A study of the implementation of e-procurement in construction material traders with special reference to South Bangalore

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ABSTRACT

The purpose of the study was to explore the establishment of e-procurement system in selected organizations in Bangalore. This was guided by certain objectives: What lessons can be learnt from e-procurement implementation in construction industry, what is the Importance of this study, the challenges and benefits encountered when using an e-market provider for construction industry and operations runs in the same field. To satisfy the research objective, the study population was made up of the several vendors who provides the construction work material, and targeted 100 vendors to collect required data. Primary data was collected using structured questionnaires. Respondents from the organizations were purposively sampled which targeted the e-procurement project, procurement staff and Accountant staff who working in procurement department; and are still working in the above-mentioned organization. The study revealed that a number of reasons affected the implementation of e-procurement system ranging from the individual level. The benefits will be enormous to those organizations who implement e-procurement fully.

Keywords: Procurement Management, Supply Chain and Logistics Management, and Operations

1. EXECUTIVE SUMMARY

The ‘purchasing’ unit has a crucial role in supporting the firm’s ability to realize and support profitability within the private sector through buying goods and services during a cost efficient manner. Purchasing involves the satisfaction of individual firms’ requirements by striving to realize the proper quality, quantity, time, and place, and price. Therefore, early definitions of buying attended emphasize and center on the tactical and clerical decisions involved within the purchasing of products and supplies (Burt and Pinkerton, 2003), within the 1990’s purchasing evolved as a part of a broader function; ‘procurement’ that’s, “the systematic process of deciding what, when, and the way much to get , the act of buying it (formerly, the ‘purchasing’ function), and therefore the process of ensuring that what's required is received on time within the quantity and quality specified” and culminating within the 2000s’ the popularity of terms “purchasing” and “procurement” as more or less synonyms within the profession. The newest theoretical and indeed practical development trend within the profession is that the tendency to re-organize and merger of the purchasing, procurement and logistics functions together to make the much wider perspective of ‘Supply Chain Management’ function. this is often much wider than both ‘procurement’, ‘purchasing’ and ‘logistics’ functions independently.

Supply Chain Management function could also be defined or encompasses the purchasing function, storing, transportation and manages the relations between suppliers and internal customers and involves analysis, planning, implementation and measurement. In Summary, this new trend in ‘Supply Chain Management’ has made procurement to be seen as a strategic function and fewer as a clerical function within the organization. This has made the main target on procurement to be taken more seriously by ensuring the procurement unit has procurement professionals, standardization of procedures within the unit. E-procurement may be a further and welcome development within the supply chain management processes aimed toward eliminating much paper work activities and enhance operations control and eventually cause cost reduction. E-procurement is “a technology solution that facilitates corporate buying using the internet” or “business-to-business purchasing practice that utilizes electronic commerce to spot potential sources of supply, to get goods and services, to outgo, and to interact with suppliers” (Min and Galle, 2003). E-procurement can facilitate improved accuracy, reduced clerical work, reduced order cycle time, and increased productivity for a corporation and this may drive significant value into the business. Therefore for organizations to start e-procurement they're going to got to consider e-procurement because it is regarded to possess far greater potential for cost saving and business improvement than online retailing or enterprise resource planning system and especially, large companies are likely to reap more benefits from e-procurement through operational excellence element.
2. STATEMENT OF THE PROBLEM
Currently, many organizations in Bangalore use the manual system when carrying out the procurement function that involves a lot of paper work, which translates to a lot in expenses. Especially in construction industry where size of total transactions and purchasing activities is big. In order for these organizations to save on their expenses and become more profitable; they may face the need to embrace technology in the procurement function by adopting e-procurement. That e-procurement is important in cost saving and hence profitability is itself out of question based on many organizations in other cities in India using eProcurement. That have adopted the use of eProcurement in their procurement function. In Bangalore we also have Amazon, Flipkart, snapdeal, which is an online retailer whereby clients purchase any retail goods online. However, there are indeed scanty if any, studies trying to address this important area especially those trying to contextualize e-procurement to the local market. Therefore this study endeavors through the available e-procurement platform and generally the e-market as supported by eProcurement address the issues of; lessons learnt from implementation, benefits harnessed thereof and challenges encountered with the use of the platform and lastly, What are the challenges and benefits encountered when using an e-market provider

3. PRELIMINARY LITERATURE REVIEW
According to Landeros and Monczka (1989), they observed that the procurement function played a crucial role on the organization’s ability to realize its strategies since buyers were one among the five forces (Porter’s five forces) that would impact competition in business.

