Chapter III
Research Methodology and Procedure

3.1 Introduction
The current chapter covers the research design adopted in conducting the research covering the phases and methodology of the research. The research is undertaken to accomplish the objective of understanding shoppers’ behaviour in organized retail formats in Delhi and suggest shopper marketing strategies. Data collected using questionnaire is analysed to arrive at results.

3.2 Phases of the current Research
The research was undertaken in a phased manner in following phases:

Phase I: Study of available literature and Perspectives
This phase undertook exploration of available literature on retail and shopping behaviour. The literature is reviewed to study retail scenario, retail formats and shoppers’ preference, product and store related attributes, categories of goods and their preference, smartphone behaviour, purchase journey (impulse purchase), browsing behaviour, retail promotions and shopper marketing.

Phase II: Assessing shoppers’ Perspective
This phase involved development and designing of questionnaire to accomplish the objectives of the study. The variables to the questionnaire are identified through the review of the literature and further validated by having detailed discussions with retailers and academic professionals.

Phase III: Implementation and compilation
During this stage the questionnaire was administered to the shoppers in organized retail formats in Delhi. The data so collected is analysed and presented to accomplish the objectives. Finally shopper marketing strategies are developed during the phase to help retailers strategise for long term sustainability and growth.
The review of literature helped in identifying various factors affecting the shopping cycle right from information search to post purchase behaviour and then were developed into hypotheses. Further, a descriptive research design is employed for the research to accomplish the objectives.

3.3 Problem Statement

To Study Shopping Behaviour in organized Retail in Delhi

3.4 Objectives

The present study is conducted to accomplish following objectives regarding shopping behaviour in organised retail formats (Convenience stores, Speciality store, Hypermarket, Departmental Store and Discount store) in Delhi:

- To study shoppers’ preference of Organised retail formats in Delhi
- To study the product and store attributes that influence shoppers’ preferences of Organised retail formats
- To study the shoppers preference of products (shopping & convenience goods) from organized retail formats in Delhi
- To study shopping behaviour using smartphones in organised retail formats in Delhi
- To study shopping behaviour in reference to: time spent inside retail formats; impulse purchase (Purchase journey for various goods); assistance(sales staff); browsing and promotions in organized retail formats in Delhi
- To suggest shopper marketing strategies.

3.5 Hypotheses

The present study aims at testing following hypotheses:

H1: Shoppers’ preferences of organised retail formats are influenced by product attributes like price, quality, and assortment.
H2: Shoppers’ preferences of organised retail formats are influenced by store attributes like trust, parking facility, trained staff, promotion and Convenient shopping hours.

H3: Shopper’s education & occupation are important factors influencing shopper’s preference of organized retail formats based on product attributes

H4: Shopper’s education & occupation are important factors influencing shopper’s preference of organized retail formats based on store attributes

H5: Shoppers prefer Department stores for buying various shopping goods like footwear, Home furnishing and clothing

H6: Shoppers prefer Hypermarket for various convenience goods, i.e., food and grocery, Personal care products and stationery

3.6 Research Design

Research design is a vital component of research. It is a blue print to conduct the research (Malhotra,2005, p-74 ). The present study employs a descriptive research design to study shopper’ behaviour and perspective. However some in-depth discussions were held with management in retail organisations along with shoppers to identify some variables for the study. The data is collected using questionnaire administered on shoppers using convenient sampling. Finally data is analysed using SPSS.

3.6.1 Sample Design:

The study is carried out in Delhi. Five hundred (500) shoppers visiting various types of organized retail formats in Delhi are the targeted respondents.
The study involves non-probability convenient sampling technique for the purpose of data collection. Due care has been taken to ensure that the sample represents all demographic profiles of the population.

3.6.2 Data Collection
Data is collected using both, primary and secondary sources. Secondary data is collected from various libraries at Aligarh Muslim University (AMU), IIM Ahmedabad, Management Development Institute (MDI), Delhi University, GGSIP University through journals, books, magazines, proceedings of seminars & conferences and Newspapers along with web sources etc. Primary data is collected using a structured questionnaire administered on 500 shoppers visiting various retail formats in Delhi. Due care has been taken that all the respondents shop at various organized retail formats. Out of these 500 shoppers 80 questionnaires were filled by shoppers who were shopping at Convenience store to know their responses for all other formats too. Similarly 77 shoppers at Departmental stores, 125 at Hypermarket, 106 at Discount store and 112 at Specialty store were approached to know their responses for other format also. Initially a pilot survey is conducted to test the reliability, validity and sensitivity of the questionnaire and finally the data is collected by survey method.

3.6.3 Details of the Questionnaire
The questionnaire developed for undertaking research consists of five sections to cover various aspects of shopping behaviour in organized retail. The first section A mentions about the shoppers’ demographics and other information; Section B covers organised retailing formats’ preference, purchasing volume and the attributes (Both product and store related); Section C covers product categories (Shopping and convenience goods) and their preference to shop from various organized retail formats; Section D covers other dimensions of shopping behaviour like purchase journey and Impulse purchases, browsing behaviour, behaviour in terms of assistance and promotions and time spent inside stores. Section E covers shopping behaviour using Smartphone.
3.7 Data Validation and Reliability

The questionnaire has been pre-tested and validated through face validity as it was administered to selected respondents and it also has a good reliability score. The internal consistency based on the inter item correlation is good in all the sections and varies from .748 to .954. Cronbach Alpha is used to verify the reliability of questionnaires. Cronbach alpha ≥ 0.70 is considered as an acceptable reliability coefficient and Cronbach alpha calculated for various statements in the questionnaire show higher consistency as for all sections reliability score is greater than .70.

3.8 Data Preparation and Analysis

Data preparation begins with preliminary check of all the questionnaires for their completeness. The data is then fed into SPSS for further analysis. The research uses descriptive statistics, Analysis of Variance (ANOVA) and factorial analysis for analyzing the data and testing the research hypotheses.

3.8.1 Analysis of Variance

Analysis of variance (ANOVA) is a set of techniques for studying the cause and effect of one or more factors (independent variables) on a single dependent variable. In the present study one way ANOVA has been used. F-test under ANOVA has been conducted to understand whether the different samples have been drawn from the populations having the same mean.

\[ F = \frac{\text{between-column variance}}{\text{within-column variance}} \]

Degrees of freedom for numerator = (Number of samples - 1)
Degrees of freedom for denominator = (Total sample size - Number of samples)

When samples are not drawn from the populations having the same mean, between-column variance tends to be large than with-in column variance and the value of F-statistics tends to be large. This leads to the rejection of null hypothesis.
The present study has used ANOVA analysis to know the significant differences among Shoppers’ preference of product and store attributes with respect to demographic profile of shoppers.

3.8.2 Factor Analysis

The technique of factor analysis provides a fascinating way of reducing the number of variables in a research problem to a smaller and more meaningful number by combining related ones into factors. It relieves the researcher from the confusion arising through overlapping measures of the same underlying variables. Moreover the cost of further research may be reduced by focusing efforts on fewer variables for study.

In the present study, factor analysis has been used for identifying the important product and store attributes of retailing.