TQM Solutions to B2C E-Commerce Problems

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Abstract:–B2C E-Commerce web sites are facing lots of problems today. Customers prefer traditional way to purchase the products and not from E-Commerce web sites. If we see the history of E-Commerce, then we get that E-Commerce is the purpose of Internet and the web to conduct business. Number of Internet user in India are just 5.33% of total Internet Users Population of the world and E-Commerce sales of India is just 1.26% of total E-Commerce sales of the world. E-Commerce web sites are finding the solutions. The study addresses to various quality issues of the web sites which are neglected to fulfill the requirements of the customers, and propose Total Quality Management (TQM) implementation as the best solution to sort out the issues.

Keywords**:–**B2C E-Commerce; Total Quality Management; Quality issues; Information asymmetry; Security

I.   INTRODUCTION

B2C stands for Business to Consumer as the name suggests, it is the model taking businesses and consumers interaction. Online business sells to individuals. It is the indirect trade between the company and consumers. The basic concept of this model is to sell the product online to the consumers.

Anyone who wants to sell products and services over the internet, or who wants consumers to be able to research their purchases on the internet, the template-based online stores are available which are based on packaged applications that are delivered over the internet and it requires very less investments. Companies are using the Internet to reach out to consumers, and suppliers directly. As per IMRWorld B2C Global E-Commerce Overview 2011 [1], global B2C E-Commerce sales in 2010 are estimated to have grown to €591bn, and estimated double up to 2013.

Amazon.com has been able to sell books and many other items directly from its warehouse to people. The internet is changing how the supply chains work since we can now eliminate the "middle man" or distributor by selling directly from the factory to the final or end consumers.

E-Commerce is having so many benefits. But it is having so many quality issues also. Number of Internet user in India are just 5.33% of total Internet Users Population of the world and E-Commerce sales of India is just 1.26% of total E-Commerce sales of the world**.** E-Commerce web sites are finding the solutions. We propose Total Quality Management (TQM) as the solution.

TQM is defined as both a philosophy and a set of guiding principles that represent the foundation of a continuously improving organization[1]. It is a customer driven philosophy wherein the stress is on customer delight. Its application to information technology, especially in E-Commerce, is a recent trend. TQM has a vast potential to generate the improvements in the process of E-Commerce. TQM focuses on meeting the needs of the customer. TQM is not inspection, but actually the prevention of defects. It involves everyone in the organization.

II.   E-COMMERCE QUALITY ISSUES WITH TQM SOLUTIONS
1.   NAVIGATION

The navigation is the browsing extensibility to which the web site's software allows[3]. A concept which suggests that, using contemporary technology, the advertising that consumers actually see can be decided by those consumers – rather than being pushed at them, as with traditional media. Most of the time, it is very difficult to the customer go through his actual choices on the homepage. Just because the company has lot of

promotions and products on the site, they show all of them on homepage. In certain scenarios some products are out of the stock, but that are cleaned from homepage. Some websites slow down the customers by showing 10 recommendations before they get their cart page. If customer has a short attention span and he get overwhelmed with too much unnecessary information, he might just leave.

The buying confirmation process is also not standard. The final page or payment confirmation email don't shows enough details to buyer not to call you at once for certain clarifications and explanations. This creates the fear of them getting scammed. There is no proper customer care from the company to analyze the number of recorded aborted or doubtful transaction Another major problem of the navigation is company don't inform to customers on what they are buying and then also inform them on what they have bought. This is a simple but important E-Commerce rule. It is the only way to make them understand what they get for their money. Whatever you are selling provide sufficient information and details on what customers are buying or what they can expect to receive.

TQM SOLUTION: SUITABILITY AND ATTRACTIVENESS

Suitability provides the ability to find the right information at the right time; the availability of a search engine service and the creation of shopping categories can aid in reducing search time as well as procedure of payment. This is accepted that E-Commerce strongly depends on software applications. However, many peculiarities in these applications pose special difficulties as compared to traditional software application development. Some of these are development of a multi geographical web sites , intense requirement change activity, and exposition to million of anonymous end users with varying levels of expectations and skills. These facts reinforce the need for mature, agile and solid development process with embedded quality capability. Suitability in the web applications is the need of today's environment[4].