The potential of the web and its associated technologies to enable electronic commerce (e-commerce) has been widely documented in scholarly publications (Cronin, 1996; Lee & Clark, 1997; Press, 1996); the stress being on e-commerce, the worldwide nature of electronic markets and therefore the lower costs of reaching global markets (Montealegre, 2000; Steinfield et al., 1999; UNCTAD, 2001).

Hamid and Majid (2003), did a study on “The Opportunities and Challenges of Implementing E-Procurement: Lessons Learnt from Malaysian Industries” they described e-procurement as a way of procurement using the electronic catalogue and automatic workflow processes for the case of Malaysia. The study found that firms realized significant cost savings and better management of the availability chain activities; they also learned that factors like incompetent infrastructure, global competition, human resistance to vary and conflicting policies and standards posed immense pressure for the businesses to maneuver forward.

Figure Explaining working cycle of E-Procurement

4. WHY INVEST IN E-PROCUREMENT
Some of the advantages that users can experience while using e-marketplaces would come with lower transaction costs, price comparability, information exchange, increased IT effectiveness, improved marketing, improved customer relationship, back office facilitation and access to new revenue potential through greater market reach. These benefits enable the organization to achieve cost efficiency through reduction of maverick buying, the organization also will experience improved auditing and better security by enabling staff and auditors to verify and track the movement of orders through the system and this may enable and encourage transparency within the system. This translates to an answer that gives substantial return on investment, increased productivity and greater efficiency for the organization.

5. CHALLENGES OF USING E-MARKETS AND E-PROCUREMENT SYSTEMS
Buyers only decided to use the e-marketplace for purchasing if they were confident that that they had the power to figure during a networked environment and also if they perceived themselves to possess Information Technology (IT) preparedness (e-readiness) which will provide them confidently to use the system. When using an IT system one may encounter challenges. The challenges that users would face when using the e-marketplace would come with high investment costs, security problems, and trust barriers that make most companies uncertain about whether or not they have the acceptable resources and experiences to use the e-marketplace successfully and he concluded that this might lead the users to refuse to adopt the e-marketplace practices.

6. RESEARCH METHODOLOGY
6.1 Research Design
Research design constitutes the gathering, measurement and analysis of knowledge. This study made use of an exploratory/explanatory research that informed the reader on the varied issues that were faced by the chosen firms when implementing electronic procurement in Bangalore. it’s also a multiple case study. Exploratory research is beneficial when researchers lack
a transparent idea of the matter. this is often because as a researcher one doesn't have clear ideas on lessons learned, challenges and benefits experienced when implementing electronic procurement in Bangalore.

6.2 Population and Sample Size
The study population was made from the hundred organizations that are trading with construction companies and had used trading platform to hold out electronic procurement in Bangalore. These organizations based in Bangalore and have regional office in Bangalore and handling construction material supply. The study population targeted the e-procurement project manager, project team members, procurement staff and IT staff who add respected firms and are still working within the above organizations. The researcher was ready to trace hundred (100) people that fit the above criteria and constituted the target population for the study, and may give required data.

6.3 Data Collection Instruments
The researcher used primary data that was obtained through the utilization of questionnaires, interviews, discussions and enquires that were held with the vendors. The most 16 instrument for primary data collection was the questionnaire. The questionnaire was wont to obtain information from the hundred organizations and was divided into two parts. Part A multiple choice questions and Part B had tick box questions where respondent can give just one response or answer to the question. And mode of getting questionnaire filled is thru Google Forms.

6.4 Data Analysis Techniques
The demographic information partially A had wont to categories the respondents and to supply a general background of the respondents that's Name and get in touch with details. The section was analysed through frequencies and percentages, pie charts and bar graphs. Part B addressed the teachings learned from the purchasers when implementing e-procurement within the various firms. These sections were analysed through frequencies and percentages.

