

Mebrate, Yonas; Shumet, Kahsu

## Article

# Assessing the impact of procurement practice on organizational performance

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# Assessing the impact of procurement practice on organizational performance

Yonas Mebrate  and Kahsu Shumet

Department of Marketing Management, Oda Bultum University, Chiro, Ethiopia

## ABSTRACT

Research on public procurement has attracted increased attention in recent years. Although public procurement practices have been studied in developed and developing countries, there has been little information about public procurement practices in Ethiopia. This study conceptualized and developed dimensions of procurement practice and tested the relationships between procurement practices and organizational performance. The relationships proposed in the framework were tested using structural equation modeling. The findings indicated that procurement planning and staff competency have a positive impact on organizational performance. Public institutions, particularly Universities are encouraged to apply and embark on procurement planning and staff competency practices to maximize performance. The paper concludes with some managerial implications, limitations and opportunities of the study, and suggestions for future work.

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## Introduction

Public procurement has become an issue of concern worldwide and has been subjected to reforms, restructuring, rules, and regulations (Kabega et al., 2016). Carr and Smeltzer (1997) state that procurement practices comprise the actions taken by the purchasing organization to navigate and integrate its performance to increase productivity by reducing cost and time. The linkage of procurement to organizational performance, in particular, makes the embracing of best practices important to present organizational success. Various public institutions both in developing and developed countries have instituted purchasing reforms that involve laws and regulations (Kabega et al., 2016).

Effective procurement requires the utilization of sound business practices that maximize value to the organization through the acquisition of goods and services. This follows the adage that the purchasing department's role is to deliver the right material or service in the right amount to the right place at the right time and at the right price (Sollish & Somanik, 2005). The application of appropriate procurement practices strategically has the potential impact on the performance of organizations and national economies in general (Keith et al., 2016). However, Singhal and Hendricks (2011) observed that disruptions in purchasing practices at any level devastate organizational performance.

In practice, when the purchasing process is well-planned and implemented, it can act as an economic instrument for guaranteeing national development (Keith et al., 2016). Many low income countries are challenged by the dynamic purchasing revolution and this gives them difficulty in the functioning of procurement and performance together with the inside and outside dealings (Wambui, 2013). Jibrin et al. (2014) noted that the major problem in the current procurement industry is not the limited regulation models but because of noncompliance and a pitiable execution process.

Regardless of the efforts by the private and public institutions in Ethiopia to improve the performance of the purchasing function, poor implementation and non-compliance to procurement regulations still pose key challenges (Hussein & Shale, 2014). They are burdened with delays and the occasional inability to deliver the goods to the designated organizations (World Bank, 2010). This problem has precipitated a decline in the procurement/supply performance of enormous public organizations (Schiele et al., 2011). With the present estimated spending of about 70% on purchasing and the importance of functions of procurement in the contribution of profitability of a firm by over 25%, it will be essential for institutions to come up with a decision on how practices of purchasing could assist in meeting organizations goals (Jibrin et al., 2014).

There are various studies conducted on the topic of procurement and its relation to organizational performance which have given positive findings. Shisanya and Omwenga (2018) found out that strategic purchasing management has a direct impact on the organizational performance of financial institutions in Kenya. Similarly, Makabira and Waiganjo (2014) found the role of procurement practices in the performance of the Kenyan National Police Service in Makueni County. In addition, Kabega et al. (2016) found the positive effect of procurement practices on the performance of public projects in Rwanda. In their study, they did not include procurement practices like inventory management, procurement controls, procurement monitoring, and staff competency which this study intended to examine. We found that it is necessary to carry out a study in a different setting and to find process improvement models or if the same suggestion holds in the Ethiopian public Universities specifically, Oda Bultum, Haramaya, and Dire Dawa University. Therefore, the purpose of this study was to assess the effect of procurement practices on the organizational performance of the selected public Universities.

## Literature review

### *Theoretical framework*

#### *Transaction cost theory*

This theory is the foundation model employed to ascertain the formation of the study. This theory, thus, remains to apply to the study as it captured the factors; cost control, and quality of goods/services delivered that regulate the effect of procurement monitoring activities when undertaking procurement practices (Dawson, 2016). This is quite ideal as the study is based on establishing the effect of procurement practice on organizational performance. In this sense, cost control can be regarded as a methodology to make procurement monitoring and controlling and organizational performance of Universities decide about the best way of exploiting these alternative ways of procurement practices (Talib et al., 2020). In the case of the cost of quality of goods and services delivered, it is better to organize procurement within the hierarchy, but when there is a possibility to separate the procurement process into various parts, goods, and services of some of these parts may be the lowest cost option.

***Principal-agency theory.*** The economists founded this model to confront the issue related to principals and agents, where agents are persuaded to carry out some task on behalf of the principal (Heath & Norman, 2004). The Principal-Agency Theory (PAT) concerns the understanding that is put in place for an individual or entity (agent) to act in another's interest (principal). The postulations and proposition of PAT fit obviously with the issues concerning procurement and organizational performance.

