



# THE EFFECTS OF E-PROCUREMENT PRACTICES ON SUPPLIER RELATION AND PROCUREMENT PERFORMANCE

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**Abstract:** Nowadays, eProcurement is often supported by web-based internet technologies and is becoming increasingly prevalent. Those involved in the procurement function need to understand the different procurement concepts and tools to provide input into their development, use, evaluation, and refinement to improve procurement efficiency and effectiveness. This study aims to analyze the effects of E-procurement practices on suppliers' relations and procurement performance among INGOs in Myanmar. The quantitative research method is applied, and data are collected using questionnaires. The findings show that E-procurement practices positively impact supplier relations and procurement performance. The results contribute to INGOs in Myanmar's understanding of the role of E-procurement. Effective implementation of E-procurement practices brings positive communication between buyer and suppliers and improve performance.

**Index Terms - E-procurement, Supplier relation, Procurement performance, INGOs, Myanmar**

## I. INTRODUCTION

Electronic procurement (E-procurement) has risen in popularity across the world as a result of technological advancements. E-procurement facilities impact procurement efficiency [1]. The introduction of electronic procurement systems has its own goals. The organization has main goals of electronic procurement to improve transactions between suppliers and buyers, reduce personal needs, save time and money, receive more offers from a broader range of potential bidders, improve coordination, the shortening of the procurement cycle, eliminate weak points clarification during the tendering period, improvement of the audit trails and transparency and achievement of the best price-performance ratio [2]. An attractive relationship between buyer and seller positively affects innovation and supply chain performance in organizations [3]. Procurement policies and procedures of international non-governmental organizations (INGOs) vary based on each organization's needs and donor specifications [4].

Myanmar faces significant humanitarian, development, and political challenges. Years of international sanctions have constrained levels of foreign aid. Still, some 65 international INGOs work in Myanmar in various sectors, including health, agriculture, and disaster response [4]. Safeguards used by donors and NGOs to protect humanitarian independence include internal and external audits, monitoring recipients of aid, and adherence to transparency and procurement protocols. Procurement has played a vital role in nations' economic and social development since its emergence [5]. This study examines the effect of e-procurement practices on supplier relations and procurement performance among international non-governmental organizations in Myanmar.

## II. REVIEW OF LITERATURE

The UN Procurement Practitioner's handbook defines eProcurement as "electronic procurement that when the activities of the purchasing process are conducted electronically, typically over the internet, to shorten the cycle time and lower the transaction costs of the acquisition process" (page 174) [6]. Electronic bidding, electronic marketplaces, electronic auctions/reverse auctions, and electronic catalogs are examples of electronic procurement that concentrate on one or more phases in the procurement process. The e-procurement application, in a broader sense, may be regarded as an end-to-end solution that combines and simplifies multiple procurement tasks across the business. The chart below summarizes the main activities that can be processed with the help of an eProcurement system to ensure more flexibility, transparency, competitiveness, and sustainability [7].

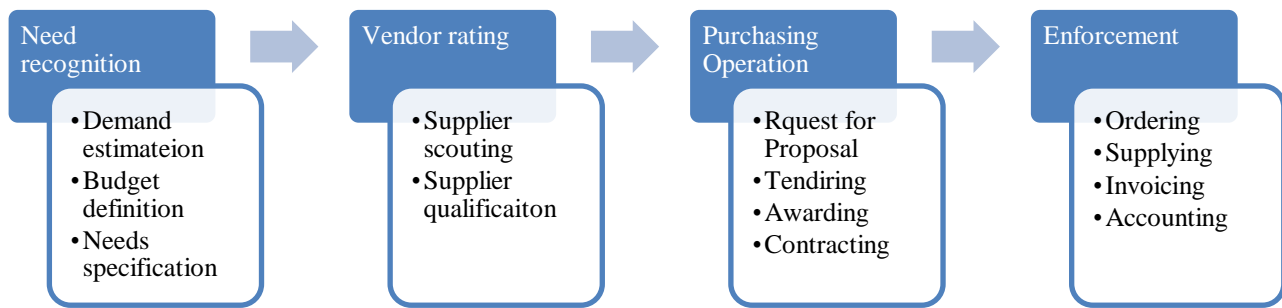


Figure 1: Process of E Procurement [6]

E-procurement has positive impact on procurement performance functions of national government [1, 7]. Moreover, supply chain performance of organization relates positively with E-procurement performance and buyer-supplier relations. Supplier relation is the process of a corporation engaging and cooperating with its suppliers to guarantee an appropriate supply flow [8, 9]. Supplier relation, which entails effective communication, information sharing, and cooperation with suppliers, can also assist in reducing upstream complexity [9, 10]. Increased responsiveness, flexibility, and time savings are benefits of integrating suppliers [9]. Supplier and buyer, both sides, benefit from the total value created by the relationship [11]. A significant responsibility of purchasing professionals is to monitor the performance of suppliers in their supply chain system [9]. Supplier integration can also assist in reducing transaction costs by cutting manufacturing costs and reducing uncertainty resulting in improved operational performance [8].

