

**IMPACT OF INSTITUTIONAL ASPECTS ON THE
ADOPTION OF E-PROCUREMENT IN SRI LANKAN
CLOTHING INDUSTRY: A CASE STUDY OF
KOGGALA EXPORT PROCESSING ZONE**

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This dissertation is submitted in partial fulfillment of the requirements for
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DECLARATION

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ABSTRACT

A significant portion of Sri Lanka's GDP, more than 7%, comes from the clothing industry, which directly employs 15% of the labour force. One important process that can have a big impact on a company's supply chain performance is procurement. Because of this, procurement errors are frequent in all industries. This is because market demand is not well understood or communicated. Consequently, by using e-procurement, firms will be able to optimize their entire procurement process and reap significant benefits. Therefore, the primary objective of this research is to identify how institutional factors affect the adoption of e-procurement in Sri Lankan clothing industry, with a focus on clothing manufacturers located in the Koggala export processing zone. The systematic literature review was conducted to analyze institution-based factors for the e-procurement adoption. The innovation diffusion theory, technology adoption theory and institutional theory served as the foundation for this investigation. Then the independent variables staff technical competencies, adequate technological infrastructure, managerial commitment, corporate procurement culture, and dependent variable adoption of e-procurement were used to build the conceptual framework. The target population for the research approach was all the workers who are employed in the departments and sub departments which are attached with the procurement process in clothing manufacturers in Sri Lanka's Koggala export processing zone. Convenience sampling was used as the sampling technique. Initially, stepwise regression analysis was conducted, and the results indicated that the changes in the adoption of e-procurement were strongly impacted by only three independent variables: staff technical competencies, adequate technological infrastructure, and managerial commitment. Then due to the invalidity of assumption of homoscedasticity in residual diagnostics, the log transformed regression model was introduced to transform a highly skewed variable into a more normalized dataset. The results reported that the 66.3% of the difference in the adoption of e-procurement was clarified through the same institutional factors same as the previous model. Furthermore, this model failed to accept the assumption of homoscedasticity, and three data points were identified as abnormal data points. Then both Cook's distance test and DFFITS test were conducted separately to calculate values to determine whether these identified abnormal points are influential or not. The threshold values concluded that the points are not influential data points. However, since these points acted as abnormal points for the data distribution, another regression was conducted without all abnormal data points. Then a more precise model was constructed with the acceptancy of all the residual assumptions. This model showed that the most important institutional determinants for Sri Lankan clothing manufacturers adopting e-procurement are staff technical competencies and adequate technological infrastructure. Additionally, the model showed that institutional variables, staff technical competencies and adequate technological infrastructure account for 63.2% of the variation in e-procurement adoption. Also, it concluded that 36.8% variation in the e-procurement adoption can be encountered by any other factors which are not covered in this study. These results demonstrated that, while transitioning to an electronic-based procurement platform, Sri Lankan textile sector participants must concentrate more on their technological infrastructure, including hardware, software, networking, and communication tool availability. Also, they should hire more skillful employees and should enhance the competency of the working teams to adopt to the new e-procurement platform and work smoothly on that platform.

Key Words: Correlation, Regression model, Cook's distance, DFFITS

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LIST OF ABBREIATIONS

Abbreviation	Description
B2B	Business to Business
DFFITS	Difference in Fit(s)
E-Government	Electronic Government
E-Procurement	Electronic Procurement
ERP	Enterprise Resource Planning
ICT	Information Communication Technology
IS	Information Systems
IT	Information Technology
MFA	Multi-Fiber Arrangement
MIS	Management Information System
SCM	Supply Chain Management
SME	Small and Medium-sized Enterprises
SPSS	Statistical Package for Social Science
RMG	Ready Made Garment