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Abstract

Procurement functions have become a strategic unit for many organizations because huge costs can be cut down through prudent procurement hence increase in profitability. The study assessed the impact of e-procurement practices on performance in large manufacturing firms in Buenos Aires, Argentina. The procurement practices included e-bidding, e-tendering, e-purchasing and e-sourcing. This study was based on contingency theory and technology acceptance theory. The target population for the study was large sized manufacturing firms in Buenos Aires, Argentina where the unit of analyses were procurement managers and procurement supervisors. SPSS software for analysis. Regression analysis results indicated that E-bidding, E-tendering. E-purchasing and performance, the regression analysis revealed a positive and significant relationship. E-sourcing was positively and significantly related with performance of large manufacturing firms in Buenos Aires, Argentina. The study concluded that the firms adopt various E-procurement practices which includes; E-bidding, E-tendering, E-purchasing and E-sourcing as a way of improving their financial performance. The study recommends that the large manufacturing should adopt E-procurement practices owing to their immense benefits to the performance of the firm which include; improved financial performance, reduced inbound lead time and efficiency and increased procurement volumes processed. The study further recommends that large manufacturing firms contemplating adopting E-procurement practices should integrate their systems since lack of system integration is a major challenge to E-procurement.

Keywords: *E-Procurement, Manufacturing Firms, Buenos Aires, Argentina*

1.1 Introduction

In today's dynamic global competitive business environment, technology based innovation has turned out to be essential for organizations to furnish their clients with cost-effective total solution and better consumer loyalty with imaginative thoughts and strategies. With the rise of Information and Communication Technology (ICT), organizations have been compelled to move their task from the customary style e-Procurement practices for sustainability (Laryea & Ibem, 2016).

Advances in innovations are shifting the manner in which purchasers and providers acquire goods and services. It is presently less demanding than any time in recent memory to oversee and monitor performance contracts, tenders and records in a single focal area through acquirement management portals. This is helping organizations work more productively than ever, satisfying prerequisites in an auspicious, cost-effective and facilitating for risk aversion, which occurs during the supply chain (Gelderman, Ghijsen, & Brugman, 2016).

According to Lysons and Gillingham (2009), electronic procurement (EP) is the appropriation of Internet innovation in the buying procedure. E-procurement practices emerged out of the serious deficiencies in the manual tender framework, for example, delays in the conclusion of providers for merchandise and ventures for organizational activities that impacts performance proficiency and conveyance of administrations to the natives (Stich, Pause, Blum and Hinrichs, 2016). The e-Procurement process is basically intended to maintain a strategic distance from human interface particularly the provider and purchaser communication amid the pre-bidding stage (World Bank, 2015).

The main e-procurement practices include e-bidding, e-tendering, e-purchasing and e-sourcing. This section will elaborate how each of these e-procurement practices are applied in the procurement sector. The bidding process is one of the most imperative phases in the assembling and development industry. The significant objective of assembling and development companies is to expand business volume by successful bidding on different projects. Therefore, companies must prepare realistic offer proposition. However, the conventional bidding process is time devouring and requires a great deal of effort (Wang, Yan and Wan, 2016).

E-tendering includes the method of sending RFI and RF to providers and getting their response with use of web innovations. Regularly e-tendering is backed by an e-tendering framework that can evaluate the reactions gotten from the providers. Conversely, the use of web technology to purchase products and ventures from a quantity of identified or obscure providers is E-reverse auctioning. e-reverse auctioning supports the contract phase. The collection and conveying of purchasing data in external and internal parties utilizing web technology is known as E- informing (Al-Yahya, Skitmore, Bridge, Nepal & Cattell, 2017).

E-Purchasing is the utilization of the web to boost procurement process, processing, endorsement, the transmission and acknowledgment of this by providers (Moedjiono, Wibowo & Kusdaryono, 2017). Initial e-procurement innovation arrangements concentrated on this part of e-procurement as this was seen as the zone where most extreme efficiencies could be accomplished. The primary favorable position of utilizing e-acquiring is that if the supplier can get the buy arrange data electronically, they might have the capacity to transfer it straightforwardly into their order management framework. This has the advantage of avoidance of re–keying data by sales operations staff, and limiting chances for mistakes in the requests. In this manner, by keeping the Purchasing data electronic from beginning to end; the procedure is snappier, decreases mistakes and gives a clear governance and audit trail (Afande 2015; Doherty et al., 2013; Croom & Brandon, 2015).

E-sourcing facilitates the full life cycle of procurement by breaking down how an organization spends their cash on assets. This incorporates distinguishing and identification and selection of

opportunities to decrease spending and utilizing learning of the external market sectors and negotiating, managing, and monitoring contracts for goods (Engelbrecht-Wiggans & Katok, 2016). E-Sourcing performs most, if not all, of this procedure electronically, consolidation of proposals, statements, and bids from different suppliers into a more central point to enable simplicity of comparison.

