How Demographic Factors Impact Consumers' Product Choice During Online Shopping : An Empirical Study of Tier-III Markets

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Abstract

E-commerce is proliferating in India, and not just the tier-I cities but the tier-II and III cities are also contributing significantly to the total e-commerce sales in India. Hence, to study this upcoming market, this study tried to fill the gap in the area of the tier-III markets and product category analysis during online shopping. For this study, six tier-III cities from Maharashtra were selected, and 537 sample responses were collected from these cities in the year 2019. A questionnaire was used for data collection, and stratified random sampling technique was used to select the respondents. The collected data were analyzed using SPSS.16.0, and various statistical tests such as Cochran's *Q* and crosstabulation analysis were used to conduct the analysis. The results suggested that consumers from this upcoming market engaged in online shopping, and mobile phones and related accessories and apparel and accessories were the most preferred segments for online shopping. The results also revealed that various demographic factors such as gender, age, marital status, profession, and income impacted consumers' product choice during online shopping as for these factors *p*, Phi (Φ), and Cramer's *V*(φc) values were reported to be significant. This research contributes to the existing literature related to online consumer buying behavior and can also help the marketers to select the right segment to design their marketing and distribution strategies specifically for the tier-III market.

Keywords : **Consumer buying behavior, online consumer, demographic factors, product segment, online buying behavior**

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According to the India Brand Equity Foundation (IBEF) (2020), the Indian e-commerce market is growing with one of the highest annual growth rates of 51% and is expected to grow to US $ 200 billion by 2026. Currently, India has approximately 700 million internet users. It is expected to reach over 974 million users by 2025 (Keelery, 2021). With this growing number of internet users, it is expected that the Indian e-commerce industry will also surpass the United States and will become the second largest e-commerce market in the world by 2034 (IBEF, 2020). According to one more report, the Indian retail market is estimated to cross the US $ 1 trillion mark by 2025, in which e-commerce is expected to contribute USD 240 – 250 billion (Singhi et al., 2020). Developing infrastructure, government policies, digitalization, developing small markets, increase in disposable income, high aspiration for branded and lifestyle products and services, changing consumption basket, and increasing credit friendliness are some of the reasons for this tremendous growth (IBEF, 2020).

In India, cities have been divided based on population and identified as tier-I cities, tier-II cities, and tier-III

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cities. Tier-I cities are the major metro cities, and tier-II cities come after metro cities, while tier-III cities are comparatively smaller cities. In the beginning, the e-commerce market in India was only concentrated in big cities known as tier-I, but soon it started witnessing growth from small cities known as tier-II and tier-III cities. For the Indian market, most of the studies related to online consumer buying behavior have been done for tier-I and tier-II cities. Very few studies have been done for huge but potential markets known as the tier-III cities. But as some recent reports suggested that there is a significant growth in tier-III cities and major e-commerce companies are shifting their focus from tier-I to tier-II and tier-III cities, studying this market is the need of the hour. During the 2019 festive sales, e-commerce platforms such as Amazon and Flipkart generated sales worth ₹ 190 billion with significant contributions from tier II and III cities (Kumar et al., 2020). Amazon India in 2019 also reported that 65% of their sales in the fashion category were contributed by tier II, III, and IV towns and cities. One of the recent reports by Accenture (2020) identified high aspiration for branded products, value-seekers, and easy connectivity to technology as some of the upcoming trends of small cities' consumers. Numerous factors such as penetration of quality internet services, 100% foreign direct investment (FDI) in e-commerce, 4G networks, rising internet speed, cheap smartphones and low-price internet services, consumer wealth, government initiatives such as Digital India contribute to e-commerce growth. Infrastructural development and low servicing cost in tier-II and tier-III cities are also making this market attractive for e-commerce companies, according to one report by the India Brand Equity Foundation (IBEF) (2018). So, marketers must study this market and consumers from this market in detail to cater to this market effectively.

Indian Consumers and Online Retailing

Retailing is a process of selling goods, services, or information to an individual for non-commercial use, and it's an integral part of our society. With time, various types of retailing formats (Levy et al., 2004) have been developed, and one of the most popular formats is e-tailing, which is gaining popularity in the last few years because of its various benefits (Lai & Wang, 2012).

Benefits of online retailing such as low price, huge information, easy access beyond geographical limitation, 24 × 7 access (Arora, 2013) attract consumers to shop online. According to some recent studies, for Indian consumers, convenience has been identified as the most significant reason for online shopping, followed by the price and availability of branded products.

While services are still the most popular segment for online retailing, slowly product retailing is also gaining popularity. In the year 2018, the electronics segment was the largest contributor (48 %) in online retail, while apparel contributed 29 % (IBEF, 2019). According to a report, *Retail 2020: Retrospect, Reinvent, Rewrite: Leadership Perspectives on Trends in Indian Retail,* the Indian e-commerce industry is projected to quadruple by USD 60 – 70 billion over the coming 5 years, majorly because of products, not services (Singhi et al., 2015). Thus, all the recent reports indicate a shift in the retail purchasing behavior of Indian consumers.

Literature Review

Consumer behavior is defined as "the mental and emotional processes and the observable behavior of consumers during searching for, purchasing, and post-consumption of a product or service" (Engel et al., 1990, p.139). Predicting consumer behavior is a key for designing marketing strategies, and numerous studies have been done to identify the factors impacting consumer behavior and online consumer behavior. Understanding online consumer buying behavior is the area of interest for many researchers, and various studies have been done to identify the factors impacting online consumer buying behavior.

One of the earlier research by Donthu and Gracia (1999) identified demographics, lifestyle, and attitude impacting online buyers, while Kotler and Amstrong (2004) identified personal, cultural, social, and

psychological factors influencing online consumers. With these external and internal factors, one more important element of the online buying process is website selection. During online shopping, consumers select a website, keeping in mind various parameters such as information available on the website and content of the website (Chincholkar & Sonwaney, 2017; Padmanabh et al., 2016). Though a lot of studies have been done to identify the factors impacting online consumer buying behavior, very few studies have been conducted in the area of product category analysis.

