CHAPTER II

REVIEW OF LITERATURE

This section deals with the e-Marketing assessment, e-Procurement and their dimensions. The e-procurement and e-Marketing dimensions i.e. e-M process, e-M system, e-P process, e-P System, transparency in process, encouraging wider participation, improving bid price, knowledge of bidder win/lose, time saving, e-notices, e-advertisement, payment and delivery and Bidding have been reviewed from the existing literature. The studies involving e-Marketing, e-Procurement and their dimensions are presented in next section.

2.1. e-Marketing

Robert J Kauffman and Charles A. Wood (2004) discussed reserve price shilling, where a bidder shills in order to avoid paying auction house fees, rather than to drive up the price of the final bid. They also examined the effect that premium bids have upon the final selling price, since they are linked with reserve price shill bids, using 10,260 eBay auctions during April 2001, and identified 919 auctions involving 322 sellers and 1583 bidders involved in concurrent auctions for the exact same item. It was found that premium bidding occurs 23% of the time, in 263 of the 919 auctions. Using a theoretical perspective involving valuation signals, it was showed that other bidders viewed high bids as signals that an item was worth more. Thus, they were willing to pay more for the items than others that do not receive premium bids. The implications were disturbing in that sellers were motivated to enter a shill bid in order to drive up the final price in an online auction.

Kristy E. Reynolds James H.Gilkeson, Ronald W. Niedrich (2009) studied seller strategy on winning price in online, seller minimum opening price and auction length. A hidden reserve price, number of bidder and moderators was analyzed to test a e- bay auction as opening price and reserve price for the product a analyses data for four customer product through two match studied strong
evidence of effect of minimum opening price the potential buyer rely more on signal as opening and reserve price.

Matthias Fuchs, Alexander Eybl, Wolfram Hopken (2011) studied about low entry and exit barriers that emerged as a valuable distribution channel. It effectively augmented the distribution potential of whole business. It positively affected the final price level obtained in online auction. E-bay comprising 53,406 auctions have been studied using linear structural equation modeling (SEM) relationship between auction characteristics and the obtained final price.

Varol O kayhan, James A Mccart. Anofbhattache (2010) studied cross bidding in online auction and the action of bidder simultaneously monitor the advantage of price, outcomes of cross bidding behavior and contingent. It was reported that there was significant price discount compared to non cross bidders.

Chu-Fen Li (2010) studied the effect of the factor on internet auction variant and stresses about bidder’s need to stay about reliability. Seller's characteristics affected evaluation. Employees collect e-bay data set to analysis the effect of bidder and seller characteristics seller items for sale (SIFS) bidders and Lifetime positive feedback (BLPF). It was reported that seller’s lifetime positive feedback (SLPF) SLPF plays a major role in affecting the final price (51.2%) and both SLFS and BLPF were critical roles 20.1% and 28.1%, respectively. Results also showed that BLPF and SLPF were important to affect the final price (4.5%). The duration of auction of the SLPF explained variation 62.8% seller performance on the duration of 1 auction or final price.

Gillian KU, Deepak Malhotra, J. Keith Murnishan (2005) investigated auction fever in an extensive field study and a laboratory experiment; this study also presented a new model of decision-making, the competitive arousal model, and tested its predictions in conjunction with those of rational choice and escalation of commitment. This Study was based on live and Internet bidding and survey data from 21 auctions throughout North America tested the model’s predictions, as well as hypotheses derived from rational choice and escalation of commitment models. Analyses provided considerable support for the competitive
arousal and escalation models, and no support for rational choice predictions. Study 2 was a laboratory experiment that investigated the similarities and divergences between escalation and competitive arousal, Wnding again that both resulted in overbidding.

**Wang Jyun-Cheng, Chiu Chui-Chen (2008)** presented a recommendation system that uses trading relationships to *calculate level of recommendation for trusted online auction sellers*. It demonstrates that network structures formed by transactional histories can be used to expose such underlying opportunistic collusive seller behaviors. Taking a structural perspective by focusing on the relationships between traders rather than their attribute values, k-core and center weights algorithms, two social network indicators, was used to create a collaborative-based recommendation system that could suggest risks of collusion associated with an account. This system was also tested against real world “blacklist” data published regularly in a leading auction site and was found that, it was able to screen out 76% of the blacklisted accounts.

**John Duffy and M. Utku Unver (2008)** developed a model of internet auctions with the aim of understanding how rules for ending such auctions affect bidding behavior. The model was used for *bidding strategies* using finite automata and report results from simulations involving populations of artificial bidders who update their strategies using a genetic algorithm. This model was shown to deliver late or early bidding behavior, depending on whether the auction had a hard- or soft-close rule in accordance with the empirical evidence.

**Li Xuefeng, Liu Lu, Wu Lihua and Zhang Zhao (2006).** With the prevalence of the Internet and e-commerce, the online exchange market, especially the online auction market develops very fast. The activities of online auction produce a large number of transaction data. If utilized properly, these data was of great benefit to sellers, buyers and website administrator. Typically, the final price prediction results helped sellers *optimize the selling price of their items and auction attributes*. At the same time, part of the information asymmetry problems solved for buyers. Thus, transaction time shortened and cost saved. This study
collected large amounts of historical exchange data from Eachnet, an online auction website most famous in China and used machine learning algorithms and traditional statistical methods to forecast the final prices of auction items. An attribute construction method was proposed, to overcome the problem that auction bid list changes dynamically.

Byungtae Lee, Hyunjun Cho, Myungsin Chae, Seonyoung Shim (2010) investigated the factors necessary to detect “online credit card phantom transactions,” which were fake transactions for illegal loan sharking through the collusion of the seller (creditor) and buyer (debtor). This paper had developed a plausible detection methodology for online fraud. In addition, employing a data collection agent, cost-efficient ways of data collection had been demonstrating. Auctioneers, e-business firms with fraud-related problems, and regulatory agencies took advantage of this methodology.