In the process of managing supplier quality, buyers in agency relations are likely to be faced with possible risks. By nature, buyers expect to get good and improved quality goods and services from suppliers; however, suppliers might be hesitant to spend considerably on quality. Zu and Kaynak (2012) observed that the difference between buyers and suppliers always results in the two parties concerning themselves only with their self-interests. PAT establishes the way procurement managers carry out the

procurement practices on behalf of the public institution. If there is an existence of a poor relationship between the principal and agent, then this could affect the relationship between the suppliers and the institutions. This study, therefore, used this model to determine the procurement practices' role and the performance of organizations with a focus on Oda Bultum, Haramaya, and Dire Dawa University.

### ***Procurement practices and organizational performance***

A system of procurement is termed an essential element of the supply chain system in any given institution. Usually, the procurement process of an organization includes operational and strategic processes as priorities in the operations of the two entities which tend to differ (Turban et al., 2000). Products of procurement, management of suppliers, requisitions of purchase orders as well as growth are among the key activities which are linked to procurement strategies. Most organizations decentralize their procurement tasks through procurement processes that work hand in hand with strategies that are at the center of the processes of procurement. For a company to group practices of purchasing, procurement will help to consolidate what will lead to greater discounts and better service from suppliers, the information acceleration found among the suppliers and buyers, and reduction in hours administration, leaving them with more time to carry out duties, quickly respond to stiff competition in the entrants of new markets, therefore, improving the possibilities of championing new enterprises (Eng, 2004). The managing function of procurement effectively pioneers system performance in attaining its presumed goals for the private and public sectors.

In addition, procurement helps labor expansion through employee empowerment and improvement of the quality of goods to come up with business rights in the workplace (Johnson & Klassen, 2005). The performance of an organization is measured through product and service quality, customer satisfaction, performance in the market, innovation services, and relationships among employees (Delaney & Huselid, 2006). In all the performance measures, procurement practices have a positive relationship or generally affect the level of organizational performance. Literature tells that proper inventory management, procurement monitoring, procurement controls, procurement planning, as well as training of the workforce can result in better organizational performance (Basheka & Bisangabasaija, 2010; Chandra, 2008; PPOA, 2013; Aketch & Karanja, 2013).

For a public institution, such as Universities to succeed in its operations and service delivery, procurement planning is vital (Basheka & Bisangabasaija, 2010). According to Brown and Hyer (2010), planning is comprised of the identification of the main purpose, scope definition, requirements of customers, and identification of activities of procurement, time estimation which can be based on the delivery of goods and services as per cost quoted and scheduled, responsibilities assignment among other many involvements. Effective and efficient procurement process can only be achieved by proper planning and competent staff or else the institution expects a flawed procurement process. Willy and Njeru (2014) reiterated that adherence to procurement plans positively affects the performance of public institutions.

Brown and Hyer (2010) described procurement controlling and monitoring the process of system tracking checklist which is simple to that which is sophisticated, to identify changes in the novel plan. These researchers further indicated that in any given controlling and monitoring process, there is a need for the team assigned to work on the task to agree on the approaches that are appropriate in the monitoring process as it is one of the key performance indicators (KPIs) in procurement practice. They referred to control of procurement as decisions, actions, and processes that are related to variations in the procurement implementation. Control and monitoring of procurement require a change in the management process of tasks that are used to make variations appropriately. Control and monitoring are key pillars to the success in implementation as it regularly compel contrast of targets against performance (Chandra, 2008).

Warehousing and storage records need to be utilized for accepting and issuing merchandise in client offices. The vast majority of these documents need to be responsible and ought to be secured against the unapproved right of use. Warehousing and storage records ought to further be figured out how inside the acquisition cycle and they are overseeing the economy to a chance to be coordinated for those records that relate to economic project of a procuring process. The records acquisition or inventory

management officers need supervisory to facilitate any obligations for the administration of storage records. It may be crucial that store records need to be appropriately kept systematically. It will be especially paramount to have end-to-end coordination of efforts among the officers who are answerable for overseeing the economy for procurement accounts and records. The records administration branches clinched alongside procurement must give acceptable course and authority in the management about storage records close by different records in different entities to assure performance (PPOA, 2013).

Competency refers to having sufficient knowledge and skills that enable a person to act in diverse situations (Aketch & Karanja, 2013). According to Russell (2004) in public procurement, professionalism relates to the education levels, workforce qualifications, and also the professional approach regarding how business activities are conducted. To improve and contribute to the productivity of organizations, there's a need for human resource extensive external training. Moreover, the study further shows that there are clear merits in ensuring that professional staff deal with suppliers and that approaches are handled well. A low level of competence among procurement staff showed a major setback in improving organizational performance (PPOA, 2013).

Measuring the performance of the procurement function yields benefits to organizations, such as cost reduction, enhanced profitability, assumed supplies, quality improvements, and competitive advantages (Basheka & Bisangabasaija, 2010).

The research was guided by the following research hypothesis

Hypothesis 1: Procurement planning has a significant positive effect on organizational performance.

Hypothesis 2: Procurement controlling has a significant positive effect on organizational performance.

Hypothesis 3: Procurement monitoring has a significant positive effect on organizational performance.

Hypothesis 4: Inventory Management has a significant positive effect on organizational performance.

Hypothesis 5: Staff competency has a significant positive effect on organizational performance.

