CHAPTER 1

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INTRODUCTION AND DESIGN OF THE STUDY

INTRODUCTION:

E-Commerce is the lifeline of any successful business in today’s complex and competitive business environment. With the globalization of trade and commerce and growing interdependence in the world’s economy, it has become evident that the lifeline of all successful corporations is due to switching over to E-Commerce from conventional one. The power to establish business relationship, contact with customers, suppliers, dealers with speed and ease, the buying and trading have reached its destination with minimum loss of time and cost, by electronic means, is an asset that every corporation ought to have a line of electronic commerce.

It is globalization that has brought the economics together. E-Commerce is all set to create a global market place. It is like a dream come true for a border less world. The credit for this goes to the Internet, the greatest innovation in the history of mankind. E – Commerce is the most exciting economic and technology trend of recent past. It provides a new market place, more opportunities to sell and market the product at greater competitive advantage. It is growing at an incredible pace; many organizations and individuals are looking to the web as the future, definitive source for information, goods,
services and communication. As the amount of business transacted over the web grows, the value of goods, services and information exchanged over the Internet seems to double or triple each year. Often organizations small and large, non-profit and for – profit, privately and publicly held – all are being pushed to the web by both customers and competitors. In some cases, traditional brick – and motor businesses are entering into E-Business. All indicates that E-Commerce will continue to grow.

E-COMMERCE

An efficient electronic trade net is imperative if one wants to stay ahead in the business world that is driven by competition. The cutting edge for business today is E-Commerce. Most people think E-Commerce means online shopping. But web shopping is only a small part of the picture. The term also refers to online stock, bond transactions, buying and downloading software without ever going to a store. In addition, E-Commerce includes business-to-business connections that make purchasing easier for big corporations. E-Commerce is generally described as a method of buying and selling products and services electronically. The main vehicle of E-Commerce remains the Internet and the World Wide Web, but uses of e-mail, fax and telephone orders are also prevalent.
Electronic commerce is the application of communication and information sharing technology among trading partners to the pursuit of business objectives. E-Commerce can be defined as modern business methodology that addresses the needs of the organization, merchants and consumers to cut costs while improving the quality of goods and services and speed of service delivery. E-Commerce is associated with the buying and selling of information, products, and services via computer networks. A key element of E-Commerce is information processing. The effects of E-Commerce are already appearing in all areas of business, from customer service to new product design. It facilitates new types of information based business processes for reaching and interacting with customers-online advertising and marketing, online order taking and online customer service etc. It can also reduce costs in managing orders and interacting with a wide range of suppliers and trading partners, areas that typically add significant overheads to the cost of products and services.

Business to Consumer E-Commerce

Business-to-consumer E-Commerce has been described as any business operations conducted directly between a company and their consumers. This type of E-Business involves disintermediation or removing the middlemen who have traditionally played such an integral role in business communications. Some benefits of removing these mediators are that business transactions become cheaper and more efficient; there is a reduction in inventory and a reduction in production costs and maintenance. E- Business
encourages equal opportunity for all B2C companies, as there are fewer barriers to marketplace entry. Business-to-consumer applications have proved critical to the success of E-Business. There is great potential for future expansion in the B2C field and this area will continue to grow for many years. E-Business means transformation of key business processes through the use of Internet technologies. The web is changing every aspect of our lives, but no area is undergoing as rapid and significant change, as the way businesses operations. As businesses incorporate Internet technology into their core business operations, they start to achieve real business value. Today, companies large and small are using the web to communicate with their partners, to connect with their back-end data systems, and to transact commerce. This is where the strength and reliability of traditional informational technology meet the Internet.

**Business to Business E-Commerce**

The B2B process starts with a requisition for an order. Purchasing organizations have internal approval process to prevent unauthorized orders. Though the exchanges do not directly offer these facilities, they do it with the help of software provided by companies such as Ariba and Oracle.

Second, before the orders are processed, the exchanges have to have the set of suppliers for each of the products for the industry which they are catering to. For example, ChemConnect have to compile the list of suppliers for each and every chemical for which
they offer the facility of trading. In the third stage, the exchanges match the orders of the buyers with the suppliers.

Need for the study

E-Commerce involves the automation of commercial transactions using computer and communications technologies such as the Internet and World Wide Web. It has brought about a fundamental change in the way individuals and businesses access data, information, and services without the limitations of time or distance. The numerous advantages that accompany E-Commerce such as lower product promotion costs, lower transaction costs, and an expanded customer base, have prompted even the smallest businesses to deploy E-Commerce Web sites.

