CHAPTER - FOUR
RESEARCH DESIGN

This chapter explains the focus of the research problem, the research design adopted, sampling method, data collection methods, and analysis performed for the research. It elaborates the framework made by the researcher for the purpose of solving the research problem.

4.1 STATEMENT OF THE PROBLEM

Emergence of large retail outlets may have affected the overall turnover and profits of small retail outlets and may have an impact on customer loyalty. The study is intended to find out if the growth of organized retail headed by large corporations has any impact on small mom-n-pop stores and other retail outlets which are in direct competition to the organized retailers and the advantages and the disadvantages faced by unorganized retailers due to the growth of organized retailers.

Indian market is currently on the edge of the world’s most dynamic cluster of highly informed and demanding customers on one side, and a great pace of increasing consumption level across various FMCG products categories and geographies on the other. Growing customer demands and the outstanding parallel response of leading businesses have created a more complex and competitive market place – each of the retail organizations existing and planning to drive-in, in the near future requires being more adaptive to customer demographics and more
aggressive at exploiting their unique capabilities to meet those needs. In the context of Indian customer products and retail companies, this spells multiple challenges and opportunities for them. ‘Demographic Changes Thrills the Market, if not adapted kills the market’. More of rural market got converted to urban market, earlier there were four metros now there are six metros, number of towns exceeding 1million is more now compared to 1991.

When the curtain of current retailing pattern in India is raised this euphoria is an omnipresent confidence in the ability of the organized retail to grow along with the ongoing wealth generation amongst the middle class in India. The customer class in India is estimated at 400 million people with rising disposable income by about ten times between 1993 & 2010. About 29 per cent of the population is now urban, compared to 26 per cent in 1991 and over 50 per cent of the population is below the age of 24 and faces a job market more resilient than it is ever been before.

“A STUDY ON EMERGING RETAIL PATTERN IN INDIA WITH REFERENCE TO CUSTOMER DEMOGRAPHICS” done in Bangalore is not only enhancing the knowledge base, but it is also very informative and important for the retailers in India and all over the world. This research will further reveal the retail scenario in India, in specific, Bangalore.
4.2 RATIONALE BEHIND THE STUDY

Certain causative factors notably surging incomes and customer age (youth) have set high expectations in retail space which the worldwide names – Wal-Mart, Carrefour, Tesco and others wish to fulfill. The study aims to identify the change in demography of the customer so that the data could provide valuable insights in designing parameters of retailing right from outlet location to merchandising and service outlets.

4.3 OBJECTIVES OF THE RESEARCH

The main objective of the research is to study the changing demographic profiles of the Indian customers and emerging expectations towards the retailing patterns. The study would involve the sub objectives like,

- Detailed analysis of the changing demographics
- Changes in the disposable income
- Changes in expectations towards the retailing outlets in terms of
  - Locations
  - Services
  - Branding
  - Merchandising
  - Range of products and categories.
Research was performed among customers from small and large retail outlets in Bangalore. To fulfill the above mentioned objectives, a structured questionnaire was prepared and administered to 243 respondents. A descriptive research was carried out. The hypothesis formulated for the purpose of research is given below.

4.4 HYPOTHESIS

Hypothesis formulated for the research are:

**NULL HYPOTHESIS**: There is no significant association of demographic variables on the shopping behavior of respondents.

**ALTERNATE HYPOTHESIS**: There is significant association of demographic variables on the shopping behavior of the respondents.

4.5 DEFINITION OF CONCEPTS

The objective of the study is to relate between the emerging trends in retail pattern and the support of the customer demographics for the same. Customer demographics are defined as unified comprehensive and an intangible urge ensuring the want of new patterns in shopping. Determining the factors responsible for the lookout of ongoing change required in retail industry keeping the demo graph in mind.
Retailing

Retailing is defined as a conclusive set of activities or steps used to sell a product or a service to customers for their personal or non personal use. It is responsible for matching individual demands of the customers with supplies of all the manufacturers.