By suitability, the text refers to the ability of a material, good, or service to meet the intended functional use. This meeting the needs of the customer's intended use is at the heart of a "best buy" decision. By best buy, the text means a certain minimum measure of suitability but considers ultimate customer needs, cost, and procurability, transportation, and disposal as well. It is a compromise between all of the above and will vary in each purchase decision given the particular importance of different facets of that purchase such as: technical expertise, design, service, training, etc.,

Attractiveness is a well designed interface that attracts user's attention and facilitates navigation, contributes to the usability of E-Commerce systems. Product design has been recognized as an opportunity for differential advantage in the market place. The appearance of a product influences consumer product choice in several ways. To help product development managers in optimizing the appearance of products, the present study identified the different ways in which the appearance of a product plays a role in consumer product evaluation and, hence, choice. In addition, the implications for product design of each role are listed, and managerial recommendations for optimizing the appearance of products are given.

Attractiveness of web sites creates a big impact on consumers with respect to presentations, such as pictures, animations, flash movies, promotions, customer services, and overall the customer satisfaction[5].
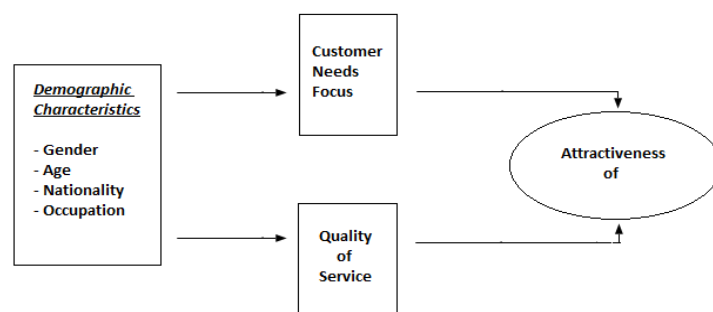
The figure gives a short customer view of attractiveness. There are two important components of which is customer needs focus and quality of service[6].

1. A focus on customer needs

The customer is the major judge of quality. Perceptions of value and satisfaction are influenced by many factors throughout the customer's overall purchase, ownership, and service experiences. In order to complete this duty, an organization's efforts need to extend well beyond merely meeting specifications, reducing errors, or resolving complaints. An organization close to its customer knows what the customer wants, how the customer uses its products and how to anticipate needs that the customer may not even be able to express.

2. A focus on quality of service

The term of quality of service which impact of continuous improvement of TQM. Obviously, continuous improvement refers to the incremental changes, which are small and gradual, and breakthrough, or large and rapid improvements. These improvements

1) Enhancing value to the customer through new and improved produces and services
2) Reducing errors, defects, waste, and their related costs
3) Increasing productivity and effectiveness in the use of all resources
4) Improving responsiveness and cycle time performance for such processes as resolving customer complaints or new product introduction.

Continuous improvement should be a regular part of daily work; practiced at personal, work unit, and organizational levels; driven by opportunities to affect significant change; and focused on sharing throughout the organization.

2. INFORMATION ASYMMETRY

When consumers make the payment, a number of bad faith businesses for small and medium-sized enterprises do not deliver goods on right time. Defraud money from customers without sending out goods, or the good quality is less than a pre-agreed standard. In B2C E-Commerce market for small and medium-sized enterprises, information asymmetry can be divided into: pre-trade information asymmetry and after-trade information asymmetry according to the time of occurrence[7].

i. Pre-trade information asymmetry:

Merchants owning the information advantage. On the one hand, the business is well aware of the reputation and product quality themselves, but they do not provide all information on the web site, or deliberately add or deleting certain information, such as publishing false information. On the other hand, consumers can obtain product information only through text, pictures and other information that the web site include. So, merchants own the advantaged position while consumers are in the disadvantaged place.

ii. After-trade information asymmetry:

When consumers made the payment, a number of bad faith businesses for small and medium-sized enterprises do not delivery goods in the right time, defraud money from customers without sending out goods, or the good quality is less than a pre-agreed standard. After receiving the goods, the consumer requires goods to be returned because of the goods quality is inferior or physical goods does not consistent with the description on the web, while the fact is that consumers do not want this product.