Y. S. Kim (2007) presented an agent-based simulation model to estimate the effects of auction parameters on the auction outcomes, and to find an optimal or, at least, a near-optimal infrastructure. Then intention of this study had been to know how bidders’ personalities and bidding strategies with other auction parameters affect the closing prices in two auction mechanisms: English and Yankee auction. It was found that the aggregated outcome of multiple English auctions was more favorable to auctioneers and sellers than that of a corresponding single Yankee auction. Results also showed that raising minimum bid increment or bid starting price positively affects the closing prices in both auction types. However, two auction systems respond differently to the changes in parameter values in terms of magnitude and robustness. Further, it was noted that the closing price of an auction was negatively related to the proportion of risk-takers who adopted sniping strategy to submit their bids. As the proportion of risk-takers increases, the closing price significantly decreases in hard-ending auctions (eBay-like system), but only marginally in soft-ending auctions (Amazon-like system). In particular, soft-ending auctions with less snipers and a longer time window of automatic extension return the most favorable closing price to sellers.
De Liu, Jianqing Chen (2006) investigated the value of past performance information in the context of keyword advertising auctions, where advertisers differ both in valuation-per-click and in the numbers of clicks they generated their performance. It was found that efficient UPC auctions, in which unit-price bids were weighted by expected CTRs, achieved the first-best (ex ante) efficient allocation. Results showed that auctioneers achieved higher revenues by using appropriate weighting factors based on past performance information. The revenue-maximizing weighting factor assigned to disadvantageous bidders was higher than was suggested by the efficient resource-allocation criteria.

Marjolein C.J. Caniels, Erik M. Van Raaij (2009) studied the Electronic reverse auctions (ERAs) as a controversial sourcing tool. While it was to have many advantages to buyers and even some to suppliers as well, it was also heavily criticised for damaging cooperative buyer–supplier relationships. It was often reported that suppliers experience more disadvantages than advantages from the use of this tool and therefore many, if not all suppliers dislike ERAs. It was investigated whether all suppliers indeed dislike ERAs and explored the relationships between supplier characteristics and supplier opinions of ERAs. It was reported that a small group of suppliers was actually positive about ERAs and that by far the strongest predictor of ERA opinions of a supplier representative was the supplier country.

Erich Sommerfeldt (2011) analyzed 111 e-mail action alerts from three activist groups on opposing ends of the political and religious ideological continuum for examples of Burke’s three identification strategies. It was reported that the organizations employed identification by antithesis with the greatest frequency, indicating that activist groups most often took a reactionary or confrontational approach to establishing identification with publics. The primary identification strategy used by activist groups in their e-mail communications was identification by antithesis. Activist groups took a reactionary or confrontational approach to establishing identification with publics. Identification by sympathy and unawareness maintained relationships by controlling in-group commitment and interpretive cohesion.
T. R. Srinath, Mahendra Pratap Singh and Alwyn Roshan Pais (2011) studied extend and use of scheme for scoring function, winner determination in multi-attribute auctions to implement public verifiability. Anonymity was achieved through bidder side pseudonym generation. It was reported that this was very simple and effective scheme. This scheme ensures public verifiability and anonymity in multi-attribute auctions without revelation of the bids received, third parties and complex communications.

Charu C. Aggarwal, Philip S. Yu (2009) constructed a Markov Model and analyzed the network effect in the case of web auctions. It was found that network effect was very powerful for the case of web auctions and resulted in a situation in which one auction quickly overwhelmed its competing sites.

Lawrence M. Ausubel (1997) proposed a new ascending-bid method for auctioning multiple identical objects, such as treasury bills or communication spectrum. As well he followed some attributes. Such as, simplicity or transparency to the bidders, privacy preservation of the winning bidders and the decisive attribute was allocative efficiency, more than anything else. The main theorem of this article demonstrated that the proposed (dynamic) auction yields efficient outcomes as the (sealed-bid) Vickrey auction, where as the Vickery auction failed due to a problem which was described as the “Champion’s Plague”. “Champion’s Plague”: a bidder’s conditional expected value was decreasing in the number of units she wins.

Maria Teresa Tiagao, Flavio Tiagao (2012) attempted to unveil some of the impacts on internet marketing and firms’ online performance driven from the adoption and integration of Enterprise Information subsystems. It was shown that a framework was set and test in a sample of 9192 European firms using Structural Equation Model estimation. It was found that this study contributed with new evidence in a broad sample, and advances knowledge on the nature of the relative importance of different technological subsystems on Internet Marketing as drivers of e-business performance, applied to the European reality.
Te'eni, D., & Sani-Kuperberg, Z. (2005) explored the implications of levels of abstraction on designing interactive systems. It demonstrated the idea by showing the feasibility and desirability of building a simple e-mail system based on the idea of levels of abstraction and testing its usability. The implications of levels of abstraction on design were profound as regards the design of interactive systems that support dynamic behavior.

Jian cai (2005) presented a systematic approach to support online collaboration by modeling and analyzing stakeholders' knowledge perspectives within their social interactions. By investigating the key issues relating to cooperative activities, it obtained deep understandings of stakeholder’s perspective and its impacts to collaboration. This study had developed a computational knowledge perspective model and a perspective analysis methodology, which provides the basis for collaboration support based on the social construction theory. It introduced a Web-based information system to improve the collaboration by providing perspective analysis function.

Emel Filiz-Ozbay, Ercut Y. Ozbay (2010) presented a systematic approach to support online collaboration by modeling and analyzing stakeholders’ knowledge perspectives within their social interactions. By investigating the key issues relating to cooperative activities, it obtained deep understandings of stakeholders’ perspective and its impacts to collaboration. This study developed a computational knowledge perspective model and a perspective analysis methodology, which provided the basis for collaboration support based on the social construction theory. It introduced a Web-based information system to improve the collaboration by providing perspective analysis function.

Jason F. Shogren, Michael Margolis, Cannon Koo, and John A. List, (2000) introduced and explored whether a random nth-price auction engaged all bidders to bid sincerely. It was found that the random nth-price auction can induced sincere bidding in theory and practice. Then the random nth-price was compared to the second-price auction. It was reported that the second-price auction works better on-margin, and the random nth-price auction works better off-margin.
Mamata Jenamani, Yuhui Zhong, Bharat Bhargava (2007) conducted theoretical studies as well as simulation experiments to find out the effect of cheating in three important types of auctions: English auction, first-price sealed-bid, and second-price sealed-bid auction. It was reported that adoption of rational bidding strategies was combat cheating. It was found that most of the auction sites intuitively prefer English auction to other auction mechanisms. There is not much theoretical or experimental evidence to support such an intuition. The analysis of the results revealed English auction to be the most preferred mechanism from both honest buyer’s and honest seller’s point of view. These results were used as an experimental evidence to explain the popularity of English auction over the Internet.

