

A PROJECT REPORT ON
“IMPACT OF SHOPPING MALL’S ON CUSTOMERS”.

Submitted in the partial fulfilment of degree of
Master of Science in Statistics 2022-23



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CERTIFICATE

This is to certify that Miss Ekta Prakash Nimkar have done the project entitled -
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To conclude with I express my sincere thanks, to all those names I might have forgotten to add here who contributed in whatever possible way to make this work successful.

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Place: Amravati

Date:

Declaration

I hereby declare that the project work and its interpretation in the project entitled “**Impact of shopping Mall’s on customers**” has neither been submitted for any other degree or diploma of any university nor the data have been derived from any thesis/publication of any university or science organization.

Ekta P.Nimkar

Place: Amravati

Date:

Index

<u>Chapter No.</u>	<u>CONTENTS</u>	<u>Page No</u>
1	Introduction	6
	1.1 What is shopping Mall's?	7
	1.2 All about shopping Mall's	8
	1.3 History about shopping Mall's	8
2	Literature Review	12
	Review of related study	13
3	Methodology of the study	19
	3.1 Research Methodology	20
	3.2 Sample size	20
	3.3 Research ethics	20
	3.4 Statistical Tool	21
4	Data analysis & Interpretation	22
	4.1 Graphical representation	23
	4.2 Analysis	46
	4.2.1 Testing of hypothesis	51
	4.3 Calculating rank order	54
	4.4 Factor analysis	
5	Conclusion	63
6	References	67
	Questionnaire	69

CHAPTER 1

INTRODUCTION



INTRODUCTION

In 1990's people have to visit different shops for their daily needs for e.g.- for purchasing oil they have to visit oil shop, for cloths another shop where only cloths are sold, for vegetables they have to visit Bhaji Bazar. Thus, for different needs of daily life they have to visit different places, shops, mandi and so on.

But now-a-days this condition has been changed. This is only possible due to the **“Shopping Malls”**. Because of shopping malls ,people can buy all their daily needs under one roof .People does not need to buy different things from different places.

1.1 What comes in our mind when we hear the word “malls”?

In today's modern world, shopping becomes a routine part of people's life. The life style of people has been changed a lot. For the present generation of customers the meaning of shopping is also changed, since living standard of common man has been increased . Now days customers can buy whatever they want, the customers just visit a nearby malls and they will find everything available from local brand to high standard brand. Customers can buy anything like groceries, vegetables, foot ware, clothes, cosmetics, furnishings, electrical items, food product and so many other things or items. So many questions arrive in our mind that, why young people are attracted to shopping malls? The reason behind is shopping malls are really convenient because a current fashion is on display. Shopping can be done with full of enjoyment, good atmosphere, convenience an entertainment activity and comfortable shopping with their family members and friends. In shopping malls there are so many branded products available, with good quality and variety of products. In today's world, customers need different kind of products and services to satisfy their needs. Peoples need new product or we can say that different and new varieties which are all time available only at malls.

Well, the word **malls** may be stand different meanings for different people but it definitely stands for more than shopping ,food , movies, entertainment or may be for time pass . Today's shopping malls have become a part and parcel for daily life of people living in metros and big cities. India's retail sector has grown extremely from Haat-weakly bazar to sophisticated and swanky shopping malls. Shopping in India has observed drastic change in consumer behaviors and the whole format of shopping is also changed .The recent rise-in the growth of shopping malls is changing due to the way people's shops. Customers looks for facilities like cost, discount, comfort convenience, in house parking, coffee shops food courts and children play areas, when they steps out into the malls and they demand the best for everything. With shopping it is a place of hangout for young people.

Just a few years back, people had to make a choice among shopping , movies or hanging out on a holidays but thanks to our malls all these jobs can be perform at the same time ,under the same roof and with a delightful experience. Pollution free, air conditional shopping rooms and noise free areas, are all available in malls .Shopping malls have a great development in India. India won the developing markets in the worldwide economy. Over

past decade there has been an extraordinary change in the retailing area in India. Visit to shopping malls has really turned into a kind of relaxation action.

1.2 Shopping Mall's-

The term shopping mall is composed by two words precisely shopping and mall. Shopping can be characterized as the movement that includes the trading of products and facilities for cash.. According to the International Council of Shopping Centers' **shopping mall is defined** as a group of retail and other commercial establishments that have been planned, developed, owned and managed as a single property with the provision of its own on-site parking.

The mall was originally designed as a community center where people would connect for shopping culture activity and social interaction.

History

1.3 History about shopping Mall:-

Malls originated as the need for people to come together at one place to shop for products and carry out social interaction with each other. It started as a community center. **The first modern shopping mall in the world was Southdale center established in 1956 at Minnesota in the USA.**

The shopping mall usually comprises multiple stores located in one or more than one building, all of which are linked together with walkways for customers to move around. The mall would have a common entrance parking place for visitors and convenience facilities for shoppers. It is essentially an enhanced and modern version of the age-old marketplace. **The International Council of Shopping Centres has defined the shopping mall as a centre for shopping that is located in an enclosed building and has lighting and climate control for the convenience of visitors.** The mall building would have stores on one or both sides.

Components of a modern mall:-

Most of the malls across the world are present and are located in multi-storied buildings and have these four components as follows-

Food court is usually one of the major attractions of the mall where a large number of outlets selling food and beverages are located around a centrally located sitting area. The food courts generally have the most crowd in malls as almost all those visiting the malls, drop into the food court to eat /drink something.

Supermarket is a key attraction of malls. Most malls have at least one major supermarket that offers a wide range and variety of consumer products. The supermarket usually tends to act as an anchor store, which helps to get business for the entire mall. Standalone stores are also known as vanilla stores. These include retail outlets selling apparel, footwear, electronics, toys, etc. of branded companies. These are smaller stores which are spread throughout the mall.

Entertainment has today been associated with shopping experience thanks to malls .Most big malls nowadays have a Multiplex theatre where shoppers can watch the latest movies. Other entertainment options include gaming centres, areas where events are conducted by marketers etc.

1.4 Classes of malls:-

❖ Regional malls-

A regional mall as per the International council of shopping centers in the United states, a shopping mall which is designed to service a larger area than a conventional shopping mall. As such, it is typically larger with 400,000 sq ft to 800,000 sq ft gross leasable area with at least two anchors and offers a wider selection of stores. Given their wider service area, these malls tend to have higher and stores that need a larger area in order for their service to be profitable. Regional malls are also found as tourist attraction in vacations.

❖ Super regional malls-

A super regional mall as per the International council shopping center in the US shopping mall with over 8000 sq ft of gross leasable area and which serves as the dominant shopping venue for the region in which it is located.

❖ Outlet malls-

An Outlet mall is a type of shopping mall in which manufacturer sale their product directly to the public through their own stores. Other stores in outlet malls are operated by retailers selling returned goods and discontinued products, often at heavily reduced prices. Outlet stores were found as early as 1933, but the first multi store outlet mall, Vanity Fair, located in Reading PA didn't open until 1974. Belz Enterprises opened the first enclosed factory outlet mall in 1979, in Lakeland, TN ,a suburb of Memphis.

1.5 OBJECTIVES OF THE STUDY-

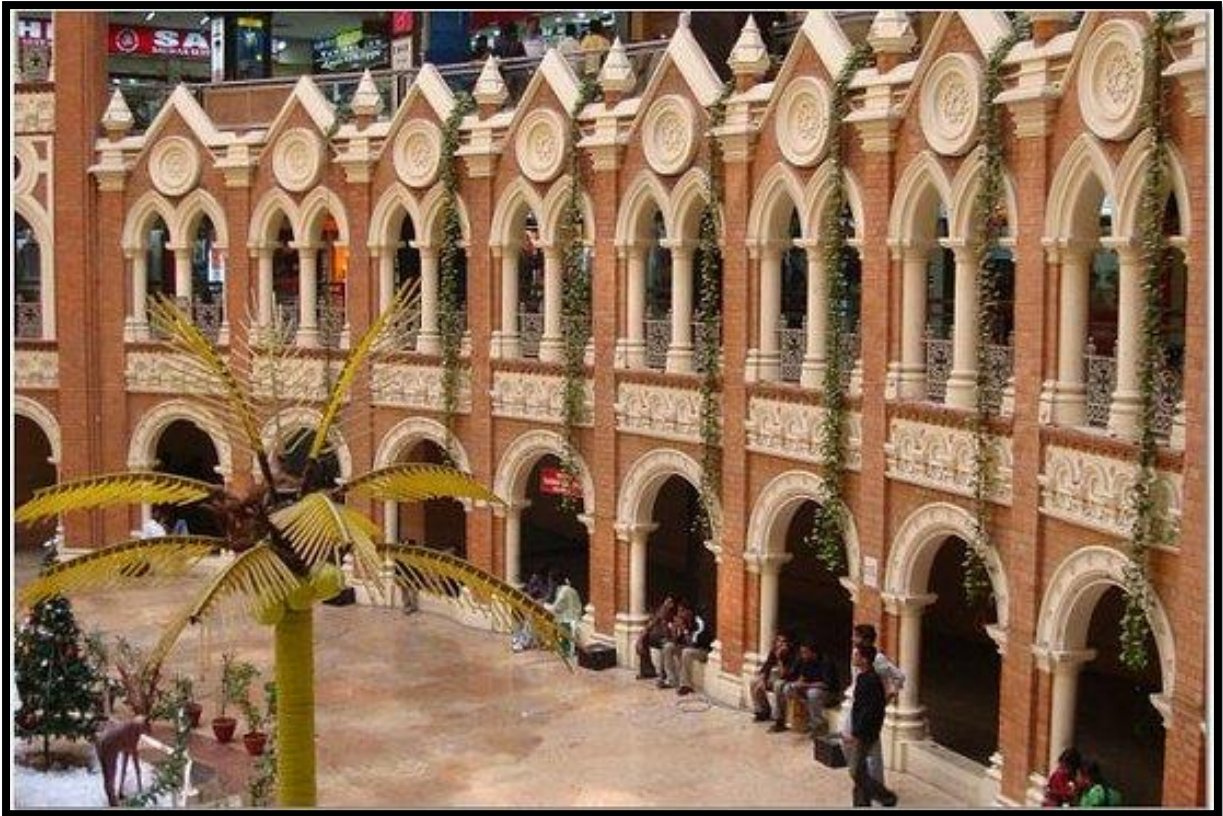
- ❖ To understand the impact of shopping malls on customers.
- ❖ To identify the buying behavior of customers
- ❖ To study the positive or negative factors which influence customers satisfaction level.
- ❖ To study the different factors that make customer visit to malls.
- ❖ To determine the relation between the mall environment and customer satisfaction in malls.
- ❖ To understand the need of shopping malls.
- ❖ To study the relation between age and repetition of visit to malls.

Research Hypothesis

- H0 – There is no association between the gender of respondents and a frequency of visit to the mall.
- H0 – There is no association between the income of respondents and a frequency of visit the mall in a year.
- H0 – There is no association between the gender of respondents and frequency of favourite store area at Mall
- H0 – There is no relationship between the age of respondents and frequency of overall experience at Mall



ALL UNDER ONE ROOF



SPENCER PLAZA

Chennai Times track the journey of Spencer Plaza from being India's first mall to its relative obscurity today ,and how the one happening place in planning to reinvent itself.

❖ This is the India's first mall.

CHAPTER 2

LITERATURE REVIEW



REVIEW OF LITERATURE-

Malls have many advantages over other format. A customer visiting a mall has access to shopping, entertainment, restaurants and it thus acts as a refreshing diversion from routine everyday activities. It offers sensory stimulation, social experiences and allows shoppers to physically compare various products across different stores (**Lucas et al,1994**).This makes them all attractive to shoppers. Many researchers have studied the Shopping Mall concept and reasons of its popularity. Some of the studies are reviewed here.

2.1 Review of Related studies

Levy and weitz(2007) have defined malls as a shopping centers where customers drive with vehicles run or walk around visiting the stores in the mall. They also state that malls are enclosed building with common walkways that connect different stores and are located in an air conditional environment. Malls have been a major attraction and have been very popular but their predecessors were the markets which were held during festival times are at some locations known as ‘melas or fairs’ (**kuruvilla and Ganguly ,2008**) This melas had many shops where visitors could buy a range of products that they needed. It also offered entertainment like games, shows and food.

Malls have been a one stop destination for shoppers, for dining, watching movies, meeting friends and shopping. They have become a place for young people to hang around and socialize. A mall has been seen as a state, within a state and is a no -fuss, no- frills, no- fool environment for customers who can’t be fooled.(**SWAMYNATH,ET AL,2013**).

Shopping mall is a group of retail business planned, developed owned and managed as a unit. Shopping malls are developed on ‘principle of cumulative attraction’ (**Nelson,1958**) according to which cluster of similar but complementary retail outlets have greater drawing power over the geographically dispersed outlets. In the initial years of their life cycle, shopping malls worked primarily as economic entities that offer a wide array of stores and merchandise to consumers at a single location (**Bloch et al.1994**)

However, to meet the changes in consumers’ needs, desires, values and lifestyles, the malls have passed through continuous adaptations in terms of their design and tenant variety (**Martin & Turley, 2004**).The initial studies on mall shopping behavior of consumers were based on retail gravitational explanation according to which consumer choice, preference or patronage decisions depends upon the shopping mall size and distance. Later on, various other characteristics were identified which affect the mall and shopper’s protection models.

Hu and Jasper (2001) investigated about the mature consumer experiences on shopping mall. In their study, they identified five major factors which were very important for experienced and mature consumers during the shopping from shopping malls. The factors which emerged in their findings were convenience, choice, crowds, ambiance, parking and shopping orientation.In the views of **Leo and Philippe (2002)**, shopping mall image is a holistic entity constituting elements, such as retail mix, infrastructure and atmosphere.

According to **McGoldrick (2002)**, the image of shopping mall is a multidimensional concept which consists of tangible or functional attributes, such as its physical features, and abstract attributes which includes its atmospheric qualities. **Yavas (2003)** produced a similar list of important attributes for shopping malls, including quality, price, cleanliness, courtesy, assortment, security, store hours, accessibility and atmosphere.

Zhuang et al. (2006) studied the impact of 13 situational factors on mall shoppers' choice including factors, such as assortment, atmosphere, convenience and quality. In a study carried out on UAE shopping malls from the shoppers' perspective, **El-Adly (2007)** found six mall attractiveness factors—comfort, entertainment, diversity, mall essence, convenience and luxury.