TQM SOLUTION: ACCURACY

Accuracy is the provision of accurate informative texts about products and services offered, as well as provision of thumbnails, photographs and videos presenting the services and products available. It is the extent to which data are exact, correct, and valid. For example, accurate data affect a program's ability to provide reliable transaction rates and to maintain data comparable to those from other programs. Accuracy reflects the program's standard to conform to agreed-upon case definitions and requirements[18].

The cost of inaccurate and poor-quality data is estimated by some data quality experts as being from 15 to 25% of operating profit. In a recent survey of 599 companies conducted by PricewaterhouseCoopers, an estimate of poor data management is costing global businesses more than $1.4 billion per year in billing, accounting, and inventory. Much of that cost is attributable to the accuracy component of data quality.

Many time the companies don't have an idea the problem was that large. Assessment is the key to awareness. Most of the companies can believe that the others have a larger problem than they do and assume that the photographs or the text is similar to the products they are going to deliver. Everyone believes that the data quality problem they have is small and much less interesting to address than other initiatives. They are usually very wrong in their thinking. It takes data to change the minds of customers. This difference in accurate information loose the faith of the company in the mind of the customers as well as creates problems in the business transactions also.

Many times suppliers put a lot of effort into getting all this information clear and accurate on their product packaging. But online shoppers aren't able to physically see and hold the products to read packaging information before they buy. The data as presented by the online retailer is their only guide and if some of the data is missing, incomplete or incorrect it can cause problems. Missing or incomplete data is like the online equivalent of a store out-of-stock, resulting in missed sales opportunities. At the same time if the data is incorrect it can lead to an increase in the number of complaints and unwanted returns.

Suppliers really need to think about protecting the integrity of their brands by ensuring the high accuracy in product information in the public domain. This is one of the ways organizations can use some data

validations services. The software as a services solution will check and validate data against hundreds of data quality rules and standards no matter where it is located.

3.   PAYMENT ISSUES

The infrastructure makes payment over the Internet through credit, debit, or Smart cards, or through online currencies. It also makes possible the distribution and delivery whether online or physical of those products purchased over the Internet to the consumer. Its growth further requires the establishment of reliable and secure payment infrastructures to avoid frauds and other illegal actions[8]. A supportive electronic payments infrastructure is crucial to promote E-Commerce, which exposes a key link between E-Commerce and the financial foundation of the economy. The efficiency of the payments system itself can help or hinder the development of E-Commerce.

The payment gateway vendors and banks becomes obstacles to technology. Payment gateway error rates are high (>25% of transactions fail at the gateway). B2C E-Commerce report[9] also specified the rules and regulations of various payment issues of customers. Payment gateway's and banks also charge way too much commission on each transaction which is bad for the customer because if the customer gets the benefit in price compare to actual purchase of product physically, then he can think to purchase online otherwise not. Many time retailers force to pay first through credit cards [10] before delivery of the product because every time cash-on-delivery is not possible. So the complete risk shifts to customer then why customer should take that risk?

There are some other issues like :
1. Companies do not offer plenty payment options:
Companies definitely lose valuable customers because they fail to provide several payment options. They do not analyze the buying tendency of customer niche to know the most popular buying terms and payment options. It is certainly do no good for customer if companies are only accepting American Express cards while most customers mainly use Visa or MasterCard debit cards. It is highly recommended to offer different payment options to finalize their order.

2. Large volume of transactions in India are cash based transactions:
A small fraction of Indians have virtual payment instruments like credit cards or bank accounts. Largely we are a cash driven economy. Almost everyone has started COD in India and for the right reasons. However, my thesis here is that this is incredibly hard to scale. As humans are involved in the collection of cash etc, fraud rates will be very high which will dip into the margin levels of the E-Commerce players.

TQM SOLUTION: FLEXIBILITY

Flexibility is the extent to which the web site is accessible to users through different browsers in different times[[3]. In the recent trends, outsourcing and mass customization are forcing companies to find flexible ways to meet customer demand. The focus is on optimizing core activities to maximize the speed of response to changes in customer expectations.

In today's competitive environment, markets are becoming more international, dynamic, and customer-driven. The customer is not interested in what the company want to sell, but the customer is interested in what he want to purchase. Here the E-Commerce companies miss to find out the flexibility in demand of the customer. Companies should have the flexibility criteria to find out not only the present demands but also the future demands of the customer based on changes in expectations. Even the market decision maker are requesting flexibility in the system which can move from an abstract notion to a quantifiable and verifiable system specification[18].