Wenli Wang, Zoltan Hidvegi, Andrew D. Bailey, Jr., and Andrew B. Whinston (2000) used an online ticket sales example to illustrate the potential of model checking (an advanced formal method) for economically finding certain flaws. Model checking was a powerful verification method that determines whether a system model satisfies certain specifications under all circumstances. It located subtle but critical flaws that conventional design and assurance methods, such as testing and simulation, often miss.

Robert J. Kauffman and Charles A. Wood (2000) examined auction data to see the effect of opportunism in the online auction environment. Opportunistic seller behavior was extremely difficult to research because of the guile exhibited by opportunistic sellers. It was reported that by determining what the end result of opportunistic behavior was, how that was different if there were no opportunistic behavior, and then tested to see if there was evidence of the results of opportunistic behavior. With the rate of EC consumer fraud increasing at record levels, especially in online auctions, such an examination was needed. Armed with our results, online auction bidders gave better prepared for an online environment where information asymmetry gave sellers an advantage.

Robert J. Kauffman and Charles A. Wood (2003) described revolutionary research strategies that employ six new data-collecting
methodologies that can be employed using *Internet technology*. Online surveys, including surveys done by email and surveys were presented using data collection tools embedded in a Web site. It was reported that the results of this examination that were not able to call attention to several research directions that facilitated future e-business research.

**R. Preston McAfee and Daniel R. Vincent (1997)** reported that auctions where a seller posts a *reserve price* but if the object failed to sell committed never to attempt to resell it, revenue equivalence between repeated first price and second price auctions without commitment resulted. When the time between auctions crossed to zero, seller expected revenues converge to those of a static auction with no reserve price. With many bidders, the seller equilibrium reserve price approached the reserve price in an optimal static auction. An auction in which the simple equilibrium reserve price policy of the seller mirrors a policy commonly used by many auctioneers was computed.

**John H. Kagel, Ronald M. Harstad and Dan Vevin (1987)** found that *bidders with affiliated private values behaved closer* to the dominant strategy in ascending – clock auctions than in sealed – bid second - price auctions. It has been reported that “the structure of the English clock auctions made it particularly clear to bidders that they don’t want to bid above their private values. Once the clock price exceeds a bidder’s value, it was clear that competing further to win necessarily involves losing money. This enhanced capacity of the English clock institution to produce observational learning distinguishes it most clearly, on a behavioral level, from the second institution.

**Michael H. Rothkopf and Richard Engelbrecht-Wiggans (1992)** explained the nonuse of the *Vickery auction and bidders* reluctant to truthfully revealed their private values in an auction if either there was cheating by the auctioneer or there were subsequent auctions or negotiations in which their private information was relevant to the outcome.

**Hameed Ullah Khan, Abdullah M. Al-Faifi, Diaa Mahmoud Diaa (2012)** proposed *e-auction models* for the most prevalent classes of auction which
were: forward auction and reverse auction were presented. These online models aimed at the effectiveness of biding and taking into account some important cofactors like efficient payment method and trust building measures. It was found that the proposed models consider the payment procedure and communicate through the auction model with the bank system to allow to the auction's winner to deposit his amount easily, and also enabled the auctioneer to check the payment statues before delivering the goods.

Jeremy Bulow and Paul Klemperer (1994) showed that under standard assumptions the public auction was always preferable, even if it forfeited the entire seller's negotiating power, including the ability to withdraw the object from sale, provided that it attracts at least one extra bidder. An immediate public auction dominated negotiating while maintaining the right to hold an auction subsequently with more bidders. The result held for both the standard independent private values model and a common values model. It was found that the value of negotiating skill was small relative to the value of additional competition.

Paul R. Milgrom and Robert J. Weber (1982) developed a model of competitive bidding in which the winning bidder's payoff depended upon his personal preferences, the preferences of others, and the intrinsic qualities of the object being sold. In this model, the English (ascending) auction generates higher average prices than did the second-price auction. Also, when bidders were risk-neutral, the second-price auction generates higher average prices than the Dutch and first-price auctions. In all of these auctions, the seller raised the expected price by adopting a policy of providing expert appraisals of the quality of the objects he sold.

Roth and Ockenfels (2002), proposed an internet auction model, in which very late bids had been a positive probability of not being successfully submitted, and showed that late bidding in a fixed deadline auction occurs at equilibrium in auctions both with private values and with uncertain, dependent values. Late bidding also arose out of equilibrium, as a best reply to incremental bidding. However, the strategic advantages of late bidding was severely attenuated in
auctions that applied an automatic extension rule such as auctions conducted on Amazon. Field data showed that there was more late bidding on eBay than on Amazon, and this difference grew with experience.

2.2. e-Procurement

Helen Walker and Christine Harland (2008) examined the factor influencing in e-procurement adoption in united nation system of organization using questionnaire survey method, conducted case study related to e-procurement issues and conducted work shop with the purchasing heads. It was reported that purchasing as routine, non-strategic purchase as well as UN development agencies is more likely to adopt e-procurement than the other agencies. it was also found that five factors responsible for adoption of e-procurement were organizational factor, readiness factor, supply factor, strategic factor and policy factor.

Ruey-Lin Hsiao and Thompson S. H. Teo (2005), explained that e-procurement is helpful to procure goods and services through online mode especially on-line bidding and e-procurement was a process buyers used to purchase item from seller. The researcher suggested three stage models for implementing e-procurement.the first was assess the e-procurement matching to purchasing practices, the second was to determine operational and strategic objectives, and last was overcome the key barriers likely to discharge buyers and suppliers.

Peter Trkman and Kevin McCormack (2010) measured the risk and benefit of e-procurement. The benefits happened through e-procurement was its efficiency and integration. It was reported that the decrease in cost and time did not happen simultaneously, organizational changes/ process improvement brought the greater savings them the implementation of simple technology. It was also reported that the procurement process was most important processes, and its costs, reliability, and risks considerably influence the performance or even survival of a company.
Md Mahbubur Rahim (2008) examined the factors that are associated with the e-procurement system acceptance in large scale organization. It was reported that the two set of factors were associated with comprising perceived usefulness, perceived ease of use, employee involvement, reliability, customized training, vendor support and management support. The first set of factors was system usefulness, ease of use, employee involvement and system reliability and customized training for employees. The second set of factors was senior management support and vendor support.

