CHAPTER 3  
METHODOLOGY  

3.1 RESEARCH PROBLEM: AN OVERVIEW  

Retail sector has played an unparalleled role throughout the world in increasing productivity of consumer goods and services. This industry has emerged as one of the fastest growing sectors in India and is, gradually ushering in a revolution in shopping in India. Retailing in India has become a national phenomenon and India have emerged as the most attractive emerging retail market: a potential goldmine.  

Organized `sector, growing at a blistering pace, is overshadowing the unorganized sector & alongside, Indian cities are witnessing a paradigm shift of retailing to the vibrant organized sector. Indian kirana shops are one of the lifelines of Indian economic system. With such a strong set up, involving a very huge amount, today’s unorganized retail sector feel problematic with a quite small but fast and steady growing organized retail.  

The prime reasons for the growth of organized retailing are increase in the rate of literacy, growing number of working women, growing middle class penetration, highly disposable income, easy availability of credit at low interest, changing lifestyles of Indian consumers, need of world class services, joyful shopping, media penetration along with the assurance of similar quality products with large ambit of price differentiation.  

The success of the market or its failure depends on the purchase behaviour of customers. Hence in the present study a comparative analysis of the purchase behaviour of organized and unorganized retail customers is undertaken in the State of Rajasthan.
3.2 LITERATURE REVIEW

Review article 1: Organized retail drives Gurgaon real estate.¹

Organized retailing has become a key driver for real estate development in Gurgaon. The article states that Speciality malls have now become common points for shopping during specific occasions such as wedding and festivals. George gonigal in his article also says that real estate developers are coming up with specialized malls that cater to customers that visit these malls for a specific product.

Review article 2: Small stores and big, organized retail can co-exist for now.²

The article underlines the fact that small stores also called kirana stores, will continue to grow alongside organized retail, albeit at a slower rate, and it might be a decade before such store owners lose business to the big retailers, providing an ample window for India to help make the smaller players part of the transition in retailing.

The author says that organized retail is a growing source of taxes to the government, which can be ploughed back to modernize traditional retail and build infrastructure to modernize the food supply chain.

Review Article 3: Consumer Perspectives on Jewellery Retail: A study of Pune city.³

Sweeping changes in Indian jewellery retail are seen as well. With branded companies making inroads into what used to be the domain of the neighbourhood traditional jeweller, the question many are asking is will the traditional jeweler like a monument stand the test of time or will he be relegated to the status of an endangered species. With this in mind, the author in the paper seeks to present consumer perspective on jewellery retail,
their views on design and price satisfaction, source of purchase, future possibilities and so on.

**Review Article 4: Retail Food Sector in India.**

‘Organized retailing’ is now in full swing in India with several large Indian corporate entering & expanding their operations. Daxini, in the paper says that the optimism in the food retail sector stems from a vibrant & growing economy, increasing purchasing power, and an increasing no. of urban consumers demanding a totally different shopping experience. This is giving an opportunity for more of U.S. food products to India. However, the success in introducing a new product in this highly price sensitive market depends on an effective pricing strategy and familiarity with India’s myriad food laws. High import tariffs and exemption from inexpensive domestic products are other challenges.

**Review Article 5: Impact Of Malls On Small Shops and Hawkers.**

In the study carried out the adverse impact of malls on the small shops was seen in Mumbai points in the form of decline in sales of groceries, food items, garments, shoes etc. of small shops ultimately rooting out the business for approximately 50% of them. Only a fraction could stand the pressure created and come up with fresh sales promotion initiatives.

**Review Article 6: The New Face Of Unorganized Retailers In India: From Convenience To Category Killer.**

The article said that the unorganized retail needs to face the organized retail by standing up stiff and one possible strong way is to become the category killers in certain products i.e. dealing in few products but having a complete range of them. This kind of approach will lead to continued survival of the unorganized retailers and also good profits for them. Also, it would help
them stand stiff as it will already add to its advantage of convenience it is giving to customers.

