Constant), Organizational performance

Source*: SPSS output*

Table 6 confirms the model's significance. The F-statistic (143.423) and a Sig. A value of 0.000

(< 0.05) indicates that the regression model is statistically significant, meaning organizational performance significantly predicts E-procurement

Table 6: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.545	1	58.545	143.423	.000[a]
	Residual	40.003	98	.408		
	Total	98.547	99			

a. Predictors: (Constant), Organizational performance
b. Dependent Variable: E-procurement

Source*: SPSS output*

The Coefficient Table 7 suggested that e-procurement positively impacts organizational performance because the sig value is < 0.05.

Table 7: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.465	.278		1.672	.098
	Organizational performance	.859	.072	.771	11.976	.000

a. Dependent Variable: E-procurement

Source*: SPSS output*

Table 8 evaluates the residuals of the regression model, showing how well the predicted values align with the observed values. It confirms that residuals are centred around zero (mean = 0) and provides ranges for predicted values, residuals, and their standardized forms.

Table 8: Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.3242	4.7622	3.7050	.76900	100
Residual	-2.04319	1.97251	.00000	.63567	100
Std. Predicted Value	-3.096	1.375	.000	1.000	100
Std. Residual	-3.198	3.087	.000	.995	100

a. Dependent Variable: E-procurement

Source*: SPSS output*

The above regression and coefficient table shows that organizational performance will increase if the impact of E-procumbent increases because p< 0.05 indicates a strong positive relationship between e-procurement and organizational performance. Therefore, the HA Hypothesis is accepted, and the H0 hypothesis is rejected.

Table 9: Hypotheses Assessment Summary

S. No	Hypothesis	Sig Value	Empirical Conclusion
1	H_1:Procurement has a positive impact on organization performance	0.00	significant

Source*: SPSS output*

The above hypotheses assessment summary, table 9, has revealed that E-procurement has a strong positive relationship with organizational performance. Therefore, H1 is accepted, H0 is rejected.

5. Conclusion

This study examines and supports the existing e-procurement processes to better understand their structure, intricacies, and challenges. The impact of e-procurement adoption on organizational performance was analyzed, and the findings reveal that e-procurement significantly influences organizational performance. The implications of this study will assist organizations in recognizing the importance of e-procurement and understanding how to implement it more effectively. This can save time, improve efficiency, enhance accuracy, flexibility, and productivity, and ultimately boost organizational performance. E-procurement simplifies processes and increases transparency, fostering stronger supplier integration across the procurement process. Additionally, this study highlights the importance of developing organizational policies that aim to conceptually enhance management practices.

This research focused on the effect of e-procurement on organizational performance. Previous studies have widely discussed the relationship between e-procurement and organizational performance. The primary goal of this study was to explore how electronic procurement improves supply chain performance. E-procurement is a management activity that leverages technology to acquire the materials a business requires. It comprises four main elements: sourcing, electronic negotiation, electronic design, and electronic assessment (Croom & Brandon-Jones, 2018; Chang & Wong, 2010).

The primary challenge faced during the investigation was the collection of financial data from corporations to measure performance. Since many firms were unwilling to share financial information, the researcher relied on data gathered from the perspectives of experienced managers to assess success. Another limitation was the impact of the pandemic, which constrained both time and sample size. Due to the reduced sample size, the optimal model fit could not be achieved.

This study relied on the perspectives of knowledgeable managers. The results would be more reliable and precise if this research could incorporate accurate financial data and other performance indicators. Even a single-firm case study, including specific data, would significantly enhance the investigation's utility. Furthermore, the study could be expanded to explore the application of e-procurement in various industries, such as construction, tea production, food manufacturing, and hospitality. This would provide valuable insights into how these industries could benefit from e-procurement. To better understand the actual impact of e-procurement, future research could break down latent variables to analyze cost-effectiveness, efficiency, and accuracy in greater detail.