## **Research methodology**

### ***Study setting and participants***

The entities under investigation for this study were Oda Bultum, Haramaya, and Dire Dawa University found in the eastern part of Ethiopia. We considered all the employees working related to the procurement functions during the data collection period. Accordingly, our sample consisted of 31 employees who have a direct connection with the procurement functions in the three selected Universities. In this case, the justified numbers of employees included in the study were those easily accessible, available at a given time, or willing to participate.

### ***Measurement and data collection***

The structured questionnaire was adapted from studies conducted in other developing countries and was contextualized to the study setting. We reviewed relevant literature to identify valid measures and then adapted extant scales to measure procurement practice and organizational performance (Delery & Doty, 1996; Kabega et al., 2016; Makabira & Waiganjo, 2014; Wambui, 2013). The indicators were all measured using a five-point Likert scale containing 31 items.

The data collection tool also captured background variables, such as University name, age, gender, educational status, current position, and year of experience. The data collection was conducted after ethical clearance and letter of support was obtained from the three selected public Universities of higher education.

### ***Reliability and validity***

To assess the reliability and validity of the hierarchical constructs a confirmatory factor analysis (CFA) was conducted. Following Hair et al. (2017), the measurement model was tested for indicator reliability,

composite reliability, convergent validity, and discriminant validity. To test for the indicator reliability, factor loadings were examined as displayed in [Table A1](#). Factor loadings of the indicators should be equal to or above 0.7, such that the shared variance between the construct and its indicators is greater than the variance of the error term (Fornell & Larcker, 1981). As shown in [Table A1](#), all items exceed this threshold except for Inventory3, Monitoring2, Oprfrmnce2, and Oprfrmnce3 which are slightly below 0.7. However, indicators scoring between 0.4 and 0.7 should only be removed if they negatively affect the average variance extracted (AVE) of their construct (Hair et al., 2017). Since this was the case, after purification, numerous items were removed from the analysis because of low factor loadings ( $<0.600$ ), and affected the average variance extracted negatively (Gefen & Straub, 2005).

Further, to assess the internal consistency of the constructs, Cronbach's alpha (CA) and the composite reliability (CR) were evaluated. All variables surpass the recommended level for Cronbach's Alpha ( $>0.70$ ) ([Table A1](#)). In addition, all constructs exceed the recommended minimum value for CR ( $>0.70$ ). The insufficient levels of CA of the lower-order constructs can be explained by the PLS-SEM settings. That is, the CA value assumes that all indicators are equally reliable whereas PLS-SEM prioritizes the indicators about their reliability. The CR, on the other hand, accounts for these differences in item reliability and is, therefore, more appropriate to evaluate the internal consistency reliability with PLS-SEM (Hair et al., 2017). Thus, it can be concluded that the internal consistency of all constructs is given.

Next, the average variance extracted (AVE) was examined to assess the convergent validity of the reflective constructs. According to Fornell and Larcker (1981), the AVE value of a construct should be above 0.5 to confirm its convergent validity, which was the case for all constructs as displayed in [Table A1](#). The AVE denotes the extent to which a construct can explain the variance of its indicators and how much of the variance can be attributed to the measurement error (Chin et al., 2010).

Lastly, the discriminant validity was tested, which is typically done with the Fornell-Larcker criterion and heterotrait-monotriat ratio of correlations (HTMT). The discriminant validity indicates to which extent a construct is distinct from the other constructs in the model. To satisfy the Fornell-Larcker criterion the square root of each construct's AVE needs to be higher than its correlation with the other constructs ([Table A2](#)). This was the case for all constructs, thus discriminant validity according to the Fornell-Larcker criterion can be claimed (Hair et al., 2017). However, according to recent research, the Fornell-Larcker criterion does not fully detect discriminant validity problems (Henseler et al., 2015). Instead, Henseler et al. (2015) propose the HTMT ratio as an alternative measurement for discriminant validity. The HTMT 'ratio is based on the average of the correlations of indicators across constructs measuring different phenomena relative to the average of the correlations of indicators within the same construct' (Gupta & George, 2016). Following Henseler et al. (2015) the values of the HTMT ratio should be below 0.85 to provide sufficient support for discriminant validity. The results displayed in [Table A3](#) indicate that the HTMT criterion was met. All model evaluation criteria for the reflectively measured constructs have been met, providing support for their validity and reliability.

### **Method of data analysis**

Data were entered into SPSS version 20 and exported into Smart-PLS 3 for analysis. The aim of the empirical analysis for the current study was to assess the interrelationships between independent and dependent variables. Partial Least square-Structural Equation Modeling (PLS-SEM) was employed as the primary method of data analysis in the current study. PLS-SEM can be considered the best solution to cope with small sample research (Chin, 1998; Chin & Newsted, 1999; Hair et al., 2011, 2014; Henseler, 2009; Henseler et al., 2014). Our achieved sample size (31) was relatively small. Thus, this justifies the use of PLS-SEM in our study. In addition, according to Hair et al. (2017), SEM is the most appropriate estimation technique to be used when the researcher seeks to examine the relationships among multiple variables.

