

The Efficiency of Procurement Process, Organization Performance, and Product Training in Public Organization

T. Herry Rachmatsyah, Disson Muhammad Fauzi

Universitas Prof. Dr. Moestopo (Beragama), Indonesia
Email: herry.rachmatsyah@dsn.moestopo.ac.id

Abstract

The manufacturing sector is considered a key driver of economic progress across different sectors. Industrial products typically enjoy higher "terms of trade," making them more profitable and generating greater added value compared to products from other sectors. This is due to the sector's diverse range of products and its ability to offer substantial marginal benefits to users. As a result, business players including manufacturers, distributors, traders, and investors are more inclined to participate in this sector because of its attractive profit margins. The government has implemented various initiatives to promote industrial development, which has in turn increased the demand for funding to support this growth, particularly in the industrial sector. In addition to relying on internal sources of finance, the government has been working to secure more external funding, such as foreign investment and foreign loans, to complement development efforts. Given the limited availability of funds, the government needs to adopt policies that open up more opportunities for both domestic and foreign private sector participation in national development. To support this, the government has enacted legislation such as Law No. 1 of 1967 on Foreign Investment (PMA) and Law No. 6 of 1968 on Domestic Investment (PMDN). These laws were later refined through Law No. 11 and Law No. 12 of 1970 and various deregulation policies, including the May 6, 1986 Package, Pakto 1993, and Government Regulation No. 20 of 1994. The government later reorganized its investment policies by passing Law No. 25 of 2007 concerning Capital Investment, which aimed to provide legal certainty, protection, and simplified licensing processes for both domestic and foreign investors. This law is designed to create a more favorable investment environment in Indonesia.

Keywords: Procurement Process Efficiency, Organization performance, Product Training.

This guidance note is designed to assist users in navigating the strategic procurement planning (SPP) process for projects that are fully or partially financed by loans or grants from the Asian Development Bank (ADB), or by funds administered by the ADB. These projects must comply with the ADB Procurement Policy for Goods, Works, Non-consulting, and Consulting Services (2017, with updates) as well as the

Procurement Regulations for ADB Borrowers (2017, with updates). An SPP is necessary for all investment projects that involve a new procurement plan, including each tranche under multi-tranche financing facilities (MFF/SEFF), additional financing requests (excluding those processed solely to cover cost overruns), project readiness financing (PRF), sector development programs, and financial intermediary loans.

However, an SPP is not required for policy-based or results-based lending.

The SPP process aligns with ADB's shift from a compliance-based procurement approach to a best practice, principle-based approach. It starts during the project conceptualization phase of ADB's procurement cycle and continues as a core component of procurement planning. Procurement, commonly referred to as bidding or auction, is typically carried out by government and private sector entities. This process is undertaken to acquire goods and services for an organization or institution, beginning with need identification and continuing through the completion of all activities required to secure the desired goods and services.

According to H. Subagya M.S procurement refers to all activities and efforts aimed at meeting and fulfilling the need for goods and services in accordance with the relevant regulations. This process involves creating something that was not previously available (Romus & Virna Museliza). According to Suherman, AM (2010:2) Government procurement activities of goods and services are reviewed from the perspective of Indonesian law:

1. The procurement of goods and services by the government holds strategic importance for safeguarding and favoring state-owned business entities.

2. The government procurement sector plays a crucial role in efforts to foster economic growth.

3. A procurement system for government goods and services that adheres to the principles of good governance will enhance the efficiency and effectiveness of public spending while shaping the behaviors of the three pillars of government, the private sector, and society in promoting Good Governance.

4. The scope of government procurement of goods and services encompasses a variety of sectors and contributes to multiple aspects of nation-building.

Based on the existing understanding, it is clear that two parties are involved in the procurement process. The first party consists of government agencies, state-owned enterprises (BUMN), or private sector entities that initiate the procurement of goods and services. The second party includes individuals or contractor companies that respond to the request by offering to supply these goods and services. Presidential Regulation Number 4 of 2015, Article 3, regarding Government Procurement of Goods/Services, specifies that the procurement process is carried out through specific mechanisms: Self-Management; and/or Selection of Goods/Service Providers.

Procurement Regulation: Understanding the Goals and Means Public Procurement Regulation shows that in the last two decades, developed countries have experienced a significant trend towards outsourcing activities that were previously performed internally (Trepte, 2004). The term "outsourcing" often refers to the process of transferring services that were previously provided internally to external entities. Commonly outsourced services include activities such as cleaning government buildings, maintaining vehicles and equipment, printing and publishing government documents, and providing professional advice in the areas of law, information technology, management, and others. Countries are also increasingly outsourcing the provision of public services to private companies.