E-Commerce is poised to become another alternative channel for marketing of goods and services. E-procurement has become a necessity to the companies to bring down the costs and increase profitability. E-Hospitals, E-Pharmaceuticals, E-Governance, E-Learning, E-Service have all become a reality with the faster growth of Internet. The companies with the vision are taking the full advantage of the E-Commerce to remain competitive in the global economy. E-Commerce is having the privacy, security and logistical issues to be sorted out to instill confidence in the mind of the consumers.

The customer relationship management, supply chain management, knowledge management have improved considerably for enhancing efficiency in the organizations in the back drop of E-Commerce implementation. The study mainly aims to find out to what
extent the E-Commerce applications are used to reduce cost and offering customer satisfaction.

Significance of the study

E-Commerce or the buying and selling of goods and service over the Internet, has opened a whole new frontier for small businesses. Just like the local market, the world of E-Commerce is highly competitive. To be successful the businesses need to stay one step ahead of the competition. The Management of the businesses must formulate effective strategies for the E-Commerce venture to gain – and maintain – a competitive advantage over the competitors in the virtual world of E-Commerce. Recent Internet and Mobile Association of India (IAMAI) figure clearly shows that E-Commerce has come of age in this country. A study conducted by IAMAI estimates that the size of the Indian E-Commerce market would touch Rs.2300 crores (around 10 per cent of the organized retail market) by 2006-2007. 95 per cent rise over the last year’s figure of Rs1, 200 crores. The study found out the areas in which E-Commerce is extensively used in companies in Chennai. The study also explored the infrastructure facilities available for E-Commerce operations in companies.

Scope of the study

The study is confined to the industries in Chennai. The study period has been limited to the year 2005-2007. The study is conducted with the companies having E-Commerce applications either for marketing or procuring or both. The infrastructure,
logistics, security, legal are the major issues to be managed by the executives apart from handling global orders in the implementation of the E-Commerce.

**Objectives of the study**

To find out the infrastructure facilities present in the companies for E-Commerce applications

To study the current E-Commerce applications in the Marketing, Sales, Customer Service and Order Procurement functions in companies

To find out how far the various issues such as privacy, security, and logistics are faced by the companies in the E-Commerce implementation

To study the various limiting factors such as security, logistics, legal framework, user mindset on the online sales in enterprises

To examine the extent of E-Commerce benefits such as image building, cost reduction, speeding up business processes, reaching new customers, internal communication and improving customer relationship in the organizations.

To understand concern of the companies for E-Commerce related problems like security/fraud, protection from virus, unsolicited e-mail and lack of personal contact.
Research Methodology

Research Design

A research design is the arrangement of conditions for collecting and analysis of data in a manner that aims to combine relevance to the research purpose with the economy in procedure. The arrangement of conditions suitable for collection and analysis of data varies depending upon the research study.

To study the E-Commerce applications in companies in Chennai, the descriptive research design has been adopted. The descriptive research involves collection of data with the help of a structured questionnaire by using appropriate sampling procedure and analyzing the data using statistical techniques to find out the solution to the problem.

Tools for data collection

The major tool used to collect data was a structured interview schedule. The interview schedule was designed in accordance with the objectives of the study. Both open and closed ended types of questions were included in the interview schedule. The interview schedule was framed to find the various E-Commerce applications in the company to improve business processes.

Type of data required

Both primary and secondary data were collected and used for the study. Primary data was collected through a structured interview schedule and the secondary data was
collected through newspapers, magazines, textbooks, previous studies and through website.

**Framework of analysis**

As part of descriptive analysis mean, standard deviation, proportion in percentages, intensity values of the ranking and rating scales are used. As part of inferential analysis, chi-square test, correlation, factor analysis and cluster analysis have been used to analyze the data.

**Population and Sampling**

The Chennai based companies in the fields of IT/ITES (Information Technology Enabled Services), Electronics, Telecommunication, Pharmaceuticals, Health Care and Chemicals having E-Commerce facilities are the universe for the present study. The samples are drawn from each category of the companies, purposive. The sampling procedure used in the survey is cluster sampling technique.

