

Determinants Influencing Online Shopping Behaviour in Azamgarh District: A Demographic Analysis

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Abstract

The research paper elucidates the influence of several non-demographic elements on internet shopping behaviour. The objective of this study was to investigate the correlation between online purchase behaviour and the demographic characteristics of consumers in Azamgarh. We examined the influence of six demographic characteristics—age, gender, income, education, occupation, and marital status—on the frequency of internet shopping. A systematic questionnaire was employed to collect primary data from 200 individuals in urban and rural areas of Azamgarh district, in addition to online surveys. The chi-square test was employed to assess the correlation between consumers' demographic characteristics and their online purchasing behaviours. The survey indicates that female, unmarried consumers and students with advanced education are more inclined to engage in internet shopping. The age and income of consumers has minimal influence on their online shopping behaviour. The study's findings are expected to furnish e-commerce enterprises with insights into customers' online purchasing behaviour, enabling the formulation of tailored business strategies aligned with consumer behaviour and preferences, thereby yielding a competitive advantage across various domains. Ping. We obtained the data through the distribution of surveys. The study's findings indicate that many demographic parameters, such as age, gender, marital status, family size, and income, significantly influence internet buying in India. The study's findings could be utilized by researchers and practitioners to conduct more investigations in the same domain.

Keywords: Demographic Factors, Online Shopping, E-Commerce, Buying Behaviour

Introduction

The perception of service quality provided by e-tailers varies among a heterogeneous consumer demographic characterised by factors such as age, gender, education, income, marital status, and occupation. This study indicates that internet retailers can enhance their sales through focused methods by comprehensively understanding the impact of specific demographic parameters. A multitude of services is being provided online due to the rapidly rising economic potential. Online shopping is one of the most significant services accessible over the internet. There are significant benefits for both companies and customers. Online purchasing enables businesses to access a broader audience at reduced expenses. Customers in more isolated regions have been informed. These are fundamentally essential to the concept of a global village. Online purchasing markedly decreases the overhead expenses associated with inventory management. Consumers can shop from any location instead of needing to visit physical stores or outlets. Consequently, buyers can effortlessly make online purchases irrespective of their geographical location. However, prior to reaching a conclusive selection, customers may explore multiple websites. As a result, consumers have an infinite array of options while shopping online. Shoppers are welcome at any hour, throughout the entire year. This conserves both customers' time and energy. Moreover, consumers possess several choices and limited leisure time, enabling them to effortlessly locate desired items and evaluate prices. A relatively recent development in electronic commerce, online shopping possesses the potential to revolutionise retail in India. Consumers in

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India, particularly the youth, may now browse numerous websites, identify optimal deals, and complete their purchases without leaving their homes, all within minutes. As smartphone and internet usage proliferates, alongside the increasing prevalence of online payments, businesses now possess a distinctive potential to engage with their customers. In recent years, online shopping has consistently broadened its customer demographic to encompass a greater number of individuals in rural regions and the senior population.

Literature Review

Numerous prior research studies have associated customers' online purchasing behaviour, namely the impression of product and service quality, with their educational background. Kalia et al. (2016) conducted a study revealing that online product customers had high levels of education, open-mindedness, cosmopolitanism, adaptability, self-confidence, and a propensity for risk-taking. This study suggests that while designing their homepages, consumer e-shopping profiles, and other virtual market platforms like social networking sites and fan pages, online retailers should take their age and gender into account. It is of the utmost importance for online stores to ensure the safety of their company platforms and websites. When targeting specific consumer categories, online retailers should take into account the educational background of their online clients. Identifying target markets, highlighting products, providing trustworthy product information, delivering reliable services, and designing visually beautiful websites with user-friendly features are all essential components of any successful online retailer's business strategy.

Globally, people are abandoning crowded retail locations in favour of the convenience of one-click online shopping, as indicated by study conducted by Vijay, Sai and Balaji (May 2009). Nonetheless, online shopping remains less favoured among Indian customers. This survey aimed to determine the factors influencing online purchasing behaviour among 150 internet users. This sample comprised both habitual online consumers and individuals who had never engaged in online shopping prior. The findings indicate that Indian consumers are motivated to shop online by time efficiency and convenience, however deterred by security and privacy apprehensions.