While numerous countries continue to depend on civil servants to provide services, an increasing number of nations are entering into contracts with private firms for this purpose, with these contractors tasked with ensuring that services are delivered to the public in line with the contractual agreements. Outsourcing has broadened (as observed in the United Kingdom and the United States) to encompass a wide array of public services, such as waste collection, school catering, public transportation, and social services, including the construction and

operation of prisons, as well as the management of schools. In contrast, developing countries often face a different scenario, where there is frequently no supply-side market available to offer the essential goods and services. As noted by Trepte: “Whilst developing countries are grappling with the often political controversy involved in privatizing a whole range of services from refuse collection to health care, developing countries and countries in transition are mainly still in the throes of encouraging the establishment and development of private manufacturing and construction companies and remain largely dependent on public provision and on the use of force account

Freeman and Minow (eds), *Government by Contract: Outsourcing and American Democracy* (2009) on the United States. Contracts of government are often subject to the ordinary private law of the state concerned. This is the position in the United Kingdom, for example. However, where that is the case there are often special and additional rules which apply to government contracts which are not relevant to ordinary private contracts. This is especially so in relation to the formation of government contracts, where special “administrative law” rules on tendering procedures etc often apply. In countries with a separate system of administrative courts these tendering rules are sometimes applied by the administrative courts, whilst other matters (e.g., concerning the performance of the contract) are subject to the private law and courts. In the United Kingdom, however, rules on tendering as well as other matters relating to government contracts are dealt with in the ordinary private courts, like most matters of administrative law.

In other countries, government contracts are subject to a body of rules, wholly separate from private contracts. This is the case in France where government procurement contracts are subject to a distinct *droit administrative* law regulating both the formation and execution of the contract, which is applied by a special system of administrative courts. S.Arrowsmith,

J.Linarelli and D.Wallace, *Regulating Public Procurement: National and International Perspectives* (2000). A major objective of most perhaps all procurement systems is to successfully acquire the goods, works or services concerned on the best possible terms. This is often referred to as value for money¹⁰ or efficiency or economic efficiency

It should be emphasized that we are referring under this heading to obtaining value for money in acquiring the goods, works or services needed to carry out the government’s activities. Procurement may also be used to achieve other benefits that go beyond the mere acquisition of these goods, works or services, which are of a social or environmental nature – for example, creation of jobs, or jobs for disadvantaged groups. It is appropriate to consider this issue as a separate objective, as it is to a large extent a distinct facet of procurement that involves special policy issues. A procuring entity will also want to ensure that these other benefits are obtained in a way that gives good value (is efficient). It is for this reason that we have labelled the current objective ‘value for money (efficiency) in the acquisition of required goods, works or services’, rather than simply ‘value for money. This objective can be seen to have three aspects:

Ensuring the goods, works or services acquired are suitable. This means both: i) that they can meet the requirements for the task in question and ii) that they are not over- specified (“gold-plated”);
Concluding an arrangement to secure what is needed on the best possible terms (which does not necessarily mean the lowest price);
Ensuring the contracting partner is able to provide the goods, works or services on the agreed terms.

It has often been said that this is the primary goal of most procurement systems, although this is by no means a universal view, nor perhaps true of every procurement system (Dekel, for example, considers that integrity rather than efficiency is the overriding goal of competitive bidding in public procurement, and also that the

principle of equal treatment as an independent objective of the procurement process should be equal in status to value for money). Certainly, this is the case, however, many of the regulatory rules that apply in public procurement such as the basic requirements for transparency and competitive bidding discussed below have the realization of value for money as one of their aims. Such rules are designed, in particular, to ensure that value for money is not prejudiced by inefficient behavior, and also that it is not prejudiced by deliberate conduct, notably corrupt behavior and discrimination in favor of national firms. We will see below that elimination of corruption and elimination of national preferences (an aspect of opening up procurement to international trade) can also be seen as independent objectives of procurement systems that go further than the objective of obtaining value for money in acquiring goods, works or services but they are also one important part of that last objective.

Value for money is implemented in public procurement systems by various means, but legal and other regulatory rules generally legally enforceable by suppliers that set out how contracts are to be awarded are a primary tool for this in most systems, although not all, as is discussed below. For the most part this goal is implemented in these regulatory systems by rules that require procuring entities to hold a competition to choose their contracting partner and regulate how that competition should be conducted, and through the principle of transparency. How these particular principles of competition and transparency help to ensure value for money, as well as their role in serving other objectives of the procurement process, is discussed further below.

Value for money is, of course, an important objective of the private sector as well as of the public sector. However, there are some differences both in the problem of obtaining value for money and in the tools used to address it although these should not be exaggerated. First, it has sometimes been suggested that

obtaining value for money in acquiring goods, works or services may be a greater problem for the public sector than for the private sector in that there is possibly a greater tendency towards inefficiency in the public sector and/or towards other behavior that could prejudice value for money, notably corruption and national preference. A greater tendency towards inefficiency could derive from the fact that, for example, governments are unlikely to go bankrupt and the procurement officer is less likely to be made redundant. Secondly, it is generally true to say that neither one of the key tools used to address the issue of value for money in obtaining goods, works or services in the public sector, namely legally binding and enforceable rules, nor the actual content of the policy that is followed such as heavy reliance on formal competitive bidding are generally shared by the private sector.