Matunga, Denish Ateto et al (2013) made an attempt to know the extent to which e-procurement has improvement in the quality of goods. It was reported that the challenges faced by the respondent when using the e-market provider was inadequate funding, organization cannot handle the change, lake of training in operating the system, e-procurement adoption of e-procurement in slow manner, poor despondence to queries by the system provider, suppliers not willing to follow the system, and unfavorable payment when using the system both buyers and suppliers.

Hatice Calipinar & Mehmet Soysal (2012) observed that the usage ratio of technological equipment closely related with e-procurement activities and potential method for improving the performance. The case study strategy has been used for information gathering, where the data was collected by the way of semi structured interview and nonparticipant observation. E-procurement used by many organizations and several performance improvements had happened by the e-procurement. It was observed that in many countries, there were improvements in procurement activities and other operations related with procurement with the use of technology.

Kevin Moindi Omai (2013) established the determinants of electronic procurement on supply chain performance. The determinants were partner relationship, information sharing, supply chain integration and supplier appraisal. This study was carried out using both quantitative and qualitative approach. It was reported that e-procurement promote information sharing and supply chain
integration. The information sharing establishes the partner relationship and it supported supply chain integration. The supply chain integration closely related to supply chain performance.

Seiran Alani Azar et al (2011) analysed a procurement system and documented the business logic and also provided a portal based e-procurement solution and it had as user consciously and designed the needed components. It had been noted as procurement is a complicated and vital process that affect existence of any business. It was involved in information and money exchange among different entities in a supply chain. Main responsibility of e-procurement was coordinating and managing the supply process in different department. The advancement in internet technology facilitates the procurement process and made it more efficient in order to increase productivity, profitability and agility of an organization. Portals were an internet based technology that facilitated to overcome procurement challenges especially for auction related issues. This solution cost is low and effective method. It was carrying out B2B procurement and it was not only used for procurement process and auctions, it was helpful to the organisation to improve revenue.

Matechak (2002) identified three main phases of procurement process which include procurement planning and budgeting, procurement solicitation, and contract award and performance.

Mickey Howard, Richard Vidgen and Philip Powell (2006), explored collaboration and interaction by examining four cases of e-hub adoption by vehicle, manufacturers and suppliers. A conceptual framework emerged from this examination that helped to assess the real benefits of electronic applications—not the hyperbole—by revealing firm and industry level motivations and barriers. The framework explained the dissonance between expected and realized benefits, and extends the literature on IS barriers. The investigation concluded with recommendations for how best to adopt e-hubs in terms of supply topology, buyer–supplier relationships, leadership, and the threat of dis-benefit from e-hubs.
Smart, A. & Harrison, A. (2002), identified position of reverse auctions in relation to other e-procurement mechanisms. Established impact on price and partnerships of reverse auctions and also proposed auctions as part of an overall relationship strategy. This study had developed segmentation model of how and where auctions can fit within a segmented e-procurement approach.

Williams, Susan P., Paul A. Scifleet, and Catherine A. Hardy (2006) aimed to identify the drivers of e-procurement in Australian Organization, to understand the benefits and challenges by adopting the e-procurement, and to identify the change over time. The NePRA survey, part of a longitudinal study, had been conducted to identify and understand the impact of IS allowed innovations in procurement and how these change over time. It was found that e-procurement gained more strategic positions in the organisation. Compared the survey in the year of 2004, e-procurement reached more and the scope also extended. From the 2006 year survey, many of the organizations was unrealized the benefits of e-procurement. Inter-organisational information management had also improved significantly.

Thompson S. H. Teo et al., (2009) examined various factors associated with the adoption of e-procurement. They identified seven factors to be considered in the adoption of e-procurement. They were perceived direct benefits, perceived indirect benefits, perceived costs, firm size, top management support, information sharing culture; and business partner influence. The factor like perceived direct benefit, perceived indirect benefits and perceived costs were categorized under technological factor. The factors such as, firm size, top management support, and information sharing culture dealt under environmental factors, and the another factor the role of business partner influence were examined under environmental factor. It was found from regression results that firm size, top management support, perceived indirect benefits, and business partner were positively and significantly associated with the adoption of e-procurement. But the industrial type did not show any relationship with the e-procurement adoption.
Robert M. Arasa and John O. Achuora (2012) investigated the effects of organizational issues, environmental factors and technological factors on the implementation of e-Procurement. A survey research design and stratified random sampling method for both quantitative and qualitative method had been used. It was found that the environmental factor mostly was affected during the implementation of e-procurement and organizational factor affected least. It had been assessed that management support, employee empowerment, policy strengthening in ICT were key factors for effective e-procurement implementation.

Robert Eadie (2007) found that increasing the use of internet. E-Procurement and E-Tendering offer more alternatives to the traditional paper processes. The ranking system had been followed and it was reported that the highest ranked drivers were improving communication and reduced administration costs and two most important barriers were security of transactions and the uncertainty surrounding the legal issues of e-procurement.

Alan Smart, Alan Harrison (2003) examined the impact of reverse auctions on buyer–supplier relationships through six case studies, analyzing primarily the supplier perspective through participant interviews. The effect on relationships depends on the extent to which buyers employ the auction as a price weapon, or whether it is used primarily as a process improvement tool. It has been found that reverse auctions have the potential to be used in both the collaborative and competitive relationship as a means of tendering contracts. Firms who had established long term relationships with key suppliers still require to check on market prices from time to time, or to invite new or alternative sources of supply to bid, particularly in areas of continuous technological development.

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based technology that facilitates to overcome procurement challenges especially for auction related issues. This solution cost was low and effective method. It was carrying out B2B procurement and it was not only use for procurement process and auctions, it is helpful to the organization to improve revenue.

**Arjun Neupane, Jeffrey Soar, Kishor Vaidya, and Jianming Yong (2012)** explored the potential of public e-procurement technologies to reduce corruption in the *public procurement process*. The basic principle of the government procurement was straightforward: to acquire the right item at the right time with the right price. To overcome these problems, public e-procurement played an important role for minimizing the risk of corruption in public procurement process. This study had used literature survey of public e-procurement anti-corruption factors based on previous books, academic publications, and countries’ public procurement assessments reports including ADB, World Bank, and OECD. It had been reported that the main reason of the e-procurement system was to provide the government more openness, availability and accessibility of procurement information to the public that increased the flow of public information, increase trust and satisfaction, and better accountability.