One research proved that during online shopping, products and services having a low cost, high differentiation, and intangible value proposition are purchased more (Phau & Meng Poon, 2000). By shopping for a particular category, consumers try to satisfy their various physical and psychological needs (Lim et al., 2010). In general, services are the more preferred category for online shopping than products because of intangible factors.

Demographic Factors and Online Consumer Buying Behaviour

One of the significant factors that impact online consumer buying behavior is demographic factors: age, gender, education, profession, marital status, income, and geographic location. When it comes to buying products online, male and female consumers show different behavior; it was found that male consumers preferred to buy electronics products more while female consumers preferred buying food, beverages, and clothing items (Bhatnagar et al., 2000). Further, more studies showed a moderate relationship between gender and behavioral aspects (Reddy & Srinivas, 2015).

One more important demographic factor, known as age, is also found to impact online consumer buying behavior (Kanchan & Kumar, 2015; Kanchan et al., 2015). Another demographic factor known as income is also found to moderately impact online consumer buying behavior (Mishra, 2016). Literature also revealed that demographic factors impact consumers' decision-related products and services categories (Bhatnagar et al., 2000).

A very recent study by Thomas and Mathew (2021) identified the role of attitude in the purchase intention of Generation X, Y, and Z. The results of the study indicated that for Generation X, attitude did not play a vital role; while in the case of Generation Y, it showed partial mediation effect, and for Generation Z, it showed full mediation effect.

Online Shopping and Consumer's Product Category Preferences

Consumers prefer to buy specific products and services during online shopping. According to Battey (2000), few product and service categories such as airline tickets, hotel bookings, car rentals, apparel, consumer electronics, books, computer hardware and software, office supplies, and food & beverages are the most preferred categories for online shopping.

One of the earlier research by Dahiya (2012) identified that services like reservations and banking were more preferred during online shopping, while products like dresses, apparel, footwear, and jewelry were not much popular, but slowly as this new format of retailing started getting acceptance from Indian consumers, various product categories also became popular for online shopping.

In India, some product categories are more popular than others. According to Google India survey report (2013), electronic goods, mobile phones and accessories, and man and woman apparel and accessories were the most sold items online. Other reports in the similar year also suggested the same. In a report by the Internet and Mobile Association of India (2015), it was found that electronic goods, including mobile phones and accessories, man and woman apparel and accessories, footwear, and consumer durables were among the highest selling categories in online retailing. According to Statistia's (2020) report, the apparel and footwear category has shown tremendous growth and reached up to a market share of 28%.

Bodla and Saini (2017), in their research for Indian metro cities, identified that electronic items were the most preferred items during online shopping, followed by apparel and footwear, and then came e-recharges services, respectively. Among all categories, baby care products and gift items were the least preferred product categories. This paper also identified a moderate association between demographic factors and preference of product category during online shopping, but research was restricted to the tier-I market. One study done for online ticket booking identified that gender, educational qualifications, and income significantly influenced the actual online train ticket booking behavior; whereas, age and profession were not influential (Koundinya, 2017).

In their research, Reddy and Rao (2019) identified a moderate association between gender and continuance intention toward mobile wallet uses in India. In their study for Bangladesh, Rahman et al. (2018) identified that apparel and accessories were the most preferred segment for online shopping followed by online ticketing products. Only very few respondents preferred buying books online. This study also identified that the preference for products was different for different genders.

Though studies have been done to identify the most preferred product category during online shopping, very few studies have been done to identify the association between demographic factors and preference of product categories. Similarly, previous studies have been done to understand the impact of demographic factors on various stages of the online buying process, but very limited studies are available focusing on its impact on product category selection during online shopping.

So, this study tries to fill this gap by identifying how demographic factors impact consumers' product choices during online shopping. So, with this objective, the following hypothesis has been proposed.

↳ **H_1 :** There is a significant association between demographic factors and product preference during online shopping.

Need and Significance of the Study

Existing literature is enriched with various research works on online consumer buying behavior, which have focused on how internal and external factors impact their buying behavior. Not many studies have been done on how demographic factors influence consumer product preference during online shopping. With this, as in India, online retailing was more popular with tier-I cities at the beginning, and most of the existing studies are limited to this market only. Most of the studies have been done for major metro cities such as Mumbai, Delhi, Chennai, Hyderabad, and Bangalore (Dahiya, 2012; Rakesh & Khare, 2012), and not much research work is available for tier-III cities. As tier-III cities have a huge potential, it is necessary to study this market separately.

Some recent studies (Agarwal et al., 2021) also indicated that there is a difference between tier-I, tier-II, and tier-III cities' online consumer buying behavior; so, it has become important to study this market separately. The proposed study will help identify how demographic factors influence consumer decisions related to product categories for tier-III cities' consumers.

This study will help:

↳ To identify the online consumer buying behavior of tier-III cities' consumers.

↳ To identify the most preferred product categories during online shopping for the tier-III market.

↳ To understand the impact of demographic factors on the selection of product categories during online shopping.

Research Methodology

An exploratory research design was chosen to identify the impact of demographic factors on the preference of products during online shopping.

The development of a research instrument is one of the most important stages of any research. There are three stages of instrument development: the exploratory stage, the validity stage, and the testing of the instrument by a pilot study. In the exploratory stage, existing and explored items were identified based on an exhaustive review of literature (Mishra & Das, 2019 ; Tomar et al., 2018) and structured interviews, and finally, the questionnaire was designed.

To check the quality of the instrument, reliability check using Cronbach's alpha was done, and the value was 0.880, which is greater than the suggested 0.7 threshold given by Nunnally (1978). The individual values of Cronbach's alpha for each construct were also calculated further. The measure of sampling adequacy (MSA) was done by Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity, and the values were 0.874 and < 0.05, respectively.