Hedhli and Chebat (2009) identified shopping mall's image can be measured on five dimensions including access, price/promotion store atmosphere, cross-category assortment and within category assortment. **Wendy and Sandra (2005)** studied shopping mall preferences of teens from 12 to 17 years of age. In their study, they concluded that the most important attributes in teens choice are as follows: how friendly and welcoming the mall is to teens; whether the mall contains 'cool' stores; whether it is a good place to hang out with friends.

Sujo and Phatak (2012) found the attractiveness factors of shopping malls for prospect customers. They also studied shopper's attitude and behaviour towards malls on the basis of attractiveness factors. They attempted to identify ideal constituents of shopping malls for prospective shoppers and found six attitude factors and four dimensions or characteristics considered as basics for visiting the malls.

In recent years, very few studies were reported on constituent factors of shopping malls in India. **Bailay (2003)** reported that Indian consumers prefer shopping malls as they offer easy access to all the products under one roof. **Patel and Sharma (2009)** carried out a survey to examine the shopping motivation of Indian customers and found nine factors. All nine factors covered different areas, such as economic, enjoyment, gratification, idea shopping etc., affecting motivation of Indian customers to do shopping from shopping malls.

Tiwari and Abraham (2010) discussed about economic and social contribution of shopping malls in terms of growth of the city. They also studied the role of consumer behavior towards shopping malls and found various dimensions related to mall's performance and necessary for the good management and productivity of malls.

From **Banerjee (2012)**, shopping mall image is the most important attractiveness dimension in India. Walter's (1974) definition of a consumer as an individual who purchases and has the capacity to purchase goods and services offered for sale, in order to satisfy personal or household needs, wants or desires. **Schiffman and Kanuk (1997, p. 649)** defined consumer behavior as the behavior that consumers display in searching for, purchasing, using, evaluating and disposing of products, services and ideas. For purposes of this study, consumer behavior therefore involves understanding what, why, where and how often consumers purchase. A consumer's buying behavior is influenced by

cultural, social and personal factors and according to Kotler and Keller (2009), with cultural factors having the broadest and deepest influence.

Darley and Johnson (1995) defined low-income consumers as individuals whose financial resources or income results in them being unable to obtain the goods and services needed for an “adequate” and “socially acceptable” standard of living. **Szmigin (2003)** noted that consumers are expected to respond to the temptations of the marketplace by having the latest and the best consumer goods, however the poor, who are limited in their ability to respond to these temptations have been marginalized from mainstream society and described as “unwanted”, “abnormal” and “flawed consumers” .

The **Chipp and Corder (2009)** South African (SA) pyramid indicated that there is collectivism rather than individualism at the lower levels of the SA Pyramid, which is a result of the scarcity of the brand, the irregularity of income and sometimes the absence of income. Any income received is therefore extended to cover every household member and to buy the most immediate and basic needs. BOP households in SA in 2005 spent 35% of their income on food, 10% on transport, 10% on clothing, 9% on furniture and 6% on recreation (which includes entertainment, health, alcohol, tobacco and savings (**Eighty20 report, 2009**). The majority of low-income earners have daily fluctuating rather than constant monthly incomes, which makes it difficult for them to have high once-off payment for goods and services. High income earners have access to credit therefore can exercise higher purchasing power (**SandreGhazi, 2008**). It is important to note that buying power of low-income consumers may be higher than traditional income measures portray because annual cash incomes are not always consistent with annual purchasing power (**Alwitt & Donley, 1996**).

According to **Kotler (2000)**; brands promise value to consumers and they attached psychological meanings to the brands. Brands give consumers unspoken quality guarantees, lower the costs of searching and can give prestige linked with the brand image (Webster, 2000). **Williams and Hubbard (2001)** showed that although consumers are happy to shop in discount stores, there are some who question the cheapness and value of the goods, and who are suspicious of the non-familiar brands sold in this type of store.

Jha (2003) held a conflicting view that rural buyers are on average low on brand awareness and exposure as compared to their urban counterparts. However, this is changing with improved communication, more frequent contact with the urban world and improving literacy. Rather than names, the rural world still values logos, colors and memories for brand identification. The Impact of Malls/Supermarkets on Consumer Behavior **Mitchell and Kirkup (2003)** argued that retail development is a stimulator in the regeneration of physically, socially and economically neglected areas in some parts of the UK’s towns and cities. Their view was that retail development can contribute to a new social network, safer streets, lower crime rates, better housing, easier shopping access without the need for a car, and new wealth for local services.

McIntosh (2002) concurred with this view that modern supermarket development can be a quality development, bringing improvements to landscaping, and this can contribute to an area being perceived differently. In addition, **McIntosh (2002)** stated that increases

supermarket competition arising from new retail development within disadvantaged urban areas can lead to a reduction in the real price of food. Product Benefit: Product Quality and Variety **Leather (1992)** viewed value-for-money, product quality and range as important attributes to consumers when choosing where to shop. For grocery shopping, people frequently travel greater distances to a shopping location (for example a supermarket or a collection of food retailers in a particular trading area) where there is a wider range of choice and that offers better value-for money (**Leather 1992**). However, convenient location has been validated as an important determinant of shopping mall visit frequency (**Severin, 2001**). Wide selection and sales have also been found to have a significant impact on the choice of the shopping mall (**Severin, 2001**). Demographic and socio-economic profile of Customers visiting Shopping Malls

Manohar and Ravilochan (2012) in their study have concluded that those in the age group 20-40 visited malls more and were the major customers for mall stores. Ambience, environment were key factors influencing young shoppers. **Madan and Kumari (2012)**, carried out a study in Delhi and observed the following: Majority of visitors were males; majority were in the less than 30 years age group; majority were in service profession; most of those who visited malls were graduates; majority visitors had a monthly income of less than 30000 INR; majority preferred to shop at a place close to their home. **Dash (2013)** in a study carried out on malls in Bhubaneshwar observed the following – Majority of shoppers at malls were in the age group 25-40. Most consumers shopping at mall have a degree and are well-off. Most shoppers visited malls once a month and spent 1-2 hours in the mall. Shopping and entertainment were the main reasons why shoppers visited malls. The study also revealed that the mix or type of variety in the mall had an important role to play in bringing in customers to the mall.

2.2 Mall environment and attributes

Kotler (1973) in his work alluded to the environment of a mall by using the word ‘atmospherics’. He said that the environment in the mall helped to gain attention from the visitors. It was a medium that helped to send a message to visitors and also created an effect. He has described different variables in the store environment in sensory terms. He has classified the environmental or atmospheric factors as visual (colour, brightness), aural (sound, music, volume), olfactory (sense of smell) and tactile (temperature and softness).

Lather and Kaur (2006) carried out a study where they tried to understand how shoppers behaved and related it to the various features of mall stores. According to them, price is not the main factor that a shopper would consider. A shopper would be attracted to visit a store based on how they present their offerings and the way they display their products. Their paper has highlighted the importance of location for store traffic and sales. The authors have highlighted the importance of overall **Dr. Rashmi BH: A Study of Customer Satisfaction in Shopping Malls: An Empirical Study** 107 experience in the mall for shoppers and that the mall management must create a pleasant shopping environment in the mall. For this the mall needs to use factors such as the mall layout, the lighting, airconditioning, fragrances used, background music, and other such factors.

Attributes and factors influencing Consumer Satisfaction

A key differentiator between successful organizations and other organizations is customer satisfaction. **Oliver (1997)** is one of the leading authorities who defined customer satisfaction as the buyer's fulfilment response. He has explained it as the way a customer assesses how a product or service feature, or the product or service itself is able to fulfil the needs or requirements of a shopper. The satisfaction or the contentment of the customer with the product or service is customer satisfaction.

The level of satisfaction of customers not only ensures revenues for the present and the future but it also helped to decrease the chance of customers defecting and moving to a competitor (**Anderson and Sullivan, 1993**).

Chi Bo Wong et al (2012) carried out in a survey on malls in Hong Kong. They have listed out five key shopping attributes which impact customer satisfaction. These five factors are rewards, mall environment, convenience, quality of customer services and quality of retailers. They stated in their study that these shopping attributes were the key factors that ensured that customers were satisfied. They also highlighted the importance of positive word of mouth recommendation by satisfied customers. A satisfied customer recommends the products to others, which ensures increased business for the organization. **Luo and Homburg (2007)**, have studied the relationship between the satisfaction levels of a customer and the company's performance in financial terms. They stated that the relationship between satisfaction levels of the customer and the financial performance of the company is strong. They also stated that customer satisfaction affects the efficiency of advertising and promotion efficiency and also improves its human capital performance.

Anselmsson (2006) has listed out various factors that are important and play a key role in creating satisfaction among customers. These factors include ambience, convenience, role played by personnel, food, location and various promotional events conducted. Supposing a mall is having good customer footfalls; then they can focus on existing customers and try to satisfy them and thus improve relationships. The mall management can then make use of factors like atmosphere, refreshments, convenience, the performance of the salespeople, etc. to satisfy customers. On the other hand, if the mall is not doing so well and needs to increase footfalls, then the focus should be on conducting more number of promotional activities and trying to make the location aspects attractive.

Manish and Seema (2012) in their study in retail outlets in Delhi tried to determine the factors which impacted customer satisfaction. According to the study, location, variety of products and reasonable prices influenced shoppers to visit malls. The study concluded that the probability of a customer buying products at a store increases when he/she spends more time in the shop. The longer he/she stays, the higher the chance of a sale. Therefore, focusing on product variety and competitive pricing of products would help to ensure that customers are happy and thereby help to satisfy customers.

Kursunluoglo (2014) studied how customer service would ensure customer satisfaction and thus lead to customer loyalty. He stated that services could positively affect satisfaction and loyalty. Customer Services related to the mall environment (ambience, music) influenced the satisfaction of customers, as well as their loyalty. **Rajagopal (2009)** study aimed to examine the impact of growing congestion of shopping malls in urban areas on shopping convenience and it also studied the cognitive attributes of the shopper towards attractiveness of the shopping malls and intensity of shopping. The study reveals that long term customer values are associated with shopping in malls while customers may derive short term comparative gains over price and newness of products by shopping in traditional markets surrounding large malls. The study concluded that cognitive factors among consumers in brand switching include product, attractiveness, low price, user friendly technology and easy product servicing policies of small retail outlets outside the shopping malls. The ambience of shopping, assortment of stores, sales promotion and comparative economic gains in the malls attract specific higher customer traffic to the mall.

White (2008) in his paper expressed that the customer and their lifestyles have changed, and with that, shopping centres are changing to continue to attract consumers. Entertainment centres, entertainment and destination venues, once of little significance to shopping centres and malls, are now growing in importance as an essential part of the mix, in order to attract today's consumer. **Janson Sit and Bil Mersiley (2005)** study aims to understand the shoppers satisfaction with entertainment consumption with five key constructs namely hedonic motives, functional evaluation, affective evaluation, overall satisfaction and behavioural loyalty. **Lorch and Smith (1993)** in their study concluded that customers coming from a parking lot walk straight forward to the nearest shopping mall entrance and only those shops which are immediately adjacent to this entrance benefit from it.

Rashmi, Poojary and Deepak (2016) analyse the factors influencing customer behaviour and its impact on loyalty towards shopping malls. The purpose of this paper is to study customer behaviour towards shopping malls with six important dimensions using structural equation modelling. The study concluded that the shoppers' shopping behaviour is having a positive impact on shoppers' satisfaction and loyalty.



METHODOLOGY OF THE STUDY

Methodology

Methodology is the term that involved in carrying out a study including planning, collecting data, analysing, drawing meaningful interpretations, and reporting of the project findings. We have mentioned objectives of this project in previous chapter. Various statistical methods are used for achieving the goals and interpret results of the project.

3.1 Research methodology

For collecting data a questionnaire is made considering different study variables. This questionnaire is then given to the people who visited the mall on the day of data collection. Thus simple random sampling method is used to select the person visiting the mall and data is collected using the well-designed questions.

The study aims to understand the impact of shopping malls on customers. A design is purely and simply the frame work or a plan for a study that guides the collection and analysis of data. we identify the buying behaviour of customers and what are the positive or negative impact of customer satisfaction level. with these, we determine the relation between the mall environment and customers satisfaction in malls; we derived different factors that make customers visit to the mall and what is the need of shopping Mall .

The study aims to identify the buying behaviour of customers who buy goods from shopping malls. The target group is of different age, different age group people are considered because to know whether which group of people are involved more in the shopping and which group of people is not confined to shop from shopping malls. There are 5 division of age group in the questionnaire to examine which group is going for more in shopping malls. Simple random sampling is used to collect the data.

3.2 Sample size

Determining the size of sample that is needed for a particular piece of research, for these research 300 sample size is taken.

➤ Independent variable

In this research independent variables are variable such as gender age qualification monthly family income etc.

➤ Dependent variable

In these research defined, dependent variables are variable such as when the customer visit the malls, their favourite store area and there attractive factors .

Research Tool

We used survey questionnaire to gather data from the customers. The questionnaire was sent over different online channels, including emails, social media ,and messenger services and manually by visiting malls.

3.3 Research ethics

First of all the participants voluntarily answered the questionnaire.

Moreover, it is our highest priority to keep the participant's identities anonymous. The questionnaire was constructed in a way that only basic questions were asked to ensure that no personal information including name or email can ever be revealed. I only used collecting primary data and will not be shared with any other 3rd party. Additionally, I provided

information regarding the purpose of the study at the beginning of the questionnaire. The participants got a notice that; they are at any time able to stop the questionnaire.

3.4 Statistical Tools

Statistical tools involved in carrying out a study include planning, designing, collecting, data analyzing, drawing significant interpretations, Reporting the research findings. Moreover, Microsoft Excel and statistical package for social science (SPSS) and R package software for the treatment of the gathered data are used.

1) chi square test.