A retailer is a person, agent, agency, company, or organization which is instrumental in reaching the goods, merchandise and service to the ultimate customers.

In general, the retailing effectiveness looks at providing assortments, breaking bulk, holding inventory and providing services, in order to increase the value customers receive from their products and services (Levy and Weitz, 1998). In an attempt to develop a branding model for e-tailing practice, defined the term ‘retailing effectiveness’ as “the degree to which a firm accomplishes the retailing objectives”. Ping (1993) has defined retailing effectiveness as the degree to which business activities add value to the products and the manner in which they are sold to customers for their personal and family use. Experience is an important factor that differentiates an effective retail outlet from the run-of-the-mill ones. Augmenting the whole shopping experience is where the key to retailing effectiveness lies. Hence, retailing effectiveness should be thought of as the extent to which a retail outlet is able to satisfy its customers.
Marketers have increasingly started realizing the fact that the purchasing power of customers, customer preferences, latent need fulfillment, and convenient buying are the most important reasons for improving the retailing effectiveness. Of all these reasons, it is experienced to be the ‘convenient buying’ that demands a unique approach in retailing. Elaborating on ‘convenient buying’, the term refers to the ultimate objective that the retailers should strive for; ensuring that every customer enjoys the benefits that the retailer is able to provide to the best of his/her ability with respect to the target segment. The objective here is to make all products and services available so that the customer is not found wanting at any given point. For instance, in an apparel store, in addition to signage, clear labeling and self-help kiosks, some degree of assistance is required – and even expected.

A customer may be looking for different sizes, fabrics or prices and feel very confused if he/she doesn't get the information easily. In such a situation, the whole purpose of convenience is defeated. The intention of the retailer should then be to provide the customer an ideal convenient buying situation.

Retail markets are increasingly characterized by competition, market fragmentation, crowded retail environments, undifferentiated product and pricing offerings, shortened product life cycles, and more demanding and knowledgeable customers. Driven by these evolutions, retailers are finding it necessary to continually seek out products, processes, and technologies that increase store
loyalty. As the economic benefits of store loyalty are at the basis of explaining
differences in retailing performance effectiveness, convenience buying facilitation
has become the prime imperative for many retailers to achieve sustainable superior
profits (Anderson et al, 1997).

Such a situation necessitated technology assimilation based on appropriateness,
availability, accessibility, cost, and timeliness (Saji, 2002). Through this paper, it
is attempted here to study these factors in the context of convenient buying for
assessing their criticality in deciding the effectiveness of a retailing operation. The
notion of convenience buying can be made attributed to the customer buying
process. The stages a customer goes through while purchasing a good or service
(the need recognition, information search, evaluation and choice of alternatives,
and post purchase evaluation) can all be made convenient so that the whole buying
process can be made experiential for the customer (Levy and Weitz, 1998).

Technology is probably the most dynamic change agent to this respect for the
retailing industry. The computerization of the various operations in a retail store,
including inventory management, billing and payments as well as database (of
customers) management, widespread use of bar coding, point-of-sale terminals
and Management Information Systems, has changed the very face of retailing
dramatically. Given the extent to which technology is being used, it only goes to
show that the only limitations to the use of technology depend upon the chosen target market variables to be served and the ability of the management to adapt the technology onto their retailing environment. The need for technology adaptation arises here, as the customers are being increasingly informed and demand better service all the time. The requirements may be met by enhancing the convenience buying setting at the retailing firm.

