



**CHALLENGES AND BARRIERS TO ADOPTION IN E-  
PROCUREMENT AMONG SELECT SMEs IN COIMBATORE CITY**

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**ABSTRACT**

In this study, the adoption of e-procurement in select SMEs from Coimbatore City is examined in relation to potential challenges, barriers and hurdles faced by them. The study uses the profound researchers Gunasekaran and Ngai (2009) model of e-procurement adoption in SMEs on the south-east coast of the USA to SMEs of Coimbatore City in order to identify their e-procurement adoption issues and challenges. 91 SMEs were surveyed to gather data using a quantitative method and collected data through a structured questionnaire and analysed using SPSS. This study examines a number of barriers and uses an orderly analytic process to assess their relative significance in the process of adopting towards e-procurement.

**Keywords:** *Adoption, e-procurement, barriers, challenges, SMEs.*

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**INTRODUCTION**

For a very long time, businesses and the World Wide Web have frequently been combined. However, a number of significant business processes, including procurement, have moved to electronic platforms as they have the potential to significantly impact a business's financial health or even existence. The effectiveness and efficiency of an organization's commercial activities will enhance overall with the introduction of e-procurement. Due to their lack of finances and personnel, the majority of Small and Medium Enterprises (SMEs) are still doubtful about possible benefits. Additionally, developing nations like India lack broad guidelines for technology development and system implementation. The stakeholders themselves lack the drive to adapt their practises to e-procurement. To overcome these obstacles, a lot of work and cooperation from the government, developers of systems and suppliers, SME owners, and staff is needed.

## LITERATURE REVIEW

The adoption of e-procurement is hampered by various infrastructural and behavioural issues, according to *Liao et al.'s 2003* investigation. Their behavioural barriers included favouritism on the part of the supplier, information leaks, and false floor prices. Their infrastructural barriers included a lack of the necessary technology and technical know-how to carry out these procedures.

According to *Tan et al. (2007)*, fraud and the danger of loss have frequently come up as major obstacles to B2C e-commerce. According to *Rose, et al. (1999)*, EC can support one-to-one marketing, but it greatly decreases the personal service component of conventional commerce. Other barriers to adoption that have been discussed in the literature include the absence of the Internet and slow communication speeds (*Molla & Licker, 2005*), the scarcity of skilled workers (*Cloete et al., 2002*), business partner preferences (*Parker & Castleman, 2009*), cost issues related to adoption and diffusion, the lack of strategic "thinking" on the part of SME managers, insufficient governmental support (*Shemi & Procter, 2013*), and the existence of the digital divide (*Arendt, 2008, p.83*).

## RESEARCH OBJECTIVE

1. To examine the barriers to adoption of e-procurement in select SMEs in Coimbatore City.
2. To research possible solutions to the barriers to adoption of e-procurement.

## RESEARCH METHODOLOGY

This study aims to review recent studies on adoption to e-procurement and the challenges in adoption to e-procurement. The present study was carried out using a research structured questionnaire and collected from 91 SMEs from Coimbatore City. The data was analysed for frequency, descriptive statistics and correlation using SPSS.

## FINDINGS AND INTERPRETATION

**Objective 1. To examine the barriers to adoption of e-procurement in select SMEs in Coimbatore City.**

### **Mean rating for Barriers in adoption of e-procurement**

To understand the most affecting barriers with respect to adoption of e-procurement, the various barriers were considered and were analysed using a mean rating analysis and the results of which are given in the below table:

**Table No.1: Barriers in adoption of e-procurement**

Descriptive Statistics						
Barriers	Parameters	N	Minimum	Maximum	Mean	SD
<b>Perceived Barriers</b>	Lack of Knowledge and Skills	91	1	5	3.35	1.393
	Lack of appropriate infrastructure	91	1	5	3.70	1.130
	Top Management attitude	91	1	5	3.76	1.078
	Lack of trust	91	1	5	3.90	1.055
	Lack of Financial resources	91	1	5	3.79	1.207
	Lack of interest or support from Government	91	1	5	3.96	.999
	Fear to change into a new system	91	1	5	3.78	1.298
	Immaturity of Technology	91	1	5	3.87	1.185
	Incompatibility with ERP Systems	91	1	5	3.76	1.294
	Insufficient financial support	91	1	5	3.88	1.134
	Security concerns	91	1	5	3.96	1.053
	Cost of Implement	91	1	5	3.99	1.111
<b>Technological Barriers</b>	Inadequacy or absence of IT infrastructure	91	1	5	3.43	1.231
	Insufficient assessment of systems prior to Installation	91	1	5	3.67	1.096
	Lack of technical expertise and staff in competencies	91	1	5	3.71	1.003
	Fear of security threats and confidentiality of information	91	1	5	3.77	1.001
	Lack of a widely accepted e-procurement software solution	91	1	5	3.73	1.076
	Inadequate support from system developers and vendors	91	1	5	3.75	1.039

