Chapter 4

LITERATURE REVIEW
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Gary P. Schneider (2003) in his book “Electronic Commerce – Fourth Annual Edition”, evaluated the importance of “Electronic Commerce” for the fast developing world. The book has written by keeping all current aspects of industry requirements and establishing the base for so many applications and concepts defined. Initially, this book was written by keeping in mind of Engineering students only, but then management and computer application students were also considered for giving the benefits. First 15 chapters are glossary. This section provides the basis information in text. It gives basic information about E-Commerce, its applications to society, advantages and direction to future efforts require.

Dale Besterfield, Carol Besterfield-Michna(2003) in his book “Total Quality Management, Third Edition”, evaluated the importance of “Total Quality Management” for the fast developing world. This book explains the importance of on Total Quality Management (TQM). So many quality aspects are there which demands quality is critical to corporate success as it plays a vital role in improving organizational productivity. It can be defined as an inherent property to create an ability to provide products and services. TQM can best be measured by capturing customer perceptions of the performance of those characteristics.

Hung Hoang, Bin Phan, Charmaine Scott (2002) in “International Issues in E-Commerce”, shows the economic growth of many years, where the IT/e-commerce sector of business around the world has been dominated by the US, Japan and Germany. Unequal growth of electronic commerce internationally is a problem that must be
overcome in order to bring technology and e-commerce to underserved countries. It is true that e-progress brings new ideas, applications, new process implementations, and many more. Inevitably, the infusion of technology into underserved countries must be accomplished with a great deal of sensitivity toward investment in cultures, politics, educational system and other requirements to achieve e-commerce compatibility.

Sharad Jain and Bhisham Kapoor (2012) in the article “E-Commerce in India – Boom and the Real Challenges”, shows the real challenges and boom in E-Commerce sector. Ecommerce is showing tremendous business growth in our country. This new way of economy has increased internet users to contribute in growth. Ecommerce has helped online travel industry in many ways and added a new sales avenue through online retail industry in our country. A recent report by the Internet and mobile association of India (iamai.in) reveals that India’s ecommerce market has grown over 550 % in past 5 years alone.

Ankita Pahuja(2010) in “E-Commerce in India and the potential competition issues”, focuses on E-Commerce in India and the potential competition issues of it. E-Commerce is a dream in India. This book gives the details of so many issues of E-Commerce by which it can become a nightmare to developing country like India. But this book also provides information to create platform competition for future. It discusses about some incidences where some companies has taken undue advantage of credit cards. Credit cards can help to fast the processes of E-Commerce. But this book also show the black side of E-Commerce companies where these companies can create anti-competitive activities.

Japhet E. Lawrence, Dr. Usman A. Tar(2010) in “Barriers to E-Commerce in Developing Countries”, explains the views on hurdles for E-Commerce implementation in India. This book points to some doubts of E-Commerce competitive markets in developing countries. It discusses about basics require to establish an E-Commerce in
India. It shows the absence of infrastructure, social awareness, and lack of government policies which is a severe problem. This study shows the lack of understanding of E-Commerce in developing countries.

Mukesh Purohit and Vishnu Kant Purohit (2005) in the book “E-Commerce on Economic Development”, provides guidelines on E-Commerce and its benefit to Economic Development. This book shows that E-Commerce has a bright future and tremendous economic growth to generate not only revenue but also the growth of the country. But it also shows that E-Commerce implementation in every country requires the changes in structure, providing infrastructure, good governing policies that will help to recognize the importance in population of that country. This proper implementation will help to self-intense growth of this fruitful concept.

QIN Denzi, ZOU Lifang (2008) in article “Discussion of Information Asymmetry in B2C E-Commerce”, discuss on information asymmetry in B2C E-Commerce. The paper shows black side of B2C E-Commerce transactions where small and middle scaled businesses are taking undue advantage of this emerging economy. The companies genuinely provide wrong information to customers to increase their benefit. As India is the emerging market of E-Commerce, many small scale and medium sized businesses has started their online businesses, but they don’t provide the services as per the information provided on the web sites. So many bad faith businesses don’t deliver the products on right time. When customers purchase something online on the basis of the information provided by the company, many times the product can be of less quality or the quality is less than the standard defined by the company.

so many legal issues like confidentiality of information, integrity and assurance of transactions, scalability, reliability and ease of deployment[23]. When customer provides his credit card information, E-Commerce retailers ask for the type of credit card and other important details. This can become one of the risk to the customer because anybody can figure it out from his credit card number and take the offensive use of it.

