

E-Procurement Marketing Efforts with the Help of Customer Relationship Management Philosophy

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Abstract: *Electronic business and electronic commerce movements are changing the way of purchasing and marketing efforts with the benefits of digital world by increased speed, low transaction costs, sharing more detailed product and company information through digital channels, collecting more powerful information for the aim of forming the customer segments or learning purchasing behaviors of the companies and customers. Private sector and governmental institutions are starting to use electronic procurement systems for supplying materials from their suppliers and these suppliers are defining their customers by using new digital marketing channels. Most of the companies were re-engineered their business models with this new wave and also they are trying to adapt customer relationship management philosophy by using new applications to their business. In this research, we are going to examine the marketing efforts and channel utilities of e-procurement while covering the customer relationship management philosophy and related applications through the new marketing channels. At the same time, marketing mix layering the new channels (social media, web pages, portals and etc.) and digital marketing strategies which is going to be discussed through the research.*

Keywords: *E-procurement, CRM, E-business, E-commerce, Marketing.*

1. INTRODUCTION

Competition is tougher than ever with the affect of new technologies with the support of globalization and companies are searching new methods to be more effective and efficient with producing high quality products while enabling short production or service times with low costs in today's world. When we examine the whole process which begins with production and ends with customer delivery, we can assume that effective supply chain and CRM (customer relationship management) with the support of ICT (information and communication technologies) can be the solution of the problem. The supply chain covers product sourcing, product info collection, procurement flow management, supplier management and account payable management while CRM includes information gathering, establishing strong relationship with customers, data mining, creation of marketing strategy and measuring the customer satisfaction.

Electronic business and electronic commerce movements are changing the way of purchasing and marketing efforts with the benefits of digital world by increased speed, low transaction costs, sharing more detailed product and company information through digital channels, collecting more powerful information for the aim of forming the customer segments or learning purchasing behaviors of the companies and customers. Internet based solutions or the new form of business which is called e-business can support effective supply chain management and CRM while maintaining strong connection between two management systems and the company (or the governmental institutions). Besides, e-business can be perceived as "use of internet to reach the goals of supply chain integration (Kalakota & Robinson, 1999). Private sector and governmental institutions are starting to use electronic procurement systems for supplying materials from their suppliers and these suppliers are defining their customers by using the new digital marketing channels.

Most of the companies were re-engineered their business models with this new wave and also they are trying to adapt customer relationship management philosophy by the new applications to their business. In this research, we are going to examine the e-procurement systems with benefits, barriers, examples of e-procurement which covers government and private sector while underlining the customer relationship management philosophy and related applications through the new marketing channels. At the same time, marketing mix layering the new channels (social media, web pages, portals and etc.) and digital marketing strategies which is going to be discussed through the research.

2. E-PROCUREMENT

There are too many definitions for e-procurement which are mainly underlining that is a process of procurement with the support of internet or technology. More broadly, "E-Procurement is the integration, management, automation, optimization and enablement of an organization's procurement process, using electronic tools and technologies, and web-based applications" (Tatsis, Menab, Wassenhovea, & Whicker, 2006) Internet can be perceived as an only e-procurement channel, but EDI (electronic data interchange) for value added networks in the previous stage of e-procurement and intranets between the company and suppliers are underlining that internet is just one of the communication channel.

While examining the procurement materials we face two different goods, direct and indirect. Direct goods are used in the production of manufactured goods and indirect goods are supplies which a company uses in day to day operations (but not in the manufacturing of goods such as office supplies and equipment). Also, companies are mainly use e-procurement systems for supplying indirect materials (Kima & Shunkb, 2004).

The procurement processes can be summarized in four stages which begin with information search about product or company, negotiation, settlement and after sales.

Searching stage is very important for the companies throughout the e-procurement; there are different types of searching methodologies related to different types of exchange marketplaces which are going to be listed in the article by Tapscott (Tapscott, Ticoll, & Lowy, 2000). Keyword search, attribute search, parametric search and preference search are the types of catalog search types and according to a research by Doring, preference search is the best of them because preference search treats user search wishes as soft selection constraints and delivering automatically best alternatives if there is no perfect match, thereby the annoying empty result effect is avoided automatically (Doring, Kießling, Preisinger, & Fischer, 2006).

There are three main categories of trade exchange marketplaces which were identified by Tapscott;

Independent Trading Exchange; Many to Many, many companies come together on the touching points such as portal like Alibaba.com. Plus, with the help of this connection companies can have reduction in transaction costs. Private Trading Exchange; One to Many, the leader company defines the rules and contracts. The leader company has control over the processes and this system improves efficiency. For instance, Volkswagen Company established a closed circuit portal between their suppliers to procure online. Collaborative Community Exchange; Many to Many or One to Many, community members define the rules and contracts. Improved partnership and reduction in transaction costs are the main advantages of the system (Tapscott, Ticoll, & Lowy, 2000).