Procurement functions have therefore become a strategic unit for many organizations because huge costs can be cut down through prudent procurement hence increase in profitability (Saad, Kunhu & Mohamed, 2016). This study sought to establish how e-procurement practices namely e-bidding, e-tendering, e purchasing and e-sourcing can be used in manufacturing firms in Argentina to impact positive organizational performance. Contingency theory and technology acceptance theory will be used to anchor the relationship on e-procurement practices and organizational performance.

1.2 Statement of the Problem

In the today's dynamic global competitive business environment, technology based innovation has turned out to be essential for organizations to furnish their clients with cost-effective total solution and better consumer loyalty with imaginative thoughts and strategies. With the rise of Information and Communication Technology (ICT), organizations have been compelled to move their task from the customary style e-procurement and e-Supply Chain innovation for improved performance (Laryea & Ibem, 2016). However, some challenges in e-procurement such as costs inferable from the cost needs of setting up, for example, framework key among them; planning and costs, change the board, and in addition need of training and assets has led to a sluggish adoption of the eProcurement practices (Amani, 2021). In Argentina, most of the projects undertaken by large manufacturing firms, there is delay in the start of projects and realization of the goals due to delays in procurement process. This causes losses in terms of monetary value and time. Streamlining the procurement process through the electronic ways would averse such delays and enhance efficiency (Saad, Kunhu & Mohamed, 2016). Therefore, this study sought to bridge the existing gaps by establishing the impact of e-procurement practices and organizational performance in manufacturing firms in Buenos Aires, Argentina.

1.3 Objectives of the Study

The general objective of the study was to assess the impact of e-procurement practices on organizational performance in large manufacturing firms in Buenos Aires, Argentina.

The specific objectives of this study were;

i. To establish the e-Procurement practices used in large manufacturing firms in Buenos Aires, Argentina.
ii. To determine the relationship between e-procurement practices and organizational performance of large manufacturing firms in Buenos Aires, Argentina.
iii. To establish the challenges facing adoption of e-procurement practices.

2.1 Literature Review

2.1.1 Theoretical Review: Contingency Theory

Contingency theory was created by Defender (1964) and looks for to clarify why behavior or choices wander when shown by individuals of a particular affiliation. The Possibility hypothesis relevant fits the genome of the examination of acquirement and its impact on various leveled execution. This is often due to the way that it is prefaced on the method of reasoning that for affiliations to be compelling there must be a consistent fit between the definitive structure and its relations with her outside environment. Hence, an unexpected technique the association's setting is basic. The significance of the contingency hypothesis in this examination lies within the way that affiliations have to look for to achieve a consistent assault of definitive characteristics to possibilities in their acquirement forms and hones with the conclusion result being prevalent (Lawwrence & Lorscih, 2004).

The significance of this theory particularly in this study generally originates from the way that it helps identify the need for proficiency from an affiliation particularly in respect to getting value for cash from its transactions with operators exterior of the organization. Subsequently, it delineates how affiliations have to look for to achieve a constant fitting of definitive characteristics to possibilities in their acquirement forms and hones to realize execution.

2.1.2 Empirical Review

The main e-procurement practices include e-bidding, e-tendering, e-purchasing and e-sourcing. This section will elaborate how each of these e-procurement practices are applied in the procurement sector.

The bidding procedure is a standout amongst the most essential stages in the assembling and development industry. The significant goal of assembling and development organizations is to grow business volume by fruitful offering on different undertakings. Thus, organizations must get ready practical offer recommendations. Notwithstanding, the customary offering process is tedious and requires a lot of exertion (Wang, Yan & Wan, 2016). The electronic offer bond supplier sets up a protected online framework for following the issuance of offer bonds. The electronic offer bond benefit enrolls and confirms the expert of the sureties and operators that compose the bonds.

E-bidding provides the means toward sending RFI and RFP (ask for proposition) to providers and accepting their reaction utilizing web advances. Frequently e-offering is upheld by an e-offering framework that can break down the reactions got from the providers. Then again, the utilization of Internet innovation to purchase products and enterprises from various known or obscure providers is E-turn around unloading. e-turn around unloading bolsters the agreement stage. The social affair and appropriating of acquiring data from and to interior and outside gatherings utilizing web innovation is known as E-informing(Al-Yahya, Skitmore, Bridge, Nepal & Cattell, 2017).