**Anne Engström, Asa Wallström, Esmail Salehi-Sangari (2009)** assessed the *implementation of e-procurement concept* within Swedish government authorities during 2001 and 2008. A qualitative research approach had been applied, and a longitudinal study was conducted. Data has been collected at two points in time: in 2001 and in 2008. Results confirmed that the implementation of e-procurement within Swedish government authorities developed substantially between 2001 and 2008. One factor that had influenced the increased activities of public e-procurement lately was the regulation by the Swedish National Financial Management Authority, requiring all central government agencies to apply e-invoicing from 1st of July 2008. This requirement was a first step towards increased use of public e-procurement solutions.

**Singh, A. J., & Kasavana, M. L. (2005)**, focused on the *purchase process* of restaurant industry that had traditionally been a labour-intensive, paper and
pencil, time consuming, monotonous, routine requiring knowledgeable buyers, capable sellers and a detailed set of inventory and audit procedures. Simply stated, restaurants need to control purchasing practices in order to contain costs while improving productivity. An inefficient purchasing process leads to inflated costs of goods that in turn negatively impact the firm’s bottom line. The Web was global, scalable and built on an open technology platform that enabled restaurants to gain a competitive advantage through online functionality. E-procurement Concepts focused on bidding comparative bids were easily garnered as some sites host product postings and invited purveyor bids. Catalogs online, searchable catalogs complete with product description, specifications and pricing. Reordering automatic inventory tracking based on purchase history and usage level leads to auto notification of reorder quantities and the most effective purchase cycle. Terms purchase prices and terms for an individual buyer were limited to vendor-specific negotiated deals, Settlement electronic funds transactions streamline completion of the purchase process.

Chang, H. H., & Wong, K. H. (2010) examined firm motivations for adopting e-procurement for their operations in the marketplace and measured their performance to assess its benefits. Trust had been considered as a moderating variable between the relationship of e-procurement adoption and e-marketplace participation. A two-stage analysis, including both a qualitative and quantitative approach, was applied. Hypotheses had been developed and a model was constructed. It was confirmed from the results that firms that adopted e-procurement were more likely to participate in the e-marketplace and that the firm’s performance was enhanced after such participation. Trust showed a moderating effect upon firm willingness to adopt e-procurement when it was considering participation in the e-marketplace.

Chien, S. H., Chen, Y. H., & Hsu, C. Y. (2012) investigated the underpinning forces that influence the organizational decision to adopt e-marketplaces and to improve competitiveness through continuous participation in e-marketplaces. Technology acceptance model, relational embeddedness, and the trust theory had been adopted to explore the impact of perceived ease of use,
perceived usefulness, and relational embeddedness on trust associated with e-marketplace providers. Impact of relational embeddedness and trust on relationship performance had been tested in the context of e-marketplaces. Based on 284 active buyers and sellers in well-known public e-marketplaces, it was reported that perceived ease of use positively influences perceived usefulness of e-marketplaces; perceived ease of use influences user trust of e-marketplaces via perceived usefulness; and relational embeddedness leads to enhanced trust in e-marketplace providers, which subsequently lead to better relationship performance. Both relational embeddedness and trust influenced relationship performance directly.

Egha, C., Vines, M., & Tookey, J. (2004), looked at the important role of knowledge and knowledge management in facilitating e-procurement initiatives and discussed the main challenges in this regard. It was reported that with the advent of the Internet, there were new opportunities for organizations to transfer their business processes on-line via e-business initiatives. E-procurement added a significant improvement to the value of construction projects. However, there remained a paucity of empirical research in this area.

Garrido-Samaniego, J., María Gutiérrez-Arranz, A., & San José-Cabezudo, R. (2010), analysed empirically how the use of Internet at the various stages of e-procurement impacts the organisational structure of the buying centre in terms of size and composition for a capital good. In this high-risk situation organisational buyers typically undertook extensive, deliberate choice processes involving numerous sequential phases. Interdepartmental coordination was required to specify, amongst others, the most suitable type of equipment in terms of capability, maintainability or costs. Information and communication technologies had changed the way bidders interacted and communicated at different levels, amongst individuals within a single organisation as well as amongst different organisations e.g. with suppliers. It was confirmed from the results that the size and composition of the buying centre varied at the different stages of the e-procurement process and that the use of Internet leads to an increase in the number of functional areas that intervened in the buying centre.
**Garrido, M. J., Gutiérrez, A., & San José, R. (2008)**, analyzed how the intensity of Internet use in the procurement process impacts firms from a different point of view, organizational and economical. The organizational consequences referred to the structure of the buying center in terms of size, participation, number of hierarchical levels and functional areas. The intensity of Internet use in the procurement process was determined by two factors. Such as the stage of purchasing process and the number of Internet tools involved in each stage. It was conformed form the results that intensity of e-procurement caused an increase in buying center size and in the number of functional areas involved in the purchase. It had been noticed that efficacy and efficiency increased, either by reducing costs in the search for information or by allowing the purchase of higher quality products at lower prices.

**Schoenherr, T., & Tummala, V. R. (2007)**. The practice of Electronic Procurement (EP) had gained popularity over the last ten years, and so had the research on this emerging area. While first reports in the 1990s focused on general descriptions and best practices, more recent studies had dealt with specific and refined applications of this approach. Since some of the early EP technologies were maturing, while new ones are appearing constantly, a structured literature review was warranted.

**Mishra, M. K. (2010)**. The use of the World Wide Web has become one of the inevitable ways in obtaining and gathering relevant information regarding a myriad of subject matters and issues. Its use was most popular among the society, most especially the younger generation, who perceived the Internet as one of the most helpful tools in terms of education and communication. In addition, its use was being maximized and utilized in terms of business and marketing, such as being done by the eBay company, with their online auction. Through online auctions, individuals were able to obtain and purchase their needed and wanted items directly, without the hassle of travelling and physically looking for the products. It had been discussed that success in terms of online auctioning, and investigations showed that eBay had become the largest online auction house.
Chakraborty, A., Moazzam, M. G., Nasrin, S., & Rahman, M. Z. A (2013), presented a novel approach for efficient and convenient e-auction by comparing the performance between first-price and second-price sealed bid auction. It had been studied that entry and bidding patterns in first-price and second-price sealed bid auction and documented a set of systematic effects on these two auctions. It has been reported that the first-price auction gives rise to larger levels of efficiency and revenue, but lower payoffs to the bidders. It was confirmed from the results that the second-price auction was a dominant strategy for a buyer to drop out of the bidding when the asking price reaches his or her valuation.

