

A STUDY ON CONSUMER BUYING BEHAVIOR IN DIGITAL ERA WITH REFERENCE TO NAGPUR CITY

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Abstract

Consumer buying behavior represents the decision of purchasing taken by the consumer after considering the factors which influence their decisions. In digital era social media, e-commerce, digital payments etc. factors affect the decision of buying of consumers. To understand the consumer behavior in this digital era is very much essential to companies. The changing consumer behavior due to changes in technology provides many opportunities and challenges for the business. The introduction of online shopping apps, its marketing strategies, services provided by the online shopping apps, discount, convenience, facilities provided by online shopping apps are responsible for changing consumer behavior.

The main objective of this study is to understand the factors which influence the customers to use online shopping apps, the satisfaction level of the consumers after using and purchasing the product from online shopping apps and to know the level of changes accrued in consumer buying behavior. The role of social media and marketing strategy adopted by the online shopping apps are also essential to change the consumer buying behavior. The role of technology and innovation bringing facilities for the consumers like save in time and cost. These factors are also important while considering the consumer buying behavior.

This study is based on the primary data which has collected through questionnaire, personal interviews and discussion with the respondents. The responses of 206 respondents have been considered for this study. The secondary data is also been collected from the books, newspapers, online news, websites of companies, publication of research etc. The conclusion of the study has been drawn by using frequency analysis, percentage and T-test using SPSS software. This research paper identified the reasons of changing buying behavior of consumer. The role of technological advancement and innovations in changing buying behavior and how e-commerce companies are playing with emotions of consumers by adopting the various marketing strategies based on the psychology of the customers.

Keywords: Online shopping apps, digital era, consumer buying behavior, buying habits, technology and innovation, marketing strategy etc.

Introduction

Digital era represents the era of innovation of new technology which changes the human behavior and reduces their work as well as efforts. Computers, smartphones, internet, social media etc. are some examples of the digital technologies. Due to changes in technologies many e-commerce companies introduced in the market which offered buying and selling the goods and services by using the computer and internet. Over the period of time the introduction of smartphones replaced the computers and e-commerce changed into the m-commerce.

Amazon, Flipkart, Alibaba, eBay, Walmart, Shopify, Etsy, Rakuten etc. are some e-commerce companies offered their goods and services to customers online. Now they have provided their mobile apps which helps them to reach large number of customers because of easy way of operations and easy assessable. The awareness of such online shopping apps, its marketing strategies, popularity etc. is increasing day by day and most of the customers are trying these apps to buy any kind of product through theses online apps. The facilities and services provided by these online apps gradually changing the consumer buying behavior.

The online shopping apps are useful to save the time of the customers. The customers need not to visit any shop personally they can visit the apps see all the details of the product, compare the price and give the order of the product. Within the day or two the product reach to the customers place and subscription of premium services offers the same day delivery of the product. These online shopping apps offers the variety of the products of different price range, variety of colors, variety of brands which give the wide range of choice to the customers. The

customers can opt the online payment service, cash on delivery service at the time of purchase. Easy exchange and easy return policy of the company gives the full satisfaction of shopping to the customers.

The marketing strategy adopted by the online shopping apps companies is helpful to attract large number of customers. Sales, festival offers, discount, rewards, referral system etc. facilities are helpful to save the cost of product for the customers. The willingness of saving the price attracts customers to use the online shopping apps. The social media, social factors, economical factors, educational factors such factors also influence the buying behavior of the customers.

Literature Review

The present research paper reviewed the following literatures

Vijay Bahadur Pal and Purnima Kumari (2023), written a research paper on topic “**Consumer buying behavior towards online shopping apps: An empirical study on Patna city, Bihar, India**”: In their research paper they focused on the consumer habits while using internet shopping and to determine the factors which motivates the customers to purchase online. They have collected the data from 50 respondents of Patna city through questionnaire. The collected data presented by bar diagram and pie chart and used the percentage method as statistical tools. In their research they found that the behavior of consumer for online shopping is influenced by various factors like price, convenience, type of product, quality of product and so on.

R. Vijayalakshi, Dr. T. R. Gurumoorthy, G. Lingavel and K. Praveenkumar (2020), written a research paper on topic “**Consumer buying behavior through online shopping applications in fast moving consumer goods** ”: In their research paper they focused on identify the consumer buying behavior through online shopping applications. They have collected the data by using primary methods of data collection. They have collected responses from 320 respondents. They have used weighted average method, factor analysis method, correlation and descriptive statistics to draw the conclusion. As per their conclusion the brand name, product details, price and general awareness of the product are major factors which influence the consumer behavior for online shopping.