References

Akaba, T. I., Norta, A., Udokwu, C., & Draheim, D. (2020). A framework for the adoption of blockchain-based e-procurement systems in the public sector: A case study of Nigeria. In *Lecture Notes in Computer Science* (pp. 3–14). Springer International Publishing.

Belisari, S., Appolloni, A., & Cerruti, C. (2019). Positive and negative impacts of the adoption of e-procurement solutions: the Italian market case. *International Journal of Procurement Management, 12*(2), 219-241. https://doi.org/10.1504/IJPM.2019.098553

Belisari, Sara, Binci, D., & Appolloni, A. (2020). E-procurement adoption: A case study about the role of two Italian advisory services. *Sustainability*, *12*(18), 7476. https://doi.org/10.3390/su12187476

Bell, R., & Warren, V. (2023). Illuminating a methodological pathway for doctor of business administration researchers: Utilizing case studies and mixed methods for applied research. *Social Sciences & Humanities Open*, *7*(1), 100391. https://doi.org/10.1016/j.ssaho.2022.100391

Binci, D., Belisari, S., & Appolloni, A. (2019). BPM and change management: An ambidextrous perspective. *Business Process Management Journal*, *26*(1), 1–23. https://doi.org/10.1108/bpmj-06-2018-0158

Brown, D. H., & Thompson, S. (2011). Priorities, policies and practice of e-government in a developing

country context: ICT infrastructure and diffusion in Jamaica. *European Journal of Information Systems: An Official Journal of the Operational Research Society*, *20*(3), 329–342. https://doi.org/10.1057/ejis.2011.3

Chang, H. H., & Wong, K. H. (2010). Adoption of e-procurement and participation of e-marketplace on firm performance: Trust as a moderator. *Information & Management*, *47*(5–6), 262–270. https://doi.org/10.1016/j.im.2010.05.002

Chepng'etich, C., Waiganjo, E., & Ismail, N. (2020). Influence of strategic e-procurement practice on performance of devolved systems of government in Kenya. *International Journal of Supply Chain Management*, *5*(2), 17–27. https://doi.org/10.47604/ijscm.1178

Croom, S. R., & Brandon-Jones, A. (2005). Key issues in e-procurement: procurement implementation and operation in the public sector. *Journal of Public procurement*, *5*(3), 367-387. https://doi.org/10.1108/JOPP-05-03-2005-B004

Faheem, M., & Siddiqui, D. A. (2019). The impact of e-procurement practices on supply chain performance: A case of B2B procurement in Pakistani industry. *Available at SSRN 3510616*.

Haim Faridian, P. (2015). Innovation in public management: Is public E-procurement a wave of the future? A theoretical and exploratory analysis. *International Journal of Public Administration*, *38*(9), 654–662. https://doi.org/10.1080/01900692.2014.953175

Harelimana, J. b. (2018). *The impact of E-procurement on the performance of public institutions in Rwanda*. Global journal of management and business research: D accounting and auditing, *4*. Sciepub.com. https://www.sciepub.com/reference/361332

Ibem, E. O., Aduwo, E. B., Ayo-Vaughan, E. A., Uwakonye, U. O., & Owolabi, J. D. (2017). E-procurement use in the Nigerian building industry. *International Journal of Electronic Commerce Studies*, *8*(2), 219–254. https://doi.org/10.7903/ijecs.1524

Kauppi, K., Brandon-Jones, A., Ronchi, S., & van Raaij, E. M. (2013). Tools without skills: Exploring the moderating effect of absorptive capacity on the relationship between e-purchasing tools and category performance. *International Journal of Operations & Production Management*, *33*(7), 828-857. https://doi.org/10.1108/IJOPM-12-2011-0445

Khan, S. A. R., & Qianli, D. (2017). Impact of green supply chain management practices on firms' performance: an empirical study from the perspective of Pakistan. *Environmental Science and Pollution Research*, *24*(20), 16829–16844. https://doi.org/10.1007/s11356-017-9172-5

Mali, D., Mogaveera, D., Kitawat, P., & Jawwad, M. (2020). Blockchain-based e-tendering system. In *2020 4th International Conference on Intelligent Computing and Control Systems (ICICCS)* (pp. 357–362). IEEE.