2) Rank test

3) likert plot

4) Factor Analysis

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION



4.1- GRAPHICAL REPRESENTATION AND INTERPRETATION

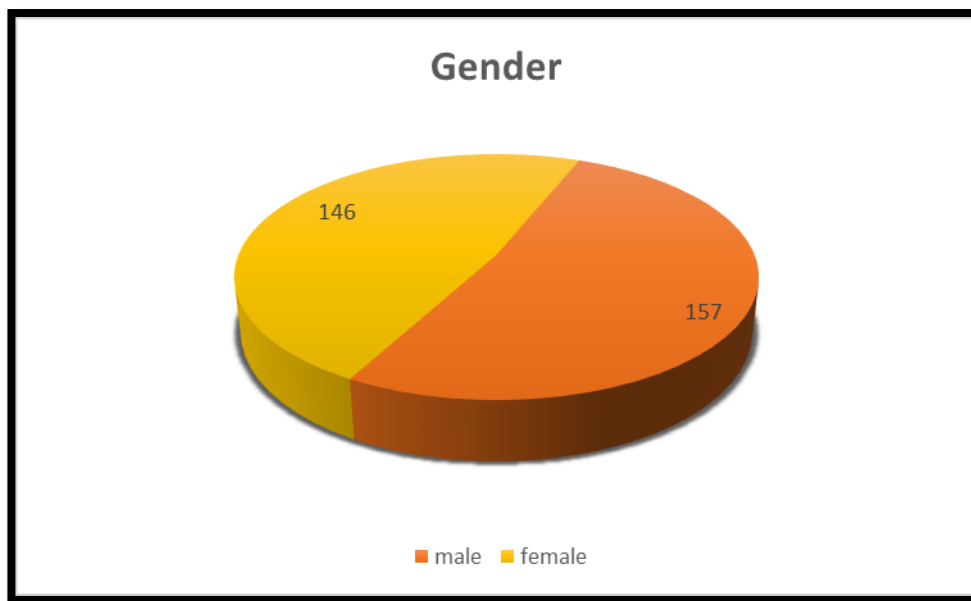
In this chapter the result of the study conducted are shown. Distribution of the respondents in terms of demographic is indicated through figures and tables .

4.1.1 Gender wise distribution of the respondents

Table 4.1.1

<u>Gender</u>	<u>No of respondents (frequency)</u>	<u>Percentage</u>
Male	157	51.80%
Female	146	48.20%

Graphical representation:



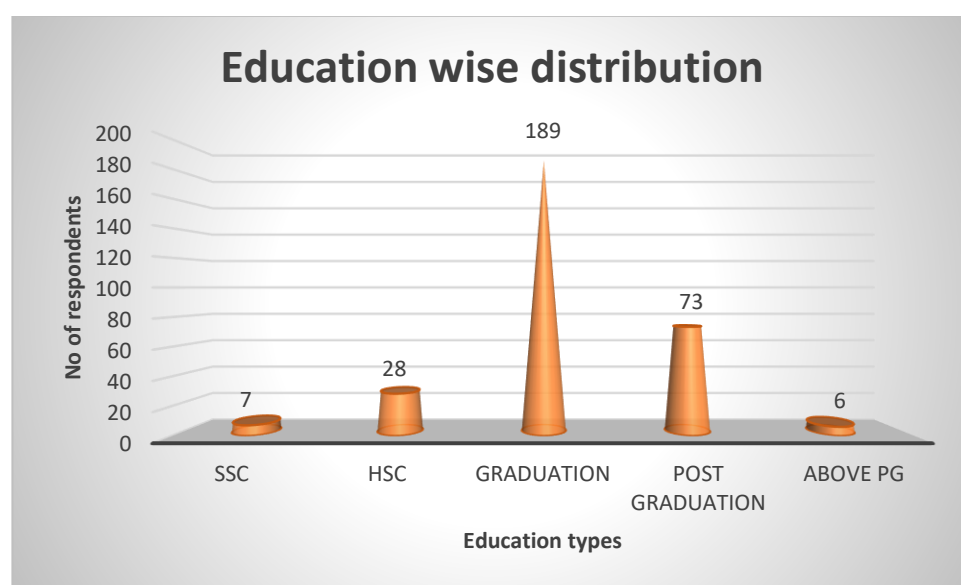
Interpretation: From above figure 4.1.1, we can see that there is total 51.8% are male and 48.2% female are respondents. Also, from the above table it is observed that out of total respondents there are 146 Female and 157 Male from all the respondent.

4.1.2 Frequency distribution of Educational Qualification:

Table 4.1.2

<u>Education</u>	<u>No of respondents (frequency)</u>	<u>Percentage</u>
Ssc	7	2.3
Hsc	28	9.2
Graduation	189	62.4
Post Graduation	73	24.1
Above PG	6	2
Total	303	100

Graphical representation:



Interpretation:

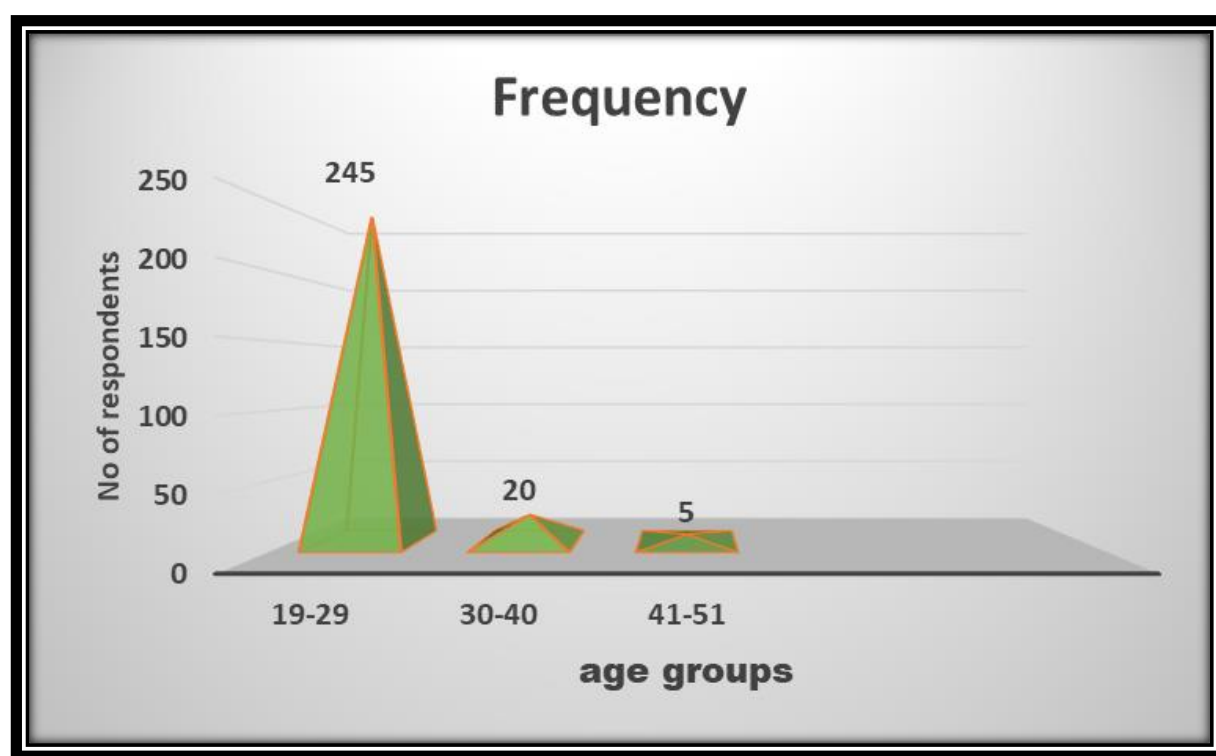
It is clear from above table 4.1.2 and the above graph that, among 303 respondents 7 of them are SSC passed (2.3%), 28 respondents are Hsc passed (9.2%), 189 respondents are Graduation passed (63%), 73 respondents are post graduates (24.1%) and remaining 6 are above PG respondents (2%) respectively.

4.1.3 Age wise distribution of the respondents

Table 4.1.3

Age	Frequency	percentage
18 or younger	33	10.9
19-29	245	80.9
30-40	20	6.6
41-51	5	1.7
total	303	100%

Graphical representation:



Interpretation:

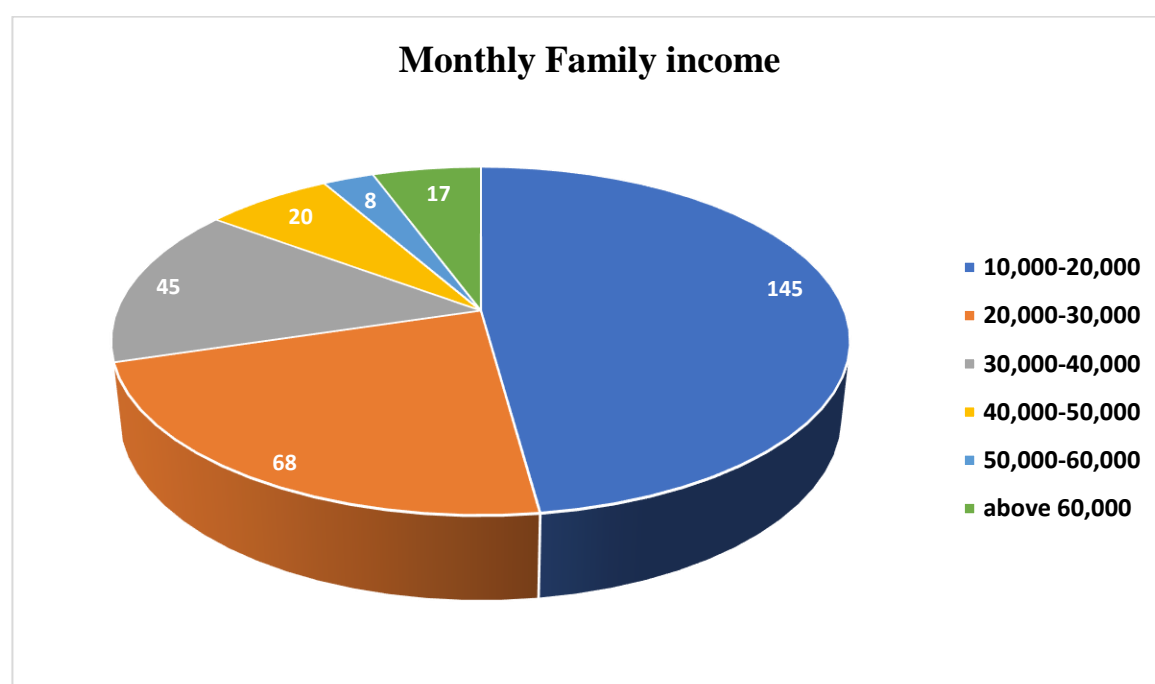
The table 4.1.3 and the graphical representation shows that, among 303 respondents, 33 of them are of age between 18 or younger's (11%), 245 respondents belong to age group 19-29 years (81%), 20 respondents belong to age group 30-40 years (6%), 5 respondents belong to age group 41-51 years (2%)

4.1.4 Frequency distribution of monthly family Income

Table 4.1.4

Income	Frequency	Percentage
10,000-20,000	145	47.9
20,000-30,000	68	22.4
30,000-40,000	45	14.9
40,000-50,000	20	6.6
50,000-60,000	8	2.6
above 60,000	17	5.6
Total	303	100%

Graphical Representation:



Interpretation:

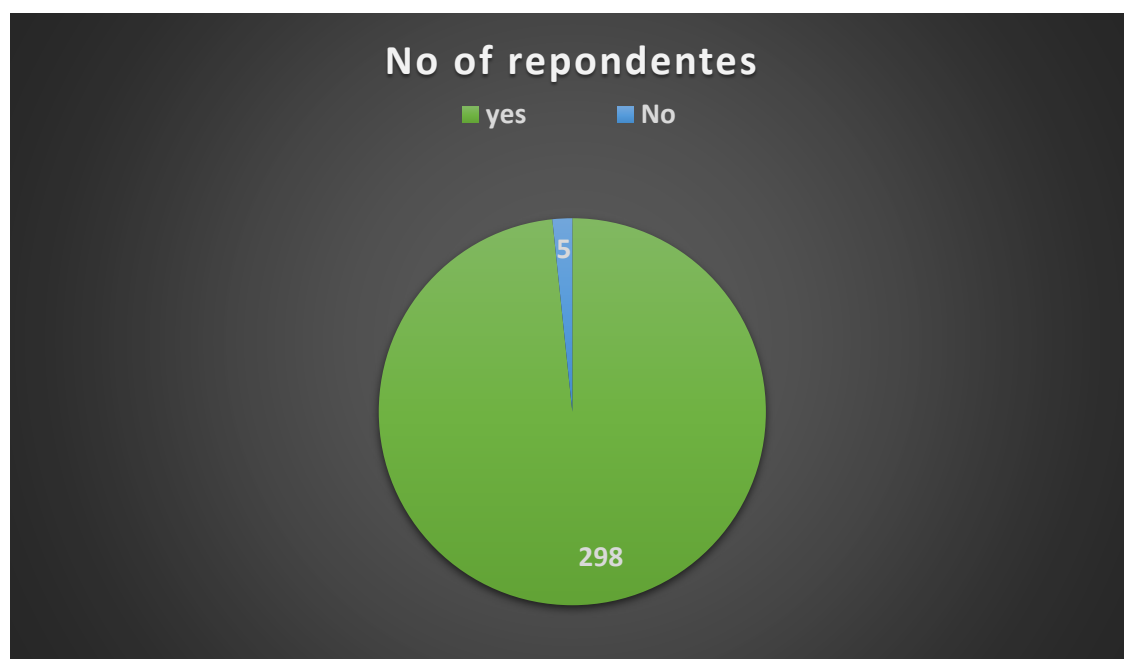
The table 4.1.4 and the graphical representation shows that, out of 303 respondents, 145 respondents have their monthly family income 10,000-20,000(48%), 68 of them have income 20,000-30,000(22.4%), 45 respondent have their monthly family income 30,000-40,000(15%), 20 respondents have their monthly family income 40,000-50,000, 8 respondents have their family income from group 50,000-60,000, and 17 respondents are belonging from above 60,000 monthly income group respectively.