**Review Paper 1: Changing pattern of Consumer behaviour in Kolkata with advent of large format retail outlets.**

The objective of the paper “Changing pattern of consumer behaviour in Kolkata with advent of large format retail outlets” is to examine the activities that the consumers are engaged in malls and also to see whether the mall culture is gradually gaining acceptance among consumers along with the reasons for such acceptance. The study finds that primarily the consumers go to malls because of the great experience that they enjoy having there. The authors are also of the view that consumers also attend events, promotions, competitions and product launches that are organized in the malls and spend their leisure time with family and friends. Also, the air-conditioned environment, variety of products under one roof, status symbol along with ample of facilities, supplemented with a greater disposable income are the chief reasons that prompt them to the malls

**Review Paper 2: Factors influencing purchase of apparels from organized retail outlets.**

The paper “Factors influencing purchase of apparels from organized retail outlets” focuses about the buying behaviour function in the Indian retail market. The authors opine that people go for retail apparel brands mainly to keep themselves fashionable with latest designs available. They are more quality conscious and comparatively less price sensitive. Distinct features of organized retail outlets (i.e. discount offers, pick and choice, family shopping) are considered to be more appealing.
Review Paper 3: *Do kirana stores have a future in retail landscape.*

The paper focuses on the importance of kirana stores and emphasizes its advantages. The kirana stores are nearby the house in comparison to the malls. Moreover, credit facilities are offered by the kirana stores nearby the house which is lacking in the malls. Free home delivery and the trust that the items are fresh and reasonably priced are the other advantages. Moreover, the upper middle class families have a car and they need packaged food and also do not require credit and so malls are more preferable to them.

Review Paper 4: *Impact Of Corporate retailing on small retail outlets.*

The present study was undertaken to examine the influence of corporate retailers on small retail outlets in Cochin city of Kerala. The study refacts that even without FDI, retail in the country is growing at a giant pace overcoming the numbers of small retailers and this is adding to the unemployment problem. The things if not controlled will result in a series of social problems and may ignite violence and other crimes in the country. It further stresses that until jobs on a large scale are created in other sectors it is not wise to eliminate jobs in the organized sector.


In the concerned paper, the authors quoted that the unorganized retail has seen a decline after the entry of the organized retailers initially but over time the adverse effects have weakened. The study has also that indicated how consumers and farmers benefit from organized retailers and has also examined the impact on intermediaries and manufacturers. A survey under the period of study recommended the regulation of the interaction of the large retailers with the smaller suppliers and strengthening of the competitive response of the unorganized retailers was also recommended.
**Review Paper 6: Organized retailing in India – challenges and opportunities.**

As seen in India, Indian Corporate Houses are entering the organized retail with the view of gaining competitive advantage in the business arena. This paper focuses at analyzing the finer strategic perspectives for the retail sector and suggest ways of using them by the corporates both qualitatively and quantitatively. Also, good amount of information about the growth of retail industry in India is discussed in the paper along with examining the growing awareness and brand consciousness among the people of different classes and also the challenges faced by the retail industry are highlighted.


In this paper, the authors highlighted that with the rise in the no. of nuclear families and working women, paucity of time for shopping is there and also convenience is demanded by most of the families where the male and female are both working. This all has increased the entry to malls where one gets everything under one roof and multiplicity of choice. The sample area for the study is Pune, so the authors have studied the various parameters on the respondents of that city. The various advantages of malls over unorganized sector and vice-versa have been highlighted. Apart from the above advantages, it has been discussed that people are still inclined towards discounts which they get in malls. On the other hand, it has been highlighted that the home delivery and credit facility are also needed by people which they can get in the unorganized retail sector.

**Review Paper 8: Modernization in Indian Retailing: Managerial and Policy perspectives.**
Though a large part of the Indian retail is traditional, but the few organized players have send a wave of threat to these small retailers. The modernization of retailing in India is influenced by the fast economic development, rising incomes of people, working women, changes in the purchase behaviour of consumers and similar other things. The paper suggests that modern retail will have several implications for managerial practice in manufacturing firms and so they have to timely review their whole structure to face the pressure of the big and powerful retailers.


This paper studies the relationship between the choice of retail formats on various customer’s attributes and retail marketing strategies and reveals that youngsters prefer more of mall shopping as compared to the old age people and also rise in income level increases their purchase from modern retail formats. Also, the various attributes like trained staff, parking facility, entertainment, quality products, variety of things etc. add to the growth of organized retail sector. Further, the study helps in designing a framework for choice of modern retail formats from Consumers’ and Retailers’ Perspective.