Waqar Ahmed (2024), written a research paper on topic “**A study on impact of digital marketing on consumer buying behaviour**”: In his research paper he focused on the importance of digital marketing and impact of digital marketing on consumer buying behavior. His research paper was based on the secondary data. As per their conclusion the India consumers are more information seekers and they need truthful information. The electronic media is helpful for dual communication among the product and customers. Now a day consumers are more fondness to electronic media than any other media. Electronic media assist to shape the result of product appraisal in impartial meeting.

Aakash Alwani, Suryakanti Yadao and Tushar Pradhan (2021), written a research paper on topic “**A study of Consumer behavior towards online shopping in Vadodara city**”: In their research paper they focused on consumer perception towards online purchasing, online mode of payment and to identify the preferred online shopping websites. They have collected data from 100 respondents through online questioner by convenience sampling method. As per their conclusion the customers are satisfied over the online shopping as compare to retail stores. The customers are more prefer online shopping for the cloths, electronic goods and grocery. The situation of Covid-19 was more responsible for shifting the consumer behavior from retail shopping to online shopping.

Miss Anushka Kumawat and Dr. Urvashi Bhamboo (2021), written a research paper on topic “**digital marketing and consumer buying behavior: An empirical study**”: In their research paper they focused on impact of digital marketing on consumer buying behavior, which product generally buy by consumer through online mode and how consumers are influenced by digital marketing. Their study was manly based on secondary data. As per their conclusion the traditional promotional tools are much costlier than the digital tools, the technology plays an important role in promoting product in digital era and digital marketing is more effective as compare to offline marketing.

Arun Mishra (2023), written a research paper on topic “**Understanding consumer behavior in the digital age: A study of online shopping habits**”: In his research paper he focused on key influencing factors which influence the consumer behavior, impact of technological advancement on consumer behavior, role of emotions and perceptions in online shopping habits and challenged faced by the businesses. His research paper was based on the secondary

data. In conclusion of his research paper technological advancement, social influence, individual preferences and psychological drivers are the major factors to influence the consumer buying behavior. Apart from this psychological, social and economical factors are the drivers for consumer's online purchasing behavior.

Research Gap

The above reviewed research papers are selected for this study based on their key words, objectives and title. After careful examination of above research paper it is found that these research papers mainly focused on what are the major influencing factors for consumer's to purchase online, which types of products consumers generally buy through online mode, the role of digital marketing to influence the consumer buying behavior etc. But the present research paper is focusing the role of online shopping apps to attract the customers, the competition among the different online shopping apps and role of online shopping services provided by the online shopping apps. After thorough study of reviewed papers it is found that none of research papers throw the light on marketing strategy adopted by the online shopping apps and present paper throw the light on this topic as well.

Significance of the Study

The present study is important due to following reasons:

1. This study focuses the role of education, age and earning capacity on the changing the shopping behavior of consumers.
2. This study focuses on the price and time factors which contribute largely to change the consumer's behavior.
3. This study gives the factors which must considered by online shopping apps to improve their services and provides services accordingly.

Research Methodology:

The present study is explorative and descriptive in nature. This study is based on the primary data to collect about the perception of general public who are the users of online shopping apps on their buying behavior through structured questioners on google form. For understanding and explaining the concepts secondary data has been used.

a. Sample Design and Size:

- i. The targeted population of the study is the people of Nagpur city.
- ii. A total number of 206 people of various areas of Nagpur city selected randomly who are the users of digital mode.

b. Tools Used:

The conclusion of the study has been drawn by using frequency analysis, percentage and T-test using SPSS software.

Objectives:

The present research paper is based on the following objectives:

1. To know the influencing factors for online shopping.
2. To understand the level of satisfaction received to the customers through online shopping.
3. To study the changing consumer behavior.
4. To understand the marketing strategy adopted by the online shopping apps.
5. To know which types of product buy via online mode.
6. To understand the role of technology and innovation on online shopping behavior of consumers.

Hypothesis:

Hypothesis: 1

H0: Time and cost saving are not influencing factors of using online shopping.

H1: Time and cost saving are influencing factors of using online shopping.

