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1.1: INTRODUCTION

With the advent of planned economy in 1951 and the subsequent industrial policy followed by the Government of India, both the planners and the government earmarked a special role for small-scale enterprises and medium scale enterprises in the Indian economy. Due to protection that was accorded with both sectors and particularly for small-scale enterprises from 1951 to 1991 the nation adopted a policy of liberalization and globalization. Certain products were reserved for small-scale units for a long time, though this list of products is decreasing due to changes in industrial policies and climate. SMEs always represented the model of socio-economic policies of the government of India which emphasized judicious use of foreign exchange for the import of capital goods and inputs; labor intensive mode of production; employment generation; no concentration of diffusion of economic power in the hands of a few (as in the case of big houses); discouraging monopolistic practices of production and marketing; and finally effective contribution to foreign exchange earning of the nation with low import-intensive operations. It was also coupled with the policy of de-concentration of industrial activities in a few geographical centers. It can be observed that by and large, SMEs in India met the expectations of the government in this respect. SMEs developed in a manner which made it possible for them to achieve the following objectives:

- High contribution to domestic production
- Significant export earnings
- Low investment requirements
- Operational flexibility
- Location wise mobility
· Low intensive imports
· Capacities to develop appropriate indigenous technology
· Import substitution
· Contribution towards defense production
· Technology – oriented industries
· Competitiveness in domestic and export markets

At the same time one has to understand the limitations of SMEs, which are:
· Low Capital base
· Concentration of functions in one / two persons
· Inadequate exposure to international environment
· Inability to face impact of WTO regime
· Inadequate contribution towards R & D
· Lack of professionalism

In spite of these limitations, the SMEs have made significant contributions towards technological development and exports. SMEs have been established in almost all-major sectors in the Indian industry such as:
· Food Processing
· Agricultural Inputs
· Chemicals and Pharmaceuticals
· Engineering; Electrical; Electronics
· Electro-medical equipment
· Textiles and Garments
· Leather and leather goods
· Meat products
- Bio-engineering
- Sports goods
- Plastics products
- Computer Software, etc.

As a result of globalization and liberalization, coupled with WTO regime, Indian SMEs have been passing through a transitional period. With the slowing down of the economy in India and abroad, particularly in the USA and the European Union, enhanced competition from China and a few low cost centers of production else where many units have been facing a tough time. Those SMEs which have a strong technological base, an international business outlook, a competitive spirit and a willingness to restructure themselves shall withstand the present challenges and come out with shining colors to make their own contribution to the Indian economy.¹

There are 3.5 million SMEs in India which account for

• 42% of manufacturing sector turnover
• 35% of country's export
• Employ over 17 million persons.²

The definition used by the Indian authorities is based on the level of investment in plant, machinery or other fixed assets whether held on an ownership, lease or hire purchase basis. It seeks to keep in view the socio economic environment in India, where capital is scarce and labor is abundant.³

The Micro, Small and Medium Enterprises Development (MSMED) which came into effect on October 2, 2006 classifies enterprises into three

categories Micro, Small and Medium based on investment levels shown in table 1.1.

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Description of Enterprises</th>
<th>Manufacturing and Industry Sector</th>
<th>Services Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Micro</td>
<td>Up to and including Rs.25 lakh</td>
<td>Up to and including Rs.10 lakh</td>
</tr>
<tr>
<td>b.</td>
<td>Small</td>
<td>Above Rs.25 lakh but up to and inclusive of Rs.5 cr.</td>
<td>Above Rs.10 lakh but up to and inclusive of Rs.2 cr.</td>
</tr>
<tr>
<td>c.</td>
<td>Medium</td>
<td>Above Rs.5 cr. but up to and inclusive of Rs.10 cr.</td>
<td>Above Rs.2 cr. but up to and inclusive of Rs.5 cr.</td>
</tr>
</tbody>
</table>

Source: Secondary data

1.2: SMALL AND MEDIUM Sized ENTERPRISES (SMEs)

In general, statistical definitions of an SME use one or more of three defining measurements:

- Number of employees;
- Turnover;
- Size of the balance sheet.