Ariely, D., & Simonson, I. (2003) proposed an analytical framework for studying bidding behavior in online auctions. The framework focuses on three key dimensions: the multi-stage process, the types of value-signals employed at each phase, and the dynamics of bidding behavior whereby early choices impact subsequent bidding decisions. A series of propositions had been outlined, relating to the auction entry decision, bidding decisions during the auction, and bidding behavior at the end of an auction. In addition, this study had presented the results of three preliminary field studies that investigate factors that influence consumers’ value assessments and bidding decisions. In particular, (a) due to a focus on the narrow auction context, consumers under-search and, consequently, overpay for widely available commodities (CDs, DVDs) and (b) higher auction starting prices tend to lead to higher winning bids, particularly when comparable items were not available in the immediate context.

Stone, P., & Greenwald, A. (2005), summarized the bidding algorithms developed for the on-line Trading Agent Competition held in July, 2000 in Boston. At its heart, the article describes 12 of the 22 agent strategies in terms of (i) bidding strategy, (ii) allocation strategy, (iii) special approaches, and (iv) team motivations. The common and distinctive features of these agent strategies were highlighted. In addition, experimental results had been presented that gave some insights as to why the top-scoring agents’ strategies were most effective.
Budish, E. B., & Takeyama, L. N. (2001), explored the use of maximum bidding levels (buy prices) in online auctions and provide a rational explanation for this seemingly irrational auction mechanism. It had been showed that augmenting an English auction with a buy price can improve the seller’s profits by partially insuring (and therefore increasing the expected payment from) some risk-averse bidders. Perhaps more surprising was that the English auction augmented with a buy price also be superior even to the first-price sealed-bid and Dutch auctions when bidders were risk averse.

Shunda, N. (2009), developed a model of an auction with a buy price in which bidders use the auction’s reserve price and buy price to formulate a reference price. The model both explained why a revenue-maximizing seller wanted to augment her auction with a buy price and demonstrates that the seller sets a higher reserve price when she affected the bidders' reference price through the auction's reserve price and buy price than when she affected the bidders' reference price through the auction's reserve price only. The comparative statics properties of bidding behavior were in sharp contrast to equilibrium behavior in other models where the existence and size of the auction's buy price had no effect on bidding behavior.

Popkowski Leszczyc, P. T., Qiu, C., & He, Y. (2009) proposed that a retailer used BNP as external reference prices, influencing bidders’ valuations in Internet auctions. This study had focused on the effect of BNP on bidders’ willingness to pay (WTP) and studied under what conditions a BNP effectively used as an external reference price. It was found that the results of two empirical studies clearly indicated that BNP had a reference-price effect. In addition, it had been found that this effect is moderated by (1) the difficulty of value assessment and (2) product value.

Hou, J. (2007), applied online auction theories developed in the US to a different national and cultural context of China. After summarizing and comparing factors that drove price across online auctions in China and the US, this study had identified similarities and differences. Specifically, the starting bid and seller
reputation had been shown to have similar effects on price, though the magnitude of the effect varies among cultures. The number of product pictures had shown significantly positive effect on price only for eBay China auctions, while the opposite was true for bidder expertise and auctions ending on weekends.

Maltzman, R. (2008). A method of allowing a seller in an auction facility to offer buyers the option of buying an offering at a pre-auction seller determined price or using a regular auction process. If a buyer was given the option to purchase at the seller determined price and decides to use the regular auction process by submitting a bid, the option to buy the offering at a pre-auction seller determined price is discontinued.

Conradt, C. (2012) identified causation and motivations of offenders that engage in online auction frauds. It was found that the most successful prevention strategies were comprised of multi-faceted approaches that address micro- and macro-level factors including the public education in victimization prevention, increased guardianship in the private sector, reform of traditional law enforcement investigation techniques, increased cooperation between domestic and foreign law enforcement agencies, and heightened public awareness in the apprehension and prosecution of cyber criminals.

Ockenfels, A., Reiky, D., & Sadrieh, A. (2006), the economic literature on online auctions was rapidly growing because of the enormous amount of freely available field data. Moreover, numerous innovations in auction-design features on platforms such as eBay had created excellent research opportunities. This study had surveyed the theoretical, empirical, and experimental research on bidder strategies, including the timing of bids and winner's-curse effects and seller strategies, including reserve-price policies and the use of buy-now options in online auctions, as well as some of the literature dealing with online-auction design, including stopping rules and multi-object pricing rules.

Mathews, T. (2004), analyzed an auction with a buyout option occurring over continuous time with rules similar to eBay’s “buy it now” option. When auction participants made no distinction as to when a transaction occurs, the seller
optimally chooses a buyout option price so high that bidders never exercised the option. However, time impatience on either side of the transaction motivated the seller to offer an option price low enough so that the option was exercised with positive probability. Further, allowing a time impatient seller to offer such an option results in an ex ante Pareto improvement when bidders do not discount future transactions.

Li, S., Srinivasan, K., & Sun, B. (2009), proposed a typology of Internet auction quality and credibility indicators, adopt and modify Park and Bradlow's model, and used eBay as an example to examine empirically how different types of indicators help alleviate uncertainty. This empirical evidence demonstrated how Internet auction features affect consumer participation and bidding decisions, what modifies the credibility of quality indicators, and how different buyers react to indicators. The signaling-based hypotheses provided coherent explanations of consumers' bidding behavior.

Jap, S. D. (2002). Online reverse auctions were increasingly being used in industrial sourcing activities. This phenomenon represents a novel emerging area of inquiry with significant implications for sourcing strategies. However, there was little systematic thinking or empirical evidence on the topic. This study had reviewed the use of these auctions in sourcing activities and highlights four key aspects: (1) the differences from physical auctions and those of the theoretical literature, (2) the conditions for using online reverse auctions, (3) the methods for structuring the auctions, and (4) the evaluations of auction performance.

Dodonova, A., & Khoroshilov, Y. (2004), presented empirical evidence that people use anchoring to form their valuation of an object. Using data from the on-line auction Bidz.com, it had been found that people bid more for an item with a higher posted ‘buy now’ price than for an identical item with the lower posted ‘buy now’ price.