	IT usage is flexible in the organization	91	1	5	3.69	1.051
<b>Organizational Barriers</b>	Employee knowledge influence e-procurement adoption	91	1	5	3.62	1.254
	Organization size influence e-procurement adoption	91	1	5	3.99	1.016
	Poor staff retention	91	1	5	3.74	1.219
	Management knowledge of IT	91	1	5	3.95	1.037
	Bureaucracy with poor organizational structures	91	1	5	3.88	1.084
	Resistance to uptake of IT support initiatives	91	1	5	3.95	.959
	Lack of business relationship with suppliers providing e-procurement initiatives	91	1	5	3.73	1.136
	Organizational/business culture do not promote adoption of e-procurement	91	1	5	3.89	1.110
	Literacy levels and language difficulties	91	1	5	3.90	1.126
	Mistrust of technology reliance in business operations	91	1	5	3.86	1.216
	Manager perception on e-procurement influences e-procurement adoption by organization	91	1	5	3.84	1.195
<b>Environmental Barriers</b>	The market sector and scope where business operates support e-procurement/ industry pressure	91	1	5	3.73	1.136
	The target audience does not embrace use of technology	91	1	5	3.89	1.110

E-procurement adoption has no business benefits realized	91	1	5	3.90	1.126
Acquisition and implementation cost is high	91	1	5	3.86	1.216
Absence of legal regulatory systems	91	1	5	3.84	1.195
No simple procedures and guidelines	91	1	5	3.75	.961
Lack of e-procurement standards	91	1	5	3.66	1.128
Lack of e-trading legislations	91	1	5	3.77	1.076
Valid N (listwise)	91				

Source: Primary Data

## Interpretation

### Perceived Barriers

Majority of the respondents chosen the factor Cost of Implement with the highest mean score of (3.99) and lowest mean score was given to Lack of Knowledge and Skills (3.35).

### Technological Barriers

Most of the respondents feels Fear of security threats and confidentiality of information was biggest barrier with highest mean score of (3.77) and Inadequacy or absence of IT infrastructure was the smallest barrier with lowest mean score of (3.43).

### Organizational Barriers

Maximum of the respondents says Organization size influence e-procurement adoption (3.99) and minimum say Employee knowledge influence e-procurement adoption (3.62).

### Environmental Barriers

Majority of the respondents preferred E-procurement adoption has no business benefits realized (3.90) and least preferred Lack of e-procurement standards (3.66).

### Chi-square analysis

$H_0$ : There is no significant association between size of the company and barriers in adoption of e-procurement with respect to SMEs in Coimbatore City.

**Table No.2 Size of the company and barriers in adoption**

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	69.160 <sup>a</sup>	57	.130
Likelihood Ratio	75.440	57	.051
Linear-by-Linear Association	6.826	1	.009
N of Valid Cases	91		

**Source:** Primary Data

### Interpretation

From the table no.2 it was inferred that, the Pearson chi-square value is 69.160 and the significant value  $p = 0.130$  which is greater than 0.05. Hence accept  $H_0$  (Null Hypothesis) and reject  $H_1$ , which means, that there is no significant association between size of the company and barriers in adoption of e-procurement with respect to SMEs in Coimbatore City. Therefore, the size of the company does not stop one from adopting to e-procurement and also the level of challenges faced by them in adopting to e-procurement.

### CONCLUSION

This effort has been performed in light of the fact that e-procurement is sweeping the world's countries where India is not exempt either. Internet users, as well as online shoppers in India's population is rapidly growing. Despite a rise in the number of internet users and online consumers in recent years, the acceptance and implementation of e-procurement in Indian companies has been gradual. The purpose of the study was to analyse and assess the challenges to e-procurement adoption among select SMEs in Coimbatore city. A comprehensive qualitative and quantitative finding from this study disclose Cost of Implementation, Organization size, Fear of security threats and confidentiality of information, Lack of e-procurement standards, Inadequacy or absence of IT infrastructure and lack of government support were found to be the most important barriers to adoption of e-procurement.

The study put forward some solution for the barriers such as automation of information and document exchange with suppliers, internal enforcement of sustainable procurement policy using automated workflow and process management. Furthermore, the reduction of manual

processes, increasing employee capability through training and development results in the use of fewer resources and lower energy consumption.

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