The relationship between the objective of the procurement process of obtaining value for money in acquiring goods, works or services and the other objectives is considered below when considering those other objectives and the means for achieving the various objectives. We have already noted that eliminating corruption and opening up procurement to international trade are objectives that directly support value for money since they are directed at practices that detract from obtaining value for money, as well as being concerned with matters additional to value for money. We will also see that to a certain extent policies and tools that support the goal of value for money in acquiring goods, works and services such as competitive bidding and transparency are the same policies and tools that support other objectives, and thus there is a complementary relationship between them.

This research explores the relationships within the Prohibiting discrimination against the suppliers, goods and services of other countries. Requiring the adoption of transparent procedures for awarding procurement contracts, Standardization of procedures for awarding public procurement contracts, and Addressing

corruption. There are a number of different means employed by trade rules on public procurement to achieve their objectives of opening up markets which include, although are not limited to, the following. Individual trade regimes may use any one or more of these approaches.

Prohibiting discrimination against the suppliers, goods and services of other countries, Requiring the adoption of transparent procedures for awarding procurement contracts, Standardization (harmonization) of procedures for awarding public procurement contracts, and Addressing corruption Many trade agreements including the World Trade Organization's Government Procurement Agreement (GPA) and the European Community regime prohibit discrimination against foreign industry, so that in principle procurement cannot be used to support and promote domestic industry. The degree to which such prohibitions operate varies the EU is an advanced trade regime that has been able to adopt legally binding rules that prohibit discrimination in all public procurement in principle, but other regimes – including that of the WTO, as explained in chapter 10 prohibit discrimination only for specific procurement that parties have agreed, in order to open up to their trading partners. The UNCITRAL Model Law on procurement also provides for a general rule against discrimination, although pragmatically it also recognizes that states may want to make exceptions.

There are a number of different means employed by trade rules on public procurement to achieve their objectives of opening up markets which include, although are not limited to, the following. Individual trade regimes may use any one or more of these approaches.

1. Prohibiting discrimination against the suppliers, goods and services of other countries. Many trade agreements including the World Trade Organization's Government Procurement Agreement (GPA) and the European Community regime prohibit discrimination against foreign industry, so that in principle procurement cannot

be used to support and promote domestic industry. The degree to which such prohibitions operate varies – the EU is an advanced trade regime that has been able to adopt legally binding rules that prohibit discrimination in all public procurement in principle, but other regimes – including that of the WTO, as explained in chapter 10 – prohibit discrimination only for specific procurement that parties have agreed, in order to open up to their trading partners. The UNCITRAL Model Law on procurement also provides for a general rule against discrimination, although – pragmatically – it also recognizes that states may want to make exceptions.

2. Requiring the adoption of transparent procedures for awarding procurement contracts. Many regimes, including those of the WTO and EU regimes also place a great deal of emphasis on improving transparency in government procurement. Transparency is both an objective in its own right, since lack of transparency can be a barrier to trade, and a means of ensuring that there is no discrimination, since where transparent procedures are applied it is difficult to disguise discrimination. Both EU and WTO rules have been based mainly on the latter function of transparency. To secure transparency in these regimes – and others such as NAFTA – both lay down detailed procedures which must be followed in making major contract awards, and provide also for means of enforcing these rules.

3. Standardization (harmonization) of procedures for awarding public procurement contracts. A degree of standardization in public procurement procedures can also help international trade, since suppliers are able to deal with familiar procedures. A degree of standardization is a by-product of international trade agreements on procurement that set out a framework for transparent award procedures, such as those of the EU and WTO, although it should be noted that these agreements do not seek to promote standardization per se. On the other hand, as already mentioned, the

UNCITRAL Model Law on procurement for states seeking to improve or reform public procurement systems, in fact has as its main

4. Addressing corruption. One barrier to trade in public procurement is the influence of corruption and patronage. The main way in which corruption has been addressed in international trade rules so far is through international agreements that seek to “level the playing field” by rules against bribery by those seeking contracts abroad, so that firms from all countries are treated equally in this respect, rather than being subject only to the level of prohibition applied by their own domestic systems (which used to vary substantially). The most important international instrument in this respect is the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions 1997, and its various supplementary instruments³⁷. In addition, it is worth mentioning that the increased transparency provided by some trade agreements, such as those of the EU and WTO, can have an impact on corruption. However, that is not the reason they have been adopted in those current regimes. On the other hand, the recent revised text of the WTO’s GPA (which has not yet been formally adopted: see further chapter 7) expressly refers in its preamble to the role of transparency in addressing corruption and conflicts of interest, indicating that addressing these matters might be seen as an objective of the new agreements (“Recognizing the importance of transparent measures regarding government procurement, of carrying out procurements in a transparent and impartial manner, and of avoiding conflicts of interest and corrupt practices, in accordance with applicable international instruments, such as the United Nations Convention Against Corruption “see Revision of the agreement on government procurement as at 8 December 2006 (GPA/W/297), 11 December 2006, available at www.wto.org). It is also worth mentioning that opening up procurement to international trade can help address corruption and collusion as a

result of broadening the number of suppliers in the market so as to make such practices more difficult to operate. This is important for some countries and markets.

