

Analysis of Perception Among Customers and E-Customers In Retail

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ABSTRACT

We have been living in an era of rapid integration of IT technologies into business processes and people's day to day lives. Large volumes of functional and non functional data is being produced everywhere which companies desire to make use of. Data mining techniques and data analytics have become essential in making useful sense of this sea of data for any business to prosper. Taking an example of retail sector, internet users in India have been becoming increasingly aware and receptive towards online retail. Noticing this traditional retailers have been focusing on increasing their online presence and adapting to new marketing strategies thereby utilizing this medium. In this paper we discuss in detail the facets of online retail, e shopping and changing needs of consumers also our research objectives and how we propose to identify the factors influential in affecting consumer perception and their satisfaction rate.

Keywords:- Data Mining, MIS, Statistical Analysis, e-shoppers, Online Retail.

I. INTRODUCTION

Data mining is the extraction of hidden predictive information from large databases; it is a powerful technology with great potential to help organizations focus on the most important information in their data warehouses. Data mining tools predict future trends and behaviors, helps organizations to make proactive knowledge-driven decisions. The automated, prospective analyses offered by data mining move beyond the analyses of past events provided retrospective tools typical of decision support systems. Data mining tools can answer the questions that traditionally were too time consuming to resolve. They prepare databases for finding hidden patterns, finding predictive information that experts may miss because it lies outside their expectations.

Data Mining and data analytics deal with extraction of value-able information from large data sets. They are widely used together and most helpful in supporting decision making activities of a firm. The knowledge derived after analysis of data can be used to predict future trends, thus enabling firms to make more focused, knowledge-driven decisions. Data mining has found a lot of applications in the current business scenario due to its ability to process, summarize and derive conclusions from large volumes of data.

These days many companies have been choosing to integrate data mining and analytics into their business processes to gain competitive advantage. A steady rise in growth rate of online retail sector in India can be seen in the past several years.

Data mining helps formulate marketing strategies based on previous records to predict who will respond to new marketing campaigns such as online campaigns etc. Through this knowledge marketing personnel may have a clearly defined approach to sell profitable products to targeted consumers while providing them with a greater degree of satisfaction.

A. Management Information System(MIS)

The Management Information System (MIS) may also be known as the Decision Support System, Information System, and computer based information System. To help provide needful information whenever required, a management information system may include an array of data mining and statistical analysis tools among many others that may be used for predictive and exploratory analysis. MIS includes:

1) **Information:** Data that has been represented in a meaningful context which may be understandable and lucid. The more lucid the data the more it may help in knowledge discovery.

2) **Information Systems:** These comprise of people and Computing systems working in unison to provide information and derive meaningful conclusions from available data.

3) **Information Technology:** With this support in decision making, the balanced management of financial resources, human resources, marketing strategies and other company resources become more effective and profitable and management chain becomes more functional. Identification and management of the goals and organization policies becomes easy.

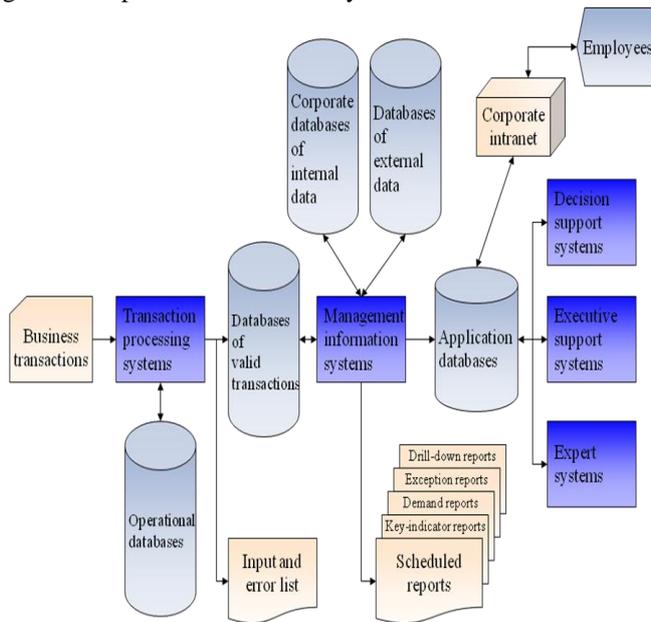


Fig. 2 Sources of management information

Outputs of a Management Information System:

- Scheduled reports-Produced periodically, or on a schedule (daily, weekly, monthly)
- Key-indicator report-Summarizes the previous day’s critical activities.
- Typically available at the beginning of each day
- Demand report-Gives certain information at a manager’s request.
- Exception report-Automatically produced when a situation is unusual or requires management action.