Another important issue is, just finding the present and future demands is not important but the important thing is how the customer will get the product based on expectations on time in his hand when he will require it in future after six months or one year. So optimizing core activities to maximize the speed of response of customer is critical issue.

So the thing is customers are demanding more variety, and better quality and service, including both reliability and faster delivery. Technological developments are occurring at a faster pace, resulting in new product innovations and improvements in manufacturing processes. The resulting competitive environment requires low-cost and high-quality products in increasing varieties.

These changes have instigated improvements in business and manufacturing strategies. TQM concepts is valuable to focus on improvement initiatives of flexibility. It is providing the solution to global manufacturing firms and to investigate the success paths with improving manufacturing flexibility. Automobile sector is one of the best example.

These quality and TQM initiatives improve cycle times and begin to solve the trade-offs flexibility with efficiency. Firms strive to focus on producing in quantities as low as one and expanding their improvement initiatives beyond their firm to the entire supply chain.

The Atkinson's "Flexible firm" model[12] that has gained a prominent role in shaping debate about labour market flexibility and employment restructuring in the 1980s. The model argues that employers are increasingly segmenting their workers between a permanent "core" of full-time employees, and a "periphery" of part-time, temporary, subcontracted and "outsourced" workers. The "core" provides "functional flexibility" through lowered job demarcations and multi-skilling, while the "periphery" provides numerical flexibility". Iren Gyoker and Henrietta Finna in "Social Domain" [12] provides the guidelines how to apply the flexibility in the organization.

4. SECURITY ISSUES

Security is the extent of safety assured against malicious or accidental intrusion of unauthorized users when using the web site[3]. Security is the capability of a system to prevent malicious or accidental actions outside of the designed usage, and to prevent disclosure or loss of information. A secure system aims to protect assets and prevent unauthorized modification of information.

Security contains so many legal issues like confidentiality of information, integrity and assurance of transactions, scalability, reliability and ease of deployment[13]. 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[14].

It would be essential to identify the issues that these instruments pose. Some of these issues are:

a. Secure Credit Card Transactions: An E-Commerce website that accepts online credit card payments must ensure that it has adequate security measures to safeguard confidential customer data that is provided on the site[10]. In the event that credit card numbers are leaked on the Internet, the website could be held liable for damages caused to the consumers.

b. Recognition of digital currencies: To be effective, existing laws would need to recognize the payment of digital currencies, as enforceable consideration against obligations undertaken by the other parties. Further, the extent to which these digital currencies are "valid tender" would also need to be examined.

c. Determining the relevant jurisdiction: This would mean determining the relevant law that parties will be governed by in respect of electronic transactions[14] whether by the contract, or in its absence, by general principles of law.

d. Risk of Regulatory Change: The regulatory environment for electronic payment is likely to change with technological innovations in modes of payment[15]. Therefore, any form of legislation made in this regard should be technologically neutral.

e. Transaction risks: These include the liability for security failures in the system of transaction and the relevant standard of care for system security.

f. Consumer-oriented risks: These include risks concerning privacy, consumer protection, money laundering, tax avoidance, online fraud and crime.

g. Disabling IT Act: The IT Act does not apply to negotiable instruments which are likely to create problems in the growth of electronic payment mechanisms.

TQM SOLUTION: THE DEMING METHOD

The Deming Method[1] of Total Quality Management (TQM) is based on fourteen obstacles to productivity and is being adapted as Total Quality Management of Security (TQMS). As with the Deming cycle, these fourteen points are reinforced by a Security Cycle.

FOURTEEN SECURITY ENGINEERING & CONSULTING POINTS

1. **Create a practice of constancy of engineering purpose designed to improve client security products and services.** The most important point is to begin a practice of security innovation. New security products and services must help organizations of people be productive in material ways. Resources must be

placed into research and education because there can be no innovation without research, and no research without properly educated users and employees.

2. **Assure that ALL management convinced to whole heartedly adopt the new security philosophy.** Its mind must be transformed to think of security as an ongoing productive issue. Quality must become the organizations new religion. It can no longer afford the luxuries of security mistakes, security engineering defects, poor operational and implementation workmanship, bad materials, handling damage, fearful and uninformed users and employees, poor to nonexistent security training, executive job-hopping, as well as inattentive and sullen security services.

