

The Role of Demographics in Online Shopping- An Exploratory Study

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Abstract:

Online shopping is a phenomenon in the wake of the emergence of Electronic Retailing and is considered to influence the future of shopping. The internet is fast becoming an integral feature of our day-to-day lives. Online shopping allows users to perform transactions 24 hours a day, all round the year, from almost any place. Vast amounts of product information on the web, increasing internet penetration, availability of multiple payment options, increasing usage of smartphones and changing lifestyles of customers are some of the factors that have contributed to the growth of electronic retailing in India. In addition to that online shopping is affected by factors like features of online shopping sites, policies of e-retailers, technological factors, and security factors.

The present research paper has carried out an exploratory study to depict and highlight the relationship between various demographic characteristics like age, gender, income, education, marital status and occupation of consumers and online shopping in the Indian context. The study is purely empirical in nature

Keywords: Demographics, Online Shopping, Technology factors, internet penetration and payments options.

Introduction

Online shopping is a growing phenomenon developing due to the emergence of Electronic Retailing influencing the future of shopping. The Internet is fast becoming an integral feature of our day-to-day lives. There is a huge potential to purchase goods and services through the Internet (Cheung and Lee, 2006). On the one hand, Internet shopping allows users to perform transactions 24 hours a day, all year round, from almost any place, while on the contrary, the vast amount of product information on the web presents significant challenges to users (Huang et al., 2003). Most of the companies are maintaining their online shopping portals to sell their product/services.

Increasing Internet penetration, availability of multiple payment options increased usage of smartphones and changed lifestyles of customers are some of the factors that have contributed to the growth of electronic retailing in India.

Customer perceptions towards online purchasing are affected by a variety of factors like user-friendliness, expediency, situational factors, product exclusivity, previous online shopping perception and confidence in online purchasing mode (Rastogi, 2010). Though online shopping is very common outside India, its growth in the Indian market, which has a huge potential, is still not in line with the global market. The potential growth of online shopping has triggered the idea of conducting a study on online shopping in the Indian context. College students are easily identifiable by their typical age of under 25, their membership in the Millennial generation, and their college affiliation (Davis and Bauman, 2011; Pew Research Center, 2010).