Procurement performance has remained a burning issue for eras, and it still is. As with other professions like accounting and marketing, the procurement profession seeks to upsurge its responsibility to fortify its place on the board of directors. Procurers seek to identify tools to measure procurement performance and link it to a business plan [12]. Procurement performance has received more courtesy over the past era. The uniqueness of the motives for this is that more and more companies recognize the value-added competencies of the procurement function [13]. The influence of supplier relationship management effect on procurement performance. The primary task was to help suppliers secure profits in the short term, short-term recovery of loss-making suppliers, and longer-term capability enhancement [14]. Procurement performance is achieved when goods or services are procured at the best possible cost to meet the purchaser's needs in terms of quality, quantity, time, and location.

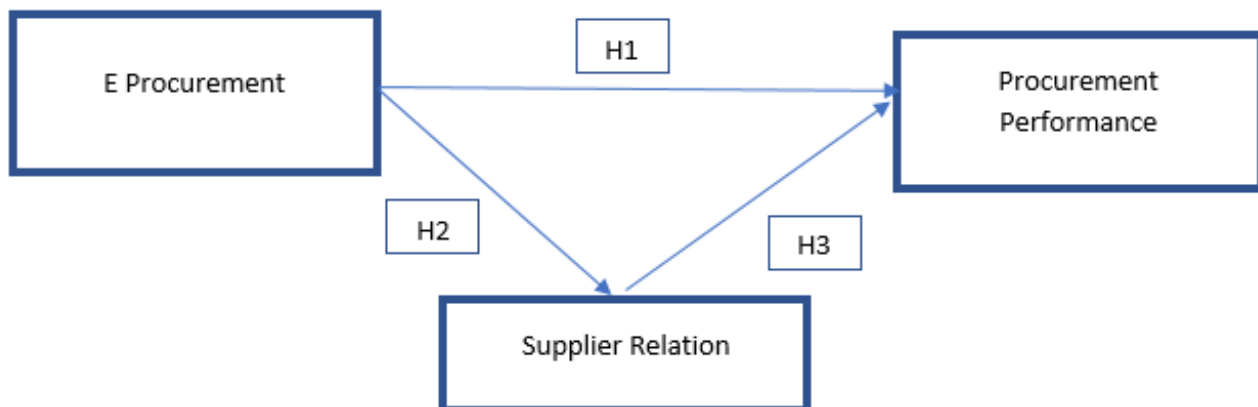


Figure 2: Conceptual Framework

### Hypothesis

H1: E-procurement positively influence Procurement performance in International Non-Government Organizations (INGOs) in Myanmar

H2: E-procurement significantly influence Supplier Relation in Non-Government Organizations (INGOs) in Myanmar

H3: Supplier Relation significantly influences Procurement Performance in Non-Government Organization (INGOs) in Myanmar

### III. RESEARCH METHODOLOGY

Quantitative research uses numerical data to analyze the effect of variables. Quantitative research proves whether the constructed hypotheses are acceptable in the research conduct area. Quantitative research presents the results through statistical data and testing. In the current study, the testing variables are E-procurement, supplier relation, and procurement performance. Hypotheses are developed based on previous research findings. The target population of this research is buyers of INGOs in Myanmar. The research instrument is the most essential part of the study. The questions in the questionnaire are thoughtfully designed to address every facet of the selected factors. To gather the primary data, a questionnaire with closed-ended questions was created. The responses are scored using a Likert scale: five signifies strong agreement, and one strongly disagrees. In the data analysis method, the research undergoes

various tests according to the particular requirement of the study and responses to the questions. Frequency tables, descriptive tests, and Pearson correlation tests are implemented to answer research hypotheses.

#### IV. RESULT AND DISCUSSION

A total of 36 buyers actively participated. The collected data are transferred from Microsoft Excel to statistical package for social-science software (SPSS-version 27). Personal data are presented using frequency table (table 1). The majority of respondents are female, aged between 35 to 44 years, and have bachelor degree. Moreover, the highest proportion of participants have moderate level of ICT knowledge, and five to ten years of working experiences.