The Department of Trade and Industry (DTI) uses the following definitions:

- Micro firm: 0-9 employees
- Small firm: 0-49 employees (includes micro)
- Medium firm: 50-249 employees
- Large firm: over 250 employees

The European Commission revised its definition of an SME in 2003.

The new definition aims to:
• promote micro enterprises
• improve access to capital
• prevent abuses of SME status
• promote innovation
• improve access to research and development

The thresholds for the number of employees have remained the same, but changes were made to the financial thresholds in an attempt to ensure that enterprises that are part of a larger grouping cannot benefit from SME support schemes. More than larger firms, which at least have the option of handling many of their needs in-house, SMEs rely on other firms or institutions for services such as staff training, and marketing. Three broad groups of SMEs can be distinguished, according to their relationship with other firms:
• Those that are sub-contractors
• Members of clusters
• Those that is fairly independent

For example, SME clustering is common throughout the world. Enterprises often develop in a cluster or bunch together, especially when operating in the same or related industrial sectors, to increase their competitive advantage through co-operative endeavors.5

1.3: WHAT IS E-COMMERCE?

There are many different formal definitions of e-commerce. For the

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purposes of this definition, e-commerce refers specifically to buying and selling products or services over the Internet. E-Commerce refers to all aspects of doing business electronically. The e-commerce directive cited many times in this guide refers to information society services.⁶

In its simplest sense, “commerce” is an act of trade between two parties: where the exchange is negotiated under a set of mutually acceptable conditions, so that both parties emerge satisfied with the result. the exchange may depend on whether the two parties are prepared to trust one another for more complex transactions such as share dealings which need to be supported by rules, procedures and fail-safe mechanisms, which provide trading partners with assurances and recovery methods when trust breaks down. Adding an “E” to commerce introduces another layer of complexity by transferring all the interactions, rules, procedures and fail-safes into a virtual world.

On the internet, the provision of trust becomes the keystone of any successful trading model because without trust, no-one will trade. Most e-commerce vendors are simply offering the customer another access point to the physical commercial model. The same trading activities need to happen: an offer by the vendor; acceptance by the customer, and an exchange of money and goods or services.

Everything else is padding to attract the customer and facilitate the purchase. Trading on the internet requires: an organization providing an online service accessed via the internet, clients (consumers or other organizations) connecting to the service using devices such as computers, mobile telephones or interactive televisions, and the exchange of transactions

that relate to the purchase and provision of goods and services. This is illustrated in the figure below:

**Figure 1.1**
*Trading on the Internet requires*

E-Commerce is one of the most visible examples of the way in which information and communication technologies (ICT) can contribute to economic growth. It helps countries improve trade efficiency and facilitates the integration of developing countries into the global economy. It allows businesses and entrepreneurs to become more competitive. And it provides jobs, thereby creating wealth.

The cutting edge for business today is electronic commerce (e-commerce). Broadly defined, electronic commerce is a modern business methodology that addresses the needs of organizations, and consumer to cut costs while improving the quality of goods and services and increasing the speed of service delivery. The term also applies to the use of computer networks to search and retrieve information in support of human and corporate

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decision making.  

Electronic commerce was defined in 1996 as “transacting business via electronic means.”

Today the phrase is commonly understood to have a narrower meaning. In 2000, electronic commerce was defined, “broadly, [as] the buying and selling of goods and services on the Internet.”

**1.4: THE ROLE OF ELECTRONIC COMMERCE**

Businesses and individuals can use electronic commerce to reduce transaction costs by improving the flow of information and increasing the coordination of actions.

By reducing the cost of searching for potential buyers and sellers and increasing the number of potential market participants, electronic commerce can change the attractiveness of vertical integration for many firms. It is not clear yet whether widespread adoption of electronic commerce will cause hierarchical organization structures to revert to their former market-based structures, but it certainly is a distinct possibility.