Hypothesis: 2

H0: Online shopping does not give the satisfaction to the customers.

H1: Online shopping gives the satisfaction to the customers.

Hypothesis: 3

H0: The consumer behavior regarding shopping in digital era has not changed.

H1: The consumer behavior regarding shopping in digital era has not changed.

Hypothesis: 4

H0: The marketing strategy of online shopping apps does not impact consumers.

H1: The marketing strategy of online shopping apps impact consumers.

Hypothesis: 5

H0: Changing technology and innovation do not enhance the shopping experience of customers.

H1: Changing technology and innovation enhance the shopping experience of customers.

Limitations:

The present research paper has following limitations:

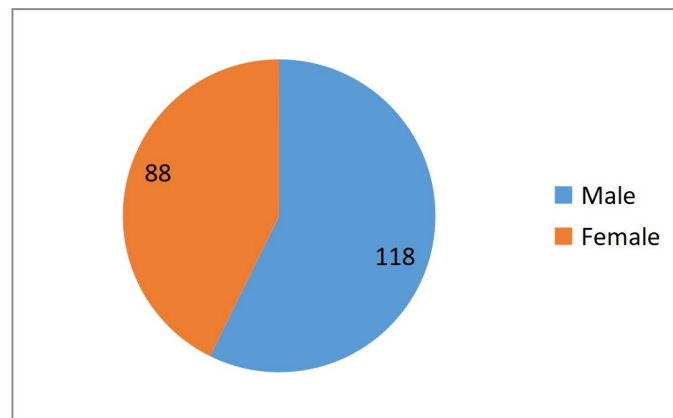
1. This study is based on the limited number of responses.
2. This study is based on the human behavior which is changing in nature.
3. The scope of this study is limited to Nagpur city only.

Data Analysis and Interpretation:

The data collected from the 206 general public who use the online shopping apps through structured questionnaire. The details of respondents regarding their gender, age, qualification and annual income mentioned below:

1. Gender of Respondents:

Gender	Number	Percentage
Male	118	57.28%
Female	88	42.72%
Total	206	100%

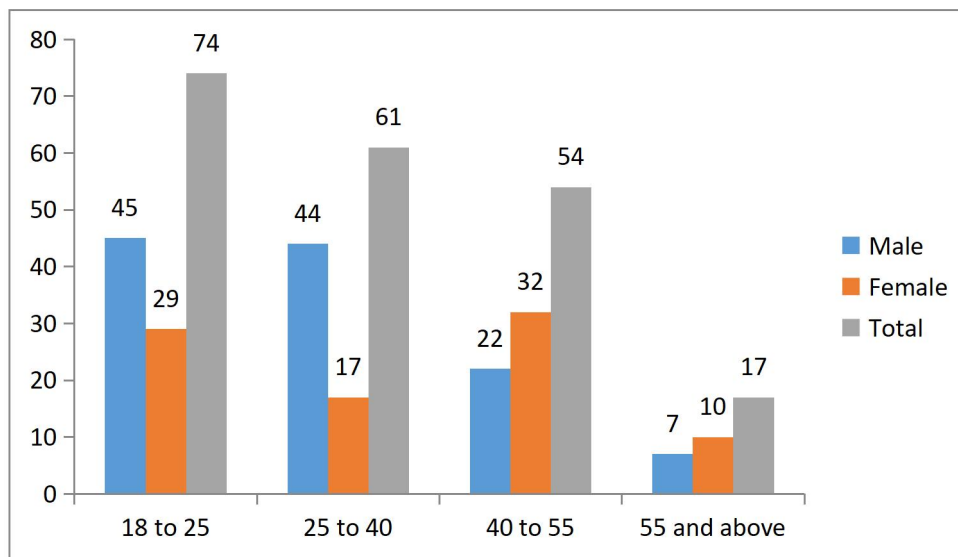


Explanation: For the present study the data has been collected from the 206 respondents. Out of these 206 respondents, 118 are male representing 57.28% and 88 are female representing 42.72%.