For this study, a multi-stage random sampling technique was used. Kothari (2004) defined this type of technique as a further developed cluster sampling. In this type of technique, large geographical areas are stage by stage divided as small clusters, and finally, data are collected from those clusters randomly. As this study was focused on tier-III cities, six tier-III cities were selected for data collection from Maharashtra. The selection of the cities was based on four criteria: classification of cities for house rent allowance (HRA) by the Ministry of Finance (published on July 21, 2015), population density, internet penetration, and geographical location. Alibag, Satara, Ahmednagar, Jalgaon, Chandrapur, and Latur are the cities selected for the study. For selecting the respondents from these cities, two criteria were adopted. First, they should be at least 18-years-old and should be aware of the internet.

The survey included questions about their awareness of online shopping and their buying preferences during online shopping. As most of the questions had fixed-alternative responses, the responders were required to answer from a pre-determined set of responses. The data collection instrument was administrated through face-to-face survey and electronic method, and data were collected in approximately one year. The questionnaire was administered to more than 1,000 prospective respondents through direct face-to-face method and by e-mail. Extreme precautions were taken for collecting effective responses. Finally, 552 responses were collected, out of which 537 were found to be effective responses.

IBM's Statistical Package for Social Sciences v16 (SPSS 16) was used to analyze the quantitative data during the pilot study and the final study. With SPSS, Tableau 2019.4 was also used for data visualization.

Analysis and Results

Demographic Profile of the Respondents

Out of the collected 552 responses, an adequate sample size of 537 was used for further data analysis. The demographic profile of 537 respondents has been presented in Table 1.

There were more male respondents than female respondents, as it has also been revealed in various reports that male consumers are more enthusiastic about online shopping than females (Adhya, 2020; IBEF, 2018).

The sample population also indicated the same as there were 357 male respondents and 180 were female. In the collected sample, 86 respondents were between the age of 18–20 years, 352 respondents were between the age of 21–34 years, 74 respondents were between the age of 35–49 years, 23 respondents were between the age of 50–64, and only two respondents were above 64 years of age. The study's findings reveal that 48 respondents were

Table 1. ***Demographic Profile of the Respondents***

Demographic Factor	Absolute Numbers	Percentage
Gender		
Male	357	66.5 %
Female	180	33.5 %
Age		
Below 21 years	86	16 %
21–34 years	352	65.5 %
35–49 years	74	13.8 %
50–64 years	23	4.3%
65 and Above	2	0.4%
Education		
Up to HSS/SSC	48	8.9 %
Up to Undergraduate	264	49.2 %
Postgraduate and Above	225	41.9 %
Family Income		
< 250,000 ₹/year	163	30.4 %
250,001–500,000 ₹/year	130	24.2%
500,001–1,000,000 ₹/year	72	13.4%
>1,000,000 ₹/year	32	6.0%
Do not want to disclose	140	26.1 %
Marital Status		
Married	162	30.2 %
Unmarried	374	69.6%
Other	1	2 %
Occupation		
Student	257	47.9 %
Working Professional /Business Owner	258	48.0 %
Home Maker	18	3.4%
Retired	4	0.7%

educated up to HSC, 264 were educated up to the graduate level, and the remaining 225 were postgraduates and above. In terms of occupation, 257 respondents were students, while 258 were working professionals. There were only 18 housewives and four retired respondents. Out of 537 respondents, 162 were married, while 374 were unmarried, and only one respondent belonged to another category.

Out of 537, 163 respondents belonged to a yearly family income of < 250,000 ₹ /year, 130 respondents had a family income between 250,001 – 500,000 ₹/year, 72 respondents had a family income between 500,001–1,000,000 ₹/year, 32 belonged to a group having a family income of >1,000,000 ₹/year, and 140 respondents opted not to disclose their family income.

Figure 1. ***Geographical Spread of the Sample Population (Tableau Output)***

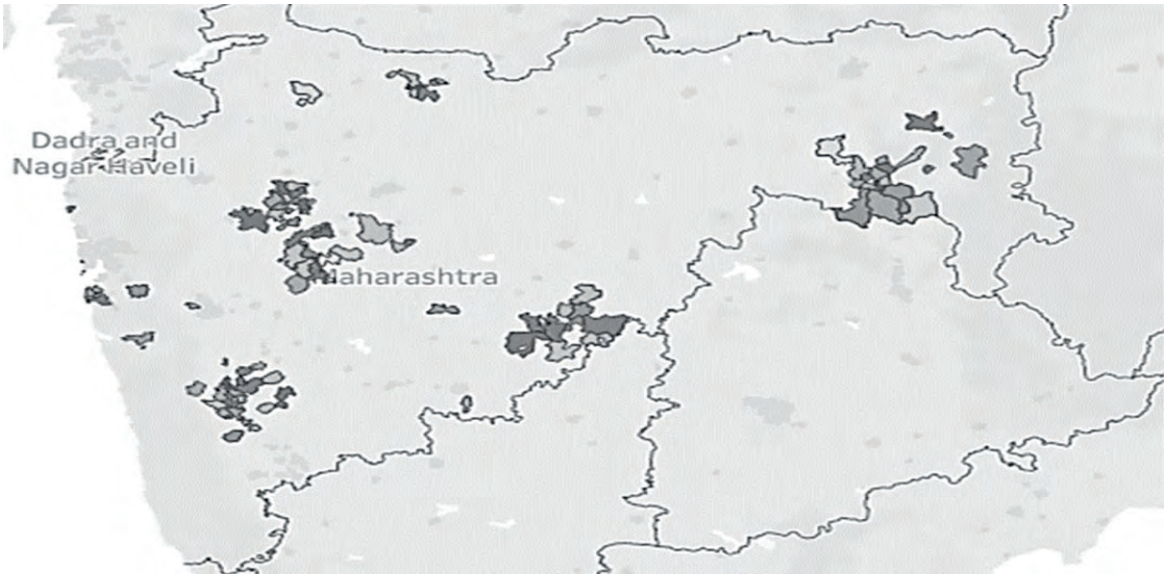


Table 2. ***Distribution of Respondents Across Six Cities***

Name of the City (In Alphabetical Order)	No. of Respondents	Valid Percentage
Ahmednagar	116	21.6 %
Alibag	48	8.9 %
Chandrapur	94	17.5 %
Jalgaon	135	25.1 %
Latur	74	13.0 %
Satara	70	13.8 %
Total	**537**	**100 %**

Geographical Distribution of the Sample Population

As the data were collected from six different cities, care was taken to maintain the uniformity of samples from each city, and the number of respondents was roughly in proportion to each city's population. Figure 1 and Table 2 explain the distribution of the respondents from each city.