Halcoussis, D., & Mathews, T. (2007). The band Third Eye Blind recently completed a tour, selling tickets exclusively on eBay. Many tickets were bundled with either VIP passes or autographed posters. These data had been used to
measure variations in price across different markets, as well as the premiums paid for different ticket types. Auctioning the tickets allowed the seller to practice Third Degree Price Discrimination and bundling, without having to determine prices in each market and for each different bundle. It was reported that: tickets bundled with VIP passes command a substantial positive premium; tickets bundled with autographed posters command a small negative premium; different prices emerged in different geographic markets; and auction prices are positively related to the fixed price at which tickets could be purchased by way of Buy-it-Now.

**Che, X. (2011),** modeled an Internet auction with a *temporary* buyout option. It was confirmed from the results that under certain parameter values, there exist two types of equilibrium where offering a temporary buyout option with an appropriate reserve price enables the seller to increase expected revenue.

**Dai, Q., & Kauffman, R. J. (2001).** *Information technology* (IT) had long been applied to support the exchange of goods, services and information between organizations. It was with the advent of internet-based e-procurement systems and business-to-business (B2B) electronic markets that the real opportunities for online transactions had opened up across space and over time. The authors had drawn on IS and economics theory to investigate the motivation for the various online business models, and the adoption requirements of purchasing firms, through the examination of a set of mini-cases. It has been found that private aggregating and negotiating mechanisms were being adopted for large quantity business supply purchases, while public market mechanisms were more often adopted when firms face uncertain and high variance demand. Moreover, market facilitation, expertise sharing and collaboration were gradually attracting more attention, and called for future investigation.

**Brun, A., Corti, D., & Cozzini, S. (2004),** focused on a particular aspect of this new way of doing business: the transfer of a part of purchasing activities on the net, the so called *e-Procurement.* The proposed methodology aimed to give a structured procedure for both a quantitative and a qualitative evaluation of a certain e-Procurement investment starting from the identification of the main relationships.
among relevant elements influenced by the e-Procurement introduction (activities, performance indicators and company's features). The analysis had also included considerations of a strategic nature and lead to the reduction of a final report which has to support managers during the investment decision by highlighting expected benefits.

Gunasekaran, A., & Ngai, E. W. (2008), identified the perceived critical success factors and perceived barriers regarding the implementation of e-procurement. A conceptual framework had been developed for the adoption of e-procurement, and this subsequently had been tested with data collected from companies in Hong Kong. Also, this study examined the current status of e-procurement adoption in Hong Kong. The results indicated that educating companies in both long- and short-term benefits would encourage the application of e-procurement. Some critical success factors include adequate financial support, availability of interoperability and standards with traditional communication systems, top management support and commitment, understanding the priorities of the company, and having suitable security systems.

Presutti Jr, W. D. (2003). The increasing emphasis on supply chain management is creating a greater focus on the supply management link in the supply chain. This focus becomes even more intense as firms continue to adopt e-procurement strategies to leverage the competitive advantages of the Internet. Supply managers need to understand the impact of technology and gain competency in making a business case for e-procurement. The implications are profound for the industrial marketer.

Puschmann, T., & Alt, R. (2005), explored the introduction of e-procurement systems and their contribution to the management of indirect goods supply chain. Although e-procurement had substantially streamlined the procurement and coordination processes for indirect goods, many companies operate multiple e-procurement solutions. For integrated procurement solutions, the results of this study had recognized that the need of an overall procurement strategy and organization, an alignment of various e-procurement solutions along
the procurement process and the need for integrated system architectures. Companies also have to realize that a no standardized e-procurement solutions exists and that important success factors are “non-technical” in nature.

**Wu, F., Zsidisin, G., & Ross, A. (2007).** Organizations increasingly emphasized the use of *information technology in the procurement process*. An integrative model of e-procurement adoption that captured its antecedents, two types of e-procurement use, and their respective effects on relationship development and perceived efficiency gains had been proposed and empirically tested using the data collected from senior managers in four technology-intensive industries. The results had indicated that the use of coordination e-procurement applications had both direct and indirect effects on perceived efficiency gains, while transactional application use can directly lead to efficiency gains. In addition, the use of e-procurement applications was strongly influenced by organizational learning ability and normative pressures.

**Croom, S., & Johnston, R. (2003),** addressed issues relating to the impact of e-business developments on internal customer service with a focus on *electronic procurement introduction*, in other words it concentrated on the intra-organisational system dynamics of e-business. The procurement process was the basis for one of the primary internal customer-provider interfaces and thus presents a valid and useful domain of study in internal customer service. In contributing to the emerging e-service field the article first contends that much of the recent research into e-service has taken a primarily external customer focus. It had been suggested that the potential of e-business comes from applications both within and between businesses. The results confirmed that internal customer satisfaction was central to the success of e-procurement deployment and was a significant determinant of the cost benefits to be gained from its adoption.

**Panayiotou, N. A., Gayialis, S. P., & Tatsiopoulos, I. P. (2004),** presented a case study concerning the analysis of the Greek governmental *purchasing process* carried out from the General Secretariat of Commerce, part of the Ministry of Development and functions’ definition of the new e-procurement
system. The methodological approach as well as the tools used had been analysed and the achieved results were presented. This study also identified the potential problematic areas and the designed new processes in order to maximise the possibilities of a successful implementation of a new e-procurement system. The outcome of the new process design enabled the definition of the analytical functional specifications of the appropriate solution.

Angeles, R., & Nath, R. (2007), pursued the understanding of current business-to-business e-procurement practices by describing the success factors and challenges to its implementation in the corporate setting. Members of the Institute for Supply Management and the Council of Logistics Management had been asked to respond to a survey questionnaire. Factor analysis had been carried out to analyze data from valid responses received from 185 firms. Factor analysis had resulted in three e-procurement success factors (SF): supplier and contract management; end-user behavior and e-procurement business processes; and information and e-procurement infrastructure. Three challenge-to-implementation factors (CIF) also emerged: lack of system integration and standardization issues; immaturity of e-procurement-based market services and end-user resistance; and maverick buying and difficulty in integrating e-commerce with other systems.

Caridi, M., Cavalieri, S., Pirro, C., & Diazzi, G. (2004), analyzed at first the main issues deriving from the new strategic role of the purchasing function. This study had introduced an industrial application experienced in a multinational pharmaceutical company and motivates how the use of business process simulation methodologies effectively supported the re-engineering process of the procurement division and the evaluation a priori of different possible solutions.