We ran the PLS-SEM algorithm to obtain path coefficients that demonstrated the strength of the relationships among variables (Hair et al., 2011). Path coefficients that are close to +1 signified strong positive relationships, whereas the ones that are close to -1 indicated strong negative relationships for the



interpretation. We also evaluated the coefficients of determination ( $R^2$ ) which were indicators of the predictive accuracy of structural models. In the context of marketing research,  $R^2$  values of 0.75, 0.50, or 0.25 can be regarded as substantial, moderate, or weak prediction power, respectively (Hair et al., 2014).

## Results

### Demographic information of respondents

The demographic profile of the employee respondents is presented in Table 1. Of the total respondents, 45.2% were from Haramaya University, 29 were from Dire Dawa University, and 25% were from Oda Bultum University. Of the total respondents, 61.3% were male. Regarding the age of respondents, almost half of the respondents (48.4%) were between 26 and 35 years of age. Regarding educational level, 64.5% of the respondents had a bachelor's degree (Undergraduate). Furthermore, regarding the position of the respondents in the purchasing department, 25.8% were team leaders. Concerning the years of experience in the current institution, 35.5% were served 3–5 years.

### The effect of procurement practice on performance

Figure 1 shows the results of the structural equation model with the significant standardized coefficients. The structural model evaluates the relationship between the different variables. This research is interested in the direct relationship between procurement practices and Organizational Performance. All relationships were assessed based on their path coefficients and determination coefficient ( $R^2$ ). Further, all bootstrap confidence intervals were calculated based on a two-tailed test at a significance level of 5% (Hair et al., 2017).

The structural model was tested for the significance of the direct relationships between IM  $\rightarrow$  OP; PC  $\rightarrow$  OP; PM  $\rightarrow$  OP; PP  $\rightarrow$  OP; and SC  $\rightarrow$  OP (Sattler et al., 2010; Wamba et al., 2017). This was done by examining the path coefficients between the constructs. The values for the path coefficients are usually between  $-1$  and  $+1$ , indicating a strongly negative and strongly positive relationship between the variables. Values close to 0 present a weak relationship. To test for the significance of the path coefficients a two-tailed test was computed for  $t$ -statistics and  $p$ -values at a significance level of 5%. Results yield indicates that there exists a significant relationship between PP-OP (0.559) and SC-OP (0.513) at the 5%

**Table 1.** Demographic characteristics of participants.

Demographic characteristics	Category	Sample ( $n=31$ )	
		Frequency	Percent
University	Haramaya	14	45.2
	Dire Dawa	9	29.0
	Oda Bultum	8	25.8
Gender	Male	19	61.3
	Female	12	38.7
Age	18–25	5	16.1
	26–35	15	48.4
	36–45	8	25.8
	46–55	3	9.7
Education level	Certificate	1	3.2
	Diploma	4	12.9
	Undergraduate	20	64.5
	Postgraduate	6	19.4
Current position	Technical expert	5	16.1
	Team leader	8	25.8
	Procurement planning expert	3	9.7
	Purchaser	6	19.4
	Procurement Director	3	9.7
	Store director	3	9.7
	Secretary	3	9.7
	Year of experience in the current institution	2	6.5
Year of experience in the current institution	<1 year	2	6.5
	1–2 years	5	16.1
	3–4 years	11	35.5
	5–6 years	4	12.9
	Above 6 years	9	29.0