Results of Data Analysis

Out of 537, only two respondents were unaware of online retailing, and 83.3% of the respondents engaged in online shopping, while 0.9% of the respondents opted not to shop online, and approximately 8.8% of the respondents sought someone else's help to do online shopping. Further data analysis has been done based on the 446 responses from consumers who were engaged in online shopping.

Most of the respondents (41.3%) shopped online once in three months, while 106 (23.8%) respondents shopped online once a month, 84 respondents (18.8%) said that they shopped online once in two months, while

only 72 (16.1%) respondents said that they did online shopping more than once a month. Mobile is identified as the most preferred mode of online shopping as 402 (90.1%) respondents preferred to use mobile phones while doing online shopping, and only 44 (9.9%) respondents used desktop/laptop for online shopping. For the tier-III market also, Amazon is identified as the most preferred website (51.6%) for online shopping, followed by Flipkart, which 170 (38.1%) respondents selected.

Based on the literature review and some current reports, the top 10 product/service categories were selected for online shopping, and respondents were asked to select their most preferred categories for online shopping. The results of the same are depicted in Table 3.

Mobile phone and accessories (67.7%) and apparel and other fashion accessories (47.5%) have been identified as the most preferred product categories; entertainment products such as books, CDs, video games (34.1 %) secured the third rank, and some other product segments such as beauty products (19.3%) and food and grocery (21.1%) showed unexpected growth from this market.

A statistical test known as Cochran's Q test is used to determine if there are differences between various demographic factors and product/service preferences during online shopping. The results indicate that the values are significant as the value of p is < 0.05 (Table 4).

Thus, H_1 is accepted as $p < 0.05$, and it is concluded that there is an association between demographic factors and product and product preferences during online shopping. Next, crosstab analysis has been used for each demographic factor.

Table 3. ***Favorite Product/Service Categories for Online Shopping***

Product Category	Responses		
	N	**Percent**	**Percent of Cases**
Food and grocery	94	6.1%	21.1%
Mobile phone and accessories	302	19.7%	67.7%
Computer / laptop and related accessories	128	8.4%	28.7%
Apparels and other fashion accessories	212	13.8%	47.5%
Home decor and home furniture	72	4.7%	16.1%
Consumer electronics and home appliances (TV, AC, fridge)	90	5.9%	20.2%
Baby products and toys	29	1.9%	6.5%
Beauty products	86	5.6%	19.3%
Pharma products (medicine, etc)	21	1.4%	4.7%
Books /movies/video games / music CDs	152	9.9%	34.1%
Travel related booking (bus/train/air travel tickets/hotel/restaurant)	136	8.9%	30.5%
Other services (online food order, movie tickets)	210	13.7%	47.1%
Total	**1,532**	**100 %**	**343.5%**

Table 4. ***Cochran's Q Test***

Test Statistics	
N	446
Cochran's *Q*	8.418E2[a]
df	11
Asymp. Sig.	.000

Note. [a.] 2 is treated as a success.

Table 5. ***Cross-tabulation Analysis***

	Phi Value	Cramer's *V* Value	Approx Sig.
Gender * FoodG	0.25	0.25	0.6
Gender * MobileA	0.264	0.264	0.00
Gender * ComputerA	0.189	0.189	0.00
Gender * ApparelA	0.169	0.169	0.00
Gender * HomeDecor	0.01	.01	.841
Gender * ConsumerE	0.095	0.095	0.045
Gender * BabyP	0.079	0.079	0.094
Gender * BeautyProduct	0.398	.398	0.00
Gender * PharmaP	0.034	0.034	0.469
Gender * BooksMDG	0.041	0.041	0.384
Gender * TravelR	0.085	0.085	0.072
Gender * OtherS	0.078	0.078	0.102

Figure 2. ***Gender and Product /Service Preference (Based on Crosstab Analysis)***

