

# **A Study To Analyze How Internet Proficiency And Various Demographic Factors Influence Online Shopping Behaviour Of Consumers For Fmcg Products In Mumbai And Pune**

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## **ABSTRACT**

*This study explores how demographic factors such as age, gender, marital status, income, family size, accompanied with internet proficiency influence e-commerce consumer behaviour for FMCG products in Mumbai and Pune. The research aims to provide insights that may guide businesses in making strategic decisions related to online shopping preferences. A quantitative approach was adopted, employing a structured questionnaire to assess consumer behaviour and preferences concerning the online purchase of FMCG products. A stratified random sampling technique was used to survey 500 respondents (200 from Pune and 300 from Mumbai), covering various demographic categories. Data were analyzed using statistical tools like frequency distribution, percentage analysis, and cross-tabulation. Results show that a significant proportion of consumers in both cities prefer online shopping for its convenience, variety, and competitive pricing. Younger, tech-savvy individuals with higher income and education levels are more inclined to shop online. However, a portion of the population still prefers traditional retail, reflecting the complexity of consumer behaviour. Findings also reveal a strong interest in using the internet for future shopping, with a tendency to recommend online shopping to others. Despite this, resistance and reluctance were observed in both cities,*

*emphasizing the need for businesses to tailor their e-commerce strategies based on demographic segments. This study's insights are valuable for e-commerce businesses aiming to optimize their online shopping strategies in the context of FMCG products.*

**Keywords:** *E-commerce, Consumer behaviour, Demographic factors, FMCG products, Online shopping.*

## **1. INTRODUCTION**

The growing popularity of online shopping, particularly in the Fast Moving Consumer Goods (FMCG) segment has significantly transformed consumer behaviour in India. As e-commerce platforms continue to expand, more consumers are shifting their preference to purchasing FMCG products online, attracted by the convenience, variety, return and exchange policy and competitive pricing. This shift is especially evident in urban centres like Mumbai and Pune, where increasing internet penetration and internet digital literacy have led to a rapid adoption of online shopping. This study aims to analyze the impact of demographic factors accompanied with internet proficiency on consumer purchase behaviour for online shopping of FMCG products in these two cities. Factors such as age, income, education, and digital literacy are likely to influence consumer preferences and their propensity to shop online for FMCG products. Younger, tech-savvy individuals, particularly those

with higher incomes and education levels, tend to prefer online shopping for FMCG products due to the ease of product comparison, customer reviews and finding the best deals. On the other hand, older consumers or those with lower digital literacy may still show a preference for traditional shopping, where they can physically inspect the products. Mumbai and Pune, with their diverse populations, offer an ideal context to examine these trends. Mumbai a cosmopolitan metropolitan city, a hub for professionals with higher income levels, contrasts with Pune's younger, student-driven demography. Understanding how demographic factors in conjunction with digital literacy shape preferences for online shopping for FMCG products can provide valuable insights for e-commerce companies, helping them design targeted marketing strategies and enhance customer engagement in these cities.

#### Summary of Literature Review

Author's	Work Done	Findings
Verma, S. (2023)	Analyzes consumer behaviour in the FMCG e-commerce sector in urban India.	Gender and family size influence online FMCG purchasing, with females shopping more frequently.
Mehta, D. (2022)	Investigates the role of gender in e-commerce behaviour in Indian cities.	Gender plays a significant role, with females being more inclined to engage in online shopping than males.
Joshi, A. (2020)	Studies the influence of family size on e-commerce shopping behaviour in India.	Families with more children tend to spend more on FMCG products online, especially on branded goods.
Deshmukh, S. (2019)	Investigates the impact of internet proficiency on consumer behaviour in Indian markets.	Internet proficiency does not significantly affect e-commerce behaviour among respondents in metropolitan areas.
Yadav, R. (2017)	Studies the role of demographics in FMCG purchases in the e-commerce sector.	Marital status and income are less influential compared to factors like gender and family size.
Bansal, R. (2017)	Analyzes online shopping trends among young consumers in India.	Younger consumers are more likely to engage in online shopping due to tech-savviness and exposure to trends.