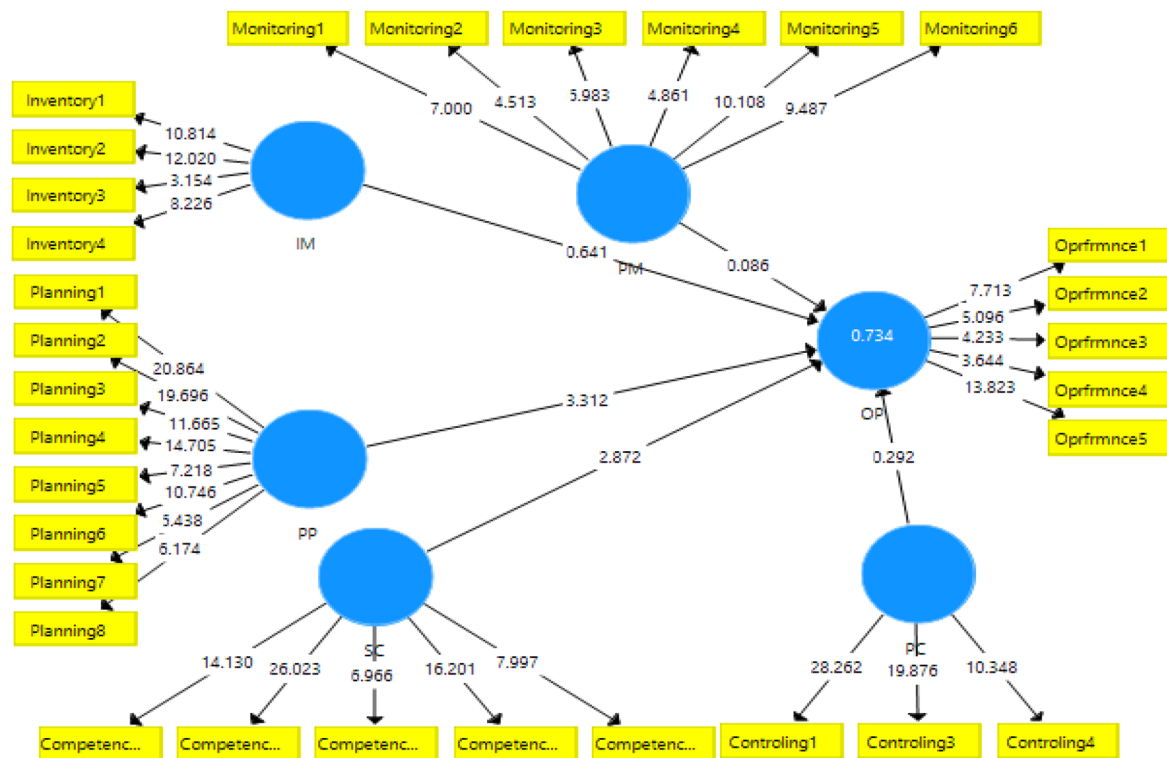


Figure 1. Structural equation model.

Table 2. Path coefficients.

Hypotheses	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	p-Values
IM → OP	-0.123	-0.059	0.196	0.627	0.531
PC → OP	0.052	0.046	0.19	0.274	0.784
PM → OP	0.013	0.017	0.158	0.083	0.934
PP → OP	0.559	0.547	0.174	3.222	0.001
SC → OP	0.513	0.483	0.179	2.858	0.004

significance level (Table 2). All other tested relationships between the endogenous construct and organizational performance are insignificant. Accordingly, the results revealed that organizational performance had significant positive relationships with staff competency and procurement planning. However, the organizational performance had an insignificant relationship with inventory management, procurement control, and procurement monitoring. Hypothesis H1 and H5 are therefore supported.

The prediction power of the research model is examined with the coefficient of determination  $R^2$ . This coefficient represents the combined effect of all exogenous latent variables on the endogenous latent variable. Previous research determined values of 0.75, 0.50, and 0.25 for endogenous latent variables which are referred to as substantial, moderate, and weak prediction power, respectively (Hair et al., 2011). The results of this study showed  $R^2$  values of 0.734. According to these values, it can be concluded that the current research model has moderate to substantial prediction power for the endogenous constructs.

## Discussion

Contributing to the recent literature on organizational performance through procurement practice, we aimed to address the relationship between procurement practice and organizational performance. The hypothesis in this study showed the significant relationship between staff competency and procurement planning with organizational performance in the three selected public Universities in the eastern part of Ethiopia. Staff competency has large and positive effects on organizational performance when applied in the University's procurement practice. This result indicates that equipping employees with skills and

knowledge on procurement subjects and developing them well could potentially lead to a more positive result in organizational performance. When the organization creates and uses procurement practices through a set of practices, it will contribute to the enhancement of employee outcomes (White & Bryson, 2018). This was also consistent with the results of research conducted in private and public sector institutions in Western contexts (e.g. Ang et al., 2013; Fabi et al., 2015; Katou, 2017). Thus, the findings of the present study support the arguments of Gould-Williams and Mohamed (2010) and others that the effects of staff competency are not limited to the private sector or Western countries but can also be observed in other public institutions and cultures around the world.

The results further revealed that procurement planning has also large and positive effects on organizational performance when applied in the University's procurement practice. Through proper procurement planning, Universities can be sure of increasing their performance level in the form of productivity, cost-cutting, quality of goods and services delivered as well as deliveries being made on time. Procurement plans, therefore, influence organizational performance in the sense that they provide focused and efficient utilization of available resources, help in budgeting and planning, and therefore, with adequate provision of finances using appropriate procurement plans, performance can be assured. The finding was in line with the study conducted by Akira and Simba (2017) which confirmed, that lack of procurement planning could result in increased costs of procurement, lead time, increased project risk, and variations as a result of proper procurement planning can affect organizational performance positively.

### ***Managerial implications***

The results from this study have implications for public Universities' higher education practitioners faced with procurement practice to organizational performance. The university management should emphasize good procurement planning to ensure the continuous performance of the organization. Specifically, procurement staff and committee management should be proactive in procurement planning and prioritize having articulated and participatory procurement planning. Furthermore, contract planning should begin as soon as the agency's need is identified; preferably well in advance of the fiscal year in which contract award is necessary, and also the procurement budget should be realistic. In addition, the annual procurement plan should be prepared well by the user departments in a participatory way. Eventually, procurement staff and committee management in conjunction with other stakeholders should embrace modern ways of procurement planning practice.

Following the study results, stakeholders and policymakers should better capacity-building strategies geared toward the improvement of public procurement services. Specifically, they should consider improving the hiring policy. The stakeholders should also emphasize having a well-outlined training budget. Further, they should enhance frequent training of the procurement staff. This would help to improve the performance of the Universities. In addition, the organization's management in conjunction with other stakeholders should come up with well-tailored training programs on practices of procurement. In summary, Universities need to develop good relationships, share information, and coordinate processes among internal functions and with external partners, to achieve good organizational performance. The practice of procurement is becoming more complicated and more challenging for Universities. Therefore, Universities should adopt a holistic procurement integration view to manage their procurement activities to achieve better performance.