In order to assess the situation properly, it is necessary that the factors influencing the decision to provide convenient buying be understood properly. These factors (viz. appropriateness, availability, accessibility, cost, and timeliness) can be expected to determine the effectiveness of the retailing operation, and are bound by forces in the external environment. The factor appropriateness refers to the convenience of the customers in terms of floor space, price, product categorization, sales staff support, and other facilities such as safe keeping of baggage, and availability of trolleys. The factor availability refers to the presence of the solutions for satisfying the customer needs whenever it is required. These could either be the brands, products or any other offer that is prevalent. Accessibility in the convenience-buying context can be thought of as the convenience in reaching the store, the store timings, and the ease with which one could locate the products. Besides being a critical factor in customer selection of a store, location lets a retailer gain a sustainable competitive advantage over others.
The cost factor refers to the sum total of the cost incurred by the customer in reaching the store and the price of the product. The timeliness factor mainly focuses on the delivery time and the bill-settling time at the sales counter.

**Demography**

Demography is the statistical study of human population. It can be a very general science that can be applied to any kind of dynamic human population, that is, one that changes over time or space. It encompasses the study of the size, structure and distribution of these populations, and spatial and/or temporal changes in them in response to birth, migration, aging and death.

Demographic analysis can be applied to whole societies or to groups defined by criteria such as education, nationality, religion and ethnicity. Institutionally, demography is usually considered a field of sociology, though there are a number of independent demography departments. Formal demography limits its object of study to the measurement of population’s processes, while the broader field of social demography population studies also analyzes the relationships between economic, social, cultural and biological processes influencing a population.
Customer Demographics

Customer Demographics are defined as including “gender, race, age, income, disabilities, mobility (in terms of travel time to work or number of vehicles available), educational attainment, home ownership, employment status, and even location.” These types of classifications can help us to target the right kind of marketing to the customers we are trying to target.

Customer Satisfaction

Customer satisfaction, is a business term, is a measure of how products and services supplied by a company meet or surpass customer expectation.”

4.6 METHODOLOGY AND SAMPLING

Selection of Qualitative and Quantitative Research Technique

This study basically involves understanding the various issues related to the changing customer demographics and the emerging strategies for designing the retailing patterns. As the study mostly involves the data which is more qualitative, analysis and interpretations also involves the understanding the issues, and researcher’s intuition, and development of strategies also non quantitative, the qualitative research would be the most ideal approach for the current research. Wherever applicable, the research also used the quantitative research and
eventually the research makes use of the blend of both qualitative and quantitative research approaches. Qualitative methods use descriptions and categories through words. So the qualitative research involves open-ended interviews, observation, document analysis, case studies/life histories, descriptive and self-reflective supplements to experiments and correlation studies. General sequence of the qualitative research is as follows:

1. Ask questions with open-ended answers,

2. Record/log what is said and/or done

3. Interpret (personal reactions, write emergent speculations or hypotheses, monitor methods)

4. Return to observe, or ask more questions of people

5. Recurring cycles of 2-4--iteration

6. Formal theorizing [emerges out of speculations and hypotheses]

7. Draw conclusions / Suggestions

The data collection in the qualitative research is done by following Methods:

1. Detailed but open-ended in-depth interviews (not highly structured)
2. Direct observation (or via video).

3. Written documents (work with words and visual data, not numbers).

The research is a combination of both qualitative and quantitative techniques. Quantitative data collection include data collected from the sample respondents regarding their demographics, like age, income, members in the family, etc and preference of customers in purchase from retail outlets measured on interval scale.

**Selection of the Sample**

This research studied 243 respondents from various cross sections of customers from leading retail outlets, marketing consultants, branding consultants, advertising agencies, customers, retailers association of India (RAI) etc. For this purpose, the whole of the study area Bangalore is divided into four strata’s – East, West, North and South. In each of these strata, samples were selected at random using simple random sampling method.