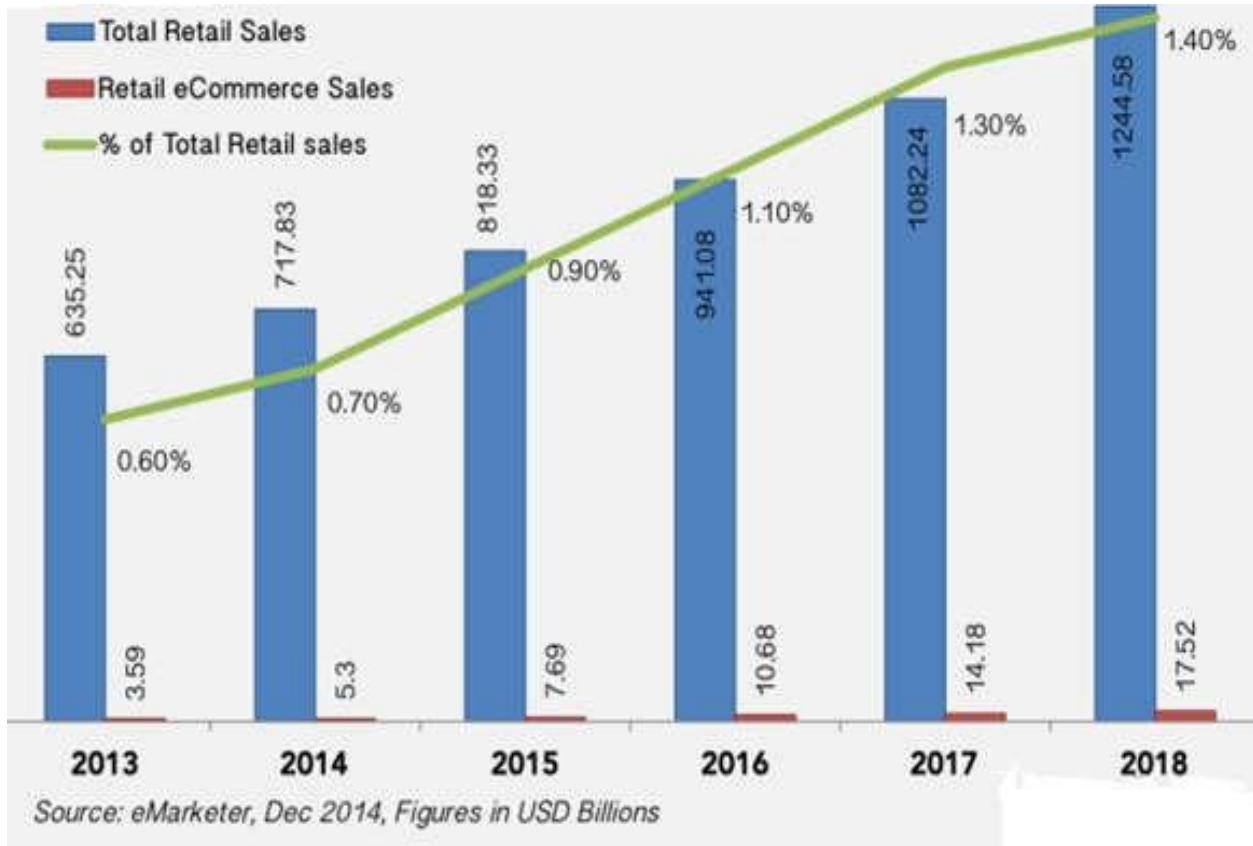
The e-commerce business in India is expected to reach around \$50-70 billion by 2020 on the back of a fast-growing Internet-connected population and improvement in related infrastructures like payment and delivery systems. Electronic retailers believe perceptions of Indian consumers and their shopping patterns are changing very fast. Online shopping is expected to become mainstream in the coming five to six years, with smart mobiles phones being the biggest online shopping driver in the coming years. It is also expected that over half a billion Indians will switch to smartphones in the next five- six years which would be a big boost to e-commerce in India.

According to the joint report by KPMG and IAMAI (2013), only around 10,000 out of the more than 150,000 pin codes in the country are covered by courier companies. The penetration of courier services is essential to boost online shopping as deliveries are mostly done through them. The size of India's e-commerce market in 2013 was pegged around \$13 billion, out of which online travel segments contributed over 70 percent of the total consumer e-commerce transactions last year.

According to IMRB Report (2013), e-commerce market has grown and reached to the level of INR 47,349 crores by 2012. This growth is primarily driven by the online travel industry, which contributes 76% to total net commerce industry in India. E-tailing comprising of buying consumer items such as cameras, computers, home and kitchen appliances, flowers and toys, online takes the second position with 7.82% share.

In 2013, trends of online shopping had witnessed a significant change with 85% rise in online trends over the regular shopping than last year (65%), reveals ASSOCHAM latest paper. The survey highlights that 35% of regular shoppers are in 18- 25 age group, 55% in 26-35, 8% in 36-45 and 2% in the age group of 45-60. 65% of Online Shoppers are male as against 35% female.

Figure 1.1 Total Retail and E-Commerce Sales in India (2013 – 18)



Source: Economic times of India (Bangalore e-paper) report.

The above figure:1 discussed the trends of the e-commerce from the period of 2013-to 2018. The percentage of total sale has been increasing from 0.60% to 1.40%, and total e-commerce sale has grown from 3.59 USD\$ to 17.52USD\$ from 2013 to 2018, and finally, the total sale of retail in India is from 635.25 USD\$ to 1244.58 USD\$.