and impartial manner, and of avoiding conflicts of interest and corrupt practices, in accordance with applicable international instruments, such as the United Nations Convention Against Corruption “see Revision of the agreement on government procurement as at 8 December 2006 (GPA/W/297), 11 December 2006, available at www.wto.org). It is also worth mentioning that opening up procurement to international trade can help address corruption and collusion as a result of broadening the number of suppliers in the market so as to make such practices more difficult to operate. This is important for some countries and markets.

However, there is also a potential for conflict between opening up markets to trade and the ability of particular government procuring entities to obtain value for money. For example, as Arrowsmith has argued, the extent of transparency needed to prevent discrimination against foreign suppliers may exceed what is needed to ensure value for money in a particular procurement system, and may imply restrictions on the discretion of procuring entities (for example, on entering into negotiations with suppliers) that are actually detrimental to value for money in the context of a particular national procurement system. As well as conflict with the value for money objective there is also the possibility of conflict with the goal of procedural efficiency. For example, international regimes may require that information is made available in foreign languages in order to promote international trade, even though the direct financial benefits of increased participation in terms of better value for money for the procuring entity do not justify the increased costs involved. Westering has criticized the contents of the rules on the Model Law on awarding contracts from this perspective, as involving an excessive focus on facilitating foreign access to procurement at the expense of the immediate interests of public

procuring entities⁴⁰. Finally, we should note that one of most controversial aspects of trade rules on procurement concerns their impact on the government’s ability to use procurement to promote “horizontal” objectives, including social and economic objectives. Of course, curtailing the ability of governments to use procurement as a tool to promote domestic industry is the very rationale of trade rules, and clearly such rules inevitably have a restrictive effect on the government’s ability to do this. However, many horizontal policies in procurement are not concerned merely with protecting national industry against competition contrary to the very rationale of trade rules, but have wider and perfectly legitimate objectives. Even these objectives that are recognized as legitimate in the eyes of the trade system may be adversely affected by the various rules designed to open up trade. For example, as already noted above, a policy of reserving contracts for firms in poor regions in order to increase quality between regions and avoid political unrest may conflict with a rule not to discriminate against foreign suppliers, since it will exclude most or all foreign suppliers. Horizontal policies may also potentially be affected by transparency rules. In these situations of conflict, it may be necessary to consider how far to allow qualifications or exceptions to the basic rules to accommodate horizontal policies. The regimes of the EU and WTO have often been criticized for unduly favoring open markets when seeking to balance

their open market policies with national governments’ interests in using procurement for horizontal objectives.

Methods

Strategic procurement plays a critical role in ensuring that the supply chain remains flexible, responsive, and able to adapt to market changes. Monczka et al. (2018) emphasize that effective procurement can reduce risks in the supply chain, showing that a strong procurement function increases organizational resilience, reduces disruptions, and positively impacts performance. In addition, ethical procurement practices, as expressed by Carter and Rogers (2008), are associated with improved organizational performance through increased corporate social responsibility (CSR). Organizations that adopt ethical principles in their procurement processes tend to achieve better reputations and long-term sustainability.

Empirical Results

Model assessment focuses on research using PLS-SEM, utilizing the Dijkstra-Rho Henseler method and Cronbach’s alpha coefficient to determine construct validity and reliability. According to methodologists (Hair et al., 2019), all indices used exceed the acceptable threshold value of 0.5. Cronbach’s alpha is used to evaluate the reliability of the proposed model.

Table 1 Construct Reliability and Validity

Constructs	Dijkstra-Henseler’s rho (ρA)	Jöreskog’s rho (ρC)	Cronbach’s alpha (α)	The average variance extracted (AVE)
Proc-Process Efficiency	.9556	.9637	.9637	.8420
Org-Perform	.9279	.9432	.9244	.7689
Product-Training	.9580	.9651	.9564	.8217

(Source: Authors’ processing from ADANCO 2.0 version)

The variables of each construct reached the required threshold of 0.6, which validates the effectiveness of the indicator. This indicates that the variables used are valid. While in regression analysis, the Variance Inflation Factor (VIF) is

used to assess the strength of the correlation between independent variables, with the correlation referred to as multicollinearity which has the potential to affect the regression model. In this study, the VIF value of the indicators used

in this study is below the maximum threshold of 10, which confirms that common method variance is not a significant problem.