This brings in respondents with diversified background and enhances the credibility of the research. In order to understand the small retailer’s perspectives, 11 retails from small retail outlets were approached. The details of the sampling techniques and sample sizes adopted for each of the segments are given below.
4.7 SAMPLING METHOD

Stratified sampling is a statistical method involving the selection of elements from an ordered sampling frame. Equal amount of sample i.e. 80, 81, 81, and 81 was selected at random from East, West, North and South of Bangalore. This constitutes the sample size of 243. Stratification is the process of dividing members of the population into homogeneous subgroups before sampling. The strata should be mutually exclusive: every element in the population must be assigned to only one stratum. The strata should also be collectively exhaustive: no population element can be excluded. Then simple random sampling or systematic sampling is applied within each stratum. This often improves the representativeness of the sample by reducing sampling error. It can produce a weighted mean that has less variability than the arithmetic mean of a simple random sampling of the population.

The main advantage with stratified sampling is how it captures key population characteristics in the sample. Similar to a weighted average, this method of sampling produces characteristics in the sample that are proportional to the overall population. Stratified sampling works well for populations with a variety of attributes, but is otherwise ineffective, as subgroups cannot be formed.

In order to understand the performance of small retail outlets, the proprietors of small retail outlets was approached. Convenience sampling method was adopted to
select these retailers. This depends on their physical availability and time when approached in person.

**Interviews**

Research methodology involved multiple steps with the preliminary step being emphasized on the qualitative research. In qualitative research, the questions posed to the respondents would be open ended giving sufficient freedom for the respondents to express their views without restricting the scope of the answer as in the case of close end question. So, obviously in this research study, qualitative research techniques would be used and for this purpose not exactly a questionnaire but a check list would be prepared and the respondents would be made to talk in accordance with their wish there by giving lot of scope to understand the changing patterns in customer demographics and resulting strategic inputs for designing the retailing patterns.

During the development of cluster strategies, the proposed strategies would be suggested through a checklist and the opinions of the respondents would be sought and thus this phase also the checklist would be open ended
4.8 DATA COLLECTION METHODS

The study demands considerably longer time duration for the interview, the respondents would be met in a systematic fashion and appointment is sought. The appointments sought will allow the researcher to collect the details immediately or after two to three hours. Sometimes the interview had to be conducted after two or three days as the respondents would be not in opposition to spare the required time immediately. Data was collected in two phases. First phase, qualitative data was collected with open ended questions to identify the variables and formulate the questionnaire. For this purpose, 30 respondents were contacted. For the second phase, 300 respondents were approached of which responses from 243 respondents were collected. For both the phases, sample was approached using systematic sampling method. In order to collect the data from small retailers, structured questionnaire was used to collect the data from 11 respondents. The data collected include their opinion about the performance of business with the emergence of organized retail firms, and reasons for customers to visit their store.

As study demands the qualitative information by and large at the initial phase, Delphi technique was used. The respondents for the research were identified and data was collected to identify the variables. So the research required an in-depth probing to reveal the strength, weaknesses, opportunities and threats of retailing industry in India. The research also had to reveal the crucial success factors which
would be essential for formulating strategies for retailing outlets. One of the best research approaches in these circumstances is certainly the Delphi technique. The Delphi technique is a very successful interview technique for qualitative research where the kind of information to be extracted is of qualitative in nature.

In Delphi technique the topic of interest is given to the first selected respondent for his comments and opinion and obtained. This output obtained from the first respondent is given as the input to the second selected respondent and his opinion is sought on that. Similarly this process is carried out for all the respondents in the sample size. Now the researcher would have a very clear picture about the selected topic and he is going to consolidate the outcome from the Delphi research. Since the initial phase of research would be of in-depth and qualitative in nature, a checklist would be used which predominantly contained open ended questions. Each of the questions in the check list would be posed to respondents and the responses would be recorded. Based on the outcomes of first phase, questionnaire was developed and scales were established. Data was collected with structured questionnaire that was further used to draw solution for the research problem.
Secondary Data Sources

Secondary data was collected to understand the retail scenario and to draw variables that influences the retail scenario in Bangalore. The sources of secondary information are:

1. Retail association of India (RAI)
2. Balance sheets and profit & loss statements of the respondent outlets
3. Case studies of the assignments carried out by earlier researchers
4. Centre for monitoring Indian economy (CMIE) reports
5. Reports of the studies conducted by RAI
6. Various web sites related to retailing industry