Table 1: Personal Factors

Personal Factor		Frequency	Percentage
Gender	Male	17	47.2%
	Female	19	52.7%
Age	25 - 34	6	16.7%
	35 - 44	23	63.9%
	45 - 54	7	19.4%
Education	Bachelor	25	69.4%
	Master's	11	30.6%
ICT Expert level	Moderate	30	83.3%
	Very High	5	13.9%
	Very Low	1	2.8%
Working experience	0 - 2 years	7	19.4%
	11 or more	4	11.1%
	2 - 4 years	5	13.9%
	5 - 10 years	20	55.6%

Table (2) presents the descriptive statistics of testing variables. For E-procurement, the respondents highly reported on “purchase requirements/specifications online” (Mean = 4.19) followed by “identifies new/potential suppliers using internet technology” (Mean = 4.17). The results indicate that INGOs noticeably implement IT to commute with buyers. For procurement performance, “improve efficiency and time taken to complete procurement process” (Mean = 4.14) followed by “reduce costs for procurement process, and administration” and “effectiveness of procurement process” (Mean = 4.06). the findings show that the implementation of E-procurement brings benefits to organization. For supplier relation, “establish communication channel” gets highest mean score (Mean = 4.22), and “maintain a strong buyer-vendor relationship” and “improve relation” get second largest mean score (Mean = 4.14). According to findings, the conducted organizations have positive supplier-buyer communication.

Table 2: Descriptive Statistics

Variable		Mean	Std. Deviation
E-procurement	Procurement1	4.19	.710
	Procurement2	4.17	.507
	Procurement3	3.61	.871
	Procurement4	3.97	.845
	Procurement5	3.64	.723
	Procurement6	3.72	.815
Procurement Performance	Performance1	4.06	.674
	Performance2	4.14	.762
	Performance3	4.03	.696
	Performance4	4.06	.583
	Performance5	3.58	.841
	Performance6	3.44	.877
Supplier Relation	Relation1	4.14	.593
	Relation2	3.56	.607
	Relation3	3.44	1.027
	Relation4	4.22	.422
	Relation5	4.14	.351

Pearson correlation tests are carried out to analyze the correlation between testing variables. Pearson correlation values show the direction and strength of correlation. According to table (3), there is positive significant correlation between E-procurement practice and procurement performance (Pearson's  $r = 0.341$ ,  $p$ -value  $< 0.042$ ). E-procurement practice also has positive significant correlation with supplier relation (Pearson's  $r = 0.567$ ,  $p$ -value  $< 0.01$ ). Moreover, the supplier relation has direct significant correlation with procurement performance (Pearson's  $r = 0.338$ ,  $p$ -value  $0.044$ ).

Table 3: Pearson Correlation between testing variables

Correlations				
		E-Procurement Practice	Procurement Performance	Supplier Relation
E-Procurement Practice	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	36		
Procurement Performance	Pearson Correlation	.341*	1	
	Sig. (2-tailed)	.042		
	N	36	36	
Supplier Relation	Pearson Correlation	.567**	.338*	1
	Sig. (2-tailed)	.000	.044	
	N	36	36	36
*. Correlation is significant at the 0.05 level (2-tailed).				
**. Correlation is significant at the 0.01 level (2-tailed).				

The findings support the previous studies' results where the E-procurement impacts positively on performance, and supplier-buyer communication [1]. Organizational innovation and supply chain performance are positively impacted by a desirable buyer-seller relationship [3]. Monitoring the performance of suppliers in a company's supply chain is a major responsibility of purchasing experts [9]. Supplier integration can also help minimize transaction costs by improving operational performance and lowering production costs and uncertainties [8]. The current study's results indicate the positive impact of E-procurement on procurement performance, and supplier relation. Furthermore, the findings approve the direct relationship between supplier relation and procurement performance.

#### IV. CONCLUSION

The current study used quantitative research to answer the developed conceptual framework and hypotheses. A total of 36 buyers of INGOs participated in this study. The findings approved that hypotheses are accepted where E-procurement positively impacts procurement performance and suppliers' relations. Moreover, supplier relation directly influences procurement performance. When the organization uses effective E-procurement, there are effective buyer-supplier relations, improving procurement performance. In addition, the effective management and development of supplier communication impact procurement performance. The current study's findings point out the critical aspect of E-procurement for INGOs. However, this study limits the collection of large samples from various INGOs in Myanmar. Thus, further studies should implement other research methods and collect data from a large sample.

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