According to Bellman and colleagues (1999, p. 33), surveys conducted on the Internet repeatedly reveal that the demographic that spends time online tends to be younger, better educated, and wealthier than the general population. However, these differences are gradually narrowing. While they acknowledge that demographics play a role in determining Internet use, they find no evidence that demographics play a substantial role in determining whether or not people make a purchase once they're online. Some of the most telling characteristics of internet shoppers' demographics include their age, marital status, gender, level of education, home location, and family income (Fram & Grady, 1997; Kunz, 1997; Mehta & Sivadas, 1995; Sultan & Henrichs, 2000).

Herna'ndez et al. (2011) looked at how people's age, gender, and income affected their online buying habits. People who have shopped online before, or who do it often, are the ones being studied. Their study's results show that a person's socioeconomic status has no bearing on their online shopping habits or attitudes; in other words, they don't influence the actions of seasoned online shoppers. Perhaps men's superior internet skills stem from their naturally curious nature and their preference for amusement over facts when it comes to researching online. For questions about online buying, women prefer to consult sources outside of the internet. There will be less of a gender gap in internet shopping as people's prior experiences allay their worries of the unknown (et al., 2019). In spite of these gender differences, online shopping has several benefits that men and women both can enjoy.

Kooti et al. (2015) assert that income is a vital determinant in the business sector. Targeting affluent individuals is more efficacious because to their greater discretionary income. Previous research on internet consumers has demonstrated that increased expenditure correlates with heightened online purchasing activity. Online purchases by lower-income Americans exceed those made by middle-income individuals. This study aims to utilise internet purchases as an evaluative metric to reveal the influence of money on consumers' online purchasing behaviour. We obtain the median household income for each consumer according to their zip code from the US Census. Subsequently, we incorporate an income variable to account for the consumer's income level. Finally, the article examines how customers' income influences their online purchase behaviours. Income can influence the

total expenditure, transaction frequency, expenditure per purchase, and the results of online buying.

Online shopping in particular has been impacted by the rise of the Internet and other forms of digital technology, according to research by Jerab (2025). The convenience of online purchasing hasn't won over everyone, either. Using the internet, people can go shopping without ever leaving their homes. Any consumer with access to a computer, laptop, or smartphone can participate in online shopping and purchase goods and services. When you buy online, you can save both time and energy. As a marketing tool, the majority of companies now have a website and an e-commerce platform. The convenience of the internet and other forms of information technology have made online shopping the preferred way of purchase for individuals with hectic schedules. People can buy things whenever and wherever they want with online shopping. There are a lot of advantages to shopping online that people like over more conventional methods.

Objective of the Study

- To examine the demographic aspects influencing customers' online purchase behaviour.
- To ascertain the future potential of internet purchasing in Azamgarh district.

Hypothesis

- H1: There is a significant relationship between consumers' age and online shopping behaviour.
- H2: There is a significant relationship between the gender of consumers and online shopping behaviour.
- H3: There is a significant relationship between consumers' income and online shopping behaviour.
- H4: There is a significant relationship between consumers' level of education and online shopping behaviour.
- H5: There is a significant relationship between consumers' occupation and online shopping behaviour.
- H6: There is a significant relationship between consumers' marital status and online shopping behaviour.

Research and Methodology

Customers in the Azamgarh district, both urban and rural, were surveyed for this study. People who had experience shopping online made up the respondent sample. From February to May of 2025, data was collected using a systematic questionnaire. There were two parts to the survey. In the first part, we looked at the demographics of the respondents, and in the second part, we looked at how people shop online. A convenience sample was used to distribute the questionnaires to the participants. Fifty surveys were gathered offline and 150 were collected online, for a grand total of 200 questionnaires. All of the questions were filled out accurately.

Variables

This study examines the influence of demographic variables on consumers' inclination to shop online. Consumers give demographic information such as age, gender, income, education, profession, and marital status. Several characteristics were identified as significant predictors of Internet purchasing behaviour among consumers, including gender, marital status, geographic region, age, educational attainment, and household income.

(Fram & Grady, 1997; Kunz, 1997; Mehta & Sivadas, 1995; Sultan & Henrichs, 2000).