2. Age of Respondents:

Age	Male	Female	Total	Percentage
18 to 25	45	29	74	35.92%
25 to 40	44	17	61	29.61%
40 to 55	22	32	54	26.31%
55 and above	7	10	17	08.25%

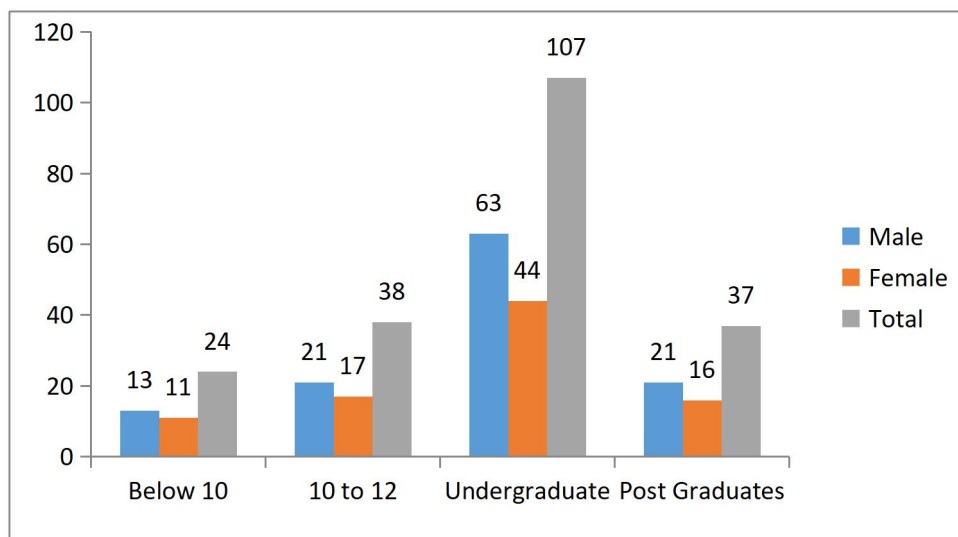
Total	118	88	206	100%
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Explanation: As per the table the 74 respondents representing 35.92% are belonging to the age group of 18 years to 25 years. 61 respondents representing 29.61% are belonging to the age group of 25 years to 40 years. 54 respondents representing 26.31% are belonging to age group of 40 years to 55 years and only 8.25% i.e. 17 respondents are have more than 55 years of age.

3. Educational Qualification of Respondents:

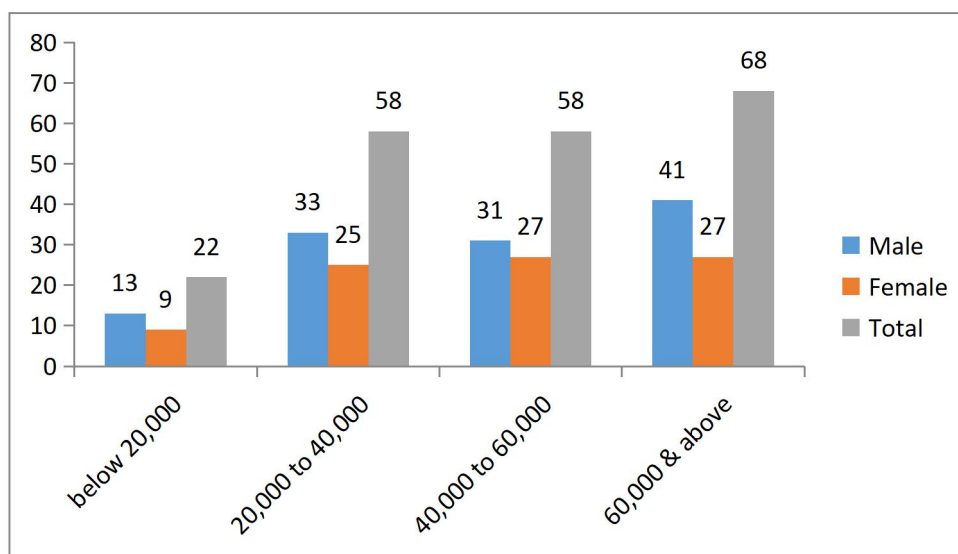
Qualification	Male	Female	Total	Percentage
Below 10	13	11	24	11.65%
10 to 12	21	17	38	18.45%
Undergraduate	63	44	107	51.94%
Post Graduates	21	16	37	17.96%
Total	118	88	206	100%



Explanation: As per the table the 24 respondents representing 11.65% are having qualification below 10th standards. 38 respondents representing 18.45% are 12 passed. Majority the respondents 107 representing 51.94% are undergraduate and remaining 37 respondents representing 17.96% are post graduates.