**Review Paper 10: Diagnosing impact of malls on small shops.**

Organized retail is adding to eight percent of the employment of the country. On the other hand, the report by the govt. in the country stated that retailing is probably the primary form of unemployment in the country. That would mean that with organized retail taking over, the unemployment situation in the country would increase. The importance of the issue propelled to carry out a study in Delhi and NCR with the aim of knowing the impact of malls on small shops.

There are so many factors that are adding up to the growth of organized retail in the country like the increasing purchasing power, the changing lifestyle, more of working women, wider availability of products etc. India of today has become a hub for many foreign retailers and some have already entered the market like stores of Carrefour, Wal Mart, GAP etc. Grocery, apparel, jewellery are the categories where bright opportunities for the modern retail are existing and the traditional retailers have to face a challenge here. The proposed study covers the issues related to growth of modern retailing and the perception of traditional retailers about modern retailing.

Review Paper 12: *Effect of Organised retail on Unorganised retail in Indian retail market.*

The study conducted highlights the importance of the organized retail, the reasons of its flourishing in India and says that this trend is going to continue for next few decades as it is attracting people from all spheres, whether entrepreneurs, business heads, investors and who not. Also, it reveals organized retail to be a great employment generator. The objective of the study is to examine the nature of changes in the retail sector taking place due to organized form of retailing and its implications and to understand consumer behaviour towards organized and unorganized retail stores.

Review Paper 13: *An Insight into the Growth of New Retail Formats in India.*

India’s retail development is inevitable. The organized retailers in India are having focus on quality, service, ambience, convenience, satisfaction and warranted advantages in order that the consumers inherit their stores.
Retailers have to be compelled to verify what matches shopper demand and provide higher than competition and at an equivalent time they have to be innovative.

The worth delivery mechanism of the distributor have to be compelled to be consistent and reinforcing to maximise its whole equity, failing that, it stands the danger of dilution. The study additionally stressed that electronic selling brought an answer to the issues of getting and reaching an oversized client with the assistance of technologically driven formats leading to operational and monetary potency through economies of scale.


The book titled “Retailing Management” by Levy, Weitz and Pandit talks about the broad spectrum of retailing, critical issues in retailing, financial analysis etc. It also focuses on the use of technology in retailing, the globalization of the retail industry, the legal and several of the ethical issues confronting the retailers.

Each chapter contains interesting facts about retailing called refacts; new or updated vignettes called Retailing views to relate concepts to activities and decisions made by retailers, brief profile of the managers or the industry expert on the related topics in the chapter. The book also discusses the different types of retailers, customer buying behaviour, retail market strategy, retail locations, information systems, retail pricing and various other aspects of retailing. The Indian Retailscape and opportunities in retailing along with the social and economic significance of retailing has also been discussed.

The various aspects of retailing and the present retail scenario in the country are discussed in the book which has around 31 chapters. Moreover, detailed description of effective merchandising and merchandise display techniques that are adopted by the retailers all over the world are discussed. It stands different from other books as it has an ample amount of graphical representations. Also, it contains good number of cases in retail sector and various industry insights. The book also contains a CD which covers all the chapters in the form of a PPT.


This edition adds up the new arenas that have come in the field of retailing at both the Indian and International level at the same time giving an up to date look into the various aspects of retail. The book is segregated into five sections covering 24 chapters in all which give a detailed insight into the world of retail, and also discuss the merchandise management, strategy planning, retail management, retail infrastructure management and the upcoming technologies in the retail sector. Each chapter has the industry insights and the terminologies explained with a lot of examples.

After a thorough study of the above literature, it is found that organized retail has started strengthening its roots in the country. Because of various factors like great shopping experience, more of working women, entertainment offered, parking facility, air-conditioned malls, variety of products, discount offers, convenience while shopping etc., the people are getting inclined towards the organized retail. On the other hand, in a country like India, where in each corner of the street, the mom and pop stores, paanwala,
vegetable vendor and similar other small stores exist, the importance of Unorganized retail cannot be denied. The unorganized retail offers facilities like payment through cheque, credit facility, home delivery etc. for which it is preferred by a large customer base in the country. Thus, it is inferred that organized and unorganized retail will exist side by side in India.