Table 2. Indicators, Loadings, and VIF

Construct	Indicator	Loading	VIF
Procurement Training	PT1	0.8908	3.2257
	PT2	0.9397	2.5865
	PT3	0.8688	3.0648
	PT4	0.8843	4.8889
	PT5	0.9305	3.7349
	PT6	0.9225	1.1626
Procurement Process Efficiency	PPE1	0.8215	2.2179
	PPE2	0.9206	4.3607
	PPE3	0.9396	3.8206
	PPE4	0.9541	3.5770
	PPE5	0.9458	2.9393
Organizational Performance	OP1	0.8626	2.9297
	OP2	0.8115	2.2158
	OP3	0.9017	3.5706
	OP4	0.9056	4.0454
	OP5	0.8994	3.9925

(Source: Author's processing from ADANCO 2.0 software)

Table 3 Discriminant Validity-Fornell-Larcker Criterion

Constructs	Proc-Process-Effi	Org-Perform	Product-Training
Proc-Process-Effi	.8420		
Org-Perform	.8075	.7689	

Hypothesis Testing - PLS-SEM

Table 3 Hypothetical Path Coefficient

Constructs	Original Coefficient	Standard bootstrap results			Decision	
		Mean Value	Standard Error	T-Value		
Proc-Process-Effi -> Org-Perform	.7652	.7658	.0479	15.9766	.0000	Agreed
Proc-Process-Effi -> Proc-Training	.9022	.8988	.0216	41.6911	.0000	Agreed
Product-Training -> Org-Perform	.1861	.1857	.0544	.4192	.0003	Agreed

Construct	Coefficient of determination (R ²)	Adjusted R ²
Org-Perform	0.8770	0.8762
Product-Training	0.8139	0.8133

(Source: processing from ADANCO 2.0 software)

Proc-Training	.8139	.7680	.8217
---------------	-------	-------	--------------

Note: Squared correlations; AVE in the diagonal. Source: processing from ADANCO 2.0 software

Based on the findings of the Fornell-Larcker criteria, as illustrated in Table 4, the values on the diagonal are greater than the corresponding values for the same constructs. It is essential to evaluate the discriminant validity of the variables used in the study. To ensure this, Hair et al. (2019) recommended that researchers apply the Fornell-Larcker criterion (1981) to identify the latent variables' discriminant validity. The table below, which also presents the average variance extracted (AVE), shows that all diagonal values 0.8420, 0.7689, and 0.8217 exceed the threshold criterion of 0.5, establishing a solid baseline for assessment. According to the Fornell-Larcker criterion (1981) presented in Table 3, the AVE must have higher values than those of the other constructs before the fundamental and rigorous assumptions of the study constructs can be established. Ultimately, the results from the Fornell-Larcker Criterion clearly support the proposed model.

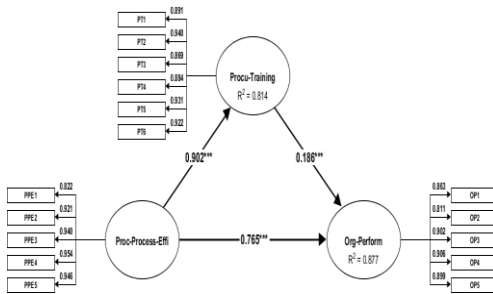


Figure 1 Empirically Tested Research Model
(Source: Author's processing)

The Structural Path Coefficients (values) were estimated using the PLS-ADANCO version, as illustrated in Figure 1, which presents the path coefficient diagram. To evaluate the significance level of these path coefficients (values), T-tests were conducted, with the respective significance levels detailed in Table 5. Additionally, the estimations of the hypothetical structural model revealed that three of the predictions regarding the current research hypotheses were significant. The table below provides further details, including the Beta (β) regression coefficients and the significant values of the research model (p-values of 0.05). Furthermore, the feasibility of the research model for generating values for the regression model was assessed. Given the predictive capacity of the research model, the coefficient of determination (R^2) for the regression model was evaluated. This coefficient indicates the proportion of variance in the dependent variable that can be attributed to the independent (predictor) variables. As a result, the R^2 values for organizational performance and procurement training were 87% and 81%.

Discussions Of Results

Optimization plays a crucial role in all aspects of an organization's operations, leading to reduced operational costs and enhanced competitiveness. This necessity drives organizations to continuously seek innovative approaches to improve decision-making, thereby

fostering closer relationships with customers and suppliers while achieving operational excellence. Given the evolving nature of procurement processes within circular economies, which adapt to emerging trends alongside existing operational tasks, training has become a vital success factor for many process-oriented organizations aiming to enhance the efficiency of their procurement activities. Therefore, this study aims to investigate how procurement processes and organizational performance are mediated by procurement training. To achieve this objective, three hypotheses were proposed.