4. Annual Income of Respondents:

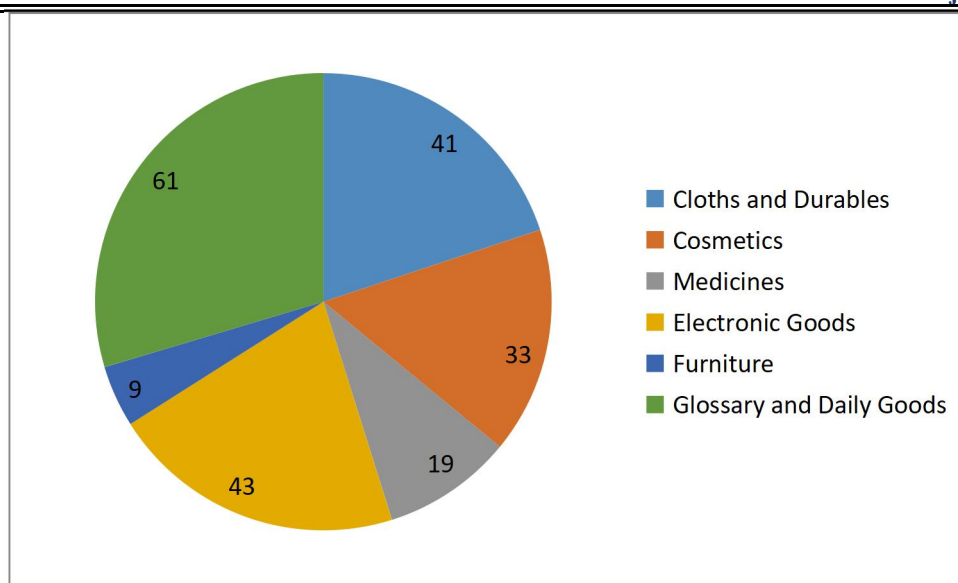
Annual Income	Male	Female	Total	Percentage
below 20,000	13	9	22	10.68%
20,000 to 40,000	33	25	58	28.16%
40,000 to 60,000	31	27	58	28.16%
60,000 & above	41	27	68	33.00%
Total	118	88	206	100%



Explanation: Above table shows the income level of the respondents. 22 respondents representing 10.68% are having annual income below Rs. 20,000 per month. 58 respondents representing 28.16% are having monthly income ranging from Rs. 20,000 to Rs. 40,000. 58 respondents representing 28.16% are having monthly income ranging from Rs. 40,000 to Rs. 60,000 and remaining 68 respondents representing 33.00% are having monthly income more than Rs. 60,000.

5. Use of Online Shopping apps for purchasing:

Nature of Purchases	Total	Percentage
Cloths and Durables	41	19.90%
Cosmetics	33	16.02%
Medicines	19	09.22%
Electronic Goods	43	20.87%
Furniture	9	04.37%
Glossary and Daily Goods	61	29.61%
Total	206	100%



Explanation: Above table shows the use of online shopping apps for different goods. 41 respondents representing 19.90% use the online shopping apps for purchasing cloths and durables. 33 respondents representing 16.02% use the online shopping apps for purchasing cosmetic goods. 19 respondents representing 9.22% use the online shopping apps for purchasing medicines. 43 respondents representing 20.87% use the online shopping apps for purchasing electronic goods. 9 respondents representing 4.37% use the online shopping apps for furniture and remaining 61 respondents representing 29.61% use the online shopping apps form purchasing glossary and daily usable goods.

The responses collected on other questions are tabulated and t-test has applied for hypothesis testing as per following manner:

Table No. 1: Time and cost saving are influencing factors of using online shopping.

Responses	No. of Respondents
Strongly Agree	88
Agree	62
Disagree	35
Strongly Disagree	21
Total	206

Interpretation: The above table shows the responses collected on saving in cost and time are influencing factors for promoting online shopping apps. As per the responses collected 88 respondents are strongly agreed on this whereas 62 respondents say they are agreed on this statement. 35 respondents said they are not agree on the statement that the online shopping apps is helpful to save time and cost and remaining 21 respondents said they are strongly disagreed on the statement.