Negotiation stage of e-procurement is an automated system that could evaluate bids, negotiate to finalize the bid, and would be useful to both contractors and suppliers. Bazerman classified negotiations into two categories based on negotiator attitudes: distribution (involve each party using the strategy of predicting the bottom line of the other and presenting an offer that maximizes their own benefit which results in low satisfaction level) and integration (the strategy is not to attempt to win on all issues, but to identify those issues that the negotiators care about most and make tradeoffs accordingly which achieve a higher satisfaction level) (Bazerman, 1994).

In addition, auctions are part of the negotiation stage. Ascending price English auction, the descending price Dutch auction, and the Vickrey second-price sealed bid auction are the different types of auction. Furthermore, e-procurement systems should be supported with these types of auctions according to the suppliers and the contractors wills. For instances, both sides could be select the auction type through the price negotiation stage.

The benefits of the e-procurement can be classified into more groups (Tatsis, Menab, Wassenhovea, & Whicker, 2006). Decreasing prices; purchasing from the market with more options will decrease prices with supporting bargaining power. Reduction of administrative expenses; new procurement system with automation cut the costs of paper, phone charges, photocopying, fax and prevents data errors. Inventory reduction; short cycle time reduces the inventory costs. Shorter order cycle times; the automation systems shortens the cycle time. Improved communication and information flow; e-procurement increases internal and external communications. Improved planning and control; with the automation companies spend less time for operative tasks and focus on planning while having more control. Improved collaboration with suppliers; give chance to companies to build and manage long term relationship with their suppliers. Achievement of higher service levels is an important benefit for the companies (Panayiotou, Gayialis, & Tatsiopoulou, 2004).

There is an effective research by Tatsis in 2006 which summarizes the barriers of the e-procurement which can be listed as; Technology uncertainty; Integration, security and reliability concerns are the result of new technology that could be the barriers of e-procurement integration. Process change; Just automation is not adequate for e-procurement. Also, reengineering the process should be needed for simplifying the purchasing processes. Cultural change; E-procurement is a new formation of supply and companies who are not ready for new method will be a barrier for integration. Also, changing the processes can make an affect on attitudes and practices of people during supply chain period. Logistical infrastructure; flexibility and fast responsiveness are needed for new procurement type, if companies could not handle this demand than there would be a problem for that company. International trade via the Internet is still immature; language, culture and regulation barriers can affect if supplier and Contract Company is not ready for that kind of transaction (Tatsis, Menab, Wassenhovea, & Whicker, 2006).

3. EXAMPLES OF E-PROCUREMENT COVERING GOVERNMENT AND PRIVATE SECTOR

There are too many success stories and different models of e-procurement systems covering private and public sector. But, private sector and public sector differ in some respects such as governmental purchasing system should serve the public wealth. At the same time, public sectors have more customer (governmental institutions) and supplier numbers than the private sector and in some cases private sector does not want to be transparent because of tough competition (Panayiotou, Gayialis, & Tatsiopoulou, 2004).

Governmental e-procurement systems in military organizations are the good examples for presenting the failures of the e-procurement systems and can present new solutions for an effective procurement system. According to a research by Liao

in 2003 about e-procurement system in Taiwan for military organizations, procurement failures and errors are listed as; improper project (can be solved with using web portal to transfer data through electronic data transmission), untrue floor price (can be solved with the establishment of the product and procurement database which can make the acquisition of historical data and the latest product data be more faster, more complete and more accurate), giving out contracts illegally, improper alter and surcharge, leakage, taking bribery and receiving (e-procurement supports biddings to be conducted through standardized procedures which reduces the opportunity for human interference in bidding procedures and the online bid-invitation environment also provides companies fair competition opportunities), illegally profiting some companies, unhealthy system, half-baked supervision (the support of the procurement database enables the supervising organizations to quickly determine possible faults from similar procurement cases) (Liao, Cheng, Liao, & Chen, 2003).

There are private sector examples which support the framework of e-procurement by related benefits, barriers and integration processes. There is an effective research on e-procurement about the hotel supply chain management by Kothari in Philadelphia which examines the related topics on e-procurement. According to the research, property decision makers believe that new procurement method has potential to reduce infrastructure and transaction costs, improves efficiency and audits control. Also, they believe that e-procurement helps reduce inventory and lead times. All the interviewers declared that they were comfortable purchasing items through e-procurement. But, they complain about redundancy errors because of using both systems at the same time and centralized decision making process determines the level of integration while e-procurement helps to find new suppliers and vendors. All at once, security and reliability concerns affect the integration period (Kothari, Hu, & Roehl, 2005).