II. THE RETAIL SECTOR SCENARIO

A significant part of today’s market scenario is influenced by the advancements in IT industry and increasing usage of internet as a medium for connecting with the consumer. Though India is an emerging economy on the world scale still the numbers of online shoppers in India has been rapidly increasing.

These days companies have been diligently working on increasing their online presence and improving quality of customer relationships. Progress in IT technologies and the growing popularity of internet in India have led to computer based systems taking over a significant portion of retail world although they have not completely substituted the importance of physical stores in the market.

The lifestyle of Indian consumer has been changing steadily changing with time. Due to long working hours, comfort seeking lifestyle, and increasing usage of devices and gadgets utilizing IT technologies the consumer may avoid the effort and time required to go and buy at a physical store. Factors such as earnings, educational background and awareness also determine buying behavior of a customer.

These days online shopping offers a wide variety of products to compare and choose from with the click of a button, the products are less expensive and they generally offer discounts and lucrative deals to the customer. This has not only decreased overall effort of the customer in a fast paced world but also given him/her an opportunity to choose from a wide variety of products and buy at lesser expense than the physical market while being in the comfort of his home.

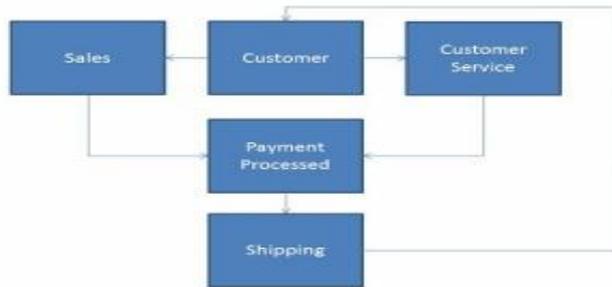
It has been found that the numbers of users opting for online shopping has increased considerably compared to increase in number of internet users in recent years. Most of these consumers prefer to buy some selected products online because they will get heavy discounts in comparison to store purchases.

Trust may also be a significant factor in affecting customer behavior. It has been seen that sometimes the customer is not satisfied with the product which reaches his doorstep and finds unacceptable quality difference in the look and feel of the product. This affects his judgment of the brand value and may also affect his overall trust on online shopping as a reliable medium for purchase. If the customer has many such experiences or hears about similar experiences happening in his social group it’s highly likely that he will not choose to shop online in future.

The user may often be required to give his personal information while completing a transaction during

shopping online. The misuse or misplacement of such information may result in the user losing his trust in online shopping medium.

Although the count of online shoppers has been rising, still physical stores have also maintained their stronghold in the market. An old Consumer -retailer relationship may amount for a certain degree of trust and might be one of the many factors for this fixation as many users are suspicious by nature and prefer to remain in the comfort zone of their buying behaviors. Unawareness among users and illiteracy as regarding the usage of internet may also be an influential factor.



Also when shopping at physical stores the customer does not have to go through time lags and delay issues between date of purchase and delivery. In many instances when the consumer needs to acquire the product immediately the consumer has no choice but to buy from a physical store. This factor of time delay between purchase and acquiring the object is not there when one shops directly from a store.

The customer experiences ease of use and flexibility while using this medium for purchasing. Seeing the increased inclination of customers towards online shopping the online retailers have also modified many of their business policies in attempts to improve quality of customer relationship and build trust. Implementation of some of these policies, such as “Cash on delivery” and “Return if not satisfied” are in an effort to strengthen trust relationship with consumers.

III. BRIEF LITERATURE SURVEY

Gurleen K, (2012) [1] tried to identify various reasons for adoption or non- adoption of online channel for purchasing activities of consumers. The results of her study declare that customers were found to be reluctant and anxious in handing over their personal information while shopping online such as their credit card information etc.