4.1.5 Frequency distribution of Knowledge about shopping Mall's

Table 4.1.5

opinion	No of repondentes	percentage
yes	298	98.3%
No	5	1.7%
Total	303	100%

Graphical Representation:



Interpretation:

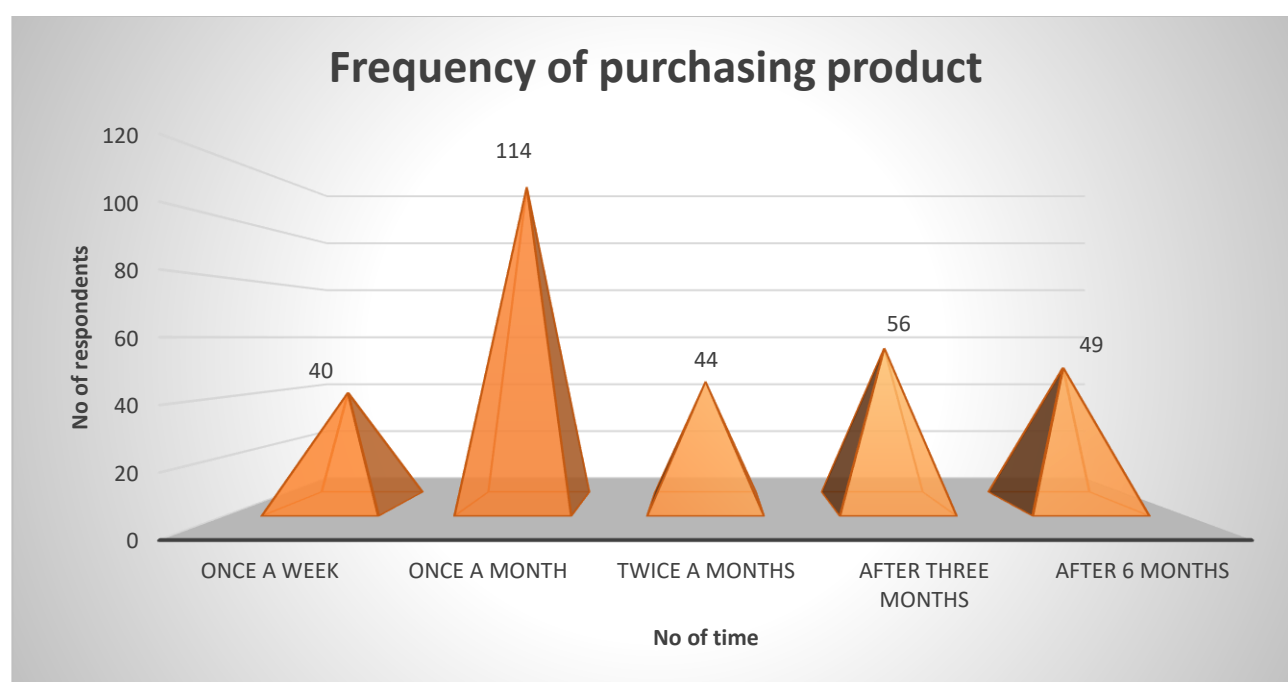
The table 4.1.5 and the graphical representation shows that, out of 303 respondents, 298 respondents are giving their response as Yes (98.3%) hence they know about the shopping malls, 5 respondents out of them given response as No (1.7%), hence they don't know about the shopping malls.

4.1.6 Frequency about ,how often you visit to the shopping Mall

Table 4.1.6:How often do you visit to the shopping Mall

Visiting Time	Frequency	Percentage
Once A Week	40	13.2
Once A Month	114	37.6
Twice A Months	44	14.5
After Three Months	56	18.5
After 6 Months	49	16.2
Total	303	100 %

Graphical Representation:



Interpretation:

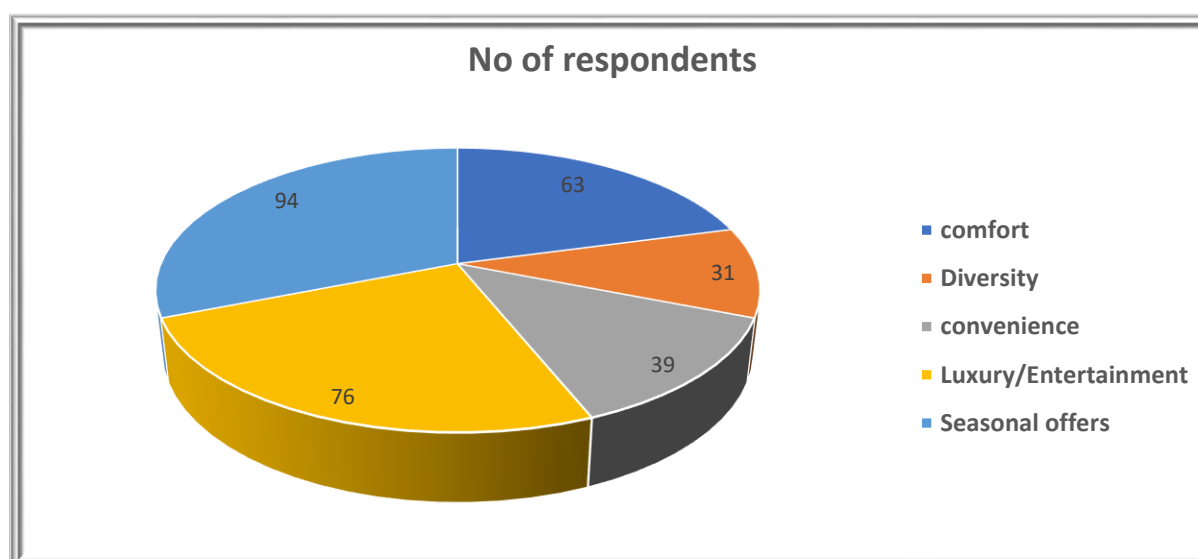
It is clear from table 4.1.6 that,40 respondents visit once in a week(13.2%), 114 respondent's visit Once a month(38%), 44 respondents visit twice a month(15%), 56 respondents visit after three months(18%), whereas 49respondents visit after six months (16%).

4.1.7 Frequency distribution about attractive things in shopping mall

Table 4.1.7: What is more attractive things in shopping malls

Atractivness	No of respondents	percenatage
comfort	63	20.8
Diversity	31	10.2
convenience	39	12.9
Luxury/Entertainment	76	25.1
Seasonal offers	94	31
Total	303	100%

Graphical Representation:



Interpretation:

It is clear from table 4.1.7 that, among 303 no of respondents, 63 customer's attracted due to mall's comfort ness(20.8%), 31 customer's more attracted because of its diversity(10.2%), 39 customer's are more attractive due to Mall's convenience(12.9%), Luxury/Entertainment are more attractive things for 76 customer's(25.1%), and 94 customer's more attracted towards the mall because of Mall's seasonal offers(31%)

4.1.8 Favourite store area at shopping Mall

Table 4.1.8: Mostly purchased goods/products from shopping Mall

Store area	Frequency	percentage
Groceries	30	9.9
Shopping cloths	138	45.5
Electronic accessories	26	8.6
Food café/restaurants	40	13.2
Entertainment area	56	18.5
Gaming shows area	13	4.3
Total	303	100%

Graphical Representation:



Interpretation:

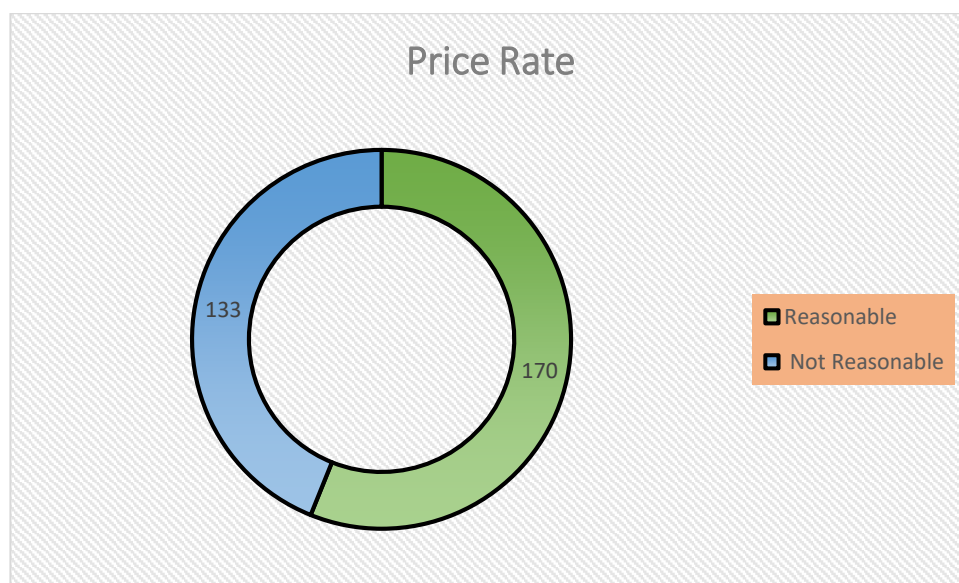
It is clear from table 4.1.8 that, Among total 303 respondents, 30 customers' favourite store area is Groceries section (9.9%), 138 customers' favourite store area is shopping cloths (45.5%), 26 customers' favourite store area is Electronic accessories (8.6%), 40 customers' favourite store area is food café/restaurants (13.2%), 56 customers' favourite store area is Entertainment area/cinema hall (18.5%).

4.1.9 Frequency distribution on Satisfaction level about the price at Shopping Mall

Table 4.1.9:how you feel about the price at the mall?

Price rate	frequency	percentage
Reasonable	170	56.1
Not Reasonable	133	43.9
Total	303	100%

Graphical Representation:



Interpretation:

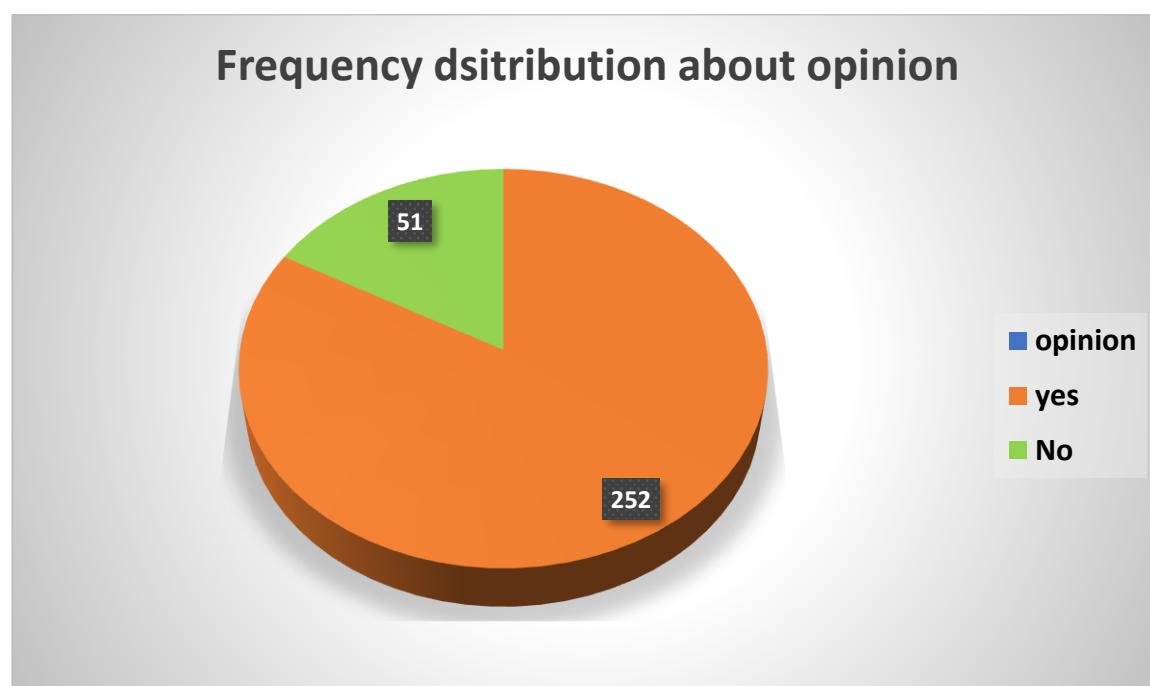
The above table 4.1.9 shows that out of 303 respondents, 170 respondents feel that the price at the Mall is Reasonable (56.1%) and 133 respondents feel that the price at the Mall is Not Reasonable (43.9%).

4.1.10 Frequency distribution about malls are affordable for high income group

Table 4.1.10:Malls are affordable for high income group

opinion	no of respondents	percentage(%)
yes	252	83.2
No	51	16.8
Total	303	100%

Graphical Representation:



Interpretation:

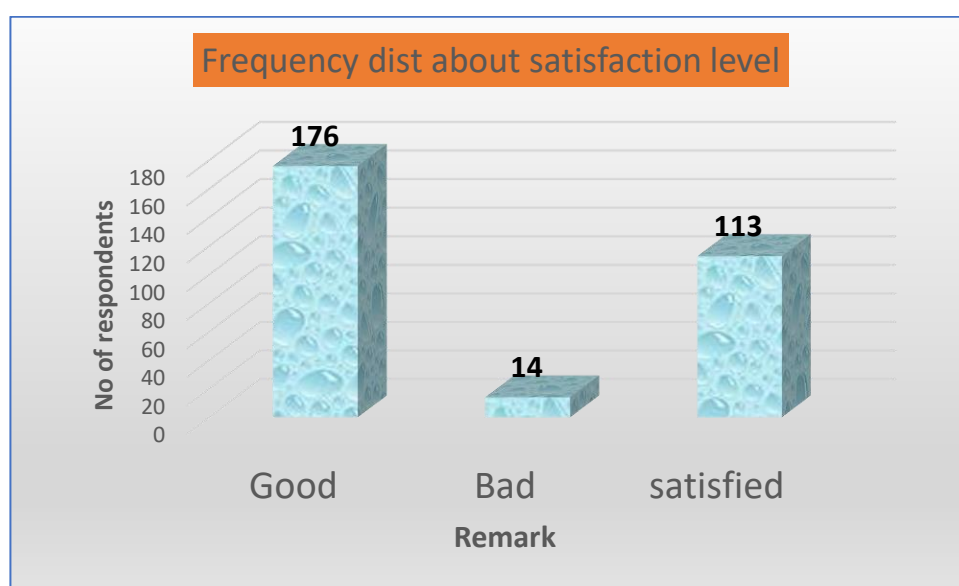
The above table 4.1.10 shows that, out of 303 respondents, 252 no of respondents are yes it means 83.2% respondents thinks that malls are affordable for high income group and 51 no of respondents are giving their opinion as No it means that 16.8% respondents thinks that malls are not affordable for high income group.

4.1.11 Frequency distribution about the overall experience when you are at the mall

Table 4.1.11: what do you feel about the overall experience when you are at the mall?