### ***Conclusions***

The study concludes that the Universities have adopted the procurement practices to a moderate extent and that there is a relationship between the practices of procurement and organizational performance. Among the hypothesized relationships tested in the study, procurement planning and staff competency influenced the performance of the universities. The application of the practices of procurement in the organization is founded on proper planning. Thus, through proper procurement planning, Universities can increase their performance level through productivity, cost-cutting, quality goods, and services delivery and delivery made on time, and satisfying user departments. Staff development and training on the modern practices of procurement is also an important recipe in the formation of solid ground which can lead to better performance of an organization. Employees can get more

knowledge and skills on procurement subjects which can enable them to have an easy time in their daily operations of offering procurement services. Finally, the study concluded that staff competency influenced the performance of universities. This study also contributes to procurement practices, providing guidelines for Universities to direct their procurement practice efforts to achieve superior performance.

### **Limitations and opportunities for future research**

In this study we focused only on OBU, HU, and DDU found in the eastern part of Ethiopia; nonetheless, it could be appropriate to carry out more studies on other higher education institutions to establish more insights on the subject matter. This study also looked at five independent variables (staff competency, procurement planning, controlling, monitoring, and inventory management) which according to the study contribute to the performance of Universities. The researchers recommend further research to investigate other factors that affect organizational performance, such as procurement procedure, information communication technology, and supplier relationship. Furthermore, this research used a cross-sectional survey which was collected at one point in time, such that it is not possible to analyze any changes in the organizational culture of procurement practice, from a longitudinal perspective. Therefore, future studies should collect panel data that allows analyzing changes in procurement practice and how these changes influence organizational performance in the long run.

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### **About the authors**

**Yonas Mebrate** is Lecturer and Researcher of Marketing Management Department at Oda Bultum University (Ethiopia). He received his MA degree from Marketing Management Department, Aksum University, Ethiopia, in 2018 and BA degree from Management Department, Jimma University, Ethiopia, in 2016. His primary research interest includes public procurement, Supply Chain Management, Small Business Management, Entrepreneurship, Innovation, Customer service, Consumer behavior, Agricultural marketing and Service quality.

**Kahsu Shumet** is a Lecturer and Researcher of Marketing Management Department at Oda Bultum University (Ethiopia). He received his MA degree from Marketing Management Department, Aksum University, Ethiopia, in 2018 and BA degree from Management Department, Adama Science and Technology University, Ethiopia, in 2016. His primary research interest includes Procurement, Customer relationship management, Consumer behavior, Service quality and Entrepreneurship.

### **ORCID**

Yonas Mebrate  <http://orcid.org/0000-0002-6441-9762>

### **References**

- Aketch, J., & Karanja, P. (2013). Factors influencing procurement performance in constituency development fund (CDF): Case of CDF use in Makadara Constituency. *International Journal of Social Science & Entrepreneurship*, 1(2), 1–14.