Ihab A. Ismail and Vineet R. Kamat(2006) in “Evaluation of Legal Risks for E-Commerce in Construction”, shows legal risks for E-Commerce activities. This paper identifies and analyzes that the websites and the customers both should be attached by contracts for goods and services. The contract should carefully address to owner’s responsibilities of key terms and conditions to deliver goods and services. It should address the customer’s responsibility also. Every country is different for statutory compliances and the types of activities involved. So the guidelines for the status of the product and transaction are required. Some liabilities are related to provide wrong information about the products and services. Thus, the website owner is liable for the damage or the wrong information though both parties don’t have contractual relationship.

Osama Mohammed Ahmad Rababah and Fawaz Ahmad Masoud(2010) in “Key Factors for Developing a Successful E-commerce Website”, showed some of the important concepts need to consider for the success of E-commerce in developing countries. Logistics is also one of the major problems in India. It is in a very basic stage. The big region of Indian territory creates problems to deliver products on time. Companies always fail to give updates and progress of delivery of the products. Customers are entitled to written confirmation of their order under the Distance Selling Regulations 2000. So Customers at least expect to get the information through mails or SMS. Most of the times, it is very difficult for the customer to go through his actual choices on the homepage. If the company has to give the promotions and products on the site, they try to show all of them on homepage.
James B. Ayets (1993) in “TQM and Information Technology: Partners for Profit”, shows importance of TQM and Information Technology which can work as partners for profit. The total quality management philosophy of continuous change and improvement is customer driven. These customers should definitely include the internal end users to whom the information systems department supplies services. The IS user community in turn serves other internal and external customers. Too few organizations have recognized the link between TQM and systems improvement and the need to integrate information systems and total quality efforts. For example, the health maintenance in organization.

Rhetta L. Standifer, James A. Wall, Jr. (2003) in “Managing conflict in B2B e-commerce”, provides guidelines as how to manage conflict in B2B E-commerce. Security is the most serious issue for the businesses. There is always a fear of hacker attacks, theft of confidential information and many more. Businesses that use to keep important and confidential information on their websites require proper safeguard from unauthorized access. The company can face the problem of unauthorized access or hacking not only from external users but also from internal employees. The operational change or the changes in the overall system always leads resistance from employees. The resistance from employees can be psychological. In some cases, overall cultural change creates insecurity in employees and they starts to oppose. The success of any organization depends on long term policies and 5 to 10 years vision. In B2B organizations, the strong bond of cooperation has become very difficult especially in the era of fast changing pace of technologies and needs of the customers.

G. Shankaranarayanan and Yu Cai (2005) in “Web Services Application for the Data Quality Management in the B2B Networked Environment”, provides information about various issues of network services. The majority of developing countries are not ready for E-Commerce, because of their lack of network infrastructure especially among individual users and entrepreneurs. The success of E-Commerce is
totally depends on the technologies used. But above all, the quality of telecommunication perform very important role to connect various regions and parties within a country and across countries. The law of "Network Service Providers" is not in fully favor of getting good quality net services to the customers. The repeated loss of network and lengthy process of doing business irritates to the customer. So there is always a payment dispute between Network Service Providers and customer.

Zoltan Veres and Erzsebet Hetesi(2003) in “Bottlenecks in B2B Quality Management and Their Impact on Marketing Research”, showed the bottlenecks in B2B quality management and their impact on marketing research. It gives information about uncertainty which shows that uncertainty is the parallel effect of the future risk in B2B personnel which can arise in future. The conflict starts when the businesses don’t get the solutions to come out of the problems collectively. Interpersonal problems are the example where two businesses are different in cultures, the employees will be definitely different in social norms. The individual starts to refuse the orders, neglect to work and this leads to overall loss of the system. The major conflicts of the B2B businesses starts when one of the businesses fails to cooperate in problem solving stance. Manager starts to note down the minor problems of the B2B partner and the individuals of both the businesses refuse to cooperate. This is found that, if suppliers send big orders to wrong plants, the other plant stand idle for a complete day.