The first phase of the research process would culminate in the production of a survey output literature on the issue. The literature would emanate from two perspectives, from the conceptually primary inputs and from secondary literature on topics covering the issue. The conceptual inputs would help frame the basis for formulation of the research problem.
4.9 ANALYSIS OF DATA

Data analysis was done with the help of SPSS 16.0. Frequency and percent analysis is done to understand the demographics of the customers studied for the research. Cross tabulations are made to understand the spread of demographics across other study variables. Correlation analysis, factor analysis and other multivariate techniques are performed to analyze the data collected and to prove or disprove the null hypothesis.

Period of the Study

The duration of the research is between 2009 and 2011. Primary data for the study is collected through a structured questionnaire in the years 2009 and 2010. Secondary data were collected from different publications, reports, websites, magazines, journals, newspapers and other published sources. Various literatures from 1983 to 2011 were collected, reviewed and presented in Chapter III.

Profile of Bangalore

Bangalore is one of the fastest growing cities in India and is branded as ‘Silicon Valley of India’ for heralding and spearheading the growth of Information Technology (IT) based industries in the country. With the advent and growth of IT industry, as well as numerous industries in other sectors and the onset of economic liberalization since the early 1990s, Bangalore has taken lead in service-based
industries fuelling substantial growth of the city both economically and spatially. Bangalore is located in the heart of the Mysore Plateau at an average elevation of 920 m (3,000 feet). Bangalore city covers an area of 741 sq. km with a population of 6,200,000 (World-gazetter.com, 2007). It is the third most populated city in India after Mumbai and Delhi. The city is blessed with pleasant climate, particularly as compared to other major Indian cities. Summers are mild (April-June) and winters are cool (October-February). In summer, the temperature varies between 36°C and 20°C while in winter it is between 27°C and 14°C.

Pre-testing and Pilot Study

The questionnaire was given to some research experts for a critical view regard to its content, format and sequence and their feedback was incorporated. Then questionnaire was distributed to 20 respondents for pretesting and pilot study was also conducted. Pretesting was done to ensure reliability and validity of the questionnaire. It was done to check whether the instrument was correctly framed in an understandable manner. Taking into consideration the suggestions of the selected sample respondents, necessary modifications and changes were incorporated in the questionnaire after the pilot study. The respondents included in the pilot study were not included as samples for the final study.
Statistical Tools used for Analysis

Appropriate research tools were used to analyze the data. The data was checked for its validity and reliability and statistical tools used for analysis was performed with the statistical package SPSS 16.0.

Simple Percent Method

Simple percent method was used to present the profile of the respondents considered for the study. The responses collected from 243 respondents were expressed for 100. Data collected from small retailers was also studied with percent analysis to understand the scenario of small retail outlets in Bangalore.

Weighted Average Ranking

The data collected in measuring the importance for the variables that make customers to visit a retail store is tabulated and weighted average score is calculated. The variables that influence a customer in choosing a store are listed and customers are asked to give their importance on a five point scale ranging from highly important (HI), important (I), neutral (N), unimportant (UI), and highly unimportant (HUI). This is done for the variables price, availability, proximity, variety offered, value added services, personal interaction, promotional activities, reliability, ambience and physical appearance. Weights were assigned for these responses from 5 to 1. More weights were given for favorable responses
and vice versa. The total score is calculated by summing up the number of responses in each category multiplied by the weights assigned. Total score divided by the total number of respondents (243) gives the weighted average score. Based on the weights for each variable, ranks are assigned. Higher the weights, lower is the rank and vice versa. Weighted average score is calculated by using the given formula.

\[
\text{Weighted average score} = \frac{\sum (\text{No of Respondents preferred the attribute } \times \text{weights assigned})}{\text{total no. of respondents}}
\]