- Akira, J. J., & Simba, F. (2017). Factors affecting project performance of Kenya ports authority. *International Journal of Managerial Studies and Research*, 5(3), 20–33. <https://doi.org/10.20431/23490349.0503004>
- Ang, S. H., Bartram, T., McNeil, N., Leggat, S. G., & Stanton, P. (2013). The effects of high-performance work systems on hospital employees' work attitudes and intention to leave: A multi-level and occupational group analysis. *The International Journal of Human Resource Management*, 24(16), 3086–3114. <https://doi.org/10.1080/09585192.2013.775029>
- Basheka, B. C., & Bisangabasaija, E. (2010). Determinants of unethical public procurement in local government systems of Uganda: A case study. *International Journal of Procurement Management*, 3(1), 91–104. <https://doi.org/10.1504/IJPM.2010.029777>
- Brown, K. A., & Hyer, N. L. (2010). *Managing projects: A team-based approach*. McGraw-Hill.
- Carr, A. S., & Smeltzer, L. R. (1997). An empirically-based operational definition of strategic purchasing. *European Journal of Purchasing & Supply Management*, 3(4), 199–207. [https://doi.org/10.1016/S0969-7012\(97\)00014-2](https://doi.org/10.1016/S0969-7012(97)00014-2)
- Chandra, P. (2008). *Projects: Planning, analysis, review* (667th ed.). Tata McGraw Hill.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In *Modern methods for business research* (pp. 295–336). Laurence Erlbaum Associates.
- Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares. In R. H. Hoyle (Ed.), *Statistical strategies for small sample research* (pp. 307–341). Sage.
- Chin, W., Esposito, V., Henseler, J., & Wang, H. (2010). *Handbook of partial least squares: concepts, methods, and applications* (pp. 713–735). Berlin: Springer.
- Dawson, C. (2016). *7 Things companies get wrong in supply chain management* (pp. 1–8). Dawson Consulting.
- Delaney, J. T., & Huselid, M. A. (2006). The impact of human resource management practices on performance in for-profit and nonprofit organizations. *Academy of Management Journal*, 39(4), 949–969. <https://doi.org/10.2307/256718>
- Delery, J. E. J., & Doty, H. D. (1996). Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurationally performance predictions. *Academy of Management Journal*, 39(4), 802–835. <https://doi.org/10.2307/256713>
- Eng, T. Y. (2004). The role of e-marketplaces in supply chain management. *Industrial Marketing Management*, 33(2), 97–105. [https://doi.org/10.1016/S0019-8501\(03\)00032-4](https://doi.org/10.1016/S0019-8501(03)00032-4)
- Fabi, B., Lacoursière, R., & Raymond, L. (2015). Impact of high-performance work systems on job satisfaction, organizational commitment, and intention to quit in Canadian organizations. *International Journal of Manpower*, 36(5), 772–790. <https://doi.org/10.1108/MRR-09-2015-0216>
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382–388. <https://doi.org/10.1177/002224378101800313>
- Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using PLS-Graph: Tutorial and annotated example. *Communications of the Association for Information Systems*, 16(1), 5. <https://doi.org/10.17705/1CAIS.01605>
- Gould-Williams, J. S., & Mohamed, R. B. (2010). A comparative study of the effects of “best practice” HRM on worker outcomes in Malaysia and England local government. *The International Journal of Human Resource Management*, 21(5), 653–675. <https://doi.org/10.1080/09585191003658821>
- Gupta, M., & George, J. F. (2016). Toward the development of a big data analytics capability. *Information & Management*, 53(8), 1049–1064. <https://doi.org/10.1016/j.im.2016.07.004>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. SAGE Publications.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares Q6 structural equation modeling (PLS-SEM)*. Sage Publications.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>
- Heath, J., & Norman, W. (2004). Stakeholders theory, corporate governance, and public management. *Journal of Business Ethics*, 53(3), 247–265. <https://doi.org/10.1023/B:BUSI.0000039418.75103.ed>
- Henseler, J. (2009). *The use of partial least squares path modeling in international marketing. New challenges to international marketing*. Emerald Group Publishing Limited.
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., Ketchen, D. J.Jr., Hair, J. F., Hult, G. T. M., & Calantone, R. J. (2014). Common beliefs and reality about PLS: Comments on Rönkkö and Evermann (2013). *Organizational Research Methods*, 17(2), 182–209. <https://doi.org/10.1177/1094428114526928>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hussein, I. M. R., & Shale, I. N. (2014). Effects of sustainable procurement practices on organizational performance in the manufacturing sector in Kenya: A case of Unilever Kenya Limited. *European Journal of Business Management*, 1(11), 417–438.
- Jibrin, M. S., Ejura, S. B., & Augustine, N. I. (2014). The public procurement reforms in Nigeria: Implementation and compliance challenges. *Journal of Asian Business Strategy*, 4(12), 153–166.
- Johnson, P. F., & Klassen, R. D. (2005). E-procurement. *MIT Sloan Management Review*, 46, 7.
- Kabega, C., Kule, J. W., & Mbera, Z. R. (2016). Effect of procurement practices on performance of public projects in Rwanda. *International Journal of Economics, Commerce and Management United Kingdom*, IV(5), 377–397.

- Katou, A. A. (2017). How does human resource management influence organizational performance? An integrative approach-based analysis. *International Journal of Productivity and Performance Management*, 66(6), 797–821. <https://doi.org/10.1108/RSR-10-2016-0070>
- Keith, B., Vitasek, K., Manrodt, K., & Kling, J. (2016). *Strategic sourcing in the new economy: Harnessing the potential of sourcing business models for modern procurement*. Palgrave Macmillan.
- Makabira, D. K., & Waiganjo, E. (2014). Role of procurement practices on the performance of corporate organizations in Kenya: A case study of Kenya National Police Service. *International Journal of Academic Research in Business and Social Science*, 4(10), 369–389.
- Public Procurement Oversight Authority (2013). Objectives of PPOA. Retrieved January 21, 2013, from [www.poa.go](http://www.poa.go)
- Russell, I. (2004). *People management and competency profiling*. South Yarra, Australia: TestGrid Pty Ltd.
- Sattler, H., Völckner, F., Riediger, C., & Ringle, C. M. (2010). The impact of brand extension success drivers on brand extension price premiums. *International Journal of Research in Marketing*, 27(4), 319–328. <https://doi.org/10.1016/j.ijresmar.2010.08.005>
- Schiele, H., Horn, P., & Vos, B. (2011). Estimating cost-saving potential from international sourcing and other sourcing levers: Relative importance and tradeoffs. *International Journal of Physical Distribution & Logistics Management*, 41(3), 315–336. <https://doi.org/10.1108/01443570610646210>
- Shisanya, B., & Omwenga, J. (2018). Influence of procurement practices on performance in private universities in Kenya: A case of Marist International University. *International Journal of Recent Research in Social Sciences and Humanities*, 5(4), 313–320.
- Singhal, V. R., & Hendricks, K. B. (2011). How supply chain glitches torpedo shareholder value. *Supply Chain Management Review*, 6(1), 18–24.
- Sollish, F., & Somanik, J. (2005). *The purchasing and supply managers guide to the C.P.M. exam*. Harbor Light Press.
- Talib, S. M., Muhoho, D. R. J., & Makali, J. (2020). Procurement practices and supply chain performance at World Food Programme, Nairobi, Kenya. *Strategic Journal of Business & Change Management*, 7(3), 1051–1061. <https://doi.org/10.61426/sjbcm.v7i3.1726>
- Turban, E., Lee, J., King, D., & Chung, M. H. (2000). *Electronic commerce*. Prentice-Hall.
- Wamba, S. F., Gunasekaran, A., Akter, S., Ren, S. J., Dubey, R., & Childe, S. J. (2017). Big data analytics and firm performance: Effects of dynamic capabilities. *Journal of Business Research*, 70, 356–365. <https://doi.org/10.1016/j.jbusres.2016.08.009>
- Wambui, E. N. (2013). Role of procurement on organization performance; A survey study of public secondary schools in Imenti North District, Kenya. *International Journal of Social Sciences Entrepreneurship*, 1(3), 289–302.
- White, M., & Bryson, A. (2018). *HPWS in the public sector: Are there mutual gains?* IZA Institute of Labor Economics, Discussion Paper No. 11965. <http://dx.doi.org/10.2139/ssrn.3301719>
- Willy, K., & Njeru, A. (2014). Effects of procurement planning on procurement performance: a case study of the agricultural development corporation, Nairobi. *International Journal of Business and Commerce*, 3(312), 58–68.
- World Bank (2010). Roads: Broadening the agenda. In V. Foster & C. Briceño-Garmendia (Eds.), *Africa's infrastructure: A time for transformation*. Washington, DC: World Bank.
- Zu, X., & Kaynak, H. (2012). An agency theory perspective on supply chain quality management. *International Journal of Operations & Production Management*, 32(4), 423–446. <https://doi.org/10.1108/01443571211223086>