## 2. LITERATURE REVIEW

The rapid growth of e-commerce has transformed consumer purchase behaviour, particularly in metropolitan cities like Mumbai and class 'A' city like Pune. Understanding how demographic factors such as Age, Gender, Marital Status, Income, Family size, accompanied with internet proficiency influence consumer behaviour in online shopping is crucial for business houses in the FMCG sector. This literature review explores existing studies on demographic influences on e-commerce behaviour, focusing on FMCG products in urban India, and aims to highlight key trends and gaps in the current understanding of consumer preferences in this context.

Jain, R. (2016)	Investigates consumer buying behaviour and challenges in e-commerce in India.	Challenges include low consumer trust, payment security concerns, and varied demographic influences.
Singh, S. (2016)	Analyzes the e-commerce landscape for FMCG products in India from a demographic perspective.	Demographics such as gender, family size, and income level strongly influence online shopping behaviour.

## 2.1 Research Gap

Despite the growing importance of e-commerce in metropolitan city like Mumbai and class ‘A’ city like Pune, limited research has specifically explored how demographic factors influence online shopping behaviours of customers in these cities. While previous studies have examined consumer behaviour in broader contexts, few have focused on the unique characteristics of these urban populations, particularly in relation to factors like marital status, family size, and internet proficiency. This study seeks to fill this gap by providing insights into how these demographic variables shape online shopping trends in the FMCG sector.

## 3. PROBLEM STATEMENT

The problem addressed by this study is the need to understand how demographic factors such as Age, Gender, Marital Status, Income, Family size, accompanied with Internet proficiency influence e-commerce consumer purchase behaviour for FMCG products in Mumbai and Pune, guiding businesses in strategic decision-making.

## 4. RESEARCH METHODOLOGY

The research methodology for this study investigates consumer preferences for online shopping, specifically for FMCG products, in Mumbai and Pune. A quantitative research design was employed, utilizing a structured questionnaire to capture consumers’ behaviour and preferences related to purchasing FMCG products online. The survey

focused on aspects such as willingness to buy FMCG products online, future usage intentions and the preference for online shopping over traditional retail. A Stratified Random Sampling method was used, selecting 500 respondents (200 and 300 respondents from Pune and Mumbai respectively) across various demographic categories, including age, income, education with digital literacy, ensuring a diverse and representative sample. Data collection was carried out through online structured questionnaire and in-person interactions. Statistical tools, including Frequency Distribution, Cumulative Frequency, Percentage Analysis, and Cross-Tabulation, were used for data analysis. The study is limited to the cities of Mumbai and Pune and focuses solely on FMCG products, which may not reflect preferences for other product categories.

## 5. RESULT AND DISCUSSION

### 5.1 Consumer Preference for Online Shopping for FMCG products

Consumer preference for online shopping, particularly for FMCG products, is significantly influenced by demographic factors in cities like Mumbai and Pune. In both the cities, a large proportion of consumers prefer purchasing FMCG items online due to convenience of buying, variety of products available and competitive pricing. Demographic elements such as age, income, education, and digital literacy shape these preferences. Younger, tech-savvy individuals, especially those from higher-income groups, tend to

favour online shopping for FMCG products due to easy access to information and the ability to compare prices and products across platforms. Furthermore, consumers with higher education levels are more engaged with online shopping due to greater familiarity with digital platforms. Despite this trend,

a small percentage of the population in both cities still prefers traditional retail for FMCG products, underscoring the influence of demographic factors on consumer behaviour. These findings are valuable for e-commerce businesses aiming to tailor their strategies to specific demographic segments.

#### 5.11 Response on willingness to buy products through online shopping

**Table 1: I am willing to buy products through online shopping**

<b>Willingness to Buy Products through Online Shopping</b>	<b>No. of respondents</b>	<b>%</b>
<b>Pune</b>		
Strongly Agree	76	38.00%
Agree	53	26.50%
Uncertain	14	7.00%
Disagree	26	13.00%
Strongly Disagree	31	15.50%
<b>Total</b>	<b>200</b>	<b>100%</b>
<b>Willingness to Buy Products through Online Shopping</b>	<b>No. of respondents</b>	<b>%</b>
<b>Mumbai</b>		
Strongly Agree	124	41.33%
Agree	99	33%
Uncertain	17	5.66%
Disagree	36	12%
Strongly Disagree	24	8%
<b>Total</b>	<b>300</b>	<b>100</b>