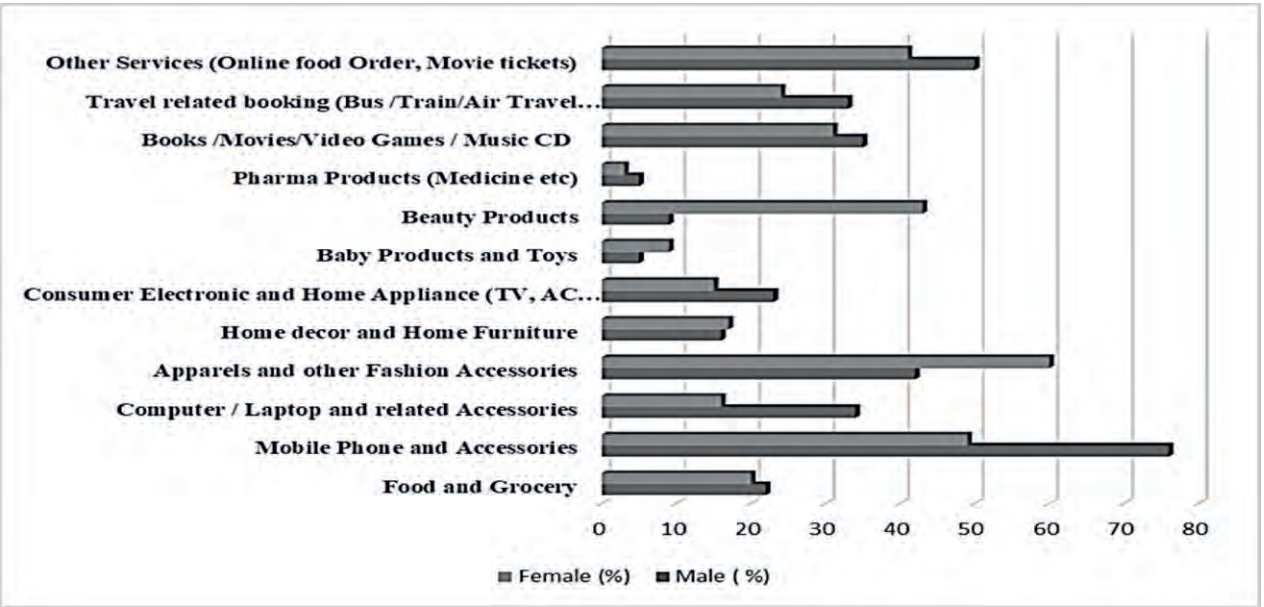
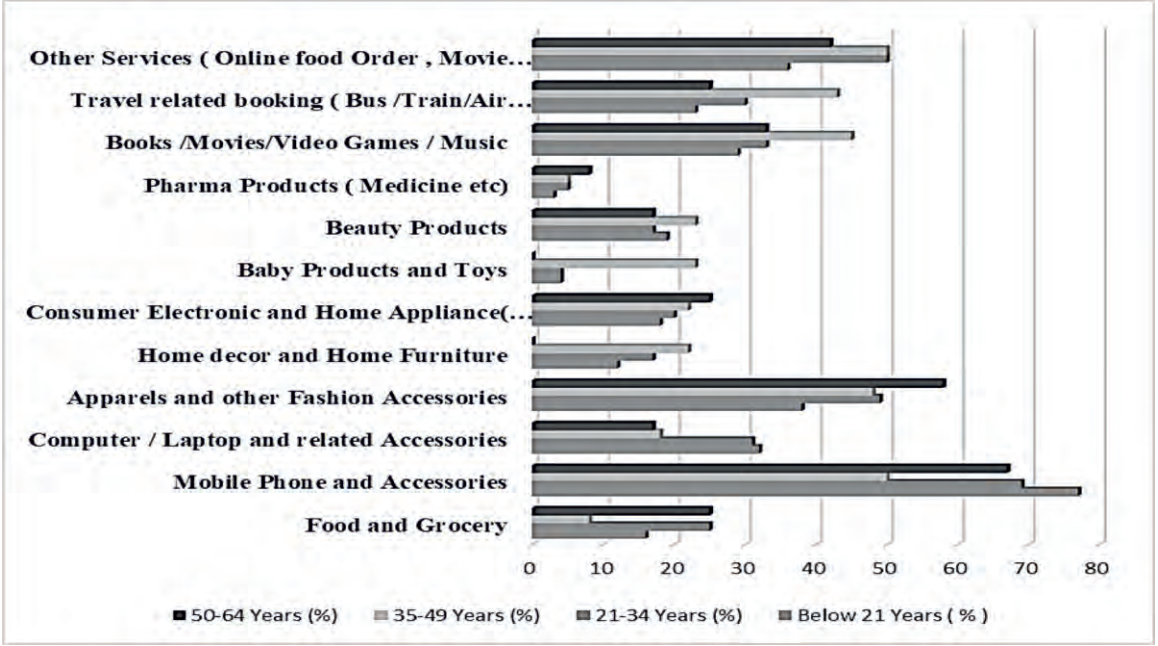


Table 5 explains the results of the cross-tabulation analysis between gender and the type of product /service consumers preferred to buy during online shopping. Crosstab analysis indicates that gender plays a significant role while placing an online order as in many categories, the *p*-value is < 0.05. The graphical presentation indicates that electronics and other technical products such as mobile phones and accessories, consumer electronics, CDs, movies, video games were more preferred by male consumers, while apparel and fashion accessories and beauty products were preferred by female consumers. Figure 2 also explains how gender may impact the consumer's product/service choice during online shopping for certain other categories, such as men do more online service

Table 6. ***Cross-tabulation Analysis***

	Phi Value	Cramer's *V* Value	Approx Sig.
Age * FoodG	0.158	0.158	0.011
Age * MobileA	0.161	0.161	0.009
Age * ComputerA	0.104	0.104	0.188
Age * ApparelA	0.087	0.087	0.339
Age * HomeDecor	0.100	0.100	0.213
Age * ConsumerE	0.034	0.034	0.916
Age * BabyP	0.270	0.270	0.000
Age * BeautyProduct	0.109	0.109	0.154
Age * PharmaP	0.048	0.048	0.791
Age * BooksMDG	0.097	0.097	0.240
Age * TravelR	0.122	0.122	0.083
Age * OtherS	0.105	0.105	0.179

Figure 3. ***Age and Product /Service Preference (Based on Crosstab Analysis)***



utilization than female consumers, while baby products and home décor products are purchased more by female consumers.

The next demographic factor (age) has been tested, and Table 6 depicts the results of the crosstabulation analysis between age and type of product /service purchase preference during online shopping. Figure 3 and the analysis indicate that in most cases, age does not impact consumers' product/service choices during online shopping. Only three product categories: baby products, food and grocery, and mobile phone and accessories,

have been found to be impacted by the consumer's age (Table 6), and only in the case of baby products, the association is significant as Cramer's *V* value is > 0.25. Thus, it can be concluded that middle-aged consumers bought baby products the most, while young consumers spent more on mobile phones and related accessories.