**1.5: KINDS OF E-COMMERCE:**

E-Commerce has been broken down into all kinds of categories based on who is selling to whom: Business-to-Business (B2B), Business-to-Consumer (B2C), consumer to consumer (C2C), consumer to business (C2B), peer to peer (P2P), business to administration (B2A), consumer to

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administration (C2A).\textsuperscript{13}

E-Commerce can take place within or among three groups of economic actors namely business, government and individuals. The business transactions take place electronically within and among these groups.

In other words, the possible nine E-Commerce relations are: B2B (Business to Business), B2C (Business to Consumer), C2B (Consumer to Business), C2C (consumer to consumer), G2C (Government to Consumer), G2B (Government to Business), B2G (Business to Government), C2G (Consumer to Government) and G2G (Government to Government)\textsuperscript{14}

\textbf{1.6: E-COMMERCE IN INDIA}

In spite of numerous advantages, e-commerce still has a number of hurdles to cross over before it truly revolutionizes business. These hurdles are more difficult and herculean in a country like India, where computing itself is taking root gradually. The primary cause of this being that the number of computers per person in India is too small for e-commerce to make an impression. To deal electronically, the basic requirement is to have a computer or a device that can fulfill the requirements for dealing with online transactions. The second major problem is the access to the internet. E-commerce is carried out largely through credit cards, which are not commonplace in India. Most people are not comfortable with the idea of a credit card itself; let alone using one on the internet. The other problem of buying from a catalogue is that it does not have the direct impact to generate desire and trigger the consequent purchase. Also, the possibility of bargaining


\textsuperscript{14} Tiwari, Sanjay and Shukla, Narendra. (2003). "Market Promotion Policies in India" maharishi ved viggan arts and Commerce College. Published by sarup, Jabalpur, pp182- 191.
doesn't carry forward to net shopping, which dissuades most Indian consumers. Though the cost of setting up a cyber business are relatively less as compared to an ordinary business, to have a decent response from Indian buyers, a large amount of money would have to be spent on advertising which in turn would inflate the pre-requisite capital.¹⁵

1.7: CONSUMER CONTRACTS

According to the Rome Convention, specific rules are applicable to certain consumer contracts. These are contracts for the supply of goods or services to a consumer provided that one of the following conditions is met:

- The consumer has received in his home state a specific invitation addressed to him, or by advertising, prior to the conclusion of the contract and he takes, in his home state, all the necessary steps to conclude the contract;
- The supplier has received the consumer’s order in the country where the consumer is domiciled.
- The consumer traveled from his country to another one where he gave his order to buy a good, provided that the consumer’s journey was arranged by the seller for the purpose of inducing the consumer to buy.

Parties to these consumer contracts can choose the applicable law, but this choice shall not have the result of depriving the consumer of the protection afforded to him by the mandatory rules of the law of the country in which he has his habitual residence. Mandatory rules cannot be limited or excluded by

contractual provision. They will apply even if a contract states they do not.\(^{16}\)

**1.8: WHAT IS ELECTRONIC MARKETING?**

First of all, the term Electronic Marketing (EM) relates to the storage of marketing approaches in employing computer technology to monitor consumer purchase behavior and reward shoppers to influence that behavior. (supermarket Business, 1995) For the recent years, more sales have been attempted on the Internet's commerce tries to gain entry to that monstrous electronic market place. The Internet, a giant network of networks comprising E-mail connections, bulletin boards, and institutional libraries – began as a way to exchange research and ideas among academic and government institutions. In fact, commercial users began joining in 1991 and today are the fastest growing population on the network. In short, it blankets the nation and the world, giving small companies an unprecedented opportunity to expand their reach.\(^{17}\)

**1.9: NEED FOR THE STUDY**

The electronics, electronic equipments and all relevant affairs have such profound position in international area that no technology can compete with them since its effective role in all current affairs is tangible and proved.

E-Commerce is one of the basic outcomes of data technology and it's exploited as a tool to up-growth the economics, and concealed the concepts of time and place. Moreover, it could have maximum saving in the decreasing of intervals, costs and time consumed.