E-Purchasing is the usage of Internet to facilitate operational purchasing process, including demanding, arrange handling, arrange endorsement, the transmission and acknowledgment of this by providers (Moedjiono, Wibowo & Kusdaryono, 2017). Early e-acquirement innovation

arrangements concentrated on this part of e-procurement as this was seen as the zone where most extreme efficiencies could be accomplished. The primary favorable position of utilizing e-acquiring is that if the supplier can get the buy arrange data electronically, they might have the capacity to transfer it straightforwardly into their order management framework. This has the advantage of avoidance of re–keying data by sales operations staff, and limiting chances for mistakes in the requests. In this manner, by keeping the Purchasing data electronic from beginning to end; the procedure is snappier, decreases mistakes and gives a clear governance and audit trail (Afande 2015; Doherty et al., 2013; Croom & Brandon, 2015).

Sourcing facilitates the full life cycle of procurement by breaking down how an organization spends their cash on assets. This incorporates distinguishing and identification and selection of opportunities to decrease spending and utilizing learning of the external market sectors and negotiating, managing, and monitoring contracts for goods (Engelbrecht-Wiggans & Katok, 2016). E-Sourcing performs most, if not all, of this procedure electronically, consolidation of proposals, statements, and bids from different suppliers into a more central point to enable simplicity of comparison.

Enterprise Resource Planning (ERP) is the making, affirming of buying orders, submitting buy requests, and accepting merchandise and ventures by utilizing a product framework dependent on web innovation. Electronic support, fix and redesign (e-MRO) is like ERP, in any case, merchandise and enterprises asked for are non-thing related. E-sourcing licenses recognizing new suppliers for a specific arrangement of purchasing necessities using web advancements across over spatial limits. Most basic points of interest of e-sourcing are expanded basic leadership adaptability and lower costs (GovWin, 2012).

2.2 Conceptual Framework

A conceptual framework is a road map that the study intends to follow with the aim of looking for answers to the problems raised by the research questions as shown in Figure 1.

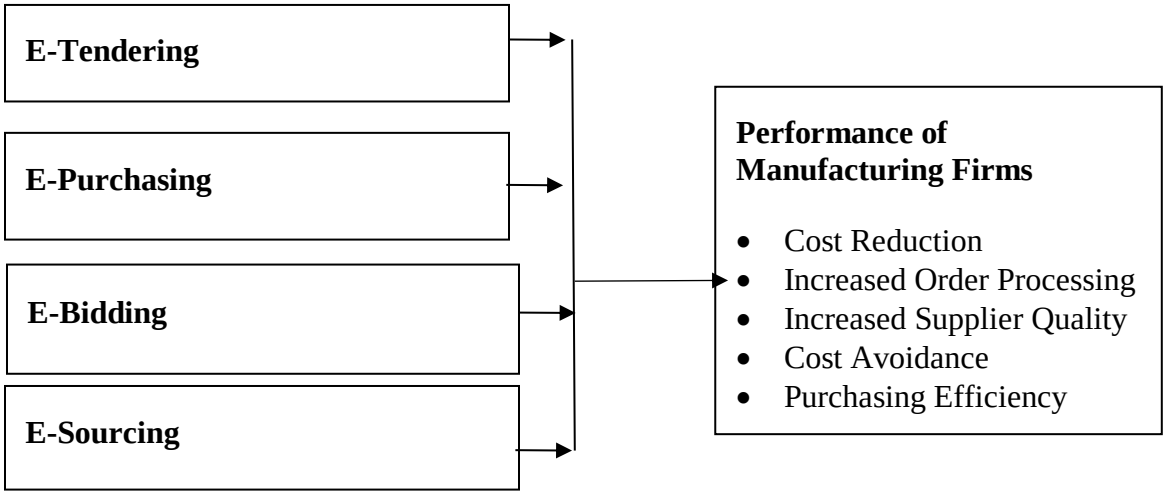

Figure 1: Conceptual Framework

3.1 Research Methodology

The research design adopted in this study was a descriptive research design which entailed the classification and analysis of data. Procurement managers and procurement supervisors in the 50 large manufacturing companies in Buenos Aires, Argentina were used as respondents. With regard to the data obtained using standard questionnaires; the researcher used SPSS software for analysis. Multiple regression analysis was used to show the relationship of the independent and dependent variables.

4.1 Results and Findings

4.1.1 Descriptive Statistics

Concerning the E-procurement practices used by large manufacturing firms in Nairobi, most of them had adopted E-bidding, E-tendering, E-purchasing and E-sourcing. On the second objective, the regression analysis results indicated a significant and positive relationship between the E-procurement practices and the performance. Based on the findings, majority of the respondents indicated that, Organizational Culture, Fraud, Security, Cost of System, and Pushback from Users, Software Licensing and Relevant Technology were a challenge to E-procurement to a small extent while majority felt Lack of system integration was a challenge to E-procurement to a great extent.

4.1.2 Regression Analysis

Regression analysis was conducted out by the researcher to test if the interrelationship of the study variables that were; e-bidding, e-tendering, e-purchasing and e-sourcing and the dependent variable of the study which was performance.