Masudin, I., Aprilia, G. D., Nugraha, A., & Restuputri, D. P. (2021). Impact of E-procurement adoption on company performance: Evidence from Indonesian manufacturing industry. *Logistics*, *5*(1), 16. https://doi.org/10.3390/logistics5010016

Masudin, I., Wastono, T., & Zulfikarijah, F. (2018). The effect of managerial intention and initiative on green supply chain management adoption in Indonesian manufacturing performance. *Cogent Business & Management*, *5*(1), 1485212. https://doi.org/10.1080/23311975.2018.1485212

Mohd Nawi, M. N., Roslan, S., Salleh, N. A., Zulhumadi, F., & Harun, A. N. (2016). The benefits and challenges of E-procurement implementation: A case study of Malaysian Company. *International Journal of Economics and Financial Issues*, *6*(S7), 329–332.

Muriuki, J. I., Guyo, W., Odhiambo, R., & Kinoti, J. (2019). Effect of electronic procurement technical support staff on procurement performance in energy sector state corporations in

Kenya. *International Journal of Supply Chain Management*, *4*(1), 20–38.

Rahman, S. S. A., Radzai, M. M., Hamdan, N. S., & Musa, H. (2019). A Review: Adoption Implementation of E-Procurement in Organization. *International Journal of Human and Technology Interaction (IJHaTI)*, *3*(2), 11–16.

Rashid, A., Rasheed, R., Amirah, N. A., Yusof, Y., Khan, S., & Agha, A., A. (2021). A Quantitative Perspective of Systematic Research: Easy and Step-by-Step Initial Guidelines. *Turkish Online Journal of Qualitative Inquiry*, *12*(9), 2874-2883. https://www.tojqi.net/index.php/journal/article/view/6159/4387

Rashid, A., Rasheed, R., & Amirah, N. A. (2025). Synergizing TQM, JIT, and Green Supply Chain Practices: Strategic Insights for Enhanced Environmental Performance. *Logistics*, *9*(1), 1-14. https://doi.org/10.3390/logistics9010018

Rashid, A., Rasheed, R., Ngah, A. H., & Marjerison, R. K. (2024a). A Nexus of Multiple Integrations and Business Performance through Supply Chain Agility and Supply Flexibility: A Dynamic Capability View. *Journal of Science and Technology Policy Management*, In press. https://doi.org/10.1108/JSTPM-08-2023-0124

Rashid, A., Rasheed, R., Albhirat, M. M., & Amirah, N. A. (2024b). Conservation of Resources for Sustainable Performance in Tourism. *Journal of Tourism Management Research, 11*(1), 123-139. https://doi.org/10.18488/31.v11i1.3782

Roehrich, J. K., Davies, A., Frederiksen, L., & Sergeeeva, N. (2019). Management innovation in complex products and systems: The case of integrated project teams. *Industrial Marketing Management*, *79*, 84–93. https://doi.org/10.1016/j.indmarman.2018.10.006

Rolas, S., Foralisa Toyfur, M., & Juliantina, I. (2019). An analysis of the effect of job implementation methods in the failure of the selection procurement process of electronic construction service providers (e-procurement) on the district of musi banyuasin. *International Journal of Civil Engineering and Technology, 10*(8).

Rotich, G. K., & Okello, B. (2015). Analysis of use of e-procurement on performance of the procurement functions of county governments in Kenya. International Journal of Economics, Commerce and Management, 3(6), 1381-1398. https://doi.org/10.11648/j.si.20150305.11

Tutu, S. O., Kissi, E., Osei-Tutu, E., & Desmond, A. (2019). Evaluating critical factors for the implementation of e-procurement in Ghana. *International Journal of Procurement Management, 12*(1), 1-14. https://doi.org/10.1504/IJPM.2019.096994