$$\text{Mean} = (88 \times 1) + (62 \times 2) + (35 \times 3) + (21 \times 4) = 401 / 206 = 1.95$$

$$\text{S.D.} = 1.00$$

$$\mu = 1$$

$$t(\text{cal.}) = 13.77$$

$$t(\text{tab}) = 1.96$$

As per the calculation $t(\text{cal.}) > t(\text{tab.})$ hence the null hypothesis i.e. Time and cost saving are not influencing factors of using online shopping is rejected. In digital era there is easily availability of smart phone, internet and various online shopping apps are available. The online shopping apps provide the variety of products as per the choice of

the customers. The customers need not to visit different shops to find the product of their choice after using online apps. The apps provide the facilities of comparison of the different product which gives the benefits to customers at the time of selecting best product. The price offered by the online shopping apps is comparatively less than price charges by the physical shops. Apart from the price the online shopping apps also provide the offers and schemes to the customers which directly help them to save the money.

Table No. 2: Online shopping gives the satisfaction to the customers.

Responses	No. of Respondents
Strongly Agree	77
Agree	87
Disagree	29
Strongly Disagree	13
Total	206

Interpretation: The above table shows the responses collected on the satisfaction level of the customer after using the online shopping apps. 77 respondents are saying they are strongly agreed that the online shopping apps gives the satisfaction to them after shopping. 87 respondents said they are agreed that the online shopping apps give them satisfaction. 29 respondents are the opinion that they are disagree on the statement that online shopping apps give satisfaction and 13 respondents are strongly disagree on the statement.

$$\text{Mean} = (77 \times 1) + (87 \times 2) + (29 \times 3) + (13 \times 4) = 390/206 = 1.89$$

$$\text{S.D.} = 0.87$$

$$\mu = 1$$

$$t(\text{cal.}) = 14.59$$

$$t(\text{tab}) = 1.96$$

As per the calculation $t(\text{cal.}) > t(\text{tab.})$ it means the null hypothesis i.e. Online shopping does not give the satisfaction to the customers is rejected. As per the first hypothesis the most of the respondents are the opinion that the online shopping apps are helpful to save the time and cost both. The customers in this era want to get the product at lowest amount with minimum time. Apart from the time and cost the online shopping apps also providing various other facilities like customization product, variety of products etc. to the customers. The cash on delivery facility, free exchange of the product, replacement of the product are such facilities also helpful to provide the satisfaction to the customers.

Table No. 3: The consumer behavior regarding shopping in digital era has changed.

Responses	No. of Respondents
Strongly Agree	84
Agree	68
Disagree	41
Strongly Disagree	13
Total	206

Interpretation: This table shows the responses collected on behavior of the customer's shopping. Earlier customers used to go in the market for purchasing the product personally. But due to availability of technology and services the behavior of the customers towards the shopping is also changing. 84 responders said that their purchasing behavior has been changed due to introduction of online shopping apps. 68 respondents are agreeing on the statement that their shopping behavior has been changed. 41 respondents said they are disagree on the statement that their shopping behavior has been changed after introduction of online shopping apps and only 13 respondents are strongly disagree on the statement.

$$\text{Mean} = (84 \times 1) + (68 \times 2) + (41 \times 3) + (13 \times 4) = 395/206 = 1.92$$

$$\text{S.D.} = 0.93$$

$$\mu = 1$$

$$t(\text{cal.}) = 14.15$$

$$t(\text{tab}) = 1.96$$

As per the calculation $t(\text{cal.}) > t(\text{tab.})$ it means the null hypothesis i.e. The consumer behavior regarding shopping in digital era has not changed is rejected. The availability of online facilities, educational level, income of the respondents etc. affects the changing purchasing behavior of the customers. Due to education and income level the customers think to use online shopping apps to take the experience of it. The advertisement, awareness and easy procedure make customers to use online shopping apps. Once the customers start using online shopping apps then gradually they inclined to reuse online method of purchasing.

Table No. 4: The marketing strategy of online shopping apps impacted on consumer.