**Sampling size and sampling procedure**

The total sample size is 27 drawn from a variety of almost seven categories of the industries namely IT/ITES, Banking and Finance, Automobiles, Chemicals, Pharmaceuticals, Consumer products, Electronics and Health care & Hospitality. The cluster sampling method was adopted for selecting the respective sample units from the concerned universe. To the purpose of the researcher the sampling units were selected
from the respective category of companies situated in Chennai to form a total sample. The following table shows the universe meant for the selection of the sample units from the appropriate population.

**Table No: 1.1**

**The Sampling Design**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Category of the company</th>
<th>No. of Units in Population</th>
<th>No. of Units in Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>IT/ITES</td>
<td>824</td>
<td>8</td>
</tr>
<tr>
<td>2.</td>
<td>Banking and Finance</td>
<td>178</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Automobiles</td>
<td>464</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>Chemicals</td>
<td>234</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Pharmaceuticals</td>
<td>425</td>
<td>4</td>
</tr>
<tr>
<td>6.</td>
<td>Consumer products</td>
<td>270</td>
<td>3</td>
</tr>
<tr>
<td>7.</td>
<td>Health Care &amp; Hospitality</td>
<td>282</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>2677</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

Source: Confederation of Indian Industries, Chennai.

**Hypotheses of the study**

- There is no significant difference between mean ranks towards the purpose of using Internet in the enterprises.
o There is no significant difference between mean ranks towards the use of Internet for interaction with public authorities.

o There is no significant difference between mean ranks towards security facilities used by the enterprises.

o There is no significance difference between the mean ranks towards E-Commerce marketing applications used by the companies.

o There is no significant difference between the mean ranks towards E-Commerce application, in customer service in companies.

o There is no significant difference between the mean ranks towards various E-Commerce issues faced by the Industries.

o There is no significant difference between category of Industries with respect to various dimensions of E-Commerce application.

o There is no significant difference between frequency of updating web pages and various dimensions of E-Commerce applications.

o There is no significant difference between Enterprises having dedicated IT systems for managing orders with respect to various dimensions of E-Commerce applications.

o There is no significant difference between Enterprises encountered IT related problems in the last one year and E-Commerce application.

o There is no significant difference between E-Commerce benefit to reduce the cost of procurement and sales with respect to logistics and security issues which limit online sales in companies.
- There is no significant difference between E-Commerce picking up faster in small towns and high growth of B2B compared to B2C
- There is no association between web site having built in search tool and also availability of software to provide instantaneous predefined answers to queries.

Scheme of the report:-

The report has been organized in seven chapters.

The first chapter introduces the subject matter and presents the statement of the problem, objectives, scope, significance, hypothesis, methodology, collection of data, pre – testing of the interview schedule. It also deals with sampling design, framework of analysis, limitation of the study and scheme of the research report.

The second chapter examines the overview of E-Commerce which includes E-Commerce – driving forces, web marketing strategies, E-service, Customer relationship management, Supply chain management, E-Commerce ethical issues, Risks associated with the E-Commerce. It also examines E-Commerce social challenges, E-Commerce – managerial issues, E-Commerce favorable factors in India-E-Commerce Indian scenario, and applications of E-Commerce across various category of Industries and payment systems for E-Commerce.

The third chapter presents the review of literature carried out for the study from the various sources such as Thesis, Articles from journals, Text books and websites.
The fourth chapter is devoted to present the profile of the respondent companies which had co-operated during the survey to provide data regarding E-Commerce applications.

The fifth chapter is designed to analyses the data relating to Web status, Internet infrastructure, Application of E-Commerce in marketing, sales, customer service, buying/procurement and general functions. This chapter also examines the various issues, benefits and concerns of E-Commerce applications in companies.

The sixth chapter is devoted to present inferential data analysis with a prime focus of testing the hypotheses framed for the study.

The last and seventh chapter presents the summary of finding, suggestions and conclusions.

Findings and recommendations of the study

Findings are classified and reported under the heads of:

Web status and equipments available for Internet access

The uses of Internet in processing purchase orders and also other purposes of the Internet.

The commercial application of the Internet in marketing, sales customer service, procurement and other general applications.
The extent to which the organization benefited with the commercial applications of Internet and also the problems faced in the E-Commerce operations.

Limitations of the study

The study is confined to various category of Industries located in the Chennai corporation limit due to time constraints.

The study covered only seven different category of Industries in the Chennai to find out the extent of E-Commerce applications in various functional areas.

The sample size was limited to twenty seven as the researcher had enormous difficulties to collect data from the companies.

The researcher faced constraints to approach the executives for data collection. Executives in some companies have not cooperated to provide required data to the expected level.