Mohammad Gholami azizi, Afshin Emani, Hamid rezavaliollahi, Seyed hossein ghoraysheian, Amir masoud dinari, and Seyed mehdi karimpour (2014)[2] study of the

obstacles to set up electronic customer related management (e-crm) in branches of bank tejarat, mazandaran describe This research is descriptive - survey and the applicable. A researcher made questionnaire was used to collect data. 96people have been selected from among the population as the sample using stratified random sampling and Cochran formula. Validity of the questionnaire was confirmed by experts and faculty members. The questionnaire's reliability was equal to 72 percent using Cronbach's alpha coefficient, which is calculated using SPSS software. Overall, all of the hypotheses were accepted with high significance level from the analysis results of the research hypotheses.

Kamaladevi B. and Vanitha Mani M.R (2014) E-Shopping Experience in e-Tail Market. International Journal of Information Systems and Social Change (IJISS), 2014, vol. 5, issue 2, pages 13-24 presents the Survival of fittest and fastest is the mantra of today's business game. In the modern e-Business era, the retailer must focus on the customer's e-Tailing experience to survive in the e-World. To focus an e-Customer's experience towards e-Tailing, the retailers should understand what it actually means. E-Retailing is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. e-Tailing can be referred as e-web store, e-Shop, e-Store, Internet shop, web-shop, web-store, online store, and virtual store. On the other hand, e-Customer Experience Management is a strategy that focuses the operations and processes of an e-Business around the needs of the individual e-Customer. It represents a strategy that results in a “win value exchange between the e-Tailer and their e-Customers. The goal of e-Customer experience management is to move customers from satisfied to loyal and then from loyal to advocate. This paper focuses on the role of macro factors influencing e-Customers to make e-Shopping and how they can shape e-Customer experiences and behaviors. As a result, e-Store information quality, e-Shopping cost, e-Store design quality, e-Privacy/security, e-Customer service and e-Delivery service quality are found as the macro factors influencing e-Customers towards e-Tailing.

Kailani & Kumar, (2012), show a rise in tendency for the adaptation of e-commerce concerning the use of phones and tablets which are being used to carry out purchase. In India it was found that apparels, accessories, foods and beverages, and Books/Music are the sectors that have shown rapid amount of growth in the ecommerce and these were the sectors which were most commonly used for traditional market retail activities. Their reports also

indicate the same kind of market development in foreign markets hereby showing the all over rise in acceptance of e-commerce practices.

Irene S.Y. Kwan, Joseph Fong and H.K. Wong(2005)An e-Customer Behavior Model with Online Analytical Mining for Internet Marketing Planning. In the digital market, attracting sufficient online traffic in a business to customer Web site is vital to an online business's success. The changing patterns of Internet surfer access to e-commerce sites pose challenges for the Internet marketing teams of online companies. For e-business to grow, a system must be devised to provide customers' preferred traversal patterns from product awareness and exploration to purchase commitment. Such knowledge can be discovered by synthesizing a large volume of Web access data through information compression to produce a view of the frequent access patterns of e-customers. This paper develops constructs for measuring the online movement of e-customers, and uses a mental cognitive model to identify the four important dimensions of e-customer behavior, abstract their behavioral changes by developing a three-phase e-customer behavioral graph, and tests the instrument via a prototype that uses an online analytical mining (OLAM) methodology. The knowledge discovered is expected to foster the development of a marketing plan for B2C Web sites. A prototype with an empirical Web server log file is used to verify the feasibility of the methodology.

Chang, C., Chang, S., Chang, J., & Chien, Y., 2013 envision that an average increase of evaluated 17% growth rate from 2012 -2017 in shopping in areas such as accessories, food, clothes. Another one of the summation of their studies is that 885 of customers of the age 18-29 were found to be inclined to adapt to online purchase medium within second quarter of 2012. An increase in 13% of purchasing activities was seen in the clothing and shoe sector of retail which is a huge number.