To be present in international and global markets with successful and effective commercial approaches, showing economic competence of countries is one of the adaptation necessities with current international disciplines due to achieve improvements in economical and industrial realms.

The present improvement in electronic data interchange (EDI) by computer network and related technology made a huge revolution in communication. Hence, studying the role of E-Commerce in the developing of SMEs is an important discussion.

1.10: RESEARCH GAP AND STATEMENT OF THE PROBLEM

Nowadays most companies have discovered the importance of e-commerce and have started the shift from traditional trade to electronic trade. In our current era, most of the companies are successful to gaining this target. Pioneer companies start to implement their commercial procedures based on internet networks, in order to represent services to the costumers, distribute and represent the product, keep their old customers and absorb new customers.

Public access to internet networks has increased the customers' expectation after selling the services and some other related needs. However, there are numerous problems related with E-Commerce application in different companies, which needs a serious investigation. It is desired that this investigation will help those companies optimize the E-Commerce use in buying and selling the goods and services.

In the present study, the researcher has attempted to have practical work accompanied with an empirical survey in e-commerce application in different companies, with a hope to find a solution for a better application of e-commerce in companies by representing objectives, scheming the hypotheses
relevant to the role of e-commerce in the development of small and medium sized enterprises (SMEs).

It is expected that, this study will be useful for those who desire have some relevant investigations.

There are some questions by which the present investigation will pursue a way to answer them. For example:

1- Is the scale of e-commerce acceptability different in SMEs? If yes, what is the best way to increase the scale of e-commerce acceptability?

2- Are the matter of trust and avoidance of fraud two important items in the application of e-commerce in SMEs?

3- Can we say that the use of the latest tools of electronic marketing causes the improvement of e-commerce in SMEs?

4- Do we have any change in consumer's behavior if we change the style of trade from traditional to electronic?

1.11: OBJECTIVES OF THE STUDY

Important objectives of the present study are the following:

1. To investigate the level of e-commerce acceptability in SMEs.

2. To investigate the important factors affecting on the level of acceptability of the e-commerce in SMEs.

3. To study the kind of e-commerce applications.

4. To study the role of e-commerce in marketing functions.

5. To analyze the effectiveness of E-Commerce on performance.

6. To investigate the customer's behavior while using e-commerce in SMEs.

7. To investigate the role of e-commerce in SMEs using e-marketing.
1.12: HYPOTHESES

The following hypotheses are tested in the study:

1. E-Commerce acceptability level differs in (Small and Medium Size Enterprises) SMEs.

2. Different elements and nature of contracts affect the level of acceptability of the E-Commerce in (Small and Medium Size Enterprises) SMEs.

3. The customers' behavior gets a prompt influence by e-commerce application in (Small and Medium Size Enterprises) SMEs.

4. New marketing practices and tools are the most effective factors in (Small and Medium Size Enterprises) SMEs development.

5. E-commerce application has a great impact on the (Small and Medium Size Enterprises) SMEs functional performance.

1.13: MATERIALS AND METHODOLOGY

1.13.1: Introduction

According to Creswell (2003), if the problem to be addressed in the research is the identification of factors that influence an outcome, testing of a theory, or understanding the best predictors of outcomes, a quantitative approach would be the best one to apply. In other words, when a concept needs to be understood because there is little research, then a qualitative approach is better suited. Because of the amount of literature available on the topic of e-commerce and SMEs, it would appear that a quantitative study is warranted for this dissertation.

The methodology used to conduct the study is comprised of four parts. The first part discusses the sample. The second part describes the survey instrument and summarizes its four component parts. The third part describes
the field and pilot study processes. The fourth part outlines the data collection method and the procedures used to contact the participants. Specifically, this study sought to examine the effectiveness of e-commerce application in Small and Medium Size enterprises (SMEs) in Karnataka state and to examine the key issues that affected the acceptability of e-commerce in SMEs. The following questions, null hypotheses, alternative hypotheses, and investigative hypothesis form the basis for the research:

1. E-Commerce acceptability level differs in (Small and Medium Size Enterprises) SMEs

   \( H_01: \) E-Commerce acceptability level does not differ in Small and Medium Size enterprises (SMEs).