**Factor Analysis**

Factor analysis is a statistical approach that can be used to analyze interrelationships among a large number of variables and explain these variables in terms of their common underlying dimensions (factors). This statistical approach involves finding a way of condensing the information contained in a number of original variables into a smaller set of dimensions (factors) with a minimum loss of information. Principal Component Analysis method of factor analysis with Varimax rotation is chosen. Principal Component analysis is more a mathematical transformation of matrices, so that the original covariance or correlation matrix can be represented in a structure with fewer factors. For this purpose data is recorded on an interval scale to reveal the opinion of the customer or the retailer. The extent to which each and every factor is important is identified with the ‘sum
of squared loadings’. The cumulative loadings explain the extent of explanatory power of the factors extracted. The factors with Eigen value more than ‘1’ are extracted. The factors are identified with the help of rotated matrix. The orthogonal rotation, where the Varimax procedure is usually used, has the advantage that the factors produced are uncorrelated with each other, and so can be considered as measurements of concepts in unrelated dimensions. Those variables that load above 0.7 are identified as a crucial factor. Factor analysis is used in this research to identify the crucial factors that drives customers to a retail outlet in customer’s perspective and retailer’s perspective.

**Correlation Analysis**

Correlation is a statistical test commonly used to understand the association of variables. It brings out the relationship between two variables as by dividing their covariance by the square root of the product of their variances. The coefficient of correlation varies between ‘+1’ to ‘-1’. If there exists a positive correlation, there is a direct impact of the variables and a negative impact explains an inverse impact.

Correlation is useful to determine if a relationship exists between two different variables. If there exists a relation, significance of the relation and the strength of the association between the two variables is explained. Significance association of variables is tested with 5 percent level and 1 percent level to prove or disprove a
specific hypothesis. The analysis is performed in SPSS to identify the relationship between demographic variables and shopping behavior measured with the shopping frequency of the respondents.

The correlation coefficient or ‘r’ coefficient is a statistic used to measure the degree or strength of this type of relationship. The correlation coefficient is often referred to as Pearson’s product-moment ‘r’ or ‘r’ coefficient. The correlation r value requires both a magnitude and a direction of either positive or negative. The mathematical formula for computing correlation coefficient is:

\[
r = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} \sqrt{n(\sum y^2) - (\sum y)^2}}
\]

Where ‘n’ is the number of pairs of data;

x, y is the variables studied.

The closer the ‘r’ coefficient approaches ± 1, regardless of the direction, the stronger is the existing association indicating a more linear relationship between the two variables. A positive correlation coefficient indicates that an increase in the first variable would correspond to an increase in the second variable, thus implying a direct relationship between the variables. A negative correlation
indicates an inverse relationship whereas one variable increases the second variable decreases, implying an inverse relationship.

**Validity and Reliability**

Validity encompasses the entire experimental concept and establishes whether the results obtained meet all of the requirements of the scientific research method. For example, there must have been randomization of the sample groups and appropriate care and diligence shown in the allocation of controls.

Internal validity dictates how an experimental design is structured and encompasses all of the steps of the scientific research method. Even if your results are great, sloppy and inconsistent design will compromise your integrity in the eyes of the scientific community. Internal validity and reliability are at the core of any experimental design.

External validity is the process of examining the results and questioning whether there are any other possible causal relationships.

The idea behind reliability is that any significant results must be more than a one-off finding and be inherently repeatable. Other researchers must be able to perform exactly the same experiment, under the same conditions and generate the same
results. This will reinforce the findings and ensure that the wider scientific community will accept the hypothesis. Without this replication of statistically significant results, the experiment and research have not fulfilled all of the requirements of testability. This prerequisite is essential to a hypothesis establishing itself as an accepted scientific truth.

**Validity**- Conclusions drawn from analyzing survey data are only acceptable to the degree to which they are determined valid. Validity determines the degree to which a measure assesses what it is meant to measure. Validity is ensured in the contents used in the research instrument, the extent to which it distinguishes the concept and measures the criteria. The validity of the instrument, questionnaire was ensured at the time of pilot study.