Hong Seung Ko ,Tomoko Shikama(2014) The Strategic e-Customer Relationship Marketing Model for retaining customers on online, Utilizing e-mail as the tool of the e-customer acquisition has brought up various problems in the e-business situation. We consider that e-mail must be used to retain e-customers rather than to acquire new e-customers. The e-customer retention to bring a company a long-term profit becomes very key issue. Therefore, in this paper they proposed the strategic e-customer relationship marketing model for retaining e-

customers. In our model, while describing standpoints that should be considered in the e-customer segmentation for visualizing the image of e-customers who must be retained, we insist that companies must strengthen the relationship with e-customers thorough a continuous and frequently-repeated communication by e-mail.

Srini S. Srinivasana , Rolph Andersona , Kishore Ponnabolub Customer loyalty in e-commerce: An exploration of its antecedents and consequences (2002) This paper investigates the antecedents and consequences of customer loyalty in an online business-to-consumer (B2C) context. We identify eight factors (the 8Cs—customization, contact interactivity, care, community, convenience, cultivation, choice, and character) that potentially impact e-loyalty and develop scales to measure these factors. Data collected from 1,211 online customers demonstrate that all these factors, except convenience, impact e-loyalty. The data also reveal that e-loyalty has an impact on two customer-related outcomes: word-of-mouth promotion and willingness to pay more.

Ki-Han Chung, Jae-Ik Shin(2008) The Relationship among e-Retailing Attributes,e- Satisfaction and e-Loyalty This paper investigates the relationship among e-retailing attributes, esatisfaction,and e-loyalty. We identify five attributes (shopping convenience, product selection, informativeness, price, and customization) of e-retailing that potentially affect e-satisfaction and impact e-loyalty. Data collected from 238 online customers demonstrate that shopping convenience and informativeness except product selection,price and customization affect e-satisfaction and informativeness, price, and customization except shopping convenience and product selection impact e-loyalty. Also, the data show that e-satisfaction strongly affect e-loyalty.

IV. PROBLEM FORMULATION

Ever since the introduction and acceptance of e-commerce, computers and credit cards, the society has preferred to do more of online shopping and creating a new trend which was previously unheard of. Ever since the evolution of this trend over the years, many theories and researches have been conducted to test the rationality of online channels for purchasing activities. Some observations are as following.

- The reason of consumer inclination for choosing between online and offline channels.

- Online channels are carried out in some region cannot be generalized for the whole population.
- How e-commerce has a better edge over traditional retailers.
- Inclination towards Online channels and towards other newer technologies seems to be more widely observed in the younger generation.
- How have the applications of e-commerce affected traditional retailers.
- How to portray the market environment and the marketing strategies that need to be changed.
- To gather from Internet searching from the customers, enabling e-commerce business to outperform the homogenous traditional business.
- How a disappearance of traditional retailers and physical stores whose place started to be occupied by digital channels is creating problems.
- How the retailers struggle constantly to attract the attention of the customers regarding the purchasing activities.
- The reasons of e-commerce offer more flexibility for gathering information about the pricing and other alternate services/products.

V. OBJECTIVES

- 1) To recognize the core reasons for the users with high inclination towards online or personal shopping of products.
- 2) To recognize the causes of satisfaction or dissatisfaction amongst the users with respect to online shopping of products.
- 3) To establish the factors that influences the conception of the consumers in relation to online shopping of products.
- 4) To establish the pros and cons aspects of online shopping.

VI. METHODOLOGY

Following will be the steps involved during the research :

- 1) To study the universe involving customers & e-customers.
- 2) To develop a questionnaire consisting of various questions/parameters accordingly.
- 3) To interact with the customers, retailers & e-customers in acquiring their views based on questionnaire.
- 4) Analyse the collected demographic data by statistical analysis tests using statistical analysis tools.
- 5) Analyze identify primary influential factors by analyzing and identifying relationships between data entities using various data mining techniques in Tanagra.
- 6) To formulate and conclude hypotheses based on the analysis of data.

VII. CONCLUSIONS AND FUTURE SCOPE

The attempt of this paper is to understand perception of e-shopper in retail sector through analysis. After taking the demographics into consideration one takes t test of the frequencies and identifies primary factors. Further data mining techniques can be applied to the data collected to formulate results. The responses gathered from e-shoppers are confined to the specific region. It can be extended with wider area such as state or different states. Difference between various websites or states can be done. More powerful tools such as neural networks etc. or other data mining techniques can be applied for refined results. Sample size can be taken more in order to gather more response which may improve the results.

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