Joe Horlen, Neil Eldin and Yashmbari Ajinkya(2005) in article “Reverse Auctions: Controversial Bidding Practice”, highlights one of the controversial bidding practices that is reverse auctions. This is a new market which discusses the reverse action activities for the growth of the businesses. The introduction of this new bidding process has also created ripples. The speciality of this concept is that it communicates the current lowest bid to all bidders and invites them to underbid it. Therefore, a bidder gets a benefit to get the lowest price. So this becomes completely opposite type of auctions where prospective buyers bid upward. Finding the agents is also one of the biggest challenges of the system.
The website purposely doesn’t differentiate between the agents and the unwanted software. The users follow wrong procedures, select wrong software and unknowingly provide all personal information to unfaithful sources. There is a need to protect domestic industries against predatory foreign companies. It outlaws “dumping” goods at below-market prices with the intent to injure Indian industry. This could be a major issue because auctions endorse global transactions and can drive out domestic competitors.

Sami I. Makelinen(2006) in the article “From B2C to C2C E-Commerce”, guides how the organization goes from B2C to C2C E-Commerce. C2C E-Commerce is a new economy which has created the society of the individuals but having individual goals and benefits. The most important benefit of this form is the transaction between individuals without reliant on corporation to conduct their own transactions. It helps the online dealing of goods or services among people. Though there are no major parties needed but the parties will not fulfill the transactions without the program which is supplied by the online market dealer. There are many websites which offers auctions, free classifieds and a platform where consumers can sell or buy. PayPal is one of the best example of the auction site where consumers are performing transactions since 1995. It would have a share of 35% among the top 100 companies.

Md. Mahbubur Rahim(2008) in article “A Qualitative Evaluation of an Instrument for Measuring the Influence of Factors Affecting Use of Business-to-Employee (B2E) Portals”, gives information about B2E service which provides direct access to some tools and information by which every employee can work on his own portal like his own company. This portal helps to personalize his contents as well as special services like travel, finance, training, communication, etc. So this becomes a special form of E-Commerce where employees works on the company network, for the company, but maintains their unique identity. The success of B2E Portal depends on the mindset that employees are the customers as well as the assets of the organization. But the organizations don’t give this amount of required freedom to the employees, and this ambiguity of narrow mindset becomes the reason of failure before the implementation of this concept in the organization.
YANG Hongbin, CAO Jingjing(2009) in “B2E Portal Integration Conceptual Architecture Framework”, provides B2E Portal integration conceptual architecture framework. Portal Integration Framework including integration design should take a very hard look at client’s current environment and try to leverage as much as possible and be forward looking at the same time. This is the balance that needed to be managed during integration framework design for individual clients. Unfortunately, there is no technology which can calculate percent benefit any organization or employee has got through B2E portal. When organization invests on B2E implementation, it thinks about the return on investments out of it and as there is no method evolved to measure the benefit in monitory terms, it is considered as the piece of cake for the benefit and fun of the employees. Despite such interests, very little research is done about the actual benefits any B2E portal use to give to individuals [38]. Undoubtedly, the organizational view is always based on the returns in monitory terms. Thus, organizations always try to evaluate the need to find the quantiative method for the benefits. Managers should aware of the potential of B2E portal.