Similarly, marital status also impacts the selection of some product/service categories (Table 7 and Figure 4). Products like consumer electronics, home decor, baby products, pharma products, and online services were more preferred by married consumers, while unmarried consumers preferred to buy mobile phones and accessories

Table 7. ***Cross-tabulation Analysis***

	Phi Value	Cramer's *V* Value	Approx Sig.
Marital Status * FoodG	0.25	0.25	0.873
Marital Status * MobileA	.131	.131	0.022
Marital Status * ComputerA	0.073	0.073	0.302
Marital Status * ApparelA	0.057	0.057	0.482
Marital Status * HomeDecor	0.11	0.11	0.063
Marital Status * ConsumerE	0.077	0.077	0.270
Marital Status * BabyP	0.313	0.313	0.000
Marital Status * BeautyProduct	0.141	0.141	0.012
Marital Status * PharmaP	0.138	0.138	0.014
Marital Status * BooksMDG	0.035	0.035	0.755
Marital Status * TravelR	0.139	0.139	0.014
Marital Status * OtherS	0.046	0.046	0.623

Figure 4. ***Marital Status and Product /Service Preference (Based on Crosstab Analysis)***

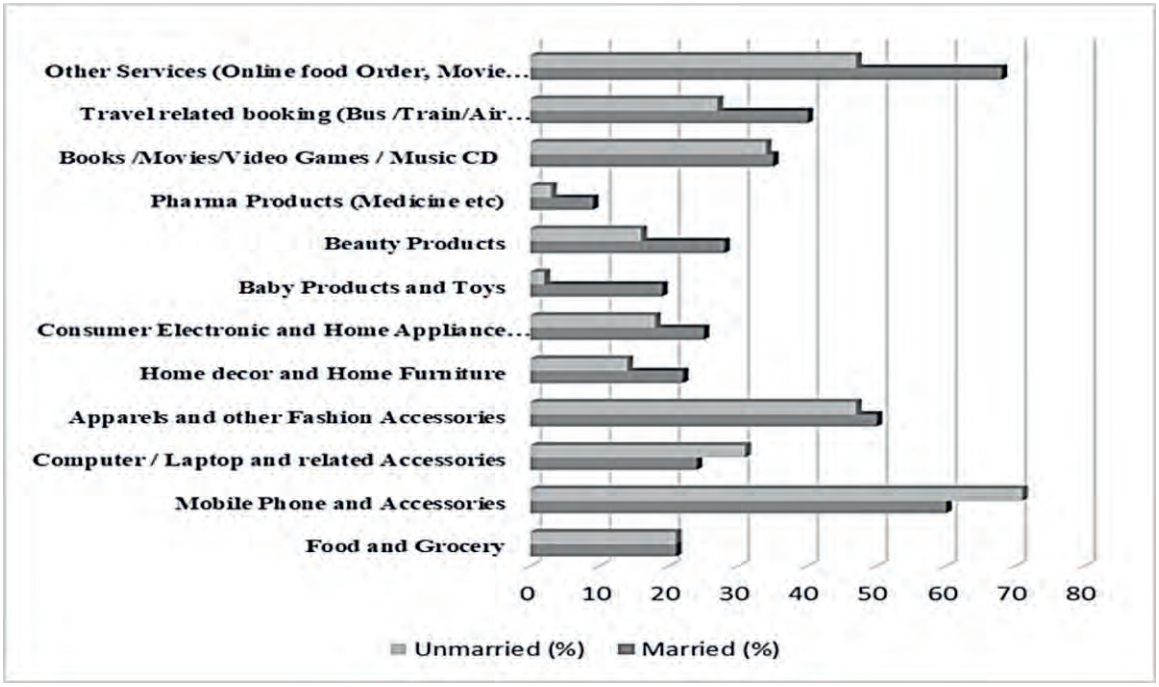
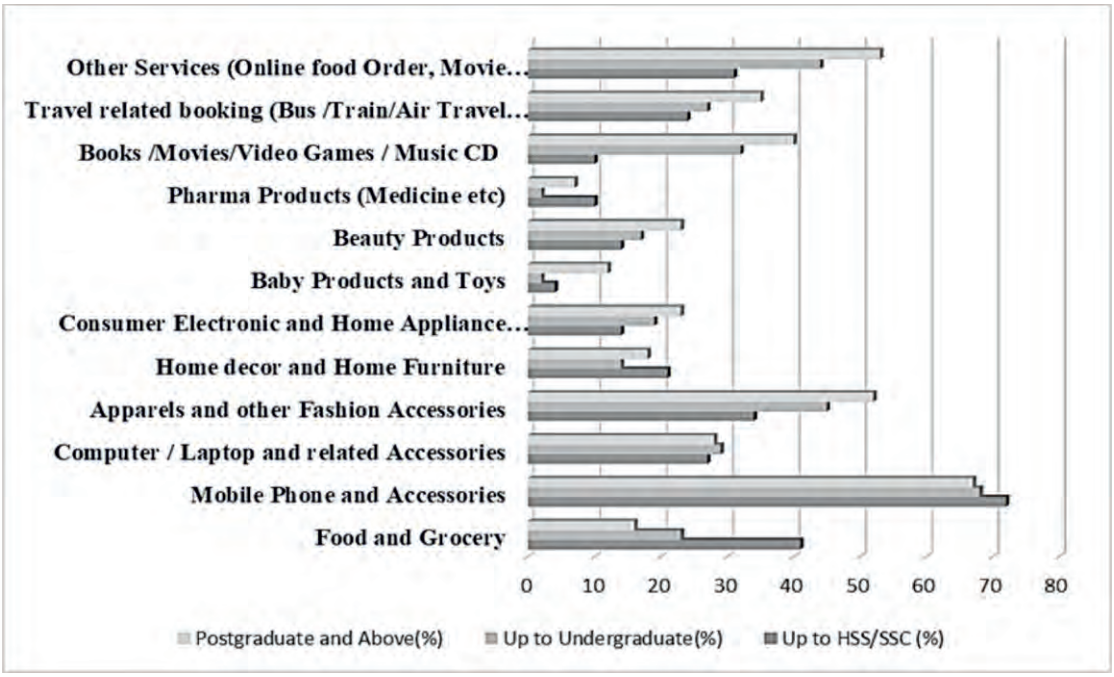