The table 1 represents the willingness to buy products from online shopping across Pune and Mumbai. In Pune, 38% of respondents strongly agree, while 26.5% do agree, showing a relatively positive attitude toward online shopping. However, 15.5% strongly disagree, indicating some reluctance. In Mumbai, 41.33% strongly agree, while 33% do agree, reflecting a higher acceptance for online shopping. The percentage of uncertainty

and disagreement is lower in Mumbai (8% strongly disagree) compared to Pune, where it is 15.5%. The cumulative frequencies show an overall agreement in Pune (64.5%) and Mumbai (74.33%), suggesting more willingness to engage in e-commerce, in both the cities. However, a significant portion in both cities shows reluctance, with 28.5% in Pune and 20% in Mumbai disagreeing, highlighting some resistance to online shopping. Around 7% and

5.66% being uncertain about the online shopping in Pune and Mumbai respectively.

## 5.12 Response for one would like to use online for shopping in future

**Table 2: I would like to shop online in future.**

Willingness for online Shopping in Future	No. of respondents	%
<b>Pune</b>		
Strongly Agree	64	32.00%
Agree	59	29.5%
Uncertain	15	7.5%
Disagree	35	17.5%
Strongly Disagree	27	13.5%
<b>Total</b>	<b>200</b>	<b>100%</b>
<b>Willingness for online Shopping in Future</b>	<b>No. of respondents</b>	<b>%</b>
<b>Mumbai</b>		
Strongly Agree	129	43%
Agree	97	32.33%
Uncertain	15	5.00%
Disagree	36	12%
Strongly Disagree	23	7.66%
<b>Total</b>	<b>300</b>	<b>100%</b>

The table 2 highlights the responses regarding future use of the internet for shopping across Pune and Mumbai. In Pune, 32% strongly agree and 29.5% agree, indicating a strong inclination towards online shopping in the future.

The percentage of disagreement (17.5%) and strong disagreement (13.5%) is balanced, showing a moderate level of reluctance. In majority of Mumbai, 43% strongly agree and 32.33% agree, slightly higher than in Pune, suggesting a comparable level of interest in online shopping. However, Mumbai shows lower disagreement

(19.66%) compared to Pune (31%), indicating a bent towards online shopping. The cumulative frequencies reveal a slightly higher overall agreement in Mumbai (75.33%) than in Pune (61.5%), indicating a marginally stronger inclination for e-commerce in Mumbai. The data show a strong interest in using the internet for future shopping. In Pune, 61.5% agree or strongly agree, while in Mumbai, 75.33% share the same sentiment. Despite this, a notable portion in both cities are uncertain or disagree, indicating some hesitation towards online shopping.

### 5.13 Response for one will encourage others for online shopping

**Table 3: I will encourage other peoples for online shopping**

Encouraging Others for Online Shopping	No. of respondents	%
<b>Pune</b>		
Strongly Agree	62	31%
Agree	58	29%
Uncertain	21	10.5%
Disagree	29	14.5%
Strongly Disagree	26	13%
<b>Total</b>	<b>200</b>	<b>100%</b>
<b>Encouraging Others for Online Shopping</b>	<b>No. of respondents</b>	<b>%</b>
<b>Mumbai</b>		
Strongly Agree	123	41%
Agree	94	31.33%
Uncertain	25	8.33%
Disagree	35	11.66%
Strongly Disagree	23	7.66%
<b>Total</b>	<b>300</b>	<b>100%</b>

The data in Table 3 reveal the responses to the statement "I will encourage other people for online shopping" across Pune and Mumbai. In Pune, 31% of respondents strongly agree, and 29% agree, resulting in a cumulative 60% of respondents expressing a positive inclination to promote online shopping. In Mumbai, 41% strongly agree, and 31.33% agree, with a cumulative total of 72.33%

agreeing to the proposition. However, a small percentage in both cities, 13% in Pune and 7.66% in Mumbai, strongly disagree with the idea of encouraging others to shop online, suggesting resistance. These findings highlight a positive attitude toward promoting online shopping, though some reluctance persists in both cities.