   \( H_11: \) E-Commerce acceptability level differs in Small and Medium Size enterprises (SMEs).

Investigative Questions: the researcher distributed the questionnaire among small and medium sized enterprises in Bangalore Urban and Rural areas which use e-commerce. In hypothesis two, the researcher delineated three questions with some subset questions.

**Survey questions:**

**A- Does your company use e-commerce application by electronic tools?** It is included A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, and A16.

**B- Which information is sent to your company via E-Commerce?** It is included B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, and B12.

**C- Which information is sent from your company via E-Commerce?** It is included C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, and C12.
2. Different elements and the nature of contracts affect the level of acceptability of e-commerce in (Small and Medium Size Enterprises) SMEs.

$H_0$: Different elements and nature of contracts do not affect the level of acceptability of the E-Commerce in (Small and Medium Size Enterprises) SMEs.

$H_1$: Different elements and nature of contracts affect the level of acceptability of the E-Commerce in (Small and Medium Size Enterprises) SMEs.

Investigative Questions: The researcher distributed the questionnaire among small and medium sized enterprises in Bangalore Urban and Rural areas which use e-commerce. In hypothesis two, the researcher delineated three questions with some subset questions.

Survey questions:

D- To what extent, do you think, the following criteria can be effective on the level of E-Commerce acceptability of these enterprises? It is included D1, D2, D3, D4, D5, and D6.

E- To what extent, do you think, clear contract can be effectives on the level of E-Commerce acceptability of these enterprises (with regards to the principle of buyer and seller, damage compensation of buyer, service support, to decrease of buyers cost as much as possible (price of goods, tax rate, transportation cost, contact cost))?

F- To what extent, do you think, the government protection can be effectives on the level of E-Commerce acceptability of these enterprises (to determine the exact regulation of tax, to determine the exact regulation of customs, to determine the exact regulation for prevention of any fraud coming from credit card and etc.)?
3. The customers' behavior gets a prompt influence by e-commerce application in (Small and Medium Size Enterprises) SMEs.

H₀₃: The customers' behavior does not get a prompt influence by e-commerce application in (Small and Medium Size Enterprises) SMEs.

H₁₃: The customers' behavior gets a prompt influence by e-commerce application in (Small and Medium Size Enterprises) SMEs.

Investigative Questions: In hypothesis three, based on Dennis' and his Colleague's research about mix marketing, the researcher drew out seven questions and distributed the questionnaire in small and medium sized enterprises in Bangalore Urban and Rural area that use e-commerce.

Survey questions:

G1- To what extent, do you think convenience for the customer has affected customer positive behavior (convenience which reflects to main aspects of web designing, having research application, way of selecting site, and convenience in buying)?

G2- To what extent, do you think customer value has affected customer positive behavior (goods description which has benefits and values for its customer)?

G3- To what extent, do you think cost to the customer has affected customer positive behavior (price in internet buying must be less than in available price in other shopping center, and also less than in using of minimum transportation costs and goods delivery)?

G4- To what extent, do you think communication and customer relationship has affected customer positive behavior (in internet shops with designing of beautiful dimensions sites along with calm music)?
G5- To what extent, do you think category management issue and computing has affected customer positive behavior (customer are sensitive for goods reaching time, delivery place and kind and size of goods)?

G6- To what extent, do you think customer franchise has affected customer positive behavior (collected values of goods are included mental image of goods, reputation, and commercial name)?

G7- To what extent, do you think customer care and services has affected customer positive behavior (services and customer interested goods delivery in the concerned time and place)?

4. New marketing practices and tools are the most effective factors in (Small and Medium Size Enterprises) SMEs development.

H₀4: New marketing practices and tools cannot be effective factors in (Small and Medium Size Enterprises) SMEs development.

H₁4: New marketing practices and tools are effective factors in (Small and Medium Size Enterprises) SMEs development.

Investigative Questions: In hypothesis four, the researcher delineated one question and distributed the questionnaire among small and medium sized enterprises in Bangalore Urban and Rural areas which use e-commerce.