Remark	No of respondents	percentage
Good	176	58.1
Bad	14	4.6
satisfied	113	37.3
Total	303	100%

Graphical Representation:



Interpretation:

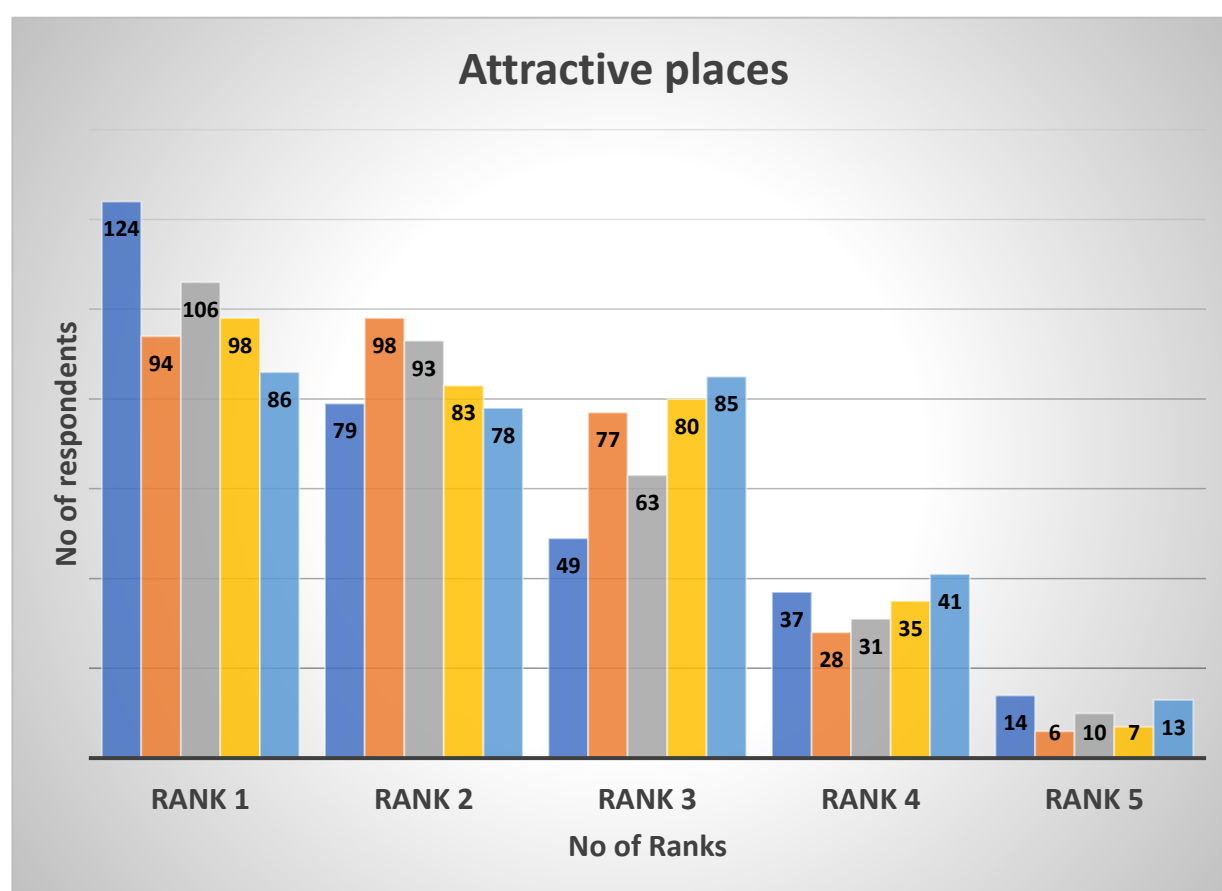
The above table 4.1.11 shows that, out of 303 respondents, 176 respondents feel good experience when they are at the mall (58.1%), 14 respondents feel bad experience when they are at the mall (4.6%) and 113 no of respondents feels satisfied when they are at the mall (37.3%).

4.1.12 Reason behind the young generation attracted towards the mall

Table 4.1.12 :why the young generation is attracted more towards the mall?

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
for good hangout	124	79	49	37	14
for branded product	94	98	77	28	6
for just entertainment	106	93	63	31	10
for good atmosphere	98	83	80	35	7
for online social media activities	86	78	85	41	13

Graphical representation:



Interpretation:

The above table 4.1.12 shows that, out of 303 respondents, 124 respondents are given **rank 1** for good hangout, 94 respondents are given rank 1 for branded product, 106 respondents are given rank 1 for just entertainment, 98 respondents are given rank 1 for good atmosphere, 86 respondents are given rank 1 for online social media activities.

Now in **Rank 2**, rank 2 is given by 79 respondents which is for good hangout, 98 respondents are for branded product, 98 respondents are for just entertainment, 83 respondents are for good atmosphere, and 78 respondents are for online social media activities.

Now in **Rank 3**, rank 3 is given by 49 respondents which is for good hangout, 77 respondents are for branded product, 63 respondents are for just entertainment, 80 respondents are for good atmosphere, 85 respondents are for online social media activities.

Now for **Rank 4**, rank 4 is given by 37 respondents which is for good hangout, 28 respondents are for branded products, 31 respondents are given for just entertainment, 35 respondents are given for good atmosphere, and 41 respondents are given for online social media activities.

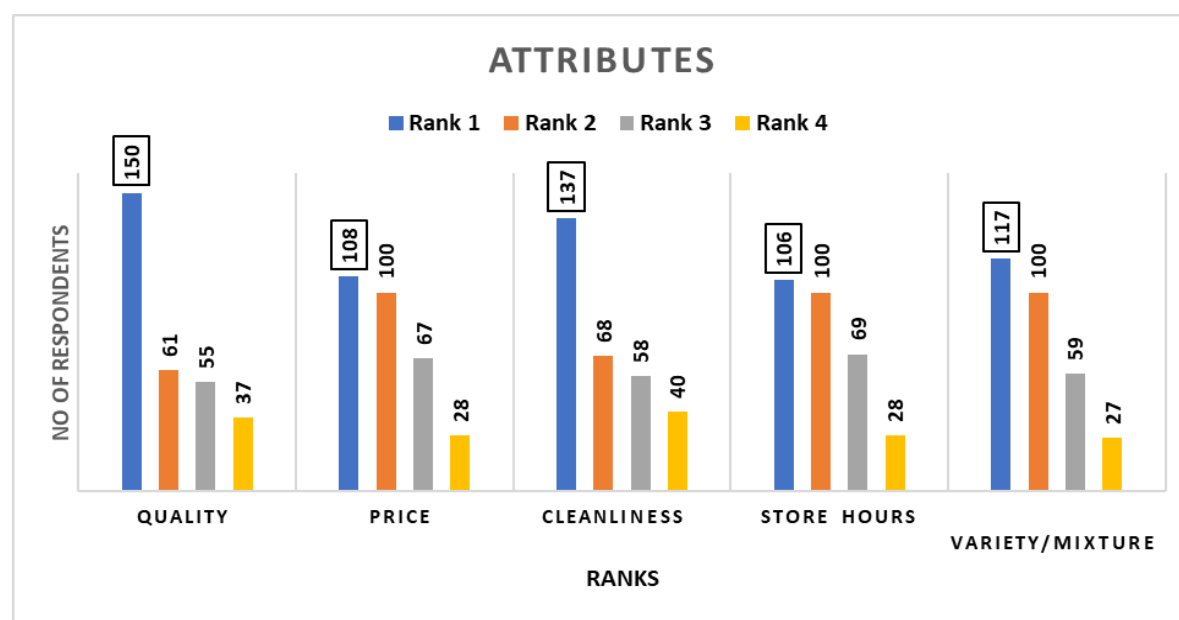
Now in **Rank 5**, rank 5 is given by 14 respondents which is for good hangout, 6 respondents are for branded product, 10 respondents are for just entertainment, 7 respondents are for good atmosphere, 13 respondents are for online social media activities.

4.1.13 Most important attributes in shopping Mall

Table 4.1.13: Which attributes are more important for you in shopping Mall?

	Rank 1	Rank 2	Rank 3	Rank 4
Quality	150	61	55	37
price	108	100	67	28
cleanliness	137	68	58	40
store opening hours	106	100	69	28
variety/mixture	117	100	59	27

Graphical Representation:



Interpretation:

The above table 4.1.13 shows that, out of 303 respondents, 150 respondents are given as rank 1 **for quality**, 61 respondents are given as rank 2 for quality, 55 respondents are given as rank 3 for quality and 37 respondents are given as rank 4 for quality .

For price 108 respondents are given as rank 1, 100 respondents are given as rank 2, 67 respondents are given as rank 3, 28 respondents are given as rank 4.

For cleanliness, 137 respondents are given as rank 1, 68 respondents are given as rank 2, 58 respondents are given as rank 3, 40 respondents are given as rank 4.

For store hours, 106 respondents are given as rank 1, 100 respondents are given as rank 2, 69 respondents are given as rank 3, 28 respondents are given as rank 4.

For store opening hours, 106 respondents are given as rank 1, 100 respondents are given as rank 2, 69 respondents are given as rank 3 and 28 respondents are given as rank 4.

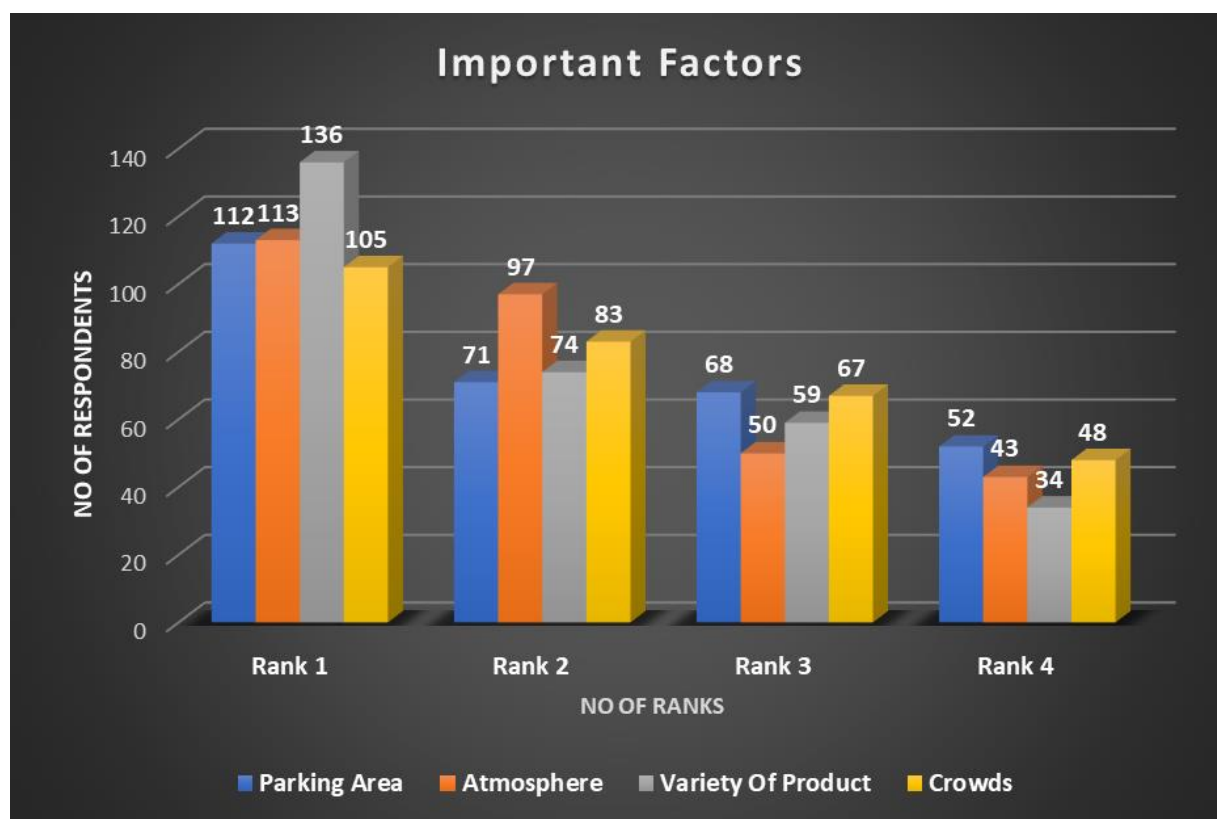
For variety/mixture/assortment 117 respondents are given as rank 1, 100 respondents are given as rank 2, 59 respondents are given as rank 3, and 27 respondents are given as rank 4.

4.1.14 Most important factors of shopping Mall for a customers.

Table 4.1.14: Important factor for you about shopping mall

	Rank 1	Rank 2	Rank 3	Rank 4
Parking Area	112	71	68	52
Atmosphere	113	97	50	43
Variety Of Product	136	74	59	34
Crowds	105	83	67	48

Graphical Representation:



Interpretation:

The above table 4.1.14 shows that, out of 303 respondents, 112 respondents are given **rank 1** for parking area, 113 respondents are given rank 1 for atmosphere, 136 respondents are given rank 1 for variety of product, and 105 respondents are given rank 1 for crowds.

Now **in Rank 2**, rank 2 is given by 71 respondents which is for parking area, 97 respondents are for atmosphere, 74 respondents are for variety of products, and 83 respondents are for crowds.

Now **in Rank 3**, rank 3 is given by 68 respondents which is for parking area, 50 respondents are for atmosphere, 59 respondents are for variety of products, and 67 respondents are for crowds.