3. **Require that the organization must cease depending upon mass security inspections to uncover defects.** Security quality never comes from inspection processes but from the process of operational improvement. While security inspections may be necessary to discover what is being accomplished, the overall goal of security inspections is to decrease variations within established security implementations and to learn and respond from new operational opportunities as well as mistakes.

4. **Put an end to the practice of awarding security solutions on price alone.** It produces lack of faith between the needs of the security users and the objectives of production oriented management. Other problems associated with using cost as the only criteria are a proliferating the number of security solution suppliers, buyers jumping from vendor to vendor and creating a reliance on security specifications; a barrier to continuous improvement to the production process.

5. **Demonstrate constant and forever improvement of the system of security production and security services.** The organizational management is obligated to continually improve security. Quality must be built into each and every security product at the design stage. Teamwork is essential to the entire process of creating quality. Simply because an irritant is removed or a particular problem solved, a security process is not usually improved. Statistical thinking is a **sine qua non** for improving the security process, but only if used properly, otherwise statistics create problems.

6. **Institute internal and external security training and retraining and participation for everyone.** Control charts must be used to discover when a educational process becomes stable. Security is under statistical control when users performance reaches the point where further training will not lead to any improvements. When new equipment is purchased or a new processes are invented, retraining the operational work force is necessary.

7. **Provide security leadership, not security supervision.** Security leadership is management's job and it should be a clear part of the evaluation. It is management's responsibility to discover barriers preventing users from taking pride in the security of their work. Users know the barriers such as: emphasizing security quantity not security quality, turning out insecure products quickly not properly, turning a deaf ear to user suggestions, spending too much time on re-working old security practices and solutions.

8. **Drive out the fear of security.** For better security quality and productivity, people must first feel secure. They must neither be afraid to express ideas and ideals, nor afraid to ask questions. Fear about security disappears as management security leadership improves and as employees develop confidence in management security objectives.

9. **Break down security barriers between staff areas.** The security goal of different staff areas must not be conflict; it can ruin the security awareness of the company. Security teamwork is better.

10. **Eliminate security slogans, exhortations and targets for the workforce.** Security slogans generate frustration and resentment. A goal or target without a method for reaching it is useless. Management's job is to establish a stable security system, because without stability anything can happen. An unstable security system is a bad mark against management. Only management can change the security of the organizational system.

11. **Remove security numerical quotas.** Quotas impede the quality of security investigations as well as guarantee inefficiency and high cost. They bias statistics but do little to improve security performance. Proper work standards define what is and is not acceptable in terms of the quality of security.

12. **Redefine and delete barriers to the pride of security engineering workmanship and authorship.**
Three of the main problems to reaching this point are: (a) Security engineers are regarded as a necessary commodity, to be used as needed. If they are not needed, they are returned to something productive. (b) Management never invests security engineers with authority. (c) Management never acts on user decisions and recommendations concerning security issues.

13. **Institute a vigorous program of security communication involving education and retraining.**
Security communication involving education and retraining is absolutely required for long term planning. There is a need to constantly acquire new organizational security knowledge and new skills to deal with new security materials and new security production methods and theories. As a result, security education and training must fit the best available people into new jobs and responsibilities.

14. **Take action to accomplish the security transformation.**
Action speaks louder than words.

5.   PRIVACY
Privacy is a one of the hotly debated issue. It is at the center of the question who will have access to one of the online economy's major assets, i.e. customer data. A core assumption about the availability of reliable customer data is to facilitate more options to the benefit of the customer. Without a sufficient base of such data all these current marketing visions cannot be realized. Through personal data of customers, companies try to survive in competitive environment and to increase the revenue[17]. The problem is that at this point a conflict arises: While companies are thirsty for ever more information they undermine the fundamental right to information privacy.
A core assumption about the availability of reliable customer data is to facilitate more options to the benefit of the customer. Without a sufficient base of such data all these current marketing visions cannot be realized. Through personal data of customers, companies try to survive in competitive environment and to increase the revenue[17]. The problem is that at this point a conflict arises: While companies are thirsty for ever more information they undermine the fundamental right to information privacy. Three fundamental approaches have evolved over the past decade addressing the privacy issue: ensuring privacy through law, through self-regulation, or through technical standards.