Table 8. ***Cross-tabulation Analysis***

	Phi Value	Cramer's *V* Value	Approx Sig.
Education * FoodG	0.161	0.161	0.003
Education * MobileA	0.029	0.029	0.833
Education * ComputerA	0.015	0.015	0.954
Education * ApparelA	0.092	0.092	0.150
Education * HomeDecor	0.055	0.055	0.510
Education * ConsumerE	0.062	0.062	0.423
Education * BabyP	0.184	0.184	0.001
Education* BeautyProduct	0.089	0.089	0.173
Education * PharmaP	0.119	0.119	0.042
Education * BooksMDG	0.153	0.153	0.005
Education * TravelR	0.093	0.093	0.148
Education * OtherS	0.120	0.120	0.041

Figure 5. ***Education and Product /Service Preference (Based on Crosstab Analysis)***



online. There is a strong association between baby products and marital status as Cramer's *V* value is 0.313. Similarly, beauty and pharma products were purchased more by married consumers.

The next demographic factor, that is, education (Table 8 and Figure 5), has been found to impact consumers when it comes to categories like baby products, pharma products, books, movies, CDs, and other services. Higher educated consumers preferred the above-mentioned categories more, while consumers belonging to the low education group surprisingly spent more on grocery items.

Next, another demographic factor known as an occupation has been measured. Table 9 and Figure 6 explain the

findings for the same. The results for the next demographic factor, occupation, indicate that homemakers preferred to buy beauty products and grocery products online, while retired consumers and students preferred to buy mobile phones and related accessories the most. Consumers belonging to the working professionals' category used the internet the most for travel-related bookings as well as for purchasing baby products (Figure 6).

The last demographic factor, income, is also measured and reported in Table 10 and Figure 7. The study concludes that apparel and fashion accessories, home décor items, and mobile phones and accessories were most preferred by the higher-income groups, while beauty and baby products were more preferred by the middle-income group. Thus, it can be concluded that demographic factors impact consumers' choices for buying products/services online.

Table 9. ***Cross-tabulation Analysis***

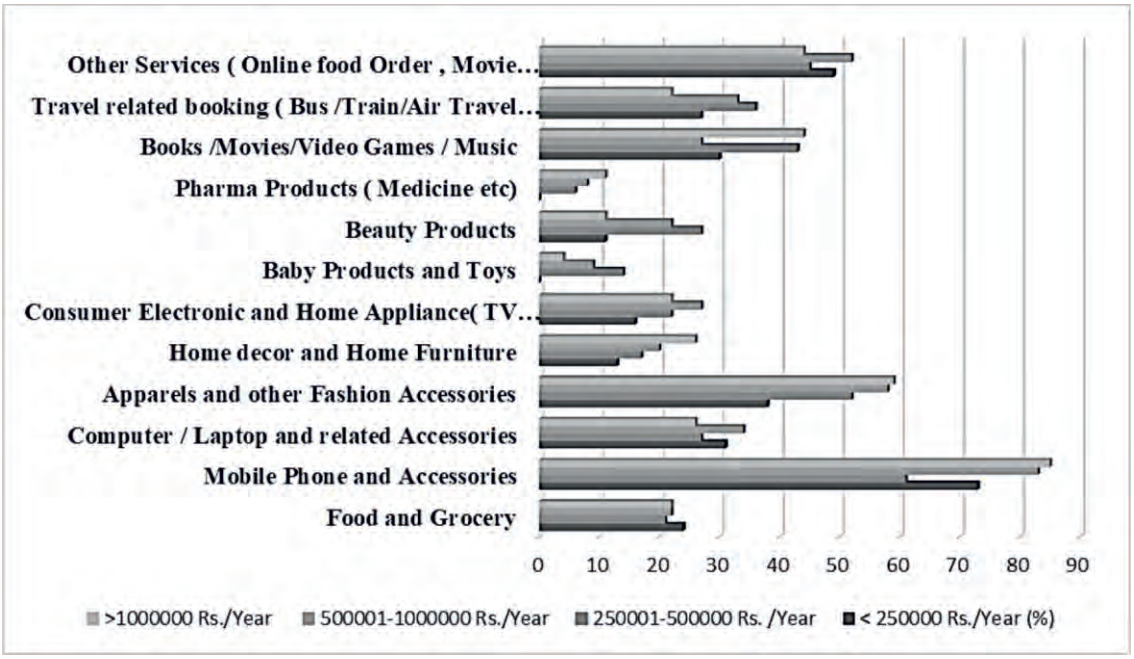
	Phi Value	Cramer's *V* Value	Approx Sig.
Occupation * FoodG	0.105	0.105	0.179
Occupation * MobileA	0.173	0.173	0.004
Occupation * ComputerA	0.118	0.118	0.101
Occupation * ApparelA	0.025	0.025	0.963
Occupation * HomeDecor	0.079	0.079	0.424
Occupation * ConsumerE	0.122	0.122	0.086
Occupation * BabyP	0.181	0.181	0.002
Occupation * BeautyProduct	0.207	0.207	0.000
Occupation * PharmaP	0.103	0.103	0.191
Occupation * BooksMDG	0.111	0.111	0.137
Occupation * TravelR	0.208	0.208	0.000
Occupation * OtherS	0.045	0.045	0.820

Figure 6. ***Occupation and Product /Service Preference (Based on Crosstab Analysis)***

Table 10. ***Cross-tabulation Analysis***

	Phi Value	Cramer's *V* Value	Approx Sig.
Yearly household income * FoodG	0.066	0.066	0.745
Yearly household income * MobileA	0.217	0.217	0.000
Yearly household income * ComputerA	0.074	0.074	0.656
Yearly household income * ApparelA	0.149	0.149	0.041
Yearly household income * HomeDecor	0.096	0.096	0.396
Yearly household income * ConsumerE	0.089	0.089	0.473
Yearly household income * BabyP	0.208	0.208	0.001
Yearly household income * BeautyProduct	0.163	0.163	0.019
Yearly household income * PharmaP	0.140	0.140	0.668
Yearly household income * BooksMDG	0.141	0.141	0.063
Yearly household income * TravelR	0.087	0.087	0.491
Yearly household income * OtherS	0.053	0.053	0.869

Figure 7. ***Income and Product /Service Preference (Based on Crosstab Analysis)***



So, overall, it can be concluded that online shopping is accepted by this small market and consumers do shop online. Research also identifies a special segment of consumers (8.8 %) who liked to shop online but took others' help to fulfill their online shopping requirements. In the urban market, mobile phones and accessories and apparel and accessories are the most preferred product categories for online shopping, but surprisingly, beauty products and grocery segment are showing noticeable growth. Another part of the research indicates that various demographic factors impact consumers' buying decisions related to product categories.