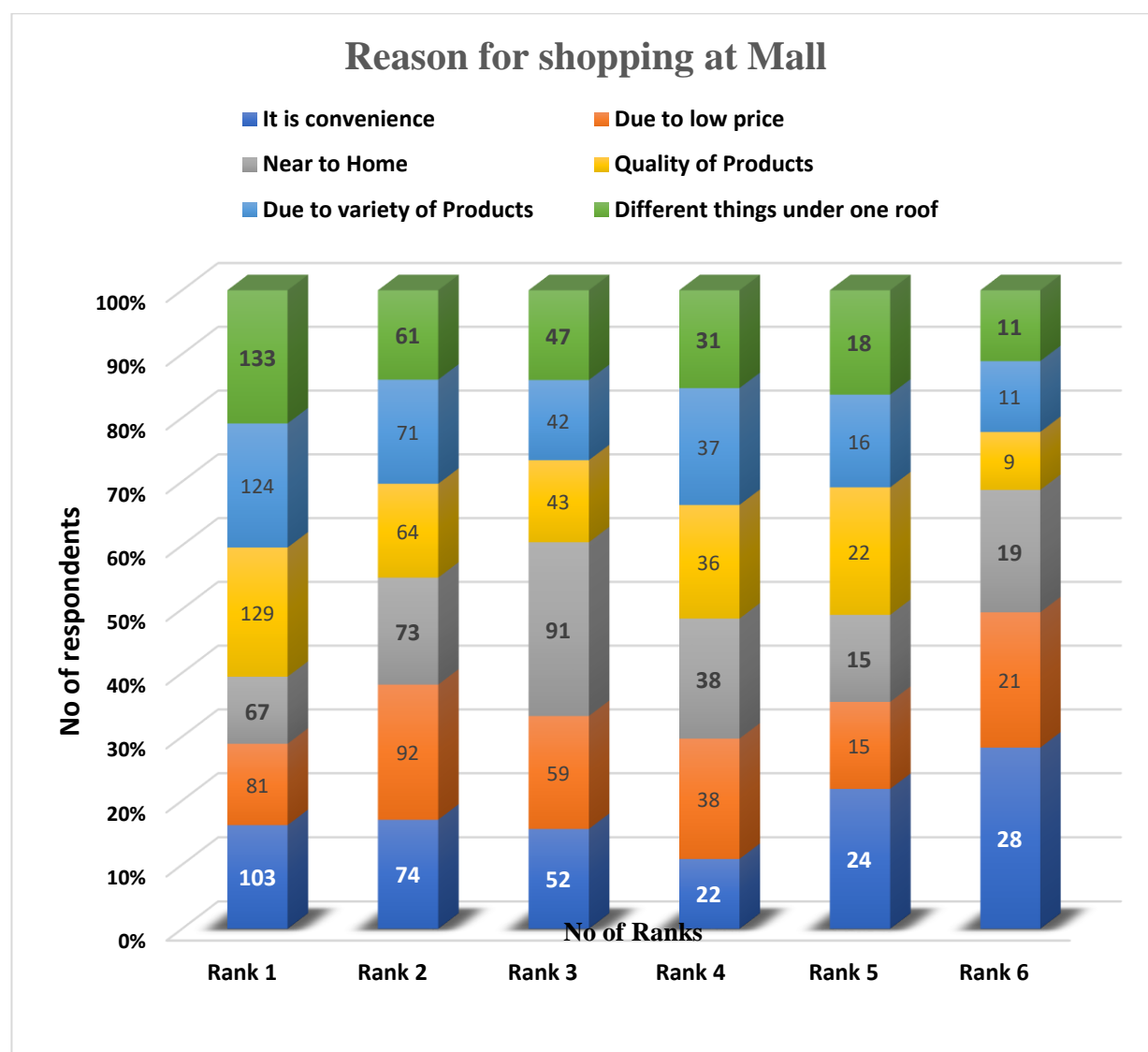
Now **in Rank 4**, rank 4 is given by 52 respondents which is for parking area, 43 respondents are for atmosphere, 34 respondents are for variety of products, and 48 respondents are for crowds.

4.1.15 Frequency distribution about the reasons for shopping at Mall

Table 4.1.15 :Reasons for shopping at Mall

Reasons	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6
It is convenience	103	74	52	22	24	28
Due to low price	81	92	59	38	15	21
Near to Home	67	73	91	38	15	19
Quality of Products	129	64	43	36	22	9
Due to variety of brands	124	71	42	37	16	11
Different things under one roof	133	61	47	31	18	11

Graphical Representation:



Interpretation:

The above table 4.1.15 shows that, out of 303 respondents, 103 respondents are given **rank 1** because Mall are convenience, 81 respondents are given rank 1 due to its low price, 67 respondents are given rank 1 because it is near to home, 129 respondents are given rank 1 for quality of products, 124 respondents are given rank 1 for variety of brands, 133 respondents are given rank 1 because all the different things are available under one roof.

Now **in Rank 2**, rank 2 is given by 74 respondents because malls are convenience, 92 respondents are due to its low price, 73 respondents because it is near to home, 64 respondents are for quality of products, 71 respondents are for variety of brands, 61 respondents are for different things under one roof.

Now **in Rank 3**, rank 3 is given by 52 respondents because malls are convenience, 59 respondents are due to its low price, 91 respondents because it is near to home, 43 respondents are for quality of products, 42 respondents are for variety of brands, 47 respondents are for different things under one roof.

Now **in Rank 4**, rank 4 is given by 22 respondents because malls are convenience, 38 respondents are due to its low price, 38 respondents because it is near to home, 36 respondents are for quality of products, 37 respondents are for variety of brands, 31 respondents are for different things under one roof.

Now **in Rank 5**, rank 5 is given by 24 respondents because malls are convenience, 12 respondents are due to its low price, 15 respondents because it is near to home, 22 respondents are for quality of products, 16 respondents are for variety of brands, 18 respondents are for different things under one roof.

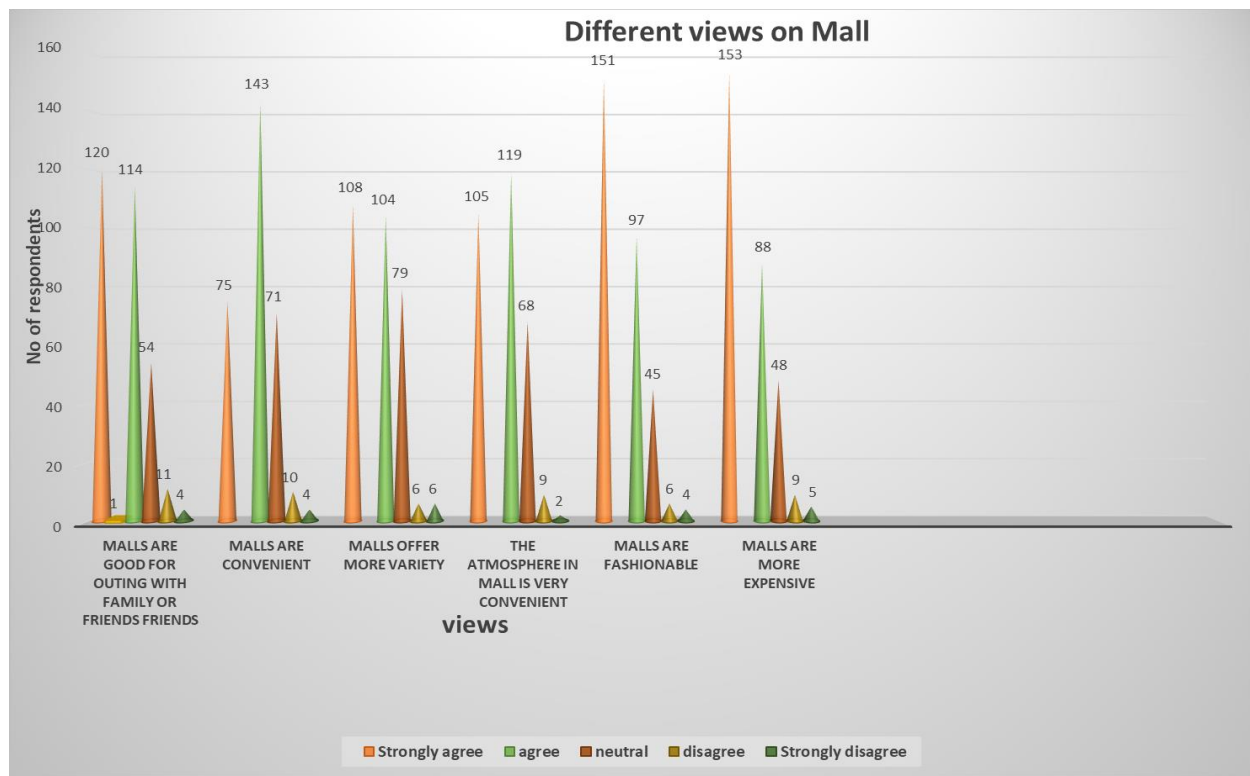
Now **in Rank 6**, rank 6 is given by 28 respondents because malls are convenience, 21 respondents are due to its low price, 19 respondents because it is near to home, 9 respondents are for quality of products, 11 respondents are for variety of brands, 11 respondents are for different things under one roof.

4.1.16 Frequency distribution about different views on shopping Malls

Table 4.1.16: your views on shopping mall.

Different views	Strongly agree	agree	neutral	disagree	Strongly disagree
Malls are good for outing with family or friends friends	120	114	54	11	4
Malls are convenient	75	143	71	10	4
Malls offer more variety	108	104	79	6	6
The atmosphere in mall is very convenient	105	119	68	9	2
Malls are fashionable	151	97	45	6	4
Malls are more expensive	153	88	48	9	5

Graphical Representation:



Interpretation:

The above table 4.1.16 shows that, out of 303 respondents, 120 respondents are **strongly agree** that malls are good for outing with friends and family, 114 respondents are **agree** that malls are good for outing with family or friends, 54 respondents are **neutral** about malls are good for outing with friends or family, 11 respondents are **disagree** about malls are good for outing with family or friends and 4 respondents are **strongly disagree** that malls are good for outing with family or friends.

Again 75 respondents are **strongly agree** that malls are convenient, 114 respondents are **agree** that malls are convenient, 71 respondents are **neutral** that malls are convenient, 10 respondents are **disagree** about malls are convenient, 4 respondents are **strongly disagree** that malls are convenient.

Again 108 respondents are **strongly agree** that malls offer more variety, 104 respondents are **agree** that malls offer more variety, 79 respondents are **neutral** that malls offer more variety, 6 respondents are **disagree** about malls offer more variety, 6 respondents are **strongly disagree** that malls offer more variety.

105 respondents are **strongly agree** that the atmosphere in malls is very convenient, 190 respondents are **agree** that the atmosphere in malls is very convenient, 68 respondents are **neutral** that the atmosphere in mall is very convenient, 9 respondents are **disagree** that the atmosphere in malls is very convenient, 2 respondents are **strongly disagreed** that the atmosphere in mall is very convenience.

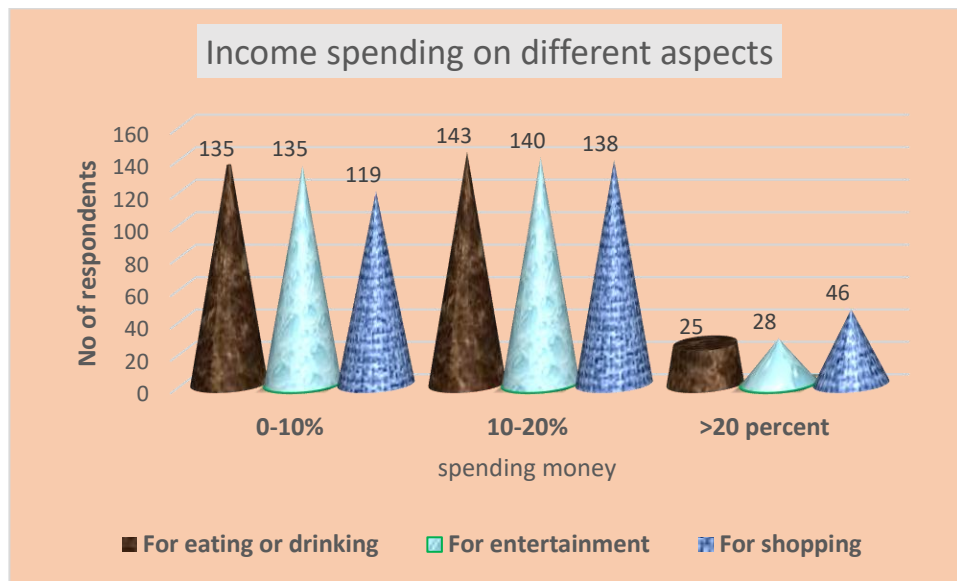
151 respondents are **strongly agree** that malls are fashionable, 97 respondents are **agree** that malls are fashionable, 45 respondents are **neutral** that malls are fashionable, 6 respondents are **disagree** that malls are fashionable, 4 respondents are **strongly disagree** that malls are fashionable.

4.1.17 Frequency distribution about your income spending for different aspects

Table 4.1.17:specify your income spending for the different aspects.

spending reasons	0-10%	10-20%	>20 percent
For eating or drinking	135	143	25
For entertainment	135	140	28
For shopping	119	138	46

Graphical representation



Interpretation:

The above table 4.1.17 shows that, out of 303 respondents, 135 respondents are spending their income upto 0-10% for eating or drinking, 143 respondents are spending their income upto 10-20% for eating or drinking and less than >20% respondents are spending their income for eating or drinking.

Now for entertainment (movies etc), 135 respondents are spending upto 0-10% income, 140 respondents are spending upto 10-20% and 28 respondents are spending less than (>20)% .

For shopping, 119 respondents are spending their income upto 0-10%, 138 respondents are spending upto 10-20% and 46 respondents are spending less than 20%.

4.2 ANALYSIS:

4.2.1 TESTING OF HYPOTHESIS:-

1-Association with gender of respondents & how often customers visit the mall in a year.

- Under the test we set up hypothesis as,
- **H0 – There is no association between the gender of respondents and a frequency of visit to the mall.**
- **H1 – There is association between the gender of respondents and a frequency of visit to the mall.**

Gender	<u>OBSERVED VALUE</u>					Grand Total
	After 3 Months	After 6 Months	Once a Month	Once a week	Twice a Months	
Female	30	32	51	13	19	145
Male	26	15	64	27	25	157
Grand Total	56	47	115	40	44	302

After performing chi square test in Ms-Excel, the below table is obtained-

Gender	After 3 Months	After 6 Months	Once a Month	Once a week	Twice a Months	Grand Total
Female	26.887	22.566	55.215	19.205	21.126	145
Male	29.113	24.434	59.785	20.795	22.874	157
Grand Total	56	47	115	40	44	302

p value 0.0104

chi sq value 0.999

df-4

From the Table, it is indicated that 115 respondents belong to Gender group usually visit **Once a month**. From the above table we can predict that as compare to female, **male** usually visit more to Mall.