The first hypothesis (H1) examines whether a significant relationship exists between Procurement Training and Organizational Performance. The findings supported this hypothesis. Consistent with existing research (e.g., Yevu & Yu, 2020; Kombe, 2020; Munir et al., 2020), procurement training is shown to enhance employee competencies. Specifically, Munir et al. (2020) highlight the importance of training for procurement staff, as it helps alleviate risks associated with procurement processes. Given that procurement inherently involves risk, it requires critical and strategic knowledge to identify potential risk factors effectively. The ability to recognize these risks can mitigate the consequences of unintended decisions, making procurement training essential for optimizing resources within organizations. Furthermore, Gray and Silbey (2014) echo the findings of this study by noting that the evolving nature of procurement necessitates regular updates to regulatory frameworks to strengthen the process. However, it is crucial for employees to stay informed about current regulations to optimize organizational resources and enhance overall performance.

Second, the second hypothesis (H2) investigates the significant relationship between procurement training and procurement process efficiency. This hypothesis received support from existing studies (Bals et al., 2019; Handfield et al., 2019; Kakwezi & Nyeko, 2019).

According to Kakwezi and Nyeko (2019), key performance indicators, such as reduced cycle times and cost savings, are crucial training elements that can enhance procurement process efficiency. In light of advancements in technology, market dynamics, and supplier landscapes, continuous learning enables procurement professionals to respond quickly to emerging market trends, regulatory changes, and supplier capabilities. This adaptability allows them to navigate the evolving business landscape and make informed decisions. By staying informed, procurement professionals can engage suppliers more effectively, understand market trends, and implement best practices that foster relevant interactions, ultimately improving relationships and negotiation outcomes. Handfield et al. (2019) argue that continuous learning equips procurement professionals with new skills and innovative methodologies, facilitating process optimization, job automation, and identification of cost-saving opportunities, all of which contribute to enhanced procurement efficiency.

Lastly, the third hypothesis (H3) asserts a significant relationship between organizational performance and procurement process efficiency, suggesting that the efficiency of the procurement process directly influences organizational performance. This finding is supported by previous research (Bag et al., 2020; Bustinza et al., 2019; Saeed et al., 2019). Saeed et al. (2019) argue that aligning procurement strategies with organizational objectives accelerates performance. Similarly, Bag et al. (2020) conclude that procurement process efficiency is closely linked to supply chain resilience and agility. Consequently, organizations with efficient procurement processes are better equipped to respond swiftly to market fluctuations, manage supply chain disruptions, and adapt to new business conditions. Furthermore, the ability to embrace new process models is essential for achieving consistent organizational performance in

dynamic and competitive environments (Bustinza et al., 2019).

Implications

This study carries several important implications for both research and practice. Our analysis underscores the vital role of procurement training in enhancing two essential capabilities within the procurement field: process efficiency and process integration. By adopting a Resource-Based View (RBV) framework, we aim to clarify how procurement activities, when supported by effective training, positively affect organizational performance. Highlighting the impact of procurement training addresses the call for further research in supply chain management, illustrating how strategic management frameworks, particularly training initiatives, can significantly shape procurement's influence on performance. Our findings indicate that effective procurement extends beyond merely managing purchasing transactions; it is strategically intertwined with other business processes within the supply chain. Since previous studies have not thoroughly examined this phenomenon, our research provides a more nuanced understanding of the procurement process.

Conclusions

This study has successfully examined the effect of training on procurement process efficiency and organizational performance, using the resource-based view theory as a theoretical framework. The main findings of this study indicate that procurement training plays a significant mediator role in the relationship between procurement process efficiency and organizational performance. The results also indicate that procurement has a positive relationship with process efficiency, which in turn has an impact on improving organizational performance. Thus, effective training in procurement not only improves efficiency but also makes a significant contribution to achieving better organizational performance. This study presents several practical implications

for organizations, especially in efforts to improve the procurement process. With the right focus on procurement training, organizations can optimize resources and improve overall performance outcomes. This emphasizes the importance of investing in procurement training as an integral part of organizational development strategies.

organizational performance. Therefore, the results obtained cannot be generalized to a broader context. In addition, this study is also limited by the theoretical perspective adopted and the context in which this study is applied. Although the sample size used provides sufficient data, this is still considered as one of the shortcomings that can affect the results of the study.

Limitations

The scope of this study is limited to procurement training and its consequences on process efficiency and its implications for