John R. Hauser, Duncan I. Simester and Birger Wernerfelt(1996) in “Internal Customers and Internal Suppliers”, explains the importance of employees as internal customers and internal suppliers. The article discusses about the employees of the organization as the internal customer. Internal customers might have more opportunities to interact with internal suppliers than do outside customers." Hence, they might cooperate in settings. Unlikely, there is a need to develop one model that can perform critical analysis of employee performance in behavioural theory, psychology and many more. The proper examination by domains experts require in the process. One method is also required which will increase the confidence in the employees for the ability of the employee portal. B2E portal always can help to provide the information to the decision to complete specific tasks. Many important things like integration of the processes and automation of various applications can be done on B2E portal. This supports to improve effectiveness of not only an employee but also an organization.
Feeba Mooteril (2008) in “Achieving Organizational Effectiveness with B2E E-Business Model”, has written in her thesis to achieving organizational effectiveness with B2E E-Business model. She points to many important problems of B2E E-Commerce implementation. The organizations need to categorize the employee as internal customer[39]. The internal customer is the person or a group that receives the results and the quality of outputs resulting from any individual works. They provide outputs to the organization like reports, goods, services, special directives, communication system, etc which is passed between people or groups. There are various groups of people who are directly attached to work environment of the organization considered as internal customers like employees, workers, supervisors, middle management of the organization. For the expectation in the quality of the products, the need is to understand the expectations and knowledge of the internal customers.

Ian Davis (2002) in ROI from a New Wave of B2E Portal: Closing the Loop Between Plan and Proof for Your Portal Initiatives”, shows the organizational approach to ROI. It shows the required change in business environment also creates the need to make the cultural change that is required to consider the employee as the first customer of the organization. The organizations expect huge returns on investments(ROI) by selling their products to the customers, but they forget that if their own employee doesn’t purchase the product of the organization, then how can they expect the external person to purchase the products. If the employees leave the organization, then definitely, there is something wrong which the organization is not able to satisfy the employees. This dissatisfaction always does not mean to the payment issues, they are always aware of the ground level problems of the deficiencies in manufacturing processes, lacunas in quality improvement processes, as well as the future growth of the company.
Efthymios Constantinides (2006) in “Influencing the Online Consumer's Behavior: The Web Experience”, focuses on influence of the online consumer’s behavior. It shows that doing business require large experience for getting the benefits through transactions. Consumer marketers are still in the early stages of online businesses. Still consumers prefer traditional way to purchase the products. So there is a need to understand the consumers and their expectations in the businesses. Edelman Trust Barometer found that the most important source of the information is just consumer. So the key element of the transaction is just helping the buyers to buy. There are plenty of payment options out there. But the large options create large number of complexity. This is comfortable for those companies only which are having the dealings based on their comfort. But the customers don’t get the advantage of it. Because every time customer require using different payment method suggested by different companies.

Victor E. Sower, Ross Quarles and Eric Broussard (2007) in “Cost of Quality Usage and it’s Relationship to Quality System maturity”, shows that every business, the simple act of collecting payments from consumers is also actually quite complex. Some of the key planning parameters your company should consider to best prepare for and benefit from the changing payment landscape. Above all else, the organization should have a framework for evaluating the trends and creating a comprehensive payment strategy. There are some more options to pay the fee, but that are also very expensive. The reason behind this era is, most of the E-Commerce transactions occur in the customers and the companies in the developed countries of Europe, US and Canada. However most of the population exists in rest of the world and this rest world is still in the 90’s of these developed countries. The cost of the Internet access makes it inaccessible to most users in developing countries like India. The cost of accessing the infrastructures also influences the growth of E-Commerce.
Rauno Vinni(2007) in article “Total Quality Management and Paradigms of Public Administration”, addressed Total Quality Management (TQM) is the future of doing businesses. Initially, people used to follow the traditional way to do the businesses. TQM is just the advancement of the businesses with the help of world class ideas and philosophies. TQM suggests changes in action of management and culture of the organization. TQM is not more than common sense. TQM is effort to provide excellence in the processes, management activities and thinking of every employee of the organization, which ultimately excellence in products and services. TQM is an application which helps to improve quality as per the expectation of the customers and ultimately leads to overall increase in revenue of the organization. TQM changes the traditional definition of the quality and force to understand what the customer requires in new marketing environment which changes in few days or months.