**RESEARCH GAP**

Rajasthan, a big state of the country, has started seeing the presence of organized retail outlets at a fast pace during the past few years. In Jaipur, particularly, there are so many malls that have come up recently and many more are on the verge of completion. Also, the major part in the retail is dominated by the unorganized sector. There are many factors that influence the purchase behaviour of customers that need to be studied regard the purchases made from an organized or unorganized retail outlet.

**3.3 OBJECTIVE OF THE STUDY**

The present study is related to the purchase behaviour of customers of organized and unorganized retail in Rajasthan. ‘The reason to check purchase behaviour of customers is owing to the role it plays within the lives of individuals. Most of the free time is spent within the market place, searching or talking about different activities. The additional time is sometimes passed in knowing and brooding about merchandise and services, discussing with friends regarding them, and looking at advertisements associated with them. The usage of them considerably reveals one’s life designs.’ There are a number of factors that influence the purchases made by a person and the place from where they are bought. All these reasons suggest the need for study. The objectives of the study undertaken are:

- To know the significance and limitations of organized retail in Rajasthan.
• To know the significance and limitations of unorganized retail in Rajasthan.

• To study and compare the different factors that affect purchase behaviour of customers with regards to purchases from an organized retail outlet or unorganized retail outlet in Rajasthan.

3.4 HYPOTHESES

To meet the above objectives, following hypotheses are formulated and tested:

1. There is no significant difference between purchase behaviour of customers in organized and unorganized retail sector.

2. The purchase behaviour of customers with regards to buying from organized or unorganized retail is not affected by personal, psychological, social, cultural and economic factors.

3. There is no significant association between behaviour of customers regarding purchases from an organized or unorganized retail outlet and selected variables.

The selected independent variables as mentioned in hypothesis 3 for this study includes location of the outlet, frequency of visits to the stores, range, quality and prices of products available with the stores, convenience, schemes and offers, experience and services to customers while shopping, mode of payment and employees behaviour at the stores, attractiveness of advertisements and stores, parking facility and home delivery facility available at the stores.
3.5 SCOPE OF STUDY

As the word retail occupies an important place in the life of every human being nowadays, so its study becomes all the more important. People are always faced with a choice of problem regarding what to purchase and from where can they make the purchases at best price. The study is conducted with special reference to Rajasthan. Jaipur, Kota, Ajmer, Udaipur and Jodhpur are the regions undertaken for study in the state of Rajasthan. For this purpose, help of questionnaires is taken on which the results are based. The various destinations of organized and unorganized retail stores in the area covered are visited during different time periods to get the results. The study aims to study and compare the purchase behaviour of customers of organized and unorganized retail in Rajasthan and would yield results that would be beneficial for both the organized and unorganized retailers. This would ultimately help to improve the retail scenario in Rajasthan whether it is organized or unorganized.

3.6 UNIVERSE OF STUDY

A Sampling plan is a detailed outline of which measurements will be taken at what times, on which material, in what manner, and by whom. The criteria of the sampling plan undertaken is as follows:

(a) Target Population or Universe : Customers of Organized and Unorganized retail

(b) Sampling Method : Random Sampling

(c) Sample Size : 400

(d) Area of Survey : Jaipur, Ajmer, Kota, Udaipur, Jodhpur
The break up is as follows :-

**Table 3.1**

<table>
<thead>
<tr>
<th>Area</th>
<th>No. of Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jaipur</td>
<td>200</td>
</tr>
<tr>
<td>Ajmer</td>
<td>50</td>
</tr>
<tr>
<td>Kota</td>
<td>50</td>
</tr>
<tr>
<td>Udaipur</td>
<td>50</td>
</tr>
<tr>
<td>Jodhpur</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total =</strong></td>
<td><strong>400</strong></td>
</tr>
</tbody>
</table>

### 3.7 RESEARCH DESIGN

The present study is an empirical analysis of purchase behaviour of organized and unorganized retail customers with reference to Rajasthan. This is a descriptive kind of research study. The research design has been adopted so as to suit an empirical study based on primary data which is collected through direct personal interview and questionnaire is used as an instrument for this purpose. The respondents are selected on the basis of convenience sampling.