WORKS CITED

- Alin, A. (2010). Multicollinearity. *Wiley interdisciplinary reviews: computational statistics*, 2(3), 370-374.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.
- Aragão, C. G., & Jabbour, C. J. C. (2017). Green training for sustainable procurement? Insights from the Brazilian public sector. *Industrial and Commercial Training*, 49(1), 48-54.
- Argote, L., & Ingram, P. (2000). Knowledge transfer: A basis for competitive advantage in firms. *Organizational Behavior and Human Decision Processes*, 82(1): 150-169
- Bag, S., Wood, L. C., Mangla, S. K., & Luthra, S. (2020). Procurement 4.0 and its implications on business process performance in a circular economy. *Resources, conservation and recycling*, 152, 104502.
- Bals, L., Schulze, H., Kelly, S., & Stek, K. (2019). Purchasing and supply management (PSM) competencies: Current and future requirements. *Journal of purchasing and supply management*, 25(5), 100572.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120
- Barney, J. B., & Clark, D. N. (2007). *Resource-based theory: Creating and sustaining competitive advantage*. Oxford University Press
- Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6):625-641.
- Barney, J.B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27 (6): 643-650
- Becker, G. (2009) *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. 3rd Edition, University of Chicago Press, Chicago
- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press
- Bienhaus, F., & Haddud, A. (2018). Procurement 4.0: factors influencing the digitization of procurement and supply chains. *Business Process Management Journal*, 24(4), 965-984.
- Brewer, B., Wallin, C., & Ashenbaum, B. (2014). Outsourcing the procurement function: Do actions and results align with theory? *Journal of Purchasing and Supply Management*, 20(3), 186-194.
- Bustanza, O. F., Vendrell-Herrero, F., Perez-Arostegui, M., & Parry, G. (2019). Technological capabilities, resilience capabilities, and organizational effectiveness. *The International Journal of Human Resource Management*, 30(8), 1370-1392.
- Carter, C.R. and Rogers, D.S. (2008) *A Framework of Sustainable Supply Chain Management: Moving toward New Theory*. *International Journal of Physical Distribution & Logistics Management*, 38, 360-387. <https://doi.org/10.1108/09600030810882816>

- Chaudhuri, A., Boer, H., & Taran, Y. (2018). Supply chain integration, risk management, and manufacturing flexibility. *International Journal of Operations and Production Management*, 38(3), 690-712. Chimwani, B. I., Iravo, M. A., & Tirimba, O. I. (2014). Factors influencing procurement performance in the Kenyan public sector: a case study of the state law office. *International Journal of Innovation and Applied Studies*, 9(4), 1626.
- Christopher, M. (2016). *Logistics & supply chain management*. Pearson Education, UK
- Croom, S. Vidal, N. Spetic, W. & Marshall, D. (2018) Impact of social sustainability orientation and supply chain practices on operational performance, *International Journal of Operations & Production Management* 38(9). DOI:10.1108/IJOPM-03-2017-0180
- Davis G.F., DeWitt T. (2021). Organization theory and the resource-based view of the firm: The great divide. *Journal of Management*, 47(7):1684-1697
- E. Nwogwugwu, "Towards the Harmonisation of International Procurement Policies and Practices" (2005) 14 P.P.L.R. 131.
- M. Ringle, Marko Sarstedt, Nicholas P. Danks, Soumya Ray. Cham, Switzerland: Springer, (2021). 197 pp. 0, Open Access; 59.99, Hardcover Book.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.
- Frankfort-Nachmias, C., & Nachmias, D. (2007). *Study guide for research methods in the social sciences*. Macmillan.
- Galy, E., & Saucedo, M. J. (2014). Post-implementation practices of ERP systems and their relationship to financial performance. *Information & Management*, 51(3), 310-319.
- Giunipero, L. C., Bittner, S., Shanks, I., & Cho, M. H. (2019). Analyzing the sourcing literature: over two decades of research. *Journal of Purchasing and Supply Management*, 25(5), 100521.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106-121.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24.
- Handfield, R., Jeong, S. & Choi, T. (2019), "Emerging procurement technology: data analytics and cognitive analytics", *International Journal of Physical Distribution & Logistics Management*, 49(10): 972- 1002, doi:10.1108/IJPDLM-11-2017-0348.
- Handfield, R., Jeong, S., & Choi, T. (2019). Emerging procurement technology: data analytics and cognitive analytics. *International journal of physical distribution & logistics management*, 49(10), 972-1002.
- Hayes, B. E. (2008). *Measuring customer satisfaction and loyalty*. Quality Press. Hoyle, R. H. (Ed.). (1999). *Statistical strategies for small sample research*. Sage.
- Islam, M. M., Turki, A., Murad, M. W., & Karim, A. (2017). Do sustainable procurement practices improve organizational performance? *Sustainability*, 9(12), 2281
- Jogaratanam, G. (2017). The effect of market orientation, entrepreneurial orientation, and human capital on positional advantage: Evidence from the restaurant industry. *International Journal of Hospitality Management*, 60, 104-113
- Kakwezi, P., & Nyeko, S. (2019). Procurement processes and performance: Efficiency and effectiveness of the procurement function. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 3(1).
- Karangizi, Regional Procurement Reform Initiative 10 (2003) (Paper presented at Joint WTO-World Bank Regional Workshop on Procurement Reforms and Transparency in Public Procurement for English Speaking Africa Countries), available at http://www.wto.org/english/tratop_e/gproc_e/wkshop_tanz_jan03/karangizi1_e.doc.
- Kellermanns, F., Walter, J., Crook, T. R., Kemmerer, B., & Narayanan. V. (2016). The resource-based view in entrepreneurship: A content-analytical comparison of researchers' and entrepreneurs' views, *Journal of Small Business Management*, 54:1, 26-48,
- Kipkemoi, R. T. (2017). *Effects Of Procurement Practices On Organizational Performance Within The Public Sector: A Case Of East African Portland Cement Company Limited* (Doctoral dissertation)
- Kock, N., & Hadaya, P. (2018). Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods. *Information Systems Journal*, 28(1), 227-261.