**Content Validity**- Content Validity was established by enquiring the sample considered for pilot study. Focus was given on whether or not they are able to understand the concept that is targeted in the questionnaire.

**Construct Validity** - The respondents who said that television ads influence their decisions in purchasing a product had different levels of influence on the attributes of television ads than those who said that television ads do not influence their
decision in purchasing a product. This ensures construct validity of the questionnaire.

**Face Validity** - is concerned with how a measure or procedure appears. Does it seem like a reasonable way to gain the information the researchers are attempting to obtain? Does it seem well designed? Does it seem as though it will work reliably? Unlike content validity, face validity does not depend on established theories for support.

**Criterion Related Validity** - also referred to as instrumental validity, is used to demonstrate the accuracy of a measure or procedure by comparing it with another measure or procedure which has been demonstrated to be valid. For example, imagine a hands-on driving test has been shown to be an accurate test of driving skills. By comparing the scores on the written driving test with the scores from the hands-on driving test, the written test can be validated by using a criterion related strategy in which the hands-on driving test is compared to the written test.

**Reliability**
Reliability refers to the consistency or repeatability of the questionnaire for further analysis. The reliability of the questions was empirically examined in order to understand the coherence in the responses made. Reliability of the scales was ensured with Cronbach’s alpha coefficient. The coefficient varies between the
values 0 to 1. If the score is closer to the value ‘1’, the internal consistency in the
questionnaire is perfect and if the score is closer to ‘0’ then there is poor internal
consistency among the questions in the scale constructed. Cronbach’s alpha
measures how well a set of items (or variables) measures a single unidimensional
latent construct.

Cronbach’s alpha can be written as a function of the number of test items and the
average inter-correlation among the items. Cronbach’s $\alpha$ is defined as

$$\alpha = \frac{N}{N-1} \left( 1 - \frac{\sum_{i=1}^{N} \sigma_{Y_i}^2}{\sigma_X^2} \right)$$

Where $N$ is the number of components (items or test lets), $\sigma_X^2$ is the variance of
the observed total test scores, and $\sigma_{Y_i}^2$ is the variance of component $i$.

Cronbach’s alpha can be interpreted as the percent of variance the observed scale
that would explain hypothetical true scale composed of all possible items in the
universe. Alternatively, it can be interpreted as the correlation of the observed
scale with all possible other scales measuring the same thing and using the same
number of items.
Equivalency Reliability

Equivalency reliability is the extent to which two items measure identical concepts at an identical level of difficulty. Equivalency reliability is determined by relating two sets of test scores to one another to highlight the degree of relationship or association. In quantitative studies and particularly in experimental studies, a correlation coefficient, statistically referred to as ‘r’, is used to show the strength of the correlation between a dependent variable (the subject under study), and one or more independent variables, which are manipulated to determine effects on the dependent variable. An important consideration is that equivalency reliability is concerned with co relational, not causal, relationships.

For example, a researcher studying university English students happened to notice that when some students were studying for finals, their holiday shopping began. Intrigued by this, the researcher attempted to observe how often, or to what degree, these two behaviors co-occurred throughout the academic year. The researcher used the results of the observations to assess the correlation between studying throughout the academic year and shopping for gifts. The researcher concluded there was poor equivalency reliability between the two actions. In other words, studying was not a reliable predictor of shopping for gifts.
Stability Reliability

Stability reliability (sometimes called test, re-test reliability) is the agreement of measuring instruments over time. To determine stability, a measure or test is repeated on the same subjects at a future date. Results are compared and correlated with the initial test to give a measure of stability.

An example of stability reliability would be the method of maintaining weights used by the U.S. Bureau of Standards. Platinum objects of fixed weight (one kilogram, one pound, etc...) are kept locked away. Once a year they are taken out and weighed, allowing scales to be reset so they are "weighing" accurately. Keeping track of how much the scales are off from year to year establishes stability reliability for these instruments. In this instance, the platinum weights themselves are assumed to have perfectly fixed stability reliability.