Testing the claim at 0.05 level of significance i.e., $\alpha = 0.05$

P value = 0.0104

As p value < 0.05

i.e $0.0104 < 0.05$

Therefore, we reject the H_0

Interpretation:

The above decision is rejecting the null hypothesis, since the probability value is 0.0104 is less than the level of significance 0.05.

• i.e., – **There is association between the gender of respondents and frequency of visit to the mall.**

2-Association with Income of respondents & how often customers visit the mall in a year.

- Under the test we set up hypothesis as,
- **H₀** – There is no association between the income of respondents and a frequency of visit the mall in a year.
- **H₁** – There is association between the income of respondents and a frequency of visit the mall in a year.

OBSERVED						
Visiting time Income	After 3 Months	After 6 Months	Once a Month	Once a week	Twice a Months	Grand Total
10,000-20,000	28	32	49	18	18	145
20,000-30,000	9	8	33	5	13	68
30,000 & Above	19	9	32	17	13	90
Grand Total	56	49	114	40	44	303

After performing chi square test in Ms-Excel, the below table is obtained

EXPECTED						
Row Labels	After 3 Months	After 6 Months	Once a Month	Once a week	Twice a Months	Grand Total
10,000-20,000	26.799	23.449	54.554	19.142	21.056	145
20,000-30,000	12.568	10.997	25.584	8.977	9.875	68
30,000 & above	16.634	14.554	33.861	11.881	13.069	90
Grand Total	56	49	114	40	44	303

p value---0.046 chi sq. value—1df—8

From the above table it is indicated that 145 respondents belong to the income group **10,000-20,000** and they are usually visit **Once a month**. From the above table we can predict that as compare to all other income groups, the visitors are belonging mostly from the income group **10,000-20,000** and **30,000 & above**. Also, it is observed that they usually visit **Once a month** and **after 3 months**.

- **Testing the claim at 0.05 level of significance i.e., $\alpha = 0.05$**

P value = 0.046 As p value < 0.05

i.e. $0.046 < 0.05$

Therefore, we reject the H₀

- **Interpretation:** The above decision is rejecting the null hypothesis, since the probability value is 0.046 is smaller than the level of significance 0.05. i.e. **There is association between the income of respondents and a frequency of visit the mall in a year.**

3- Association with gender of respondents & customers favourite store area at Mall.

- Under the test we set up hypothesis as,
- **H0 – There is no association between the gender of respondents and frequency of favourite store area at Mall**
- **H1– There is a association between the gender of respondents and frequency of favourite store area at Mall**

Calculation in R software

```
> data <- matrix(c(10,11,20,17,89,29,45,20,13,52), ncol=5, byrow=TRUE)
> colnames(data) <-
c("electronic", "entertainmentarea", "foodcafe", "groceries", "shoppingcloths")
> rownames(data) <- c("Female", "Male")
> data <- as.table(data)
> data
```

	Electronic accessories	entertainmentarea	foodcafe	groceries	shoppingcloths
Female	10	11	20	17	89
Male	29	45	20	13	52

```
> chisq.test(data)
```

Pearson's Chi-squared test

data: data

X-squared = 39.732, df = 4, p-value = 4.917

As p value > 0.05

i.e 4.917 > 0.05

H0 is accepted.

Result: There is no association between the gender of respondents and customer's favourite store area at Mall

4- To study the relationship between the customer's age and their overall experience at the mall.

- Under the test we set up hypothesis as,
- **H0 – There is no relationship between the age of respondents and frequency of overall experience at Mall**
- **H1– There is a relationship between the age of respondents and frequency of overall experience at Mall.**

CALCULATION IN SPSS SOFTWARE

Your age belong to- * What do you feel about the overall experience when you are at the mall? Crosstabulation					
Count					
		What do you feel about the overall experience when you are at the mall?			Total
		0	1	2	
Your age belong to-	0	21	3	8	32
	1	137	9	102	248
	2	14	2	4	20
	3	3	0	1	4
Total		175	14	115	304

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.845 ^a	6	.182
Likelihood Ratio	8.863	6	.181
Linear-by-Linear Association	.051	1	.821
N of Valid Cases	304		
a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is .18.			

P value=0.182>0.05

H0 is accepted

Result : There is no relationship between the age of respondents and frequency of overall experience at Mall.

4.3 CALCULATING RANK ORDER

1] Calculating rank order for important attributes for customer's in shopping mall.

		Ranks			
<u>Attributes</u>	-	<u>Rank 1</u>	<u>Rank 2</u>	<u>Rank 3</u>	<u>Rank 4</u>
Quality		150	60	55	37
Price		106	100	68	28
Cleanliness		137	67	59	39
store opening hours		105	100	69	28
variety/mixture/assortment		116	99	60	27
Total		614	426	311	159

To calculate a summary rank ordering, the attribute with the first rank was given the lowest number (1) and the least preferred attribute was given the highest number (4). The summarised rank order is obtained with the following competition as

<u>Attributes</u>		<u>total</u>	<u>Rank no</u>
Quality	$(150*1)+(60*2)+(55*3)+(37*4)$	=583	1
Price	$(106*1)+(100*2)+(68*3)+(28*4)$	=622	4
Cleanliness	$(137*1)+(67*2)+(59*3)+(39*4)$	=604	3
store opening hours	$(105*1)+(100*2)+(69*3)+(28*4)$	=624	5
variety/mixture/assortment	$(116*1)+(99*2)+(60*3)+(27*4)$	=602	2

The total lowest score indicates the first preference ranking.

The results show the following rank ordering.

For Important Attributes For Customer's In Shopping Mall

- 1)Quality
- 2)variety/mixture/assortment
- 3)Cleanliness
- 4)price
- 5)Store opening hours

2] Calculating rank order for why the young generation is attracted more towards the Mall

	Ranks			
<u>Reasons</u>	<u>Rank 1</u>	<u>Rank 2</u>	<u>Rank 3</u>	<u>Rank 4</u>
For good hangout	24	79	49	37
For branded products	94	98	77	28
For just entertainment	106	93	63	31
For good atmosphere	98	83	80	35
For online social media activities	86	78	85	41

To calculate a summary rank ordering, the attribute with the first rank was given the lowest number (1) and the least preferred attribute was given the highest number (4). The summarised rank order is obtained with the following competition as

<u>Reasons</u>		<u>total</u>	<u>Rank no</u>
For good hangout	$(24*1)+(79*2)+(49*3)+(37*4)$	=477	1
For branded products	$(94*1)+(98*2)+(77*3)+(28*4)$	=633	3
For just entertainment	$(106*1)+(93*2)+(63*3)+(31*4)$	=605	2
For good atmosphere	$(98*1)+(83*2)+(80*3)+(35*4)$	=644	4
For online social media activities	$(86*1)+(78*2)+(85*3)+(41*4)$	=661	5

The total lowest score indicates the first preference ranking.

The results show the following rank ordering for reasons of attraction of younger generation towards Mall.

- 1) For good hangout
- 2) For just entertainment
- 3) For branded product
- 4) For good atmosphere
- 5) For online social media activities

3] Calculating rank order for important factors for customer's in shopping mall.

	Ranks			
<u>Factors</u>	<u>Rank 1</u>	<u>Rank 2</u>	<u>Rank 3</u>	<u>Rank 4</u>
Parking area	112	71	68	52
Atmosphere	113	97	50	43
Variety of products	136	74	59	34
crowds	105	83	67	48

To calculate a summary rank ordering, the attribute with the first rank was given the lowest number (1) and the least preferred attribute was given the highest number (4). The summarised rank order is obtained with the following competition as

<u>Factors</u>		<u>total</u>	<u>Rank no</u>
Parking area	$(112*1)+(71*2)+(68*3)+(52*4)$	=666	4
Atmosphere	$(113*1)+(97*2)+(50*3)+(43*4)$	=629	3
Variety of products	$(136*1)+(74*2)+(59*3)+(34*4)$	=597	1
crowds	$(105*1)+(83*2)+(67*3)+(48*4)$	=664	2

The total lowest score indicates the first preference ranking.

The results show the following rank ordering for important factors which tempt customers to drive towards mall.

- 1)Variety of products
- 2)crowds
- 3)atmosphere
- 4)Parking area

4.4 Factor Analysis

Some important factors were identified related to shopping in malls and factor analysis is carried out to group similar variables

Correlation Matrixa
a Determinant = .137

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.830
Bartlett's Test of Sphericity	Approx. Chi-Square	597.517
	Df	15
	Sig.	.000

Anti-image Matrices							
		Please give your views on Mall for following aspect [Malls are good for outing with family/friends]	Please give your views on Mall for following aspect [Malls are convenient]	Please give your views on Mall for following aspect [Malls offer more variety]	Please give your views on Mall for following aspect [The atmosphere in malls is very convenience]	Please give your views on Mall for following aspect [Malls are fashionable]	Please give your views on Mall for following aspect [Malls are more expensive]
Anti-image Covariance	Please give your views on Mall for following aspect [Malls are good for outing with family/friend	.583	-.161	-.172	-.051	-.022	-.095

	s]						
	Please give your views on Mall for following aspect [Malls are convenient]	-.161	.572	-.125	-.154	-.043	-.003
	Please give your views on Mall for following aspect [Malls offer more variety]	-.172	-.125	.581	-.095	-.128	.069
	Please give your views on Mall for following aspect [The atmosphere in malls is very convenience]	-.051	-.154	-.095	.594	-.095	-.115
	Please give your views on Mall for following aspect [Malls are fashionable]	-.022	-.043	-.128	-.095	.583	-.247
	Please give your views on Mall for following aspect [Malls are more expensive]	-.095	-.003	.069	-.115	-.247	.665
Anti-image Correlation	Please give your views on Mall for following aspect [Malls are good for outing with family/friend s]	.844 ^a	-.279	-.296	-.087	-.038	-.153
	Please give your views on Mall for following aspect [Malls	-.279	.845 ^a	-.217	-.265	-.075	-.005

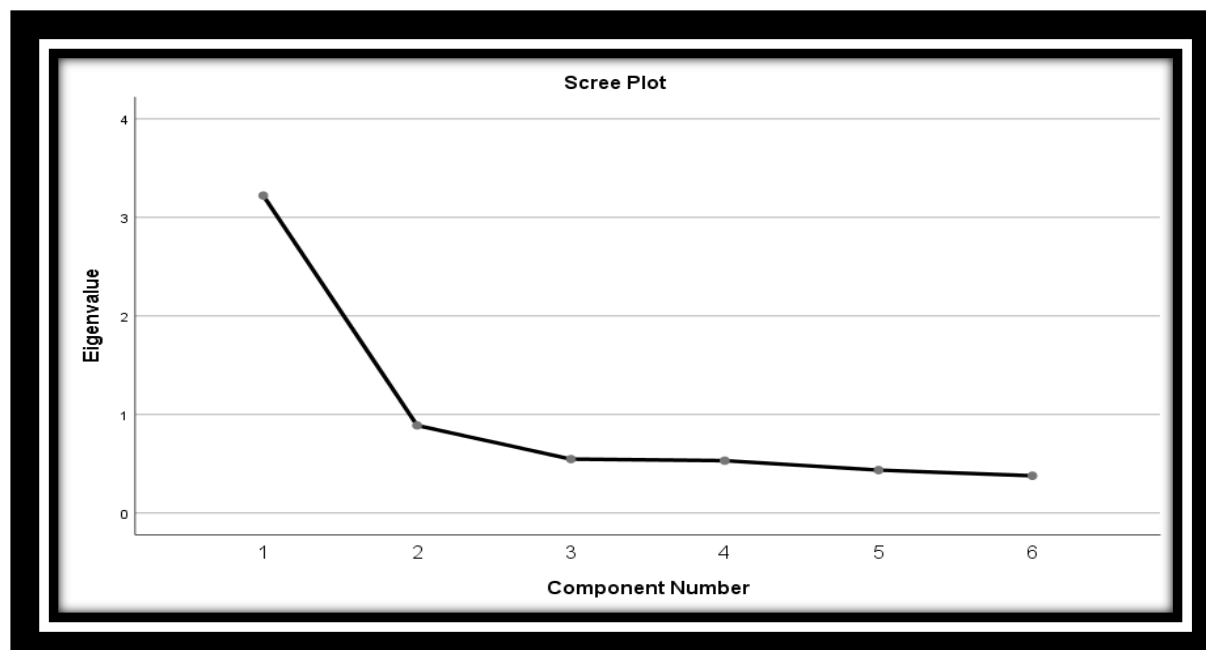
	are convenient]						
	Please give your views on Mall for following aspect [Malls offer more variety]	-.296	-.217	.825 ^a	-.162	-.220	.111
	Please give your views on Mall for following aspect [The atmosphere in malls is very convenience]	-.087	-.265	-.162	.870 ^a	-.161	-.184
	Please give your views on Mall for following aspect [Malls are fashionable]	-.038	-.075	-.220	-.161	.813 ^a	-.396
	Please give your views on Mall for following aspect [Malls are more expensive]	-.153	-.005	.111	-.184	-.396	.766 ^a

a. Measures of Sampling Adequacy(MSA)

Communalities		
	Initial	Extraction
Please give your views on Mall for following aspect [Malls are good for outing with family/friends]	.417	.504
Please give your views on Mall for following aspect [Malls are convenient]	.428	.551
Please give your views on Mall for following aspect [Malls offer more variety]	.419	.545

Please give your views on Mall for following aspect [The atmosphere in malls is very convenience]	.406	.478
Please give your views on Mall for following aspect [Malls are fashionable]	.417	.506
Please give your views on Mall for following aspect [Malls are more expensive]	.335	.655
Extraction Method: Principal Axis Factoring.		

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.221	53.680	53.680	3.221	53.680	53.680	2.383	39.724	39.724
2	.888	14.806	68.485	.888	14.806	68.485	1.726	28.761	68.485
3	.547	9.114	77.599						
4	.531	8.851	86.450						
5	.435	7.254	93.704						
6	.378	6.296	100.000						
Extraction Method: Principal Component Analysis.									



Component Matrix ^a		
	Component	
	1	2
Please give your views on Mall for following aspect [The atmosphere in malls is very convenience]	.763	
Please give your views on Mall for following aspect [Malls are convenient]	.759	-.321
Please give your views on Mall for following aspect [Malls are good for outing with family/friends]	.755	
Please give your views on Mall for following aspect [Malls offer more variety]	.741	-.370
Please give your views on Mall for following aspect [Malls are fashionable]	.739	.383
Please give your views on Mall for following aspect [Malls are more expensive]	.630	.659
Extraction Method: Principal Component Analysis.		
a. 2 components extracted.		