Survey question:

H- To what extent, do you think, new marketing practice and tools can be effective in development of these enterprises (Tele conference, Electronic advertising (banner), Tele marketing, Digital catalogue, E-mail marketing, Videoconference)?

5. E-commerce application has a great impact on the (Small and Medium Size Enterprises) SMEs functional performance.
H₀5: E-commerce application does not have a great impact on the (Small and Medium Size Enterprises) SMEs functional performance.

H₁5: E-commerce application has a great impact on the (Small and Medium Size Enterprises) SMEs functional performance.

Investigative Questions: The researcher distributed the questionnaire among small and medium sized enterprises in Bangalore Urban and Rural areas which use e-commerce. In hypothesis five, the researcher drew out one question with some subset questions.

*Survey question:*

1- To what extent, do you think, E-Commerce application affects to the following items? The following items are included: I₁, I₂, I₃, I₄, I₅, I₆, I₇, I₈, I₉, I₁₀, I₁₁, I₁₂, I₁₃, I₁₄, I₁₅, and I₁₆.

Section J and K questions on the survey instrument provide details on driving forces or motivation and difficulties for start e-commerce in SMEs.

1.13.2: Sample Design

For the purpose of this study, the researcher used a Morgan table for stating the findings of the sample size, i.e. 322 enterprises will be the sample size. The sample size is divided among small and medium enterprises in Bangalore urban and rural district, taking proportionate stratified random sampling technique. Due to the data of the District Industrial Center of India, Karnataka State Bangalore Branch, criterion to divide SMEs is based on the scale of investment in each company, and the sample chosen is shown in the table given below.
Table 1.2
SMEs in Bangalore

<table>
<thead>
<tr>
<th>Name of the District</th>
<th>Number of Small Enterprises</th>
<th>Number of Medium Enterprises</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangalore Urban</td>
<td>2746</td>
<td>311</td>
<td>4057</td>
</tr>
<tr>
<td>Bangalore Rural</td>
<td>1329</td>
<td>66</td>
<td>395</td>
</tr>
<tr>
<td>Total</td>
<td>4075</td>
<td>377</td>
<td>4452</td>
</tr>
</tbody>
</table>

Table 1.3
SMEs in Bangalore that use E-Commerce

<table>
<thead>
<tr>
<th>Name of the District</th>
<th>Number of Small Enterprises</th>
<th>Number of Medium Enterprises</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangalore Urban</td>
<td>932</td>
<td>200</td>
<td>1132</td>
</tr>
<tr>
<td>Bangalore Rural</td>
<td>795</td>
<td>56</td>
<td>851</td>
</tr>
<tr>
<td>Total</td>
<td>1727</td>
<td>256</td>
<td>1983</td>
</tr>
</tbody>
</table>

The total sample size is divided between the small and medium sized enterprises based on the proportionate stratified formula: [(Number of enterprises / Total) * 100].

Table 1.4
Sample Size

<table>
<thead>
<tr>
<th></th>
<th>Small enterprises (92%)</th>
<th>Medium enterprises (8%)</th>
<th>Total (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Enterprises</td>
<td>280</td>
<td>42</td>
<td>322</td>
</tr>
<tr>
<td>Total</td>
<td>280</td>
<td>42</td>
<td>322</td>
</tr>
</tbody>
</table>

Small and medium sized enterprises in Bangalore's urban and rural district will be considered for the sample. The whole number of 322 selected

18. Small enterprises: (1727 / 1983) * 100 = 87 → 87% → 322 * 87% = 280
   Medium enterprises: (256 / 1983) * 100 = 13 → 13% → 322 * 13% = 42
companies based on sample size is divided as below: [(Bangalore Urban, Rural/Total) *100]^{19}.