Internal Consistency

Internal consistency is the extent to which tests or procedures assess the same characteristic, skill or quality. It is a measure of the precision between the observers or of the measuring instruments used in a study. This type of reliability often helps researchers interpret data and predict the value of scores and the limits of the relationship among variables.
For example, a researcher designs a questionnaire to find out about college students' dissatisfaction with a particular textbook. Analyzing the internal consistency of the survey items dealing with dissatisfaction will reveal the extent to which items on the questionnaire focus on the notion of dissatisfaction.

**Inter-rater Reliability**

Inter-rater reliability is the extent to which two or more individuals (coders or raters) agree. Inter-rater reliability addresses the consistency of the implementation of a rating system. A test of inter-rater reliability would be the following scenario: Two or more researchers are observing a high school classroom. The class is discussing a movie that they have just viewed as a group. The researchers have a sliding rating scale (1 being most positive, 5 being most negative) with which they are rating the student's oral responses. Inter-rater reliability assesses the consistency of how the rating system is implemented. For example, if one researcher gives a "1" to a student response, while another researcher gives a "5," obviously the inter-rater reliability would be inconsistent. Inter-rater reliability is dependent upon the ability of two or more individuals to be consistent. Training, education and monitoring skills can enhance inter-rater reliability.
Level of Significance

After examining the construct validity of the instrument, the data was collected, tabulated, processed and analyzed with reference to each of the specific objectives, with the help of appropriate tools of analysis. All tests were conducted for five percent level and one percent level of significance. Analysis was made to meet the purpose of each of the specific objectives and test the hypotheses.

4.10 LIMITATIONS

The findings of the research as reported in this document must be qualified and viewed in the light of several limitations such as:

The sample size proposed is very small and may not be representative given the diversity of respondent categories contacted during the study. However, some minimal representation would be attempted among each respondent segment.

By and large, involvement levels of individuals who would be contacted across various respondent categories may be very low. This has a significant bearing on the nature and depth of information obtained.
4.11 Scope for further Study

Retailing in India is on boom since last one decade, the flow of FDI is ready to get inside the country which will also boost further. The recent re-birth of E-retailing is also captured a very small and a micro percent of the customers who are availing the service that is provided by E-retailers. Is there any scope or change that can happen in the Indian Retail Industry in the near future? Will Indian customers opt E-retailing as the main stream of buying and if so what percent of the retail trade will get converted to virtual retailing?

4.12 Chapter Scheme

CHAPTER ONE: INTRODUCTION TO RETAIL

It will deal with the introduction to retail and retailing. The organized and the unorganized Indian retail sector, the relationship between retail pattern and the growth of the retail sector.

CHAPTER TWO: DEMOGRAPHICS AND MARKET SEGMENTATION.

This chapter elaborates on the definition of Demographics and the impact of Demographics on the Retail Market. It also gives information on Segmentation of market with respect to demographics.
CHAPTER THREE: CONCEPTS AND REVIEW

This chapter elaborates on the RETAIL in different countries and its contribution to growth in various sectors especially to employment opportunities and increase in national income from the retail sector and increase level of living standards. This is done by reviewing the literatures.

CHAPTER FOUR: RESEARCH DESIGN

This chapter will mention the research design of the study. Design of the study includes problem statement, objectives, and the sampling design, sampling method, data collection tools and appropriate statistical tools.

CHAPTER FIVE: DATA ANALYSIS AND INTERPRETATION

Chapter four is the data analysis and interpretation of the study. The data analysis and results of the analysis are presented and discussed to draw specific inferences.

CHAPTER SIX: FINDINGS, RECOMMENDATIONS AND CONCLUSION

Chapter five will elaborate on the findings, recommendations and conclusion.
REFERENCES