Rotated Component Matrix^a		
	Component	
	1	2
Please give your views on Mall for following aspect [Malls offer more variety]	.815	
Please give your views on Mall for following aspect [Malls are convenient]	.800	
Please give your views on Mall for following aspect [Malls are good for outing with family/friends]	.760	
Please give your views on Mall for following aspect [The atmosphere in malls is very convenience]	.599	.473
Please give your views on Mall for following aspect [Malls are more expensive]		.905
Please give your views on Mall for following aspect [Malls are fashionable]	.362	.750
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.		
a. Rotation converged in 3 iterations.		

Component Transformation Matrix		
Component	1	2
1	.801	.599
2	-.599	.801
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.		

Interpretation:

factor analysis is used to find factors among observed variable. In other words, if the data contains many variables, we can use factor analysis to reduce the number of variables. Factor analysis groups variables with similar characteristics together. Therefore with factor analysis we can produce a small number of factors from a large number of variable which is capable of explaining the observed variance in the large number of variables. one can reduce the factor for further analysis.

Table 1]

The first output from the analysis is a table of a correlation matrix. All we want to see in this table is that the determinant is not 0. If the determinant is 0, then there will be computational problems with the factor analysis and SPSS may issue a warning message or be unable to complete the factor analysis. And the determinant of this data is 0.830 which is greater than 0.00001. Then we suggest that the correlation matrix is not having the problem of multicollinearity.

Table 2]

Kaiser-Meyer-olkin Measure Of sampling Adequacy=This measure varies between 0 to 1 and value closer to 1 are better. A value of 0.8 is a suggested minimum. If we look at the KMO value, the KMO value is greater than 0.5 then we can perform factor analysis and KMO value of 0.830 suggest that it is very good for doing factor analysis.

Bartlett's Test of Sphericity= This is tested significant. It means the null hypothesis that the variables are not intercorrelated with each other is rejected and we assumed that we are working with a set of interrelated variable because this is one of the basic assumption that the variables should be interrelated with each other. This is also indicate that the correlation matrix is adequate.

Table 3]

Now in this table output, the thing is observed is the diagonal element of the anti-image correlation matrix is greater than 0.5 so the **BARTLETT'S TEST OF SPHERICITY** is significant and the KMO value is greater than 0.5 and the determinant is greater than 0.0001 then the correlation matrix is adequate so our data is on adequate sample size. our data consists of 6 variable so all the respondents are responded to all the 6 variables so we can proceed the factor analysis.

Table 5]

In the table of total variance explained eigenvalues are the variance of the factor. "Total" column contains the eigen values. We can observe that first 2 values are greater than 1 then the percent % of variance this column contains the percent of total variance accounted for by each factor. Then the commutative percent % columns contain the commutative percentage of variance accounted for the current and all preceding factor. For example the second row shows the value of 68.485. This means that the first 2 factors together account for 68.485 % of the total variance. Thus 2 components are effective enough in representing all the characteristics or components highlighted by the stated 6 variables.

Scree Plot:

As we see the scree plot is the plot of eigen values across the components of factor. On X axis factors are represented and on y axis eigen values are represented. so we take the

number of factors which are up of the elbow so we will retained the number of component the scree plot is suggesting that above elbow there are 2 components two dot are visible so these method is suggesting that we will have to keep only 2 factors.

Table 7]

In the table of Rotated component matrix the idea of rotation is to reduce the number of factors on which the variable under investigation have high loading Rotation doesn't change anything but makes the interpretation of the analysis easier. Looking at the table of rotated component matrix we see that the opinion about the Shopping Mall's are divided into 2 factors one is positive factor about the Shopping Mall's and another is negative factor about the Shopping Mall's.

The first component is having positive factors about shopping Mall which is [Malls offer more variety ,Malls are convenient ,Malls are good for outing with family/friends

The second components is having negative factor about shopping Mall's which [Malls are more expensive,Malls are fashionable]

The limited range factor is neglected .

The main result of factor analysis is rotated component matrix.

CHAPTER 5

CONCLUSION



❖ Findings of the study

• Descriptive Statistics

The primary objective of the study is to understand the impact of shopping malls on customers and to identify the buying behaviour of customers and to study the different factor that makes customer visit to malls and to study the relation between the age and repetition of visit to malls.

following are the important findings of the studies

- In our study the graphical representation shows that,51.8% are Male and 48.2% are females.
Male are more respondents as compare to female.
- The graphical representation shows that out of total,**62.4% are graduation** respondents which is more than all other education group.
- The graphical representation shows that out of total age group,**80.9%** respondents are more belonging to age group **19-29**.
- The graphical representation shows that from all the income groups,the more income group which is visit to shopping Mall is **20,000-30,000**.It Means that,**68(22.4%)** respondents are more.
- **Figure 4.1.5** shows that,298 respondents are **yes** i.e **98.3%** are knowing about shopping malls.
- The graphical representation shows that most of the respondents are **visiting once a month i.e 114 (37.6%)** respondents.
- The graphical representation shows that respondents are more attracted in seasonal offers 94 (31%).
- The graphical representation shows that out of ,**138(45.5%)** respondents are preferred more to **shopping clothes**,their favourite store area at mall is clothes section.
- The graphical representation shows that out of total **170(56.1%)** respondents are feel more **resonable** about the price at the mall
- **Figure 4.1.10** :Shows that,**252(83.2%)** respondents are said **yes** that malls are affordable for high income group.
- The graphical representation shows that,**176(58.1%)** respondents are feel **Good** about the overall experience at Malls.

- The graphical representation shows that out of total respondents **Rank 1** is given for **good hangout**.
- The graphical representation shows that out of total respondents **rank one** is given for **quality.i.e(150)**
- The graphical representation shows that out of total respondents **rank one** is given for **variety of products**.
- The graphical representation shows that out of total respondents,reason for shopping at mall is because the **different things are available under one roof**.
- **Figure 4.1.17:** The graphical representation shows that out of total ,more respondents are spending their income for **entertainments (movies)**.
- **From analysis:**
 - Findings from the study that, There is association between the gender of respondents and frequency of visit to the mall.
 - There is association between the income of respondents and a frequency of visit the mall in a year.
 - There is no association between the gender of respondents and customer's favourite store area at Mall.
 - There is no relationship between the age of respondents and frequency of overall experience at Mall.

From calculating rank order:

- For Important Attributes For Customer's In Shopping Mall

- 1)Quality
- 2)variety/mixture/assortment
- 3)Cleanliness
- 4)price
- 5)Store opening hours

- **The results show the following rank ordering for reasons of attraction of younger generation towards Mall.**
 - 1) For good hangout
 - 2)For just entertainment
 - 3)For branded product
 - 4)For good atmosphere
 - 5)For online social media activitie
- **The results show the following rank ordering for important factors which tempt customers to drive towards mall.**
 - 1)Variety of products
 - 2)crowds
 - 3)atmosphere
 - 4)Parking area

From factor analysis:

The positive factors about shopping Mall is Malls offer more variety ,Malls are convenient,and Malls are good for outing with family/friends.

The negative factor about shopping Mall's is Malls are more expensive,and Malls are fashionable.

The limited range factor is neglected .

The analysis of the project is on the basis of data visualization and statistical analysis. From it we can conclude that, Male visit more to the shopping Malls as compare to female, and their favourite store area is shopping cloths. From the analysis it is concluded that mostly graduates respondents are intrested in shopping mall ,and most of the young generation is attracted more towards the shopping mall for good hangout. It is clearly indicate that todays young generation are more attracted towards the Malls for their daily social activities and also for good hangout.

The impact of shopping malls on customers is good because out of total respondents more respondent's overall experience is good and satisfied. customer's indicates that shopping malls are affordable for high income group and it is profit oriented.

For customers there are so many differents importatnt attributes but most important attributes is the Quality of the product. This indicates the buying behaviour of customers.

Customers feels that the price of the shopping malls are resonable for high income group and it is not resonable for low income group. From all the observation it is observed that different factors are helpful for customers to buy the product. Parking area and the atmosphere of shopping are most important factors in the shopping centre but the reason behind customers visit to the shopping mall is the availability of variety of different products. From the observation it is concluded that most of the customers are visit to the shopping mall's just because of there are so many varieties of products are available under only one roof customers didn't have to go anywhere for any different kind of product.

Hence from all the observation it is concluded that the customer's are satiesfied due to shopping Mall

CHAPTER 6

REFERENCES



WEBSITES:

1. <http://www.wikipedia.com/>
2. <http://www.statisticssolutions.com/>
3. <http://www.stattrek.com/>
4. <https://sgsubjects.inflibnet.ac.in/>

Books and Research Papers:

- 1) "Fundamental of Mathematical Statistics" by S.C Gupta and V.K. Kapoor
- 2) "SPSS for Windows-Step by Step" by Darren George and Paul Mallery
- 3) "Research methodology" by C.R. Kothari.
- 4) Vinotha, Dr.M.Gurupandi (2020): "Impact Of Shopping Malls Services On Customers Satisfaction In Chennai City"-- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(6). ISSN 1567-214x. PJAEE, 17 (6)(2020).
- 5) Dr. Rashmi BH (2021): "A Study Of Customer Satisfaction In Shopping Malls": An Empirical Study-- International Journal of Advanced Research in Commerce, Management & Social Science 105 ISSN : 2581-7930, Impact Factor :5.880 Volume 04, No. 02(II), April - June, 2021.
- 6) Ashvin Kumar (2017): "A Study on the Factors Affecting Consumer Behavior While Shopping At Shopping Malls" -- International Journal of Scientific & Engineering Research Volume 8, Issue 10, October-2017 ,ISSN 2229-5518.
- 7) Nikitha B, Kirubakaran K(2018): "Consumer Behaviour in Shopping Mall in India : An Economic Analysis"-- International Journal of Pure and Applied Mathematics Volume 120 No. 5 2018, 3443-3451 ISSN: 1314-3395.
- 8) Sri Debsena Garai(2022): "Customer Behaviour in Shopping Malls "- A Study in Bardhaman District (Purba and Paschim)". -- Sidho-Kanho-Birsha University, Purulia, West Bengal © 2022, IJRTI, Volume 7, Issue 5 ,ISSN: 2456-3315.
- 9) C. O. Iroham, O. M. Akinwale, A. O. Oluwunmi, H. I. Okagbue, O. D. Durodola, C. A. Ayedun, M. E. Emetere, J. N. Peter(2019): "Influence of Facilities on Patronage of the Various Shopping Malls in Ibadan, Nigeria"-- International Conference on Engineering for Sustainable World Journal of Physics: Conference Series 1378 (2019) 032052 IOP Publishing doi:10.1088/1742-6596/1378/3/032052.
- 10) K.Girija, Dr.G.Ravi(2018): "Impact Of Shopping Pattern On Mall Consumers Attitude"-- International Journal of Research and Analytical Reviews,(E-ISSN 2348-1269, P- ISSN 2349-5138).
- 11) Lebogang Mokgabudidit (2011): "The impact of shopping mall developments on consumer behaviour in township areas"-- Gordon Institute of Business Science, University of Pretoria

Questionnaire-

1)Email-

2)Gender-

- ☐ Male
- ☐ Female

3)Education/ qualification-

- ☐ Ssc
- ☐ Hsc
- ☐ Graduation
- ☐ Above

4)your age belong to-

- ☐ 18 or younger
- ☐ 19-29
- ☐ 30-40
- ☐ 41-51
- ☐ 52 or above

5)your monthly income-

- ☐ Below 10,000
- ☐ 10,000-20,000
- ☐ 20,000-30,000
- ☐ 30,000-40,000
- ☐ 40,000-50,000
- ☐ Above 60,000

6)do you know about the shopping malls?

- ☐ Yes
- ☐ No

7)when you visit the mall?

- ☐ Once a week
- ☐ Once a month
- ☐ Twice a months
- ☐ After three months

8) Which is your favourite store area at mall?

- ☐ Groceries
- ☐ Shopping clothes
- ☐ Electronic accessories
- ☐ Food café/restaurants
- ☐ Entertainment area
- ☐ Gaming shows area

9) How do you feel about the price at the mall?

- ☐ Reasonable
- ☐ Not reasonable

10) What is more attractive in shopping mall?

- ☐ Comfort
- ☐ Diversity
- ☐ Convenience
- ☐ Luxury / entertainment

11) How do you feel about the overall experience when you are at the mall?

- ☐ Good
- ☐ Bad
- ☐ Satisfied

12) Is it affordable for high income group?

- ☐ Yes
- ☐ No

13) Is it profit oriented?

- ☐ Yes
- ☐ No

Rank the below questions for ex-1,2,3,4

14) Why the young generation is attracted more towards the mall?

- ☐ For good hangout
- ☐ For branded products
- ☐ For just entertainment
- ☐ For good atmosphere
- ☐ For online social media activities

15) Which attributes are more important for you in shopping mall ?

- ☐ Quality
- ☐ Price
- ☐ Cleanliness
- ☐ Store hours
- ☐ Assortment/ mixture/ variety

16) which factor is important for you about shopping mall?

- ☐ Parking area
- ☐ Atmosphere
- ☐ Variety of products
- ☐ Crowds

17) why do you usually shop from shopping mall?

- ☐ Because it is convenience
- ☐ Due to low price
- ☐ Near to home
- ☐ Quality of products
- ☐ Due to variety of products

18) is there any reduction in your income gross savings after the arrivals of malls?

- ☐ No difference
- ☐ Marginal /very small difference
- ☐ Huge reduction
- ☐ Increase in savings

19) please give your views on malls for the following aspects

Tick  sing below

	Strongly agree	agree	neutral	disagree	Strongly disagree
<i>Malls are good for outing with family/friends</i>					
<i>Malls are convenient</i>					
<i>Malls offer more variety</i>					
<i>Malls are hygienic</i>					
<i>Malls offer value for money</i>					
<i>The atmosphere in malls is very convenience</i>					
<i>Malls are fashionable</i>					
<i>Malls are more expensive</i>					

20)Please specify your income spending for the following with respect to a mall

Spending Reason	0-10 PERCENT	10-20 PERCENT	>20 PERCENT
For eating or drinking			
For entertainment (movies etc)			
For shopping			

21)your overall opinion about Mall- _____