<table>
<thead>
<tr>
<th>SMEs</th>
<th>Small enterprises</th>
<th>Medium enterprises</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangalore Urban</td>
<td>151</td>
<td>33</td>
<td>184</td>
</tr>
<tr>
<td>Bangalore Rural</td>
<td>129</td>
<td>9</td>
<td>138</td>
</tr>
<tr>
<td>Total</td>
<td>280</td>
<td>42</td>
<td>322</td>
</tr>
</tbody>
</table>

Table 1.5
Distribution of sample size

1.13.3: The Survey Instrument

The Survey Instrument of the present study involves the primary and secondary information. In the conceptual analysis, the role of e-commerce in the developing of SMEs in Karnataka state will be based on primary information sources. Based on the objectives of the study and hypothesis developed, the data related to the scale of influence of e-commerce on the development of SMEs will be collected through a structured questionnaire, which will be based on a pilot survey.

The research theme will be based on secondary information sources, which are relevant to comprehensive definitions e-commerce, and SMEs, and some complementing information, listed in bibliography.

The responses to structured questionnaire will be collated with the help of SPSS package and the relevant statistical tools like stratified random sampling technique, Chi-Square mean value and standard deviation will be adopted to arrive at meaningful conclusions.

^{19}. Small Urban: (932/1727) * 100 = 54% \rightarrow 280 * 54% = 151
Small Rural: (795/1727) * 100 = 46% \rightarrow 280 * 46% = 129
Medium Urban: (200/256) * 100 = 78% \rightarrow 42 * 78% = 33
Medium Rural: (56/256) * 100 = 22% \rightarrow 42 * 22% = 9
As for as the measurement scale will be concerned we have used 5 point likert scales.

1.13.4: Pilot Tests

A pilot test was undertaken to assess the reliability of the attributes, and to ensure that the wordings of the questionnaire were clear. Sixty questionnaires were completed by the guests in accompaniment of the researcher. Some problems were identified with the wordings and implications of some questions, so minor revisions were made to avoid confusion. Reliability analysis was also applied to test the internal consistency of each of the expectation and perception attributes. The results showed that the Cronbach, a coefficients for all the expectations and perception attributes, 0.762 were quite high, and they were internally consistent and reliable.

1.13.5: Validity and Reliability

In order to reduce the possibility of getting the answer wrong, attention need to be paid to two particular on research design: reliability and validity.

Validity

Validity is defined as the extent to which the data collection method or methods accurately measure what they were intended to measure. Cooper and Schindler (2003) believe that validity refers to the extent to which a test measures what we actually wish to measure. There are two major forms: external and internal validity. The external validity of research findings refers to the data’s ability to be generalized across persons, settings, and times. Internal validity is the ability of a
research instrument to measure what is purposed to measure.

Numbers of different steps were taken to ensure the validity of the study:

- Data was collected from the reliable sources, from respondents who are more experienced using e-commerce;
- Survey question were made based on literature review and frame of reference to ensure the validity of the result;
- Questionnaire has been pre-tested by the respondents before starting the survey. Questionnaire was tested by 60 enterprises;
- Questionnaire revised by the Guide before distribution;

**Reliability**

As it is known, reliability refers to the degree to which the data collection method or methods will yield consistent findings, similar observations would be made or conclusions reached by other researchers or there is transparency in how sense was made from the raw data. Cooper and Schindler (2003) have defined reliability as many things to many people, but in most contexts the notion of consistency emerges. A measure is reliable to the degree that it supplies consistent results. Reliability is a necessary contributor to validity but is not a sufficient condition for validity.

Reliability can be assessed by the following questions:

1. Will the measures yield the same results on other occasions?
2. Will similar observation be reached by other observers?
3. Is there transparency in how sense was made from the raw data?

A pilot test was undertaken to assess the reliability of the
attributes, and to ensure that the wordings of the questionnaire were clear. Sixty questionnaires were completed by the enterprises. Some problems were identified with the wordings and implications of some questions, so minor revisions were made to avoid confusion. Reliability analysis was also applied to test the internal consistency of each of the expectation and perception attributes. The results showed that the Cronbach a coefficients for all the expectations and perception attributes, 0.762 were quite high, and they were internally consistent and reliable.