The benefits and the barriers are mostly the same for private sector, and related researches provide similar results. The research by Tatsis about e-procurement in the Greek food and drink industry is identifying the barriers into four levels; global, country, industry and firm. The classification was done for expressing the differences about technology development and regulation for these levels. Global and local distinction were made for underlining the need for developing logistical and telecommunication infrastructure which is required to support the technology. For industries, it marks the need for supporting the development of skills required to integrate the technology. Finally, for individual firms express various different factors affecting their potential for successfully implementing e-procurement systems. Moreover, research mentions that companies do not have clear idea on costs and benefits of the system (Tatsis, Menab, Wassenhovea, & Whicker, 2006).

Likewise, important integration experiences were learned through the integration of e-procurement and there is an effective research by Carayannis about the EU countries which can summarize these experiences such as; investments in technology are perceived to be an important cost factor, highly skilled personnel required to maintain complex information technology systems, opportunities must be widely and internationally shared to attract suppliers, standards play a critical role in opening up markets, an efficient information system should standardize the forms, support the notification functions in order to support quality and information flow, the involvement of private companies in the design, planning and management of e-procurement projects is very important, the security are important for the development of more advanced e-procurement systems, increase of information support and training programs are essential, a full electronic procurement should be supported by all member states who should work closely together covering the private sector's experiences, it is critical to take account of information on international best practices (Carayannis & Popescub, 2005).

Throughout the research, the evolution of the e-business is successfully examined by Muffatto which defines the stages as; traditional communication tools (first stage which covers manual entry and exit orders), internal integration (integration of management information systems), web-based communication tools (using web communication tools between company and suppliers), XML web-based platform (using XML between internal management systems and web) and integrated enterprise (The goal is defined as optimization of the relationships between customers and suppliers to the global level through the entire supply chain lead by end customer demand). Integrated enterprise stage mainly focuses on the integration starts with companies and suppliers then covers the customer in web platform (Muffatto & Payaro, 2004).

4. CUSTOMER RELATIONSHIP MANAGEMENT AND NEW MARKETING CHANNELS

Generally, CRM (Customer Relationship Management) concept is perceived as an extension of marketing efforts. CRM can be briefly defined as gaining new customer, keeping existing customer, establishing customer loyalty by using relationship management whereas understanding consumer behaviors (Swift, 2001). While integrating CRM systems, companies can increase customer satisfaction, enlarge service range, provide customized products, support retention of customers, provide conflict management, measure customer satisfaction and establish successful market segmentation.

Companies can support these benefits of CRM systems by maintaining effective information gathering and using them with data mining techniques for CRM based marketing strategy. In the implementation stage of CRM systems, companies unfortunately could not harvest the benefits of the CRM because of various reasons such as; underestimating the CRM philosophy (companies first aim is to satisfy the customers and win-win situation for customers and companies), selecting wrong software, maintaining low level training and having integration problems between the as-is system and the to-be system.

Nowadays, companies are trying to adapt their marketing management systems for establishing integrated enterprises that mainly focus on the integration which starts with companies and suppliers then covers the customer in web platform and the

social media. Now, social media are much popular communication channel for the companies and the customers. By using social media such as Facebook and Twitter, companies are trying to establish relationships with their customers and also, they are trying to get information through with the support of web 2.0 platforms. They are trying to build effective CRM applications over social media channels. For instance, companies are using customer data for providing effective segmentation, public relation activities and promotion efforts through social media with fast response time.

While examining the e-procurement channels, we frequently face the portal based systems which provide supply chain management for the companies. Generally, companies can get inadequate information about the supplier companies through the procurement portals. For instance, companies could not get previous transaction experiences from the portals.

For establishing the perfect solution for the companies through e-procurement systems between companies and suppliers or governmental institutions and suppliers, e-procurement platforms should maintain the CRM based systems.

E-procurement portals should;

- record previous transaction experiences of the supplier or company,
- estimate demand predictions,
- use analytic tools, such as RFM (recency, frequency, monetary) scores to identify the supplier,
- provide advantages to the suppliers which are good supplier according to CRM based results such as RFM scoring system or balanced score cards,
- maintain promotion systems by using information gathered from the CRM based e-procurement systems,
- provide complain management between supplier and companies or government,
- provide companies to measure satisfaction level of the suppliers.

Consequently, e-procurement systems should cover CRM philosophy to the procurement systems by related tools for connecting effective SCM (supply chain management) and CRM with using all communication channels.

5. CONCLUSION

Most of the companies or governmental institutions are now trying to integrate their procurement systems to e-procurement methods for harvesting the benefits of e-procurement such as decreased prices, reduction of administrative expenses, inventory reduction, improved planning and control, improved collaboration with supplier, achievement of higher service levels and etc.

Current e-procurement systems can effectively maintain the effective SCM tools but there is an important missing point which is called CRM. E-procurement systems should cover CRM philosophy to the procurement systems or portals by related tools, marketing efforts and data mining techniques for connecting effective supply chain and CRM while using all communication channels including social media.

Throughout the research, various solutions were proposed for creating effective e-procurement integration with CRM philosophy (e-procurement systems between companies and suppliers or governmental institutions and suppliers) while examining benefits, barriers and examples of e-procurement systems.

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