Table 1: Fitness of Model

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error**
1	.832[a]	.692	.678	.3441

a. Predictors: (Constant), E-sourcing-Tendering, E-bidding, E-purchasing.

Table 2 gives the outcomes of the ANOVA.

Table 2: ANOVA

ANOVA[a]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	23.419	4	5.855	49.445	.000[b]
	Residual	10.420	88	.118		
	Total	33.838	92			

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The outcomes of the analysis of variance in Table 2 show that the general model was statistically significant. The regression of coefficient table is presented in Table 3

Table 3: Regression of Coefficients

Coefficients[a]						
Model					**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	1.785	.103		17.322	.000
	E-bidding	.124	.039	.276	3.185	.002
	E-Tendering	.111	.039	.237	2.853	.005
	E-purchasing	.089	.039	.210	2.314	.023
	E-sourcing	.125	.042	.256	2.954	.004

a. Dependent Variable: Performance

Table 3 shows that $E-bidding$ and performance are positively and significant related ($\beta = .124, p = 0.002$). The table also indicated that $E- tendering$ and performance are positively and significantly related (β=.111, p=0.005). Similarly, results showed that E-purchasing and performance were positively and significantly related (β=.089, p=0.023). The results further showed that, E-sourcing and performance were positively and significantly related (β=.125, p=0.004). This implies that a rise in E-bidding, E- tendering, E-purchasing and E-sourcing leads to an improvement in performance of the large manufacturing firms in Buenos Aires, Argentina.

The model applied in this study which was;

$Y= 1.785+ 0.\ 124X_1 + 0.\ 111X_2+ 0.\ 089X_3+ 0.\ 125X_4$

Where:

Y = performance of large manufacturing firms in Buenos Aires, Argentina

X_1 = E-bidding

X_2 = E-tendering

X_3 = E-purchasing

X_4 = E-sourcing

4.1.3 Discussion of the Findings

The study sought to establish the e-Procurement, and then determine the relationship between those e-procurement practices and organizational. Making inferences to the findings of the study, it emerged that most respondents indicated to a great extent that their firms had adopted various E-procurement practices which were; E-bidding, E-tendering, E-Purchasing and E-sourcing.

Regression analysis results indicated that E-bidding and performance were significantly and positively related($\beta = .124, p = 0.002$). This means that a unitary improvement in E-bidding leads to an improvement in performance by 0.124 units holding other factors constant. The findings also indicated that $E - tendering$ and performance were significantly and positively related (β=.111, p=0.005) .This means that a unitary improvement in E-tendering leads to an improvement in performance by 0.111 units holding other factors constant. Concerning the relationship between E-purchasing and performance, there was a positive and significant relationship between E-purchasing and (β=.089, p=0.023). This means that a unitary improvement in E-purchasing leads to an improvement in performance by 0.089 units holding other factors constant. Finally the findings indicated that, E-sourcing and performance were significantly and positively related (β=.125, p=0.004). This means that a unitary improvement in E-sourcing leads to an improvement in performance by 0.125 units holding other factors constant.

5.1 Conclusions

The study we can concluded that, large manufacturing firms in Buenos Aires, Argentina adopt various E-procurement practices which includes; E-bidding, E-tendering, E-purchasing and E-sourcing as a way of improving their financial performance. Concerning E-bidding, the study findings indicated that large manufacturing firms in Buenos Aires, Argentina uses E-bidding platforms for; documentation, Real-time bidding, Results Disclosure and Bid Advertising. It was also revealed from the results that large manufacturing firms in Buenos Aires, Argentina had adopted E-tendering practices for; Order Processing, Online Advertisement, Tracking and Tracing of Orders and for Short Listing. About E-purchasing, most large manufacturing firms in Buenos Aires, Argentina were found to be using E-purchasing methods in; Supplier Evaluation, Requisitions, Online Workflow and Online registration.

Further the results indicated that most of majority of the firms had E-sourcing for; Outsourcing of products and services, Customization, Reverse Auctions and for Online search. Conclusion can be made further that; there exist a positive and significant relationship between E-bidding, E-tendering, E-purchasing, E-sourcing and performance. It can be concluded based on the results that Lack of system integration is a challenge to E-procurement to a great extent.

Finally, E-procurement practices have helped improve the performance of the large manufacturing firms in a number of ways. E-procurement practices have; led to the improved financial performance, enabled transparent price information, increased procurement volumes processed, and reduced inbound lead time and efficiency.

6.1 Recommendations

Large manufacturing firms should adopt E-procurement practices owing to their immense benefits to the performance of the firm which include; improved financial performance, reduced inbound lead time and efficiency and increased procurement volumes processed. The study recommends that large manufacturing firms contemplating adopting E-procurement practices should integrate their systems since lack of system integration is a major challenge to E-procurement.

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