Responses	No. of Respondents
Strongly Agree	93
Agree	77
Disagree	31
Strongly Disagree	05
Total	206

Interpretation: Above table is representing the responses collected on the marketing strategy of online shopping apps and its impact on the customers. As per the above table 93 respondents are strongly agree on that the marketing strategy impacted on them. 77 respondents are agree on the statement that marketing strategy of online apps influence them to purchase. 31 respondents said they are not influencing by marking strategy of the online shopping apps and only 5 respondents are strongly disagree on the statement.

$$\text{Mean} = (93 \times 1) + (77 \times 2) + (31 \times 3) + (5 \times 4) = 360 / 206 = 1.75$$

$$\text{S.D.} = 0.80$$

$$\mu = 1$$

$$t(\text{cal.}) = 13.39$$

$$t(\text{tab}) = 1.96$$

As per the above calculation $t(\text{cal.}) > t(\text{tab.})$ it means the null hypothesis i.e. The marketing strategy of online shopping apps does not impact on consumer is rejected. It means the respondents accepted that the marketing strategy impacted on their decision of purchasing. The online shopping apps advertise their apps on television, newspapers, social media and many other places. In these advertisements they focus on the strategy of customer retention and customer generation by offering the sale. During the festival session when customers shop more, online shopping apps give them discount. Premium services, free home delivery and cash on discount etc. strategies create the greed and willingness in the mind of customer and intend them to at least use the online shopping apps at once.

Table No. 5: Changing technology and innovation enhance the shopping experience of customers.

Responses	No. of Respondents
Strongly Agree	82
Agree	79
Disagree	27
Strongly Disagree	18
Total	206

Interpretation: The above table is representing the shopping experience of customers. As per the table 82 respondents are strongly agree that technology and innovation enhance their shopping experience. 79 respondents are agreeing on the statement that their shopping experience has enhance due to changing in technology and

innovation. 27 customers feel that their shopping experience has not enhanced due innovation and change in technology and 18 respondents are strongly disagree on the statement.

$$\text{Mean} = (82 \times 1) + (79 \times 2) + (27 \times 3) + (18 \times 4) = 393/206 = 1.91$$

$$\text{S.D.} = 0.94$$

$$\mu = 1$$

$$t(\text{cal.}) = 14.00$$

$$t(\text{tab}) = 1.96$$

As per the calculation $t(\text{cal.}) > t(\text{tab.})$ it means the null hypothesis i.e. Changing technology and innovation does not enhance the shopping experience of customers is rejected. It means they accepted that the change in technology and innovation enhance the shopping experience of the customers. The technology and innovation like personalized recommendation, chatbots, AR and VR technology, 360-degree product views, one-click payments, cash back and rewards etc. attract the customers to use online shopping apps and purchase from it. It gives different kind of experience of shopping to customers than physical mode of shopping. Real time trackers, same day delivery, prime customer service etc. facilities also helpful to enhance the experience of customers.

Conclusions

Now a days time is constraint for every individual. The online shopping apps are developed to provide advantage to customers who are facing the problem of limitation of time. After introduction of online shopping apps the customers need not to visit in shop personally to buy any kind of product they need. The online shopping apps provide the variety of product from grocery to electronic goods. The customers can compare the price of each product and place the order and get the product in day or two. The subscription of premium service provides the ordered goods in same day as well.

The facilities and services offered by the online shopping apps are useful to provide satisfaction to the customers. The product descriptions, sizes, colors, price all theses considered as essential factors for consumer before buying and consumer buy the product on these lines only. The online shopping apps provides the product of accurate size, color and price to customers which helpful to give satisfaction to customers. The delivery tracking service, cash on delivery, easy return and exchange policy is some useful factors which are contributing to increase the satisfaction of customers.

The behavior of the customers is always changing in nature due to age, gender, educational qualification, income, social factors and psychological factors. The use of online shopping apps by society influences the individual behavior to use it. The discount, sales, offers etc. offered by the online shopping apps are responsible for changing the consumer behavior. The technology and innovation like personalized recommendation, chatbots, AR and VR technology, 360-degree product views, one-click payments, cash back and rewards etc. attract the customers to use online shopping apps and purchase from it. The quality of product, comparative prices, offers, awareness of online shopping apps and competition among the various online shopping apps are factors hugely impacted on consumer buying behavior and changing their buying habits.

The consumers are buying small items to costly durables by using online shopping apps. The medicine, grocery, daily use goods, furniture, electronic items, cosmetic products, cloths etc. product are generally buy through using online shopping apps. The change in technology and innovation are mostly responsible for changing buying pattern of customers. Availability of smart phones, internet connectivity and various shopping apps are responsible for popularity of online shopping among the customers. The marketing strategy like festival offers, sales, customer's referral, customer generation techniques, customer relationship management, customer's retentions and customization services are such techniques are helpful to enhance the overall experience of customers towards the online shopping apps.

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