

## ABSTRACT

Studies have shown that the use of electronic purchasing or e-Purchasing saves organizations millions of dollars yearly in transaction related costs. In addition, it helps to cut down the supplier base, promotes paperless transactions, and increases transparency and accountability in the procurement process. Nonetheless, some studies have noted that between 75 to 85% of e-Purchasing initiatives have met with failure and have not achieved the desired results. Studies to better understand the critical success factors (CSFs) of e-Purchasing implementation success involving various industries have been on the rise. However, little headway has been made in research pertaining to the construction industry. This has led to lack of understanding of the factors specific to this industry and caused limited development of research framework to uncover the factors. This research aims to address this limitation. Its purpose ultimately is to assist managers make better decisions on e-Purchasing implementation. Adopting a sequential mixed methods approach, this study began with a qualitative research and ended with a quantitative data gathering processes. The qualitative aspect involves extracting organizational CSFs gleaned from previous studies, and identifying new emerging factors and themes concerning the phenomenon. The quantitative aspect involves obtaining empirical data from a large sample of construction organizations using the survey questionnaire as the data gathering instrument. Purposive sampling was adopted in coming up with the 123 respondents participating in the study. Results from principle component factor analysis and correlation analysis indicate that 8 components of 52 organizational CSF items exhibit statistical relationship with e-Purchasing implementation success measured in terms of project management success and user satisfaction. Inferential statistics were used to evaluate the effects of these 52 CSFs on project management success and user satisfaction. The results from multiple regression analysis have led to the refinement of the 52 CSFs that significantly contribute to e-Purchasing implementation success. From the analysis, five factors emerged as statistically significant predictors of project management success. Likewise, three factors were found to be statistically significant predictors of user satisfaction. The results of the empirical analysis provide a new framework of organizational CSFs of e-Purchasing implementation success for the construction industry, in addition to improving the existing theoretical framework developed from literature review and qualitative study. The empirical study has also led to the construction of a meaningful

framework known as the e-Purchasing Implementation Success (e-PIS) Framework. This framework can be the impetus for many similar future research undertaking in the area. This research contributes to the existing body of knowledge by revealing the factors that influence the successful implementation of e-Purchasing in the construction sector. The most important contribution of this research to theory lies in its ability to produce the empirical evidences to support the theories of CSFs and e-Purchasing implementation success, whereby this research has confirmed that organizational CSFs are positively correlated with successful e-Purchasing implementation. As for its contribution to practice, the framework that it helps to develop should provide practitioners with better insights into what affects e-Purchasing implementation, hence making them much more prepared for it.