Some of the important privacy concerns over the Internet include:
1.dissemination of sensitive and confidential medical, financial and personal records of individuals and organisations;
2.sending spam (unsolicited) e-mails;
3. tracking activities of consumers by using web cookies; and
4.unreasonable check and scrutiny on an employee's activities, including theire mail correspondence.
In so many developed countries, there is a 'code of fair information practices' that attempts to regulate the collection, maintenance, use, and dissemination of personal information[18]. But in India, presently there exists no legislation in India that upholds the privacy rights of an individual or organization against private parties. While the Constitution of India upholds the right to privacy as a fundamental right of every citizen, the right is exercisable only against a State action. Even the IT Act addresses the issue of protecting privacy rights only from Government action.
Nevertheless, in order to gain the confidence of a wary consumer, protecting their privacy rights is a critical concern. For example, if an E-Commerce website seeks information from a user and disseminates this information to third parties, it would amount to a violation of the privacy rights of the user and this may turn away existing and potential users from accessing the site in the future.

TQM SOLUTION: CLIENT SUPPORT
The Institute of Management Services defines Total Quality Management as[1]:
"A strategy for improving business performance through the commitment and involvement of all employees **to fully satisfying agreed customer requirements**, at the optimum overall costs, through the continuous improvement of the products and services, business processes and people involved."
The concept of Total Quality Management can be expressed as "Achieving success through delighting our customers". Customers being the internal user, the external customer or end-user, together with the other stakeholders, i.e.
- shareholders
- employees
- suppliers

The Platform for Privacy Preferences Project (P3P)[17] which is probably the best client supported privacy technology, will block access to Web sites or automatically notify the online user if a Web site's privacy statement is not in line with privacy preferences. The consumer is then left to decide whether he or she still wants to use the service. As most surveys gave evidence of online users privacy concerns, it is hoped that consumers will stop accessing sites that do not provide appropriate policies.

The process is done with the help of Self-disclosure which is usually measured along two dimensions: its depth and breadth. Breadth refers to the quantity of information exchanged and is measured here by the number or proportion of both questions answered. Depth usually refers to the quality of information disclosed. We operationalized information quality with the help of an index called "personal consumer information cost" (PCIC).

LACK OF STANDARD CHECKOUT PROCESS

There is a lack of standard checkout process to purchase at least a specific type of product[14]. Large online retailers may have "complex" businesses, but if the customer always need to follow a new process to purchase different product from different E-Commerce retailer, so it creates confusion to purchase the product online and it decide to use traditional easy way to purchase it.

A very long checkout process is also terrible one and which puzzles the potential buyer. Online visitors wait for the checkout process to be fully completed in a matter of minutes from its initiation. If the whole process is complicated and demanding a high number of visitors will choose to cancel the buying process rather than complete it. A one-time buyer is not looking of becoming a member of the site nor to receive numerous emails from you in the future, thus, company need to provide them with a fast checkout option. Rest assure, if they like company offer they will be returning soon.

Many times the checkout procedure is confusing and problematical. Discounted web hosting packages usually come with certain limitations that are difficult to overcome for not so technically skilled entrepreneurs and these limitations are responsible for a deficient checkout process. In case the website technology has its limits, company should simply place a shopping cart icon or a 'buy' link on the important web pages. Or even a text box or a brief audio or video tutorial assisting online visitors in the buying process is sufficient. But the companies try to find their own comfort and not the standard and simple check out process for the customers.

TQM SOLUTION: OPERABILITY AND LEARNABILITY

In a recent study, Lazar et al. found that users lose up to 43% of their time due to "frustrating experiences" with computers, with one of the most common causes of these frustrations being missing, hard to find, and unusable features of the software[19]. Operability refers to use-friendliness which specifies the user interface capabilities to which the web site provides a supportive experience to the user[3]. User should get easy and simple access to the website of the virtual shop. A web site can either be accessed directly (by means of its name), or indirectly (through a web search engine like Yahoo, rediff ,etc. Operability is the ability of a system to continue operating in the expected way over time. Operability is measured as the probability that a system will not fail and that it will perform its intended function for a specified time interval.

Many times the system may fail due to unavailability of other externalities such as systems, networks, and databases, TQM helps to identify ways to handle unreliable external systems, failed communications, and failed transactions. Consider how you can take the system offline but still queue pending requests. Implement store and forward or cached message-based communication systems that allow requests to be stored when the target system is unavailable, and replayed when it is online.