Some very early research studies already identified how consumers behave differently during various stages of

the family life cycle (Schaninger & Danko, 1993; Wagner & Hanna, 1983), and this research focuses on ascertaining the impact of demographic factors and selection of products during online shopping. As previous research studies also indicated some impact of demographic factors during online shopping (Donthu & Gracia,1999; Dahiya, 2012; Kanchan & Kumar, 2015), the results of this research support the previous findings and also set a theoretical background for e-marketers. The study also contributes to the literature by filling the gap in online consumer behavior for tier-III market and behavior towards various product categories.

Marketers can use the findings of the research to identify the most potential target segment for each product category and design impactful marketing and distribution strategies to cater to tier-III cities' markets in India.

Theoretical Contribution

This research contributes to understanding online consumer buying behavior in the context of an emerging market known as the tier-III market in India. This study identifies how demographic factors impact one dimension of online consumer buying behavior, known as product category preference, during online shopping. Statistical tests between demographic factors and preference of products/services for online shopping show a significant association as for the statistical test Cochran's Q, the value of p is reported to be < 0.05. Further statistical analysis, including crosstab analysis, Cramer's V value (v), Phi value (Φ), and p-values (χ^2 test), indicate that the demographic factors impact consumers' product/service choices during online shopping as for various categories, the p-value has been reported < 0.05 with Cramer's V value (v) and Phi value (Φ) ranging between 0 and +1 (inclusive), which indicates a moderate to low association. This study also shows that there is a noteworthy difference between male and female choices. The crosstab analysis shows that male consumers preferred to buy more technical products, including both mobile phones and related accessories and electronics goods, while females preferred to buy apparel and accessories. Thus, the overall study contributes to investigating the role of demographic factors during online shopping.

Managerial Implications

The study provides valuable information to e-commerce companies and marketers concerning online consumer buying behavior. The study's findings may help the marketers design and develop the strategies for this upcoming market known as tier-III cities. The study examines the relationship between demographic factors and their impact on online buying behavior, which will also help e-commerce companies design their promotional, pricing, and distribution strategies. Product-specific strategies can be developed to target the right type of consumers from these small markets, which will enhance a company's focus and eventually lead to financial growth. Demographic factors such as age, profession, marital status, etc., have shown the impact on the type of products consumers buy online. Based on that, e-commerce companies can also design their procurement and distribution strategies. Tier-III cities' markets are more complex than tier-I and tier-II cities, and more customized strategies are required to cater to this market. As for the major metro cities, similar strategies have been adopted by most e-tailers, and it may be possible that marketers need very customized strategies for individual tier-III cities. Considering these factors, companies can gain a competitive advantage in the market.

Conclusion

The findings of the study do not only contribute to the existing literature review related to online consumer buying behavior but will also help the marketers in designing their strategies for this upcoming market. As India is a country with wide geographical, cultural, and demographical disparity, it is essential to study the various markets

separately as it may be possible that similar strategies may not be successful for each market. As online shopping is slowly getting accepted by Indian consumers, it is necessary to identify the most potential consumer segments and product categories to design effective marketing strategies. When e-commerce started in India, the service segment was most preferred for online shopping because of the intangibility element, but slowly, the product segment also started growing, and it is expected that the Indian e-commerce industry will quadruple to approximately 70 billion dollars over the next 5 years majorly because of products, not services. With consumer acceptance, other factors such as low servicing costs in tier-II and tier-III cities (IBEF, 2018) will also be contributing to making online retailing popular in the coming years. So, in this scenario, this type of research can contribute both theoretically and practically.

Limitations of the Study and the Way Forward

Though the research has been carried out considering various aspects of this upcoming market, this entire study still has a few limitations. One of the first limitations of this study is its geographical location with limited sample size as data were collected only from selected tier-III cities of one state of India, and it may not precisely represent the complete picture of the markets of Indian tier-III cities. Also, as the data were collected through random sampling, it is limited to a certain extent as during data collection, only those consumers were interviewed who were aware of the internet; thus, this research is limited to a particular population and could not reflect the entire population.

Similar research with a wider geographical spread may provide a much more detailed picture of this upcoming market in India so that marketers can choose the most lucrative segment and design their strategies accordingly. This study provides a foundation for future researchers in the area of online consumer buying behavior for the tier-III market in India. Further research can be done by increasing the sample size by covering various tier-III cities across India. Research can also be extended for various service categories as only products have been covered in this research. So, there is scope for further research that will provide a more comprehensive conclusion for online consumer buying behavior for tier-III cities' consumers.

Authors' Contribution

Dr. Snehal Chincholkar conceived the idea and developed qualitative and quantitative designs to undertake the empirical study. Dr. Snehal Chincholkar extracted research papers with high repute, filtered these based on keywords, and generated concepts and codes relevant to the study design. Dr. Vandana Sonwaney verified the analytical methods and supervised the study. Dr. Snehal Chincholkar conducted the interviews, some in colloquial language and some in English. The same were further transcripted and translated into English. The numerical computations were done by Dr. Snehal Chincholkar using SPSS 16.0. Dr. Snehal Chincholkar wrote the manuscript in consultation with Dr. Vandana Sonwaney.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

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