To conduct this study, 400 customers have been surveyed, 200 each of organized and unorganized retail respectively. The survey has been conducted in various localities of Jaipur City, Ajmer, Kota, Udaipur and Jodhpur.

In the present study various tools of analysis depending upon the nature, need and suitability of the data available are used to analyze and study the purchase behaviour of customers of organized and unorganized retail in Rajasthan. Chi-square test and Z-test are applied on the data collected to get
a meaningful picture and results. Findings, suggestions, limitations and the scope for further study are also discussed.

3.8 SOURCES OF DATA

While conducting the study, two types of data are used: a) primary data b) secondary data.

Primary data is collected with the help of questionnaires, discussions and observations. Also, a face to face talk with many friends and relatives while filling up of the questionnaire helped out for the purpose of study. The role of “FACEBOOK” and “Whats app” cannot be denied which helped a lot elicit response from a lot many people regarding the study.

Secondary data, on the other hand, include those data which are collected for some earlier research work and are applicable in the study the researcher has presently undertaken. There are various other similar studies that have been undertaken. A study of related literature in books and journals also helped for the purpose. Also, newspapers, magazines, articles and research papers and other sources are consulted for the purpose. The role of internet is of immense help for the study conducted. Various sites on the internet are visited and google search is also done to collect the relevant data.

The present study is mainly based on primary data i.e. all the data required for conducting this study have been obtained from the primary sources of data.

3.9 TOOLS FOR DATA ANALYSIS AND HYPOTHESIS TESTING

The data after the collection is over, is to be put in the required form and analyzed to get results out of it. There are numerous methods to do this and so it is decided in advance, which of them are to be used. In the present study, for analysis purpose statistical tools such as percentages etc. have been used. The data is put in a tabular form and pie charts are drawn on that
basis to make the comparisons between the two sectors. Again, for the purpose of testing of hypothesis 1, z- test is applied. For the z- test calculation, the weights have been assigned to the options available in the purchase decision influencers in the questions which is attached as Annexure.

For testing of hypothesis 2 and hypothesis 3, chi-square test of independence is used. It is inferred from the results of it whether the variables have an association or are independent.

Furthermore, diagrammatic and tabular representation of data makes the comparison easy. It is a very difficult task to compare data convincingly. Diagrams and charts do this job without much difficulty.

3.9.1 Z-Test

‘A statistical test used to determine whether two population means are different when the variances are known and the sample size is large. The test statistic is assumed to have a normal distribution and nuisance parameters such as standard deviation should be known in order for an accurate z-test to be performed.

A one-sample location test, two-sample location test, paired difference test and maximum likelihood estimate are examples of tests that can be conducted as z-tests. Z-tests are closely related to t-tests, but t-tests are best performed when an experiment has a small sample size. Also, t-tests assume that the standard deviation is unknown, while z-tests assume that it is known. If the standard deviation of the population is unknown, the assumption that the sample variance equals the population variance is made.’

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Calculation Of The Z-Test Value

- Calculation of mean: The mean is calculated for the given data in each question. In case of the weighted mean, the numbers are multiplied with the corresponding weight given to each category and then added and divided by the total number. The same is done for both the categories.

- Calculation Of Variance: Out of the different weights assigned, simultaneously, the mean is subtracted from each weight and then squared and finally added. For example, if the mean is 2.22 and 1.84 for two different sets and the weights assigned to the corresponding attributes is 3, 2 and 1 respectively. Then, the calculation would be as follows:

<table>
<thead>
<tr>
<th>WEIGHTS</th>
<th>MEAN</th>
<th>WEIGHTS-MEAN</th>
<th>(WEIGHTS-MEAN)^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2.22</td>
<td>.78</td>
<td>.6084</td>
</tr>
<tr>
<td>2</td>
<td>2.22</td>
<td>-.22</td>
<td>.0484</td>
</tr>
<tr>
<td>1</td>
<td>2.22</td>
<td>-1.22</td>
<td>1.4884</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL=</td>
<td>2.1452</td>
</tr>
</tbody>
</table>

VARIANCE = 2.1452/3 = .715066

Similarly, for the other set where the mean is 1.84 and the weights are again 3, 2 and 1 respectively, the variance is .692266.