Yap Pei Xiang(2007) in the book “Total Quality Management Approach, A Case Study in Manufacturing Industry”, is a paper focus on various TQM properties which are very crucial to the growth of the business. Time is critical for successful, high-growth business. A number of software attributes are associated with the behaviour of the system across time. The interactions between the various attributes are nontrivial and often involve tradeoffs. Therefore, before embarking on a project to improve the time performance of a program’s operation, it is important to determine which of the time-related attributes we want to change. With rapid case identification, the program is able to provide timely prevention and intervention services, respond quickly to investigations, and monitor trends. The most important attributes are latency, throughput, processor time requirements, real-time response, and time variability. TQM advanced methodologies can cut development time without compromising quality. Company can develop in-house controls and scheduling systems to maintain process flow so that demanding schedules are kept on track and delivery schedules are met.
J.J.Oschman, E.C.Stroh and C.J. Auriacombe(2006) in article), “A Conceptual Analysis of Total Quality Management(TQM)”, is an analysis of TQM which evaluates various features. It helps to manage the total quality, one needs to understand the meaning of the quality first. Quality has different meanings based on the requirements and perception of different people. Perceived quality is based on the attitude of the people, thus the level of satisfaction changes and the perception of the performance also changes. It also differs on the objectives of the product to purchase. Company can maintain the systematic stepwise approach with the help of waterfall model and can make interactive framework which can reflect real world in timely manner and can help to quality deployment in the software. The quality study addresses the ranking issue of the contents provided on E-Commerce sites. The case study of eBay shows that removing unrelated contents from site is not sufficient to give the service to the users. System should tell the users which article contains valuable information to the user, from the product review angle, and this should be done on time when the customer requires it.

Thuy Quynh Loan NGUYEN(2006) in his thesis), “Improving Performance Through Linking IT and TQM in Vietnamese Organizations”, explained in his thesis to show performance criteria of TQM in organizations. This implies that pursuing TQM is a good way to improve the organizational performance. Quality can quantify by the equation: Q = P / E. This equation clearly shows that quality of the product is assumed to good when the value of Q will be more than 1.0. Of course, it will be more than 1.0 unless and until the performance of the organization will be more than expectation of the customers. Purchase process performance is widely known as procurement performance which is a common term used in organizations. TQM also suggests the Continuous Process Improvement (CPI) for the continuous improvement in performance. Continuous Process Improvement is a continuous approach of quality maintenance and improvement in production processes. These processes help to reduce waste, time, etc. In 2011, one survey of 250 Chief Procurement Officers found that procurement department handles 60.6% revenue of the organization and CPI achieves 6.7% savings out of it.
Carlos Noronha(2002) in “The Theory of Culture-Specific Total Quality Management – Quality management in Chinese Region”, has written the paper on various aspects of culture impacts for successful implementation of TQM. The organization should select resources, distributors, employees, suppliers, everything on the basis of quality and not the cost. Every entity of an organization must work collectively towards achieving the quality. Teamwork of every employee and participants of the products is essential to achieve the targets. Cross-functional teams performs major role to solve quality problems. Quality circle is one of the best examples of it. The use of the statistical methods with the awareness of the objectives minimizes the variability. The scientific methods help to monitor the performance. To manage the total quality, one needs to understand the meaning of the quality first. Quality has different meanings based on the requirements and perception of different people. Perceived quality is based on the attitude of the people, thus the level of satisfaction changes and the perception of the performance also changes. It also differs on the objectives of the product to purchase.

Alexandros G. Psychogios and Constantinos-Vasilios Priporas(2007) in “Understanding Total Quality Management in Context: Qualitative Research on Manager’s Awareness of TQM Aspects in the Greek Service Industry”, is an understanding of manager and other higher authorities to manage TQM. Sometimes software developers make a best quality software, but they forget to provide best documentation which is the communication link to understand the software. The formula for the understandability is very simple. If the company expects, the customer should learn something about the product, it should provide proper understandability in software by documents, tooltips, help, comments, etc. TQM refers the solution for the problem of understandability. It provides the guidelines of the necessary activities in the processes by which the documents become more understandable to users. To increase the organizational performance, it is necessary to understand customer requirements. TQM suggest so many techniques like Ishikawa diagram, flow diagram, house of quality, etc to understand user requirements. It purely stress on the inputs and outputs. These methods include careful questioning of expectations and help benchmarking team to ensure the changes.
Virginia H. Dale and Suzanne C. Beyeler (2001) in “Cost of Quality Usage and it’s Relationship to Quality System maturity”, shows the challenges in the development of matured software. Maturity is the criteria which creates difference of the software with the others. It is related with so many important factors like understanding the widely used applications need to be stable with required in process chains of user. Maturity is the trustworthiness of maintaining consistent reliability to protect from failure and hence helps to build trust relationship. The Capability Maturity Model (CMM) is a technique which helps to refine maturity in organizational processes. It describes a five step approach to achieve maturity in systematic manner. Senior executives are the key people to implement the quality issues with respect to get the products to the customers on time.