1.13.6: Data Collection Method

After the questionnaire was revised based on the feedback from the pilot study, the study entered its general survey phase, which was intended to collect data from a larger sample of SMEs to test the validity and reliability of the instrument and to test the research model and associated hypotheses proposed in the study.

The major data collection procedures were:

The researcher searched for companies on a list of Small and Medium size enterprises (SMEs) in Bangalore. After a couple of days Dr. H-Rajashekar introduced District Industrial Center of India (DICI) branch of Karnataka in Bangalore. The researcher got the list of SMEs in Bangalore's Urban and Rural areas and then the researcher looked for consultant enterprises which helped gather the statistics of SMEs in Bangalore. With their help, the researcher found the SMEs using E-Commerce to distribute the questionnaire. Through Neha Company, it is called SMEs and 1983 SMEs that use e-commerce in Bangalore's Urban and Rural areas were found. Subsequently through the stratified statistics the researcher clarified small and medium enterprises in
Bangalore's Urban and Rural areas. Then through the Neha Company the researcher contacted those SMEs and made appointments with the managers or executive directors and distributed the questionnaire. For some of the SMEs that were comfortable completing the survey and accepted, the questionnaire was delivered manually and for some others, it was sent through e-mail.

1.13.7: Data Analysis

The method of statistical analysis used in research to analyze data is usually determined by the way in which data is expressed. Therefore, for sampling the researcher used stratified statistics and for this survey, descriptive statistics were used to examine means, standard deviations, and to reveal the distribution of the data in each variable. In addition, Likert scales and nominal and ordinal scales were also used in the study, a non parametric test, such as a Chi-square, which makes a single, overall decision to determine if a significant difference is present among three or more sample means was used to test the stated hypotheses. Frequency distributions inspected the range of responses and their repeated occurrence, arraying the data from highest to lowest values with counts and percentages.

1.14: SCOPE OF THE STUDY

In the present research, the researcher is going to deal with e-commerce and its role in developing selected small and medium sized enterprises (SMEs) in Karnataka state. Since it would be too much of a burden to probe, by Karnataka, the researcher reduced the scope to selected district of Bangalore.
1.15: LIMITATIONS OF THE STUDY

To mention the area of study, primary and secondary data are needed. In fact there are some limitations in this research. To mention some, the access of data in small and medium sized enterprises will be one of them. It was not possible to mention all enterprises since the researcher could only find limited numbers of companies working under the realm of e-commerce. Hence the present study focused solely on those companies which showed their interest in possessing their activities based on e-commerce. Moreover, since the areas confined for this study are only in Karnataka state, and customers' behavior may differ in other states or countries, it is possible to mention this as another limitation in this study.

1.16: CHAPTERIZATION SCHEME

The present thesis is outcome of a comprehensive research in the form of seven chapters are mentioned as:

**Chapter 1:** The introduction chapter illustrates some initial studies that represent the background the e-commerce and SMEs, express the need for the study, research gap, scope of the study, limitations and methodologies including sample size, validity and reliability, data collection and data analysis.

**Chapter 2:** Refers to the reviews of the literature. This chapter displays the vast study performed on or about the relevant topic. In chapter two a survey is attempted in the way the researcher explored about e-commerce application in different enterprises.

**Chapter 3:** This chapter brings some concepts, definitions, applications and categories of e-commerce. It also tries to highlight different relevant terms such as trust, avoidance of fraud and suitable contract in e-commerce.
Chapter 4: This chapter deals with the profile of the study area. Here the researcher has made an attempt to have a view of Bangalore city, the capital of Karnataka state in India with an aim to introduce the area this study is focused on.

Chapter 5: This chapter speaks about the analysis of this study. To have a reliable analysis, it tries to utilize the latest software of SPSS to analyze the statistical tests of Chi-square and Frequency.

Chapter 6: This chapter has been designed to give a comprehensive picture of the summary of findings.

Chapter 7: The last chapter is designed for Suggestions and the Conclusion. Suggestions and conclusion concentrates on the explicit outcomes of the present study. It also refers to the prevailed limitations of this study and some useful suggestions for potential directions of further related research.