- Application of Z-test: The Z-test is applied using the formula:

\[
\frac{\text{Mean}_1 - \text{Mean}_2}{\sqrt{\frac{\text{Variance}_1}{n_1} + \frac{\text{Variance}_2}{n_2}}}
\]
• **Table value of Z-test**: After calculating the value of z-test, we have to note the table value of z-test at a specific level of significance. Generally, Z-test table is noted for 5% level of significance in such cases and its value is 1.96 and the plus and minus signs are ignored.

• **Testing the Hypothesis**: The computed value of z-test is compared with the table value of z-test. If calculated value is more than the table value, the null hypothesis is rejected and it is said that there is a significant difference in both the sectors. But if the calculated value is less than the table value, the null hypothesis is accepted and it is concluded that there is no significant difference between the sectors.

### 3.9.2 Chi-Square Test

‘Chi-square is a statistical measure used in sampling analysis for comparing a variance to a theoretical variance. As a non-parametric test, it can be used to determine if categorical data shows dependency or the two classifications are independent. It can also be used to make comparisons between theoretical populations and actual data when categories are used.

The value of the chi-square statistic is given by

\[
\chi^2 = \Sigma \left[ \frac{(O-E)^2}{E} \right]
\]

Where \( \chi^2 \) is the chi-square statistic, \( O \) is the observed frequency and \( E \) is the expected frequency.

Generally the chi-squared statistic summarizes the discrepancies between the expected number of times each outcome occurs (assuming that the model is true) and the observed number of times each outcome occurs, by summing the squares of the discrepancies, normalized by the expected numbers, over all the categories. There are two types of chi-square test:
*The Chi-square test for goodness of fit* which compares the expected and observed values to determine how well an experimenter's predictions fit the data.

*The Chi-square test for independence* which compares two sets of categories to determine whether the two groups are distributed differently among the categories.  

**Method of finding the Value of $\chi^2$**

‘To test the independence of attributes in chi-square test following procedure is adopted:

- **Null Hypothesis:** Null hypothesis is adopted and it is assumed that both the attributes are independent and the difference between observed frequencies and expected frequencies is nil.

- **Calculation Of Expected Frequencies:** With the help of observed frequencies, expected frequencies are calculated for all the cells by using the following formula:

  $\text{Expected Frequencies} = \frac{\text{Total of related column} \times \text{Total of related row}}{\text{Total number}}$

  $A_1B_1 = \frac{A_1B_1}{N}$

- After calculating the expected frequencies, the difference between Observed frequencies and Expected frequencies is found out. The difference is squared and the following formula is used to calculate the value of chi-square:

  $\chi^2 = \sum \frac{(O-E)^2}{E}$
Where $\chi^2$ is the chi-square statistic, $O$ is the observed frequency and $E$ is the expected frequency.

- Degrees of Freedom: The number of degrees of freedom in a contingency table will be equal to $(c-1)(r-1)$ where $c$ refers to the number of columns and $r$ refers to the number of rows.

- Table value of $\chi^2$: After calculating the value of chi square and degree of freedom, the table value of $\chi^2$ at a specific level of significance for certain number of degrees of freedom is noted. $\chi^2$ Table comprises columns headed with symbols $X_{0.05}$ for 5% level and 0.01 for 1% level of significance while rows show the number of degrees of freedom. Generally, $\chi^2$ table is noted for 5% level of significance.

- Testing the Hypothesis: The computed value of $\chi^2$ is compared with the table value of $\chi^2$ at a particular level of significance for specific number of degrees of freedom. If calculated value is more than the table value, the null hypothesis is rejected and it is said that both the attributes are not independent and they are associated. But if the calculated value is less than the table value, the null hypothesis is accepted and it is concluded that both the attributes are independent and not associated.
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   on 3rd August 2011


   on 3rd August 2011.


on 20th April 2013.