## Appendix A

**Table A1.** Loadings, reliability, validity, and AVE.

Variables	Loading	Cronbach's alpha	Composite reliability	AVE
Staff competency (SC)		0.900	0.925	0.712
The organization has documented policies that guide training in procurement practices	0.840			
The department has frequent procurement training programs in place to enhance employees' Skills	0.913			
Training in procurement practices has improved the performance of procurement staff in your University	0.798			
Inadequate training in procurement practices leads to poor performance of the organization	0.858			
Procurement staff clearly understand procurement procedures	0.805			
Procurement controlling (PC)		0.871	0.921	0.795
The university periodically reviews the existing procurement policies	0.900			
The technical abilities of the suppliers are evaluated before contract awarding	0.905			
Received goods and services are checked against the local purchase order	0.869			
Inventory management (IM)		0.785	0.858	0.606
The department has put in place systems and processes that identify inventory requirements	0.850			
The department always set inventory targets	0.826			
The department observes replenishment techniques	0.602			
The department handles all functions related to the tracking and management of material	0.810			
Procurement monitoring (PM)		0.899	0.922	0.666
Reviews of the procurement system are done at regular intervals	0.871			
The organization examines the procurement cycle to prevent fraud	0.628			
Supplier evaluation is periodically undertaken to ensure the quality of the goods and services	0.849			
Corrective actions are taken once a discrepancy is identified in the procurement processes	0.773			
Obstacles in the procurement process are mitigated promptly	0.880			
Close supervision of purchases is done as a way of controlling costs	0.866			
Procurement planning (PP)		0.935	0.947	0.690
Top management is involved in the procurement planning	0.845			
Needs assessment is undertaken by respective Heads of the department for goods and services required	0.891			
Budget approval is obtained for the required items before purchase orders are placed	0.836			

(Continued)



**Table A1.** Continued.

Variables	Loading	Cronbach's alpha	Composite reliability	AVE
Market capability analysis is carried out to determine where to procure from	0.896			
Procurement planning sets in motion the entire procurement process in the university	0.795			
The procurement needs are clearly defined by the heads of the department	0.861			
Delivery schedules that fit the organization's requirements are drawn with the suppliers	0.765			
Funds are availed based on the budget	0.742			
Organizational performance (OP)		0.820	0.875	0.586
Procurement practices adopted by the university have impacted positively on the university's performance	0.823			
Procurement practices adopted by the university have contributed to users' department satisfaction	0.686			
Procurement practices adopted in the university have resulted in procurement cost reduction	0.693			
Procurement practices adopted by the University have resulted in quality goods/ services	0.708			
A procurement practice adopted by the University has resulted in timely delivery of goods and services	0.894			

**Table A2.** Fornell-Larcker criterion.

	IM	OP	PC	PM	PP	SC
IM	<b>0.778</b>					
OP	0.555	<b>0.765</b>				
PC	0.586	0.692	<b>0.892</b>			
PM	0.603	0.465	0.574	<b>0.816</b>		
PP	0.523	0.731	0.668	0.459	<b>0.830</b>	
SC	0.663	0.685	0.651	0.457	0.380	<b>0.844</b>

Note: Values in bold and italic represent the square root of AVE.

**Table A3.** Heterotrait-monotriat ratio.

	IM	OP	PC	PM	PP	SC
IM						
OP	0.658					
PC	0.684	0.810				
PM	0.672	0.502	0.624			
PP	0.582	0.807	0.721	0.477		
SC	0.770	0.778	0.732	0.476	0.391	