### 5.14 Response for one will prefer online shopping over traditional shopping

**Table 4: I will prefer online shopping over traditional shopping**

Preference for Online Shopping Over Traditional Shopping	No. of respondents	%
<b>Pune</b>		
Strongly Agree	64	32%

Agree	60	30%
Uncertain	15	7.5%
Disagree	35	17.5%
Strongly Disagree	26	13%
<b>Total</b>	<b>200</b>	<b>100%</b>
<b>Preference for Online Shopping Over Traditional Shopping</b>	<b>No. of respondents</b>	<b>%</b>
<b>Mumbai</b>		
Strongly Agree	131	43.67%
Agree	97	32.33%
Uncertain	13	4.33%
Disagree	36	12%
Strongly Disagree	23	7.66%
<b>Total</b>	<b>300</b>	<b>100%</b>

The table 4 shows the preference for online shopping over traditional shopping in Pune and Mumbai. In Pune, 32% strongly agree and 30% agree, indicating a favorable inclination towards online shopping.

However, 13% strongly disagree, reflecting some resistance. In Mumbai, 43.67% strongly agree and 32.33% agree, demonstrating a higher preference for online shopping compared to Pune. The percentage of strong disagreement is also lower in Mumbai (7.66%) compared to Pune (13%), suggesting greater acceptability to adopt online shopping in

Mumbai. Cumulative frequencies indicate an overall agreement in Pune (62%) and Mumbai (76%), with both cities showing significant support for online shopping over traditional methods.

The data indicate a strong preference for online shopping over traditional shopping in both Pune and Mumbai. In Pune, 62% agree or strongly agree, while in Mumbai, 76% share the same sentiment. However, there is a noticeable percentage of respondents in both cities who disagree, reflecting some resistance to the shift.

#### 5.15 Preference for Online shopping due to enjoyment.

**Table 5: I prefer online shopping as I am enjoying it.**

<b>Online Shopping Enjoyment Influences Preference</b>	<b>No. of respondents</b>	<b>%</b>
<b>Pune</b>		
Strongly Agree	65	32.50%
Agree	57	28.50%
Uncertain	12	6.00%



Disagree	37	18.5%
Strongly Disagree	23	11.50%
<b>Total</b>	<b>200</b>	<b>100%</b>
<b>Online Shopping Enjoyment Influences Preference</b>	<b>No. of respondents</b>	<b>%</b>
<b>Mumbai</b>		
Strongly Agree	129	43%
Agree	94	31.33%
Uncertain	14	4.66%
Disagree	37	12.33%
Strongly Disagree	26	8.66%
<b>Total</b>	<b>300</b>	<b>100%</b>

The table reflects how the enjoyment of online shopping influences preferences in Pune and Mumbai. In Pune, 32.5% strongly agree and 28.5% agree, indicating a positive correlation between enjoyment and preference for online shopping. However, 11.5% strongly disagree, suggesting some resistance. In Mumbai, 43% strongly agree and 31.33% agree, showing a higher preference driven by enjoyment compared to Pune.

The data show that both Pune and Mumbai respondents largely agree that the enjoyment of online shopping influences their preference for it. In Pune, 61% express positive sentiments, while in Mumbai, 74.33% share similar views suggesting that enjoyment plays a significant role in shaping preferences in both cities. However, a significant portion in Mumbai, strongly disagrees, showing some reluctance. The percentage of strong disagreement is also higher in Pune (11.5%) compared to Mumbai (8.66%), indicating a greater reluctance.

## 6. CONCLUSION

In conclusion, this study sheds light on the growing consumer preference for online shopping, in the cities of Mumbai and Pune. The findings highlight that demographic factors such as age, income, education, digital literacy play a crucial role in shaping consumers' willingness to shop online. A majority of respondents in both cities expressed a positive attitude towards buying products online, with a notable inclination to continue using e-commerce platforms for future purchases. Mumbai exhibited slightly more openness to online shopping compared to Pune, though both cities revealed some degree of reluctance among certain demographic groups, particularly those with lower digital literacy or older age groups. Additionally, the study found that a significant portion of consumers are willing to encourage others to shop online, indicating a broader acceptance of e-commerce as a convenient and reliable shopping method. Despite these positive trends, the research also identified a small segment of the population in both cities who still prefer traditional shopping, underlining the ongoing influence of conventional retail methods. These insights are valuable for e-commerce businesses



aiming to refine their strategies and cater to the diverse preferences of consumers in Mumbai and Pune.

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