7. OBJECTIVES OF THE STUDY
The objectives of the study were as follows:
- Identify vendor’s usage of Technology
- SAAS used By Vendors
- Identify Vendor’s Trading Model
- Identifying Vendors Preference to IT and e-Commerce
- Identifying and analyzing Market opportunities and growth for E-Commerce
- Identifying accessibility of E-procurement

8. VALUE OF THE STUDY
This study will help organisations in bangalore to reduce time on traditional base procurement system and will give idea about accessibility of e procurement and readiness of their regular vendors to eProcurement and their technology usage that will help to build eProcurement system in an Organization.

9. LIMITATIONS OF THE STUDY
Due to time and resources constraints, the study was restricted to 100 samples that had formed research work and had used it as a platform to implement e-procurement. Getting response from the project managers and other staff was quite difficult as they claimed to be busy. The researcher would have explored more organizations and population city wise but only targeted only 100 vendors that were sampled from these organizations.

10. SUMMARY, CONCLUSIONS AND PROPOSALS
10.1 Introduction
This chapter presents the summary of findings and discussions, conclusions and proposals derived from the findings of the study. The chapter also presents the restrictions that were encountered within the process of gathering data.

10.2 Summary of Findings
Summary and findings is split into 6 parts, as accordingly objectives of the research. Though research methodology is exploratory, and data collection method was through questionnaire and alongside questionnaire some a part of the info has been collected through interviews and industry experts.

In very first a part of the research, focus was kept on identifying vendor’s usage of technology which results above 65% of the vendors have fluent technology usage in a corporation to run their operations, and implementing e-Procurement won't be difficult as vendors have technological usage and awareness and relevant knowledge. Second part defines software as a service employed by vendors and businesses, which shows many vendors have adapted computer bases software to stay their work running and for office use. Most preferred software is Tally that a lot of organizations take into action.

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Responses 100

Many organizations have different trading models and during this third part main focus had kept on identifying vendors trading model and determine common action into that, results shows that a lot of organizations and material vendors have adapted new trading model that's receiving orders via call and mail to sustain supply of fabric in good flow and meet customers demand on time and in time delivery of products. And this part shows implementing e-Procurement is straightforward, because as vendors are already started shifting to digital era and began adapting technology. Fourth part consist vendors preference thereto and E-Commerce in market, results shows around 25% vendors have taken.

IT department under work to stay operations run, and began providing E-Catalogue to the buyers and even sending invoice copies directly via mail through PDF format.

Before beginning implementation of e-commerce there should have potential in market, results shows in Bangalore there are hedge market growth and opportunities for brand spanning new technology as all businesses shifting them to Digitalization.

E-Procurement is new concept to the market is should be easy and convenient to users, sixth part shows the accessibility of E-procurement, results shows that vendors and businesses are able to adapt new technology. And vendors have quick response to requisition order even after having no proper PO communication, after implementing this time interval are going to be also reduce and can help businesses to transact business communication in less time.

10.3 Recommendations
The procurement process is one among the foremost important processes, and its costs, reliability, and risks considerably influence the performance or maybe survival of a corporation. Still, many companies lack an approach to carefully and quantitatively evaluate their options, benefits, and risk. When interpreting the findings of this study, it’s important to notice that user and supplier satisfaction with the implementation of e-procurement initiative doesn't necessarily suggest that it are often fully implement is in small businesses which have low volume trade but after providing training to vendors it are often implement.

10.4 Conclusion
This study explored comprehensively the measures for the success of an e-Procurement implementation initiative to be determined by measuring user and supplier satisfaction. It became apparent from the literature that industry sector e-Procurement initiatives must also specialise in transparency and accountability issues.

Research shows that this alteration as evident from the findings has resulted in greater adoption of invoicing and payment activities according to the move towards more fully operational systems and therefore the development of greater e-commerce capabilities. This increase in reach and scope has also made the challenges related to software and catalogue integration and therefore the alignment of organisational culture with procuring online more visible. There's hedge market growth and opportunities for brand spanning new technology as all businesses shifting them to Digitalization.

Implementation of E-Procurement take huge add terms of software build up and installation, and vendors are already using technology and shifting business towards digitalization so this may be beneficial to both buyer and supplier.

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