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**Strengthening Sustainable Supply Chains through E-
Procurement Adoption: The Mediating role of Product
Innovation in the Textile Industry**



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ABSTRACT

Sustainability and digital change have grown in importance and enticed textile companies to consider electronic procurement to enhance supply chain effectiveness. But the empirical research on the contribution of various e-procurement practices to the sustainability of supply chains in the form of product innovation is little. This research has analyzed how E-Design, E-Sourcing, E-Negotiation, and E-Evaluation affect Supply Chain Sustainability and Product Innovation is the mediating variable. Dynamic Capability Theory is the theory that underpins the study and describes how organizations can build and restructure digital capabilities to attain sustainable competitive advantage. Positivist philosophy, deductive reasoning, descriptive cross-sectional research design, and a survey strategy were used as quantitative research approaches. The structured questionnaire was used to gather primary data with 310 employees of textile manufacturing companies based in Islamabad and Rawalpindi, Pakistan, by convenience sampling. The Smart-PLS were used to analyze data. Descriptive statistics, reliability and validity test, correlation test, regression test and mediation test were all analyzed. The results indicated that E-Design, E-Sourcing, E-Negotiation and E-Evaluation significantly positively influenced Supply Chain Sustainability. E-Sourcing appeared to have the most significant positive impact, then E-Design, E-Negotiation and E-Evaluation. Moreover, Product Innovation played a huge role in mediating the associations among all four e-procurement practices and Supply Chain Sustainability, which means that digital procurement practices create more sustainable effects in case they increase the ability of products to become innovative. It is concluded in the research that by incorporating innovative e-procurement systems with ongoing innovations in products, textile companies can enhance their environmental, economic, and operational sustainability. The study also adds to the body of literature by extending Dynamic Capability Theory to the digital procurement and sustainability context and offers practical advice to managers who aim to enhance sustainable performance of the supply chain by developing e-procurement strategies that are based on innovation.

Keywords: *E-Procurement Practices, E-Design, E-Sourcing, E-Negotiation, E-Evaluation, Product Innovation, Supply Chain Sustainability, Textile Industry, Digital Transformation, Dynamic Capability Theory.*

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LIST OF ABBREVIATIONS

Abbreviation	Full Form
AI	Artificial Intelligence
ED	E-Design
EE	E-Evaluation
EN	E-Negotiation
ERP	Enterprise Resource Planning
ES	E-Sourcing
FDI	Foreign Direct Investment
IT	Information Technology
KPI	Key Performance Indicator
PI	Product Innovation
SCM	Supply Chain Management
SCS	Supply Chain Sustainability
SEM	Structural Equation Modeling
SPSS	Statistical Package for Social Sciences