- Kombe, C. E. (2020). The Influence of Procurement Practice on Public Organizational Performance. *Kukunda-Onyait, N. (2019). Achieving workforce agility in dynamic environments.*
- Lysons, K. and Farrington, B. (2012) *Purchasing and Supply Chain Management*. Pearson Education Limited, England
- Markus, K. A. (2012). Principles and practice of structural equation modeling by Rex B. Kline.
- Marsh, H. W., & Hau, K. T. (1999). Confirmatory factor analysis: Strategies for small sample sizes. *Statistical strategies for small sample research*, 1, 251-284.
- Masudin, I. Aprilia, G.W. 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>
- Moh'd Ali Smadi, Z., & Ababneh, H. T. (2018). Toward Realizing Operational Excellence through e-Procurement Adoption: A Resource-based view.
- Monczka, R. M., Handfield, R. B., Giunipero, L. C., & Patterson, J. L. (2018). *Purchasing and supply chain management*. Cengage Learning
- Munir, M., Jajja, M. S. S., Chatha, K. A., & Farooq, S. (2020). Supply chain risk management and operational performance: The enabling role of supply chain integration—*International Journal of Production Economics*, 227, 107667.
- NAFTA Annex 1001.1a Schedule of the United States, Note, and NAFTA Annex 1001.1a-1 Schedule of the United States,
- Nangpiire, C., Dawdi, A. A., Shahadu, F. Z., Majeed, M., & Salifu, Z. N. (2024). The Effects of Sustainable Hospitality Supply Chain on Customer Satisfaction and Customer Repurchase Intentions. *Journal of Law and Sustainable Development*, 12(1), e2605-e2605.
- Nangpiire, G. Gyebi, F.O. & Nasse, T.B. (2024). Sustainable Procurement Practices and Organizational Performance of Small and Medium Enterprises in Ghana, *International Journal of Economics and Financial Issues* 14(1): 95-106
- Newbert, S. L. (2008). Value, rareness, competitive advantage, and performance: A conceptual-level empirical investigation of the resource-based view of the firm. *Strategic Management Journal*, 29 (7), 745-768
- Newbert, S.L. (2007), Empirical research on the resource-based view of the firm: an assessment and suggestions for future research. *Strategic Management Journal*, 28: 121-146.
- Ordanini, A., & Rubera, G. (2008). Strategic capabilities and internet resources in procurement: A resource-based view of B-to-B buying process. *International Journal of Operations & Production Management*, 28(1), 27-52.
- Peteraf, M.A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14 (3), 179-191
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies—*Journal of Applied Psychology*, 88(5), 879
- Rong, K., Lin, Y., Li, B. & Burstrom, T. (2018). Business ecosystem research agenda: more dynamic, more embedded, and more internationalized, *Asian Business & Management* 17(5). DOI:10.1057/s41291-018-0038-6
- Saastamoinen, J., Reijonen, H., & Tammi, T. (2017). The role of training in dismantling barriers to SME participation in public procurement. *Journal of Public Procurement*, 17(1), 1-30.
- Saeed, K. A., Malhotra, M. K., & Abdinnour, S. (2019). How supply chain architecture and product architecture impact firm performance: An empirical examination. *Journal of Purchasing and Supply Management*, 25(1), 40-52.
- Schumacher, S. Buildstein, A. & Bauemhensl, T. (2020). The Impact of the Digital Transformation on Lean Production Systems, *Procedia CIRP* 93(13): 783-788
- Sullivan, G. M., & Artino Jr, A. R. (2013). Analyzing and interpreting data from Likert-type scales. *Journal of graduate medical education*, 5(4), 541-542.
- Tinsley, H. E., & Tinsley, D. J. (1987). Uses of factor analysis in counseling psychology research. *Journal of Counseling Psychology*, 34(4), 414.

The 19 Member states of COMESA include Burundi, Comoros, D.R. Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia, Zimbabwe. See COMESA official website <http://www.comesa.int>

The WTO as a Law-harmonizing Institution' (2004) 25 U. Pa. J. Int'l Econ. L.321 at pp. 333-336.COMESA Directives: Essential Components of National Legal Frameworks, Yevu, S. K., & Yu, A. T. W. (2020). The ecosystem of drivers for electronic procurement adoption for construction project procurement: a systematic review and future research directions. *Engineering, Construction and Architectural Management*, 27(2), 411-440.