Vaidyanathan, G., & Devaraj, S. (2008), postulated that online information and process acted as resources that result in logistics fulfillment capabilities. These capabilities in turn lead to satisfaction with e-procurement. A model had been estimated using structural equation modeling with survey data collected from 131 purchasing and procurement managers. The results had
indicated strong support for the relationships between information flow process quality, logistics fulfillment quality processes, and e-procurement satisfaction performance. It was also found that fulfilled order timeliness had a significantly greater impact on satisfaction than fulfilled order accuracy.

Eddie, R., Perera, S., Heaney, G., & Carlisle, J. (2007), examined the drivers and barriers for E-procurement in construction within Northern Ireland. Drivers and barriers had been ranked using a selection of 70 contractors who have expressed interest in tendering for Roads Service Northern Ireland (RSNI) contracts. RSNI was the agency in Northern Ireland responsible for roads and is one of the major construction clients. The results had been compared with studies of a similar nature carried out in Australia and America in general goods and services e-procurement. It was found that the two highest ranked drivers by the contractors were improving communication and reduced administration costs, while the two most important barriers were security of transactions and the uncertainty surrounding the legal issues of e-procurement. Therefore in Northern Ireland the results were broadly categorised as costing and management issues for the main drivers while legal and technical issues were cited as the main barriers.

Treiblmaier, H., Pinterits, A., & Floh, A. (2004), found that trust, both in a frictionless use of the system and in e-payment security was seen as an important antecedent for the adoption of online payments on the part of the users. From the government’s point of view, the potential for exerting influence seemed to be somewhat limited: While national institutions in developed countries were usually perceived as trustworthy, users’ attitudes toward the Internet was more skeptical, depending on their previous experience.

Treiblmaier, H., Pinterits, A., & Floh, A. (2006), combined the issues of e-payment and e-government, and proposed a model that depicts important factors influencing users' online payment behavior. A structural equation modeling (SEM) approach had been used to assess the strength of the relationships among different constructs, including users' previous experience, their trust in e-payment security, and the perceived convenience of the payment process. It had been confirmed from
the results that trust (both in a frictionless use of the system and in e-payment security) was seen as an important antecedent for the adoption of online payments on the part of the users. From the government's point of view, the potentials of exerting influence seem to be somewhat limited: while national institutions in developed countries are usually perceived as trustworthy, users' attitudes toward the Internet may be more skeptical, depending on their previous experiences.

Liaw, H. T., Juang, W. S., & Lin, C. K. (2006). In this paper, a new *electronic auction scheme* had been proposed, which not only satisfied the requirement for the electronic auction properties of anonymity, security, privacy, atomicity and low overhead cost but also added the properties of the non-repudiation, untraceability, auditability, one-time registration and unlinkability. Furthermore, the operational scheme of the proposed electronic auction had been improved to meet its security and efficiency. Therefore, the proposed scheme was suitable for implementation.

Formoso, C. T., Santos, A. D., & Powell, J. A. (2002), discussed the increase of *process transparency*, which had been pointed out as one of the core principles of the new production management paradigm. It was concerned with making the production process observable in order to facilitate control and improvement. It had been found that it was feasible and worthwhile to apply this principle in construction sites. It brings direct benefits for the performance of production systems, and it was also used as a support principle that enables other principles to be effectively implemented. The case studies also indicated that there was much potential for increasing process transparency in construction sites.

Bulusu, S. D. (2004), focuses on the *aspects of e-procurement* in India - one of the forerunners amongst the Asian countries to implement e-procurement. With the e-procurement initiative, competitiveness in the country had been redefined with a new branding, brighter image building for the agencies involved. Despite the high-speed progress of public procurement in the states of Andhra Pradesh, Karnataka et cetera and the promotion of the paradigm by offering support to policies like e-Choupal, the Indian government yet had a scope for
further development. On the other hand, in the private sector, companies like Larsen and Turbo, IBM India are moving ahead at a faster pace with proven stories of successful implantation of e-procurement. Hence it was beneficial to benchmark a central system of e-procurement in the private sector of India, which was replicated in the context of the public sector.

**Ghiassi and Spera, (2003).** Apple Computer was unable to fill orders for its new high-end line of G4 computers because of delays in the supply of chips. As a result, the company experienced a devastating 14% drop in revenue in 1999. Apple was able to address these delays and respond to them by managing suppliers and optimal production schedules. On the other hand, Dell Computers proved that Internet-based mass customization is the preferred business model (BOSC) – and the most profitable one – in the PC industry. Dell generated a 160% return on its invested capital by allowing customers to build their own computers online, then successfully manufacturing and delivering these computers with a lead time of 5 days for the delivery of the products.

**Tyan et al., (2003).** Due to increasing global competition and a decline in profit margins, most multinational corporations are pursuing different operations strategies to secure market share and improve profits. Specifically, BOSC and configure-to-order (CTO) markets driven by *mass customization and e-commerce* were forcing retailers and manufacturers to shorten planning cycles, compress manufacturing lead times, and expedite distribution.

**Bowersox et al., (1999).** Dell has developed flexible manufacturing techniques that allow the company to virtually build computers to order. To support this MTO strategy, the company runs a lean manufacturing operation. By working closely with suppliers, inventories of components and materials were minimized. Dell’s close relationships with its suppliers had allowed the company to operate with nearly no work-in-process inventory. Building systems to order means that there was no finished product inventory in the channel to manage.

**Steger- Jensen and Svensson, (2004).** The opportunity to ensure that the *production system* was efficiently utilized to reduce due to the BTO approach,
which is most often associated with a strategy of customization. The problem was that the techniques of traditional industrial production was only applied to a limited extent in BTO.

Tan (2001), provided a framework along the following lines: (i) the purchasing and supply perspective of industrial buyers, (ii) the transportation and logistics perspective of merchants, and (iii) the unified/integrated supply chain management strategy.

Walters and Buchanan (2001), discussed the relationship between a new economy, new opportunities, and new structures for both manufacturing and service organizations. This indicates that when developing a company’s strategies, external factors should be given very close attention, including the issue of developing BOSC. Without the support of the environment, pursuing BOSC proved to threaten the very survival of a company. A successful company must compete within a proactive industry that has adequate government support; several established consortia, a selective consumer base, and a strategy for innovation that was open to change and allows companies the organizational freedom to form collaborations.