

UNIVERSITY OF SOUTHERN QUEENSLAND

**THE ROLE OF TECHNOLOGY ATTRIBUTES, TRUST AND
DEPENDENCY ON E-PROCUREMENT ADOPTIONS: AN
EMPIRICAL ANALYSIS OF MALAYSIAN MANUFACTURERS**

**A dissertation submitted by
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ABSTRACT

Firms may gain benefit from each other's skills and resources when they engaged in a long term supply chain relationship, hence, improving their competitive advantage. Adoption of information technology initiatives such as e-procurement systems may further enhance the effectiveness of the relationship. Trust and dependency factors have been identified as important elements that influence business relationships. The objective of this study is to investigate the role of technology attributes, inter-organizational trust and inter-organizational dependency manufacturer's have towards their suppliers and customers when making an e-procurement adoption decision. This study also aims to determine if there is a critical gap between trust and dependency towards suppliers and customers and to identify which trust and dependency constructs have the most critical gap. Data was collected through case study interviews and mail survey questionnaires. It was analysed using the Partial Least Square Regression (PLS) analysis where the results indicate that dependency did have a significant positive influence on e-procurement adoption decisions, while trust did not. Size of the company, which is a control variable, has a significantly negative effect on adoption decision. Hence, this study confirmed that the level of dependency and size of company did influence an e-procurement adoption decision. Three gap analysis methods, namely the T-test analysis, weighted mean gap and the un-weighted Important Performance Analysis (IPA), were adopted and the results indicate that there is a significant gap between trust and dependency towards the supplier and customer, where the level of both variables are higher towards the customer than the supplier. Construct related to communication of problem is identified as trust factor with the most critical gap, while how partners help improve a firm's reputation and the level of knowledge transfer have the most critical gap for dependency. This study extends the body of literature related to information technology adoption factors by investigating the effect of trust and dependency in supply chain relationships within a single study. While findings on dependency and size of company are consistent with previous studies, findings on trust provide a new paradigm to trust-related studies as it is identified as not an important factor that influence e-procurement adoption decisions, particularly in a developing country such as Malaysia.

CERTIFICATION OF DISSERTATION

I certify that the ideas, case study work, results, analysis, software and conclusions reported in this dissertation are entirely my own efforts, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for another award, except where otherwise acknowledged.

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LIST OF ABBREVIATIONS

AVE	Average variance extracted
B2B	Business to business
B2C	Business to consumer
CIOS	Customer based inter-organizational systems
CPFR	Collaborative planning, forecasting and replenishment
IT	Information technology
EDI	Electronic data interchange
ERP	Enterprise resource planning
FMM	Federation of Malaysian Manufacturers
GSK	GlaxoSmithKline
IP	Internet provider
IPA	Importance performance analysis
ISP	Internet service provider
JIT	Just-in-time
MRO	Maintenance, Repair and Operating Materials
MRP	Material requirement planning
MYR	Malaysian Ringgit
PLS	Partial least square
RFID	Radio frequency identification technology
SCM	Supply chain management
SME	Small and medium enterprise
SPSS	Statistical Packages for Social Science
TQM	Total quality management
US	United States
VMI	Vendor managed inventory
VoIP	Voice over internet protocol
XML	Extensive markup language