Software maintenance is always used to recover and modify the data after delivery. Maintainability is an important pre-requisite for reusable aspects and aspect-oriented systems because crosscutting concerns are very difficult to change.

Antonia Stefani and Michalis Xenos (2001) in “A model for assessing the Quality of E-Commerce Systems”, provides guidelines for understanding the quality of E-Commerce. This gives the information of B2C model. This is the model which shows the interaction between businesses and customers. This model is very similar to the traditional way to purchase the product from companies but omitting the chain of various parties involve in purchase procedure. The basic concept of this model is to sell the product online to the customers. In B2C, it provide the templates which is very similar to the store. Anybody can visit the site, find the choice of the product, and purchase it by paying it online. One of the most important benefit of B2C E-Commerce is, companies and customers both can directly to each other without the help of any intermediate distributors or retailers. The internet is changing as how the supply chains work since it is possible eliminate the “middle man” or distributor by selling directly from the factory to the final or end consumers.
Mario Lucio Cortes and Luiz Alberto Ferreira Gomes (2002) in “Suitability of Software Quality Models to E-Commerce Applications”, helps to analyze the suitability issues of E-Commerce. Suitability in the web applications is the need of today’s environment. Most of the time, it is very difficult for the customer to go through his actual choices on the homepage. Just because of lot of promotions, websites always try to show everything on the homepage. If some stocks are not available to company, then company should remove that content from homepage. Some websites purposely slow down the buying process of customers by showing 10 recommendations expecting that the customer should get the information of their other products also. But if customer has a short time and he gets frustrated, then he might just leave. The E-Commerce companies always forget that quality can’t be defined as high or poor. It is the combination of all inherent features of the products or service. The suitability in the look, simple information, and short purchase process of the product is considered as the quality in terms of customer.

James D. Lockwood, P.E. (2001) in “Global Engineering And Construction Change”, highlights the changing global market. It concentrates on some customer aspects to changing environment. Customer always expects support in navigation, customer care, maintenance, etc which is applicable to E-Commerce shops also. Customer wants to interact with the sellers like traditional way. He expects the answers of simple questions which can satisfy his dilemma. Client support is also one of the debated issues for E-Commerce companies [25]. Online companies take the misuse of personal data of the customers. Customer data is the major asset and how to use it for the support is very serious privacy issue. The purpose of the customer data is to facilitate more options for the benefits of the customer. Companies try to survive in competitive environment and to increase the revenue through the personal data of the customers. Flexibility is the extent to which the web site is accessible to users through different browsers in different times. In the recent trends, outsourcing is the best example to satisfy the customer demands. It helps to maximize the speed of customer service for ever changing customer expectations.
Adam M. Ross, Donna H. Rhodes and Daniel E. Hastings (2008) in “Defining Changeability: Reconciling Flexibility, Adaptability, Scalability, Modifiability and Robustness for Maintaining System Lifecycle Value”, explains so many changeability issues which are very important for success in TQM. By definition, maintenance changes to the software will change its behaviour. When stable code is asked, one want code that minimizes the unexpected effects that occur as a consequence of the modifications we undertake. Two related attributes are fragility, the tendency of the code to crumble and break even after minute changes, and viscosity, the code structure that hinders changes that violate its design. Portability in high-level computer programming is the usability of the same software in different environments. The pre-requirement for portability is the generalized abstraction between the application logic and system interfaces.