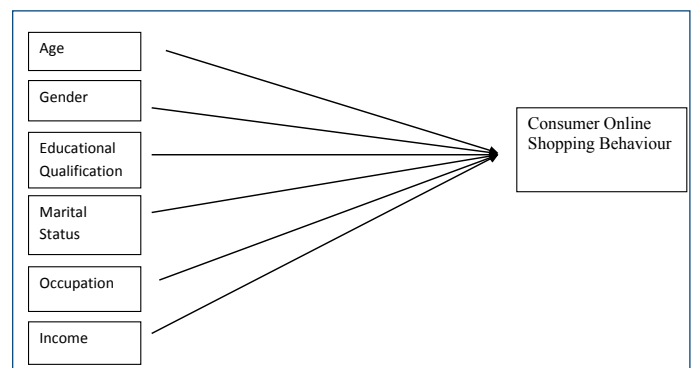


Fig. 1: Relationship Between Consumers' Demographic Attributes and Online Shopping Behaviours

Data Analysis

The researchers in this study used a chi-square (χ^2) test to look for a relationship between the demographics of shoppers and how often they shopped online. Here is the process for estimating the χ^2 statistic:

$$\chi^2 = \frac{(f_0 - f_e)^2}{f_e}$$

Where f_0 denotes the observed values, and f_e denotes the expected values.

In order to find out how strongly online shoppers' demographics correlated with their actual actions, this study ultimately used Cramér's V test. The procedure for estimating the Cramér's V statistic is as follows:

$$\phi_c = \frac{\sqrt{\chi^2}}{\sqrt{N(k-1)}}$$

In this context, ϕ_c stands for Cramér's V, χ^2 is the chi-square statistic, N is the study's sample size, and k is the fewest demographic factors and online purchasing behaviours. Someone might get an estimate between zero and one from the Cramér's V test. If the value is 1, then there is a perfect relationship between the two variables; if it is 0, then there is no link at all. There is a weak association between the two variables if the value is less than or equal to 0.2, a moderate relationship if the value is between 0.2 and 0.6, and a strong relationship if the value is 0.6.

Result and Discussion

Table 1 illustrates the distribution of respondents according to their demographic attributes. The predominant demographic of respondents (44%) consisted of individuals aged 21 to 30, followed by 22% aged 31 to 40, and a mere 9.5% under the age of 20. There were 90 male respondents and 110 female replies. Just over half (31%) of the respondents earned a monthly income below ₹ 15,000; 16.5% were within the ₹ 15,001–30,000 range; 15.5% were in the ₹ 30,001–45,000 range; 16% belonged to the ₹ 45,001–60,000 range, while the remainder earned ₹ 60,000 or more. A significant majority of respondents (69.5%) possessed advanced education, with 34% holding

postgraduate degrees and 35.5% holding doctoral degrees. Of the respondents, 8.5% possessed an intermediate school diploma, 9.5% held a high school diploma, and 8% obtained additional educational qualifications. A significant percentage of respondents (30.5%) were students, whereas 28.5% were employed in the public and commercial sectors, 32% were unemployed, and 34% were entrepreneurs. A mere 41.5% of respondents were married, while the predominant majority, 58.5%, were unmarried.

Table 1: Distribution of Respondents Based on Demographic Variables

Demographic Variables	No. of Respondent	Percentage
Gender		
Male	90	45
Female	110	55
Age		
Below 20	19	9.5
21-30	88	44
31-40	44	22
41-50	32	16
51 and above	17	8.5
Marital Status		
Married	83	41.5
Unmarried	117	58.5
Educational Qualification		
High School	19	9.5
Intermediate	17	8.5
Under Graduate	71	35.5
Post Graduate	68	34
Others	25	12.5
Occupation		
Student	61	30.5
Service	57	28.5
Business	34	17
Unemployed	32	16
Others	16	8
Monthly Income		
Below 15,000	62	31
15,001-30000	33	16.5
30,001-45000	31	15.5
45,001-60000	32	16
60,001 and above	42	21

Amount of Money Spent on Online Shopping

Table 2 show the amount of money consumers’ spend on online shopping.16% of the population spend more than 20,000 on shopping online. The vast majority 30% spend less than ₹5000 on shopping online. Shopping behaviour in terms of gender, the frequency of amount spend on online shopping is higher for females compared to males.48.28% of males and 51.72% of females spend more than ₹15,000-20,000 on shopping online, while 44.44% of males and 55.56% of females spend more than ₹20,000 on online shopping. When it comes to shopping habit by gender, females are more likely to spend on shopping online.

Table 2: Distribution of Respondents on the Amount Spend on Online Shopping

Amount of Money Spent on Online Shopping	Number of Respondents		
	Male	Female	Total
Less than 5000	30	35	65
	46.15%	53.85%	(32.5%)
5001-10000	18	21	39
	46.15%	53.85%	(19.5%)
10001-15000	16	24	40
	40%	60%	(20%)
15001-20000	14	15	29
	48.28%	51.72%	(14.5%)
20001 and above	12	15	27
	44.44%	55.56%	(13.5%)

Association Between Consumers’ Demographic Variables and Their Online Purchasing Behaviours

Table 3 displays the chi-square test results on the correlation between customers’ demographic factors and their online shopping behaviours. A chi-square test for independence with $\alpha=0.05$ was employed to ascertain the relationship between consumers’ demographic factors and their online buying behaviour. Table 3 indicates

that the chi-square test assessing the impact of age on consumers’ online buying frequency is significant, $\chi^2(1, N=200, df=4) = (17.317, p<0.002)$, hence supporting H1. The Cramér’s V test phi (ϕ) coefficient for age for internet buying is 0.294, $p<0.002$, as indicated in Table 4. This research reveals that consumers’ age influences their online shopping behaviour, suggesting that their attitudes about online shopping are indifferent with respect to age. Age is favourably correlated with challenges in stimulus processing (Morris & Venkatesh, 2000) and is significantly associated with the duration untrained users require to acclimatise to computers (Gomez et al., 1986). Table 3 indicates that the chi-square test for the impact of gender on online purchasing frequency was negative and statistically insignificant, $\chi^2(1, N=200, df=1) = (0.007, p>.932)$, hence rejecting H2. The findings indicate that customers’ gender identity does not influence their online shopping behaviour. The author investigated through exploratory investigations if consumer trust differs by gender. This study identified relatively slight gender-based differences in the perception of online buying, with significant worry observed overall, irrespective of gender. The findings indicated merely negligible and statistically insignificant gender disparities. The findings of a study by Dai and Arnulf (2019) reveal that there is no gender disparity in internet shopping attitudes. The findings of a study by Blandina Sramova and Jiri Pavelka (2019) indicated that there is no gender disparity in hedonistic value motivations related to internet purchasing. Table 3 illustrates that the chi-square test assessing the relationship between income and online purchasing frequency is statistically insignificant, $\chi^2(1, N=200, df=4) = 2.333, p>0.675$, hence rejecting H3. This research indicates that customers’ income levels do not affect their internet shopping behaviours, contrary to assumptions. Income as one of the demographic characteristics does not significantly affect on-line buying in India (Bagdoniene & Zemblyte, 2009; Richa, 2012). This finding that seems to be at odds with itself may be because most of the people who answered are students with similar income levels. For their daily and school expenses, they rely on their family for money. Still, some make money by working part-time, like coaching poor kids at home.

Table 3: Chi-Square Test Evaluations – Relationship Between Consumers’ Demographic Variables and Their Online Shopping Behaviours

Demographic Variables	Chi-Square Estimations	Df	Asymptotic Significance (2-Sided)	Results
Age	17.317	4	0.002	Significant (i.e., failed to reject H1)
Gender	0.007	1	0.932	Inignificant (i.e., reject H2)
Income	2.333	4	0.675	Insignificant (i.e., reject H3)
Education	8.350	4	0.080	Inignificant (i.e., reject H4)
Occupation	33.197	4	0.000	Significant (i.e., failed to reject H5)
Marital Status	0.638	1	0.424	Inignificant (i.e., reject H6)

The chi-square test estimate of customers’ education and online purchasing frequency, shown in Table 3, is not statistically significant (χ^2 (1, N=200, df=4) = 8.350, $p>.080$), which means we should reject H4. This means that there is no strong link between people’s education and their internet shopping habits. Even while several studies have shown that higher levels of education are linked to more online buying, there are still some studies that say the link is not substantial (Dholakia & Unsitalo 2000; Teo, 2001). The idea that the internet is getting easier to use supports this view. Because of this, educational achievement is less significant while shopping online (Teo, 2001).

Table 4: Estimations of Cramér’s V Test – Effect Size of Consumers’ Demographic Variables and Their Online Shopping Behaviours

Demographic Variables	phi (ϕ) Values	Approximate Significance
Age	.294	.002
Gender	.006	.932
Income	.108	.675
Education	.204	.080
Occupation	.407	.000
Marital status	.057	.424

According to the results of the chi-square test (χ^2 (1, N=200, df=4) = 33.197, $p<.000$), shown in Table 3, the influence of customers’ vocations on the frequency of their online purchases is statistically significant. Table 4 further shows that the Cramér’s V test yielded a phi (ϕ) value of .407, $p<.000$. A moderate effect of profession on online shopping frequency is suggested by the ϕ coefficient, and the χ^2 calculation does not reject H5. One important demographic factor that can affect how people think and act when they’re online is their occupation (Venkatesh, Xu, & Thong, 2012; Sharma & Parmar, 2018). According

to these results, the influence of customers’ employment on their online buying behaviour is medium-sized. Customers with high levels of occupational involvement tend to have higher levels of education, which could explain this pattern. Their preference for online shopping might have been impacted by their ability to handle uncertainty and their level of computer self-efficacy.

Table 3 shows that there is no link between consumers’ marital status and their online shopping behaviour when it comes to the frequency of online purchases and their marital status, since the chi-square test result is statistically insignificant (χ^2 (1, N=200, df=1) = 0.638, $p>0.424$). Othman and Sudarmin (2022) discovered that marital status did not significantly moderate the association between perceived behavioural control and the tendency to shop online. No discernible difference or variation in marital status among clients was seen in the data. This means that married people and single people see things from the same angle.

Conclusion

This study aims to investigate the impact of demographic characteristics on online purchase behaviour among customers in the Azamgarh district. The study reveals that internet purchase is more common among female consumers than to male consumers. Online purchasing is inconsequential for consumers with advanced degrees compared to those with fewer educational qualifications. Ultimately, there is no discernible correlation between married and single consumers regarding online buying. However, clients’ online shopping behaviour is markedly affected by their age and occupation. The study’s findings may influence several factors. E-commerce enterprises could utilise data to develop a combination of digital marketing methods to influence online shoppers.

Online businesses may gain insights from the study's findings, which analysed the correlation between several demographic parameters and consumers' propensity to engage in online shopping. Online merchants and websites may evaluate demographic factors such as gender, education, occupation, and marital status when formulating strategies to improve user engagement on their platforms. Online marketplaces may integrate elements that attract clients with diverse educational and professional backgrounds.

They can focus on differentiating their components based on factors such as gender and marital status. Numerous drawbacks should be acknowledged regarding this study. This survey includes a substantial number of respondents from urban areas of Azamgarh and a lesser number from non-metropolitan regions. Secondly, the majority of poll respondents were students, predominantly young, single, and operating on a constrained budget. Therefore, by include participants from Azamgarh's rural areas and small towns, subsequent study can provide a more comprehensive analysis of how demographic factors influence customers' online purchasing behaviour. Future studies may encompass older, affluent, married consumers.

References

- Adamkolo, M. I., Hassan, M. S., & Pate, A. U. (2018). Consumers' demographic factors influencing perceived service quality in e-shopping: Some evidence from Nigerian online shopping. *Pertanika Journal of Social Sciences & Humanities*, 26(3).
- Bagdoniene, L., & Zemblyte, J. (2009). Online shopping motivation factors and their effect on Lithianian consumers. *Economics and Management*, 14, 367- 374.
- Bellman, S., Lohse, G., & Johnson, E. (1999). iPredictors of online buying behaviour. *Communications of the ACM*, 42(12), 32-38.
- Dai, W., & Arnulf, J. K. (2019). Like or want? Gender differences in attitudes toward online shopping in China. *Psychol. Mark.*, 1-9. doi:<https://doi.org/10.1002/mar.21183>
- Fram, E. H., & Grandy, D. B. (1995). Internet buyers: Will the surfers become buyers? *Direct Marketing*, 57(10), 63-65.
- Gomez, L. M., Egan, D. E., & Bowers, C. (1986). Learning to use a text editor: Some learner characteristics that predict success. *Human-Computer Interaction*, 2(1), 1-23.
- Hernández, B., Jiménez, J., & Martín, J. (2011). Age, gender and income: Do they really moderate online shopping behaviour? *Online Information Review*, 35(1), 113-133. doi:<http://dx.doi.org/10.1108/14684521111113614>
- Jerab, D. (2025, January 8). *Factors influencing consumers' online shopping behaviour*. Retrieved from <https://ssrn.com/abstract=5086961> or doi: <http://dx.doi.org/10.2139/ssrn.5086961>
- Khusaini, K., Ramdani, H., & Ambarumanti, R. (2019). The influence of shopping and gender differences on online shopping. *Jurnal Pendidikan Ekonomi Dan Bisnis (JPEB)*, 7(1), 22-30.
- Kalia, P., Singh, T., & Kaur, N. (2016). An empirical study of online shoppers' search behaviour with respect to sources of information in Northern India. *Productivity: A Quarterly Journal of the National Productivity Council*, 56(4), 353-361.
- Kolsaker, A., & Payne, C. (2002). Engendering trust in e-commerce: A study of gender-based concerns. *Marketing Intelligence and Planning*, 20(4), 206-214.
- Kooti, F., Lerman, K., Aiello, L. M., Grbovic, M., Djuric, N., & Radosavljevic, V. (2016, February). Portrait of an online shopper: Understanding and predicting consumer behaviour. In *Proceedings of the 9th ACM International Conference on Web Search and Data Mining* (pp. 205-214).
- Mehrotra, A., Elias, H., Al-Alawi, A. I., & Al-Bassam, S. A. (2020). The effect of demographic factors of consumers online shopping behaviour in a GCC university. In E. A. Al-A'ali, & M. Masmoudi (Eds.), *Ethical Consumerism and Comparative Studies Across Different Cultures. Emerging Research and Opportunities* (pp. 126-151), USA: IGI Glob. doi:<https://doi.org/10.4018/978-1-7998-0272-3.ch008>
- Mehta, R., & Sivadas, E. (1995). Direct marketing on the internet: An empirical assessment of consumer attitudes. *Journal of Direct Marketing*, 9(3), 21-32.
- Morris, M. G., & Venkatesh, V. (2000). Age differences in technology adoption decisions: Implications for a changing work force. *Personnel Psychology*, 53(2), 375-403.
- Othman, N., & Sudarmin, S. (2022). Understanding the moderating effect of marital status in explaining the relationship between perceived behavioural control

- and intention to use online shopping. *International Journal of Academic Research in Business and Social Sciences*, 12, 12.
- Richa, D. (2012). Impact of demographic factors of consumers on online shopping behaviour, *International Journal of Engineering and Management Sciences*, 3(1), 43-52.
- Roy Dholakia, R., & Uusitalo, O. (2002). Switching to electronic stores: consumer characteristics and the perception of shopping benefits. *International Journal of Retail & Distribution Management*, 30(10), 459-469.
- Sramova, B., & Pavelka, J. (2019). Gender differences and wellbeing values in adolescent online shopping. *International Journal of Retail & Distribution Management*. doi:<https://doi.org/10.1108/IJRDM-08-2017>
- Sultan, F., & Henrichs, R. B. (2000). Consumer preferences for Internet services over time: Initial explorations. *The Journal of Consumer Marketing*, 17(5), 386-403.
- Teo, T. S. (2001). Demographic and motivation variables associated with Internet usage activities. *Internet Research*, 11(2), 125-137.
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157-178.
- Vijay, S. T., & Balaji, M. S. (2009, May). Online shopping in India: Findings from a consumer research. *Marketing Mastermind*, 5. The ICFAI University Press.