Another important feature is learnability. An inexperienced user should be able to get basic information about various products and services so that if user wants to learn, all data should be available with respect to that[1]. Indeed, there is a consistent agreement that learnability is an important component of usability, with some arguing that it is the most fundamental usability attribute.

TQM guidelines the learning can result in (1) enhancing value to customers through new and improved products and services; (2) developing new opportunities; (3) reducing errors, defects, waste, and related costs; (4) improving responsiveness and cycle time performance; (5) increasing productivity and effectiveness in the use of resources; and (6) enhancing company performance in fulfilling its public responsibilities and service as a good citizen.

6.   TIME OF DELIVERY

It would be nice to receive an item when customer plans – not just when the retailer plan to ship it. If the customer is able to decide ship time of product, the customer will purchase only that one which is not his need on immediate basis. Another problem is whatever time have given by retailer, they don't get the product on time.Failing to keep the customer updated on progress is again one of the big problem. Customers are entitled to written confirmation of their order under the Distance Selling Regulations 2000. They can be generated automatically via email and are expected by most customers[9]. The complete information is required to provide

to customers with a way to track the progress and availability of their order. Many carriers now send an email confirmation that an order has been dispatched, while others use online tracking systems that enable customers to check progress online.

One of the important issue is, there is strong law like "Customer Protection Act" for the quality of services should be given by the web sites to customer to which the delivery of time factor is defined in extent to which data are rapid, prompt, and responsive[18].

We still have 3rd world logistics. A large part of the E-Commerce success in the developed nations was because they already had rock-solid logistics in place. In the US fedex, ups and USPS were already around nationwide and goods could be moved within 24 hours between 5000 miles. In India trying to find an address or a location is a nightmare. We don't even have a properly standardized "physical postal address system". Every time someone ships a product and get a call from the courier company asking for directions even though customer live in a very prominent address in the city. This just surfaces some of the basic issues that face India.

Companies like Flipkart are doing a great job working around the issues in the logistics industry by setting up their own logistics but that just is really inefficient use of Flipkarts funding. They should really be pumping those into tech so that they can build recommendation engines that can recommend products that customers may be interested in based on buying behavior etc. Largely the other 99% of the players are not able to solve the logistic issues that exist in the market.

TQM SOLUTION: TIME BEHAVIOUR

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. Company can maintain the systematic stepwise approach suggested by waterfall model and incorporate it into an iterative framework that more realistically reflect the real world resulting in timely development and deployment of quality software solutions to our clients. Company can provide various strategies of control, total support, project planning and progress, coordination of multiple disciplines, promotion of teamwork to achieve on-time delivery of products.

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 require it[1].
TQM is based on following some of the most important attributes like

Latency: Also referred to as response time, wall clock time, or execution time: the time between the start and the completion of an event (for example, between submitting a product and receiving an acknowledgment).

Throughput: Also sometimes referred to as bandwidth: the total amount of work done in a given unit of time (for example, transactions or source code lines processed every second).

Real-time response Keeping track of orders, materials, machines, tools, processes, employees and costs for the benefit of the customers.

Time variability: Specifying throughput or latency requirements and more interested in a behavior that does not exhibit time variability. In a video game, for example, we might tolerate different refresh rates for the characters but not a jerky movement.

AOL's instant messaging software is a good example of timeliness. Another example is video conferencing. It eliminates travel and speeds up the creative and decision making process. Standardized CADD/CAM systems can instantly span the globe and be interactive with suppliers and customers creating virtual teams. The winning quote of the Dilbert contest mentioned earlier comes from Microsoft: "As of tomorrow, employees will only be able to access the building using individual security cards. Pictures will be taken next Wednesday and employees will receive their cards in two weeks."

III.   CONCLUSION

B2C E-Commerce is considered an excellent alternative for companies to reach new customers for business. A business that run over the Internet is like any other business when comes to an effective organization, product quality and customer satisfaction. The efforts should start from finding out the quality issues in B2C E-Commerce. TQM is a focus on process improvement, often through changing the existing systems to improve their efficiency. The understanding of how effectively the TQM need to implement is very

important for the long existence of B2C E-Commerce companies in the market. TQM is the best solution to understand the problems and the way how to solve it.

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