Literature review

Hernandez et al. (2011) in a study “Age, gender, and income do they moderate online shopping behavior?” analyzed whether individuals’ demographic characteristics – age, gender and income-influence their online shopping behavior. Many studies have been tried evaluating the online shopping tendencies based on gender. Although there was no significant difference between online shoppers and non-shoppers regarding gender as Men’s perceptions of online shopping were approximately the same. (Alreck, P. and Settle, R. B., 2002),

Most of the past research on demographic factors has focused on examination of the impact of education, age, gender and income variables on e-commerce adoption (Moschis et al., 1985; Jarvenpaa and Todd, 1996; Li et al, 1999; Lynch and Beck, 2001; Li and Zhang, 2002; Ramayah and Jantan, 2003; Park and Jun 2003; Dillon and Reif, 2004; Yang, 2005; Slyke et al, 2005;

Richards and Shen, 2006; Rotem-Mindali and Salomon, 2007). These researchers reveal that education, gender, and age are robust predictors of online buying status (frequent online buyer, occasional online buyer, or non-online buyer). In general, it has been found that online shoppers tend to be young, better educated, innovators and heavy users of technology. Research that attempts to understand post-adoption behaviors has found that demographics, attitudes, perceptions and search activities and purchase history, all impact repurchase and replacement purchases of previously adopted products (Bayus, 1991; Kim et al., 2001; Grewal et al., 2004).

Dahiya Richa., 2012). Suggested that in her studies there is no significance difference between age, gender, income and education of the consumer towards online shopping. Research that attempts to understand post-adoption behaviors has found that demographics, attitudes, perceptions and search activities and purchase history, all impact repurchase and replacement purchases of previously adopted products (Bayus, 1991; Kim et al., 2001; Grewal et al., 2004). Another study attempts to determine the importance of socioeconomic user characteristics such as age, gender, educational level, place of residence and income. These following characteristics have been commonly employed in the field of marketing for purposes of market segmentation and may explain changes in the behavior tested (Venkatesh et al., 2003; Bigne et al., 2005).

Case et al. (2001) suggested that Internet knowledge, income, and education level were particularly powerful predictors of Internet purchases among university students. Mishra S. (2009) also suggested that age and income shows a significant association with purchasing attitude. Banerjee et al. (2010) revealed that online shopping is significantly related to family income and frequency of Internet usages and Internet users with high disposable monthly income are more likely to engage in online shopping. Thus, various demographic variables like age and income have a preliminary positive impact on online shopping behavior of individuals. Gender also plays an important role in online shopping. Females have more interest and confidence while using the Internet as compared to male Internet users.

Perception of online shoppers is independent of their age and gender but dependent on their qualification and gender also income and gender (Zia UIHaq, 2010) The studies on gender and family income reported that gender and family income had a significant relationship with overall attitude (Ahasanul Haque, 2006). The youngsters having 18-25 years age groups, both males and females, use the Internet heavily and more adapted to Internet shopping (Almoussa, 2011). On the contrary, the studies on gender analysis reported that there is no any significant difference between male and female online buyers. (Srikanth Beldona, 2011).

Regarding frequency of online shopping, result reveals that gender and frequency of online shopping are independent of each other. (Nabil Tamimi, 2004) Consistent results with no any statistically significant differences in gender are observed in online behaviors and Attitudes. (Yet Mee Lim, 2010). For most women, shopping is a leisure activity whereas men perceive shopping as goal-directed. Men perceive shopping Web sites to be time-saving, convenient, and offering flexibility to shop at any time of the day (Arpita Khare, 2011). When online buyers attitude is concerned, it shows that male students have more positive than female students. (Acilar, 2012).

Product Preferences in Online Shopping

Previous studies on “Low-touch” products/services like computer software, airline ticket, etc. revealed that customers tend to choose the online purchasing due to the advantage of quick delivery. Levin et.al, (2005), opined that because the feedback provided by others about the

product, also works as a determinant for selecting online purchasing by the consumers. The online website channels are providing a broad range of goods catalogs of electronic products and non-electronic products for the consumer in e-market.

Problem Statement

Market segmentation is defined as “Dividing a market into smaller segments of buyers with distinct needs, characteristics, or behaviors that might require separate marketing strategies or mixes” (Kotler and Armstrong, 2011, p. 190).

The bases for market segmentation include demographics, geographic locations; psychographics, etc. There have been very few studies that have examined the differences between students and nonstudents behavior and perceptions towards online shopping. This study essentially reflects the need for segmenting online retail markets. Online retailing or e-retailing is an emerging phenomenon in the Indian context, which is challenging the existing traditional formats. With the ever-increasing deployment of information technology in traditional business channels, this information is essential to academic researchers and online retailers.

Managerial Implications

Online shopping has shifted customers’ attention from visiting physical stores for making purchases to searching for and ordering products/ services over the Internet. Online shopping also influenced their purchasing decision process. Online retailing is considered as an emerging area of electronic commerce that would change the retailing landscape. The study would generate information that would give insights to managers in the areas of choices made by customers during online shopping, the role of demographics in online shopping, etc., which would provide insights into market segmentation.

Research questions

In this study, the research questions addressed are related to the determination of factors influencing online shopping. In this research respondents were customers who used online shopping from two categories - students and non-students (employees, professionals, own business, etc.). As the research attempts to determine the role of demographics in online purchasing the preferences of respondents while making online purchasing in the choice of the products is collected. The specific research questions are as follows:

1. What factors influence the customer’s decisions to purchase online?
2. Do demographic factors influence online purchase decisions?
3. Does preference of product depend on consumer demographic parameters like age, gender, income, education, etc.?

Objectives of the Study

The purpose of this study is to explore online shopping behavior of various customer segments based on demographic segmentation. The research attempts to provide detailed information about the online shopping behavior and product preferences of university students and employees of different organizations. To attain this purpose, the following objective was proposed:

1. To study the different demographic parameters like (Age, Gender, Income, Education, etc.) impacting online shopping by consumers in India.

Research Hypothesis

H1.1: Demographic variables (age, gender, income education, etc.) influence the consumer's preference towards online shopping.

H1. A: There is a significant relationship between age of the consumers and online shopping.

H1. B: There is a significant relationship between gender of consumers and online shopping.

H1.c: There is a significant relationship between income of consumers and online shopping

H1. d: There is a significant relationship between education of consumers and online shopping.

Research Methodology

The present study is on the role of demographic in online shopping in the Indian context. The study adopts both qualitative and quantitative approaches. The exploratory study was done through existing literature that helped in identification of key variables and factors. The present study collected data from relevant primary sources with the support of a structured questionnaire. Respondents included students (pursuing courses like M.Phil., Ph.D., PG and undergraduate courses) and non-students (professionals, employees, people in business, etc.) from various regions of Greater Hyderabad Municipal Corporation. The questionnaire was distributed to those who have done at least one transaction on any electronic retailer's website. The questionnaire was pilot-tested on a sample of 50 respondents to ensure the validity of the survey instrument. The secondary sources were collected through websites, books, articles, literature and daily economic time's paper reports of online shopping, etc.

Sample size and sampling technique

The questionnaire was distributed to 400 respondents. However, after elimination of incomplete responses, unreturned questionnaires and invalid responses, the sample size for analysis arrived at 311. The respondents for questionnaire were selected in the Hyderabad city. The student has been chosen from the University of Hyderabad, a Central University. The non-students have been chosen from the Hyderabad city. The Hyderabad city is heterogeneous with different types of professional and organizations with high-bandwidth Internet infrastructure. Both the University and the city are cosmopolitan in nature and may be considered as a cluster with similar characteristics as India.

Present study adopted the non-probability sampling technique, i.e., purposive sampling. The purposive sampling method is one which is selected for more interactive with the consumer to get the data.

The purposive sampling was based on following parameters:

- The sample comprised of consumers those who have done online shopping at least once in their shopping duration in life.
- The sample comprised of consumers whose minimum educational qualification was Graduation.

Statistical Tool

A structured questionnaire was designed to capture demographic information of the respondents, their online shopping patterns, preference of online shopping channel, product categories, perceptions of respondents towards online shopping, etc. Likert five-point rating scale ranging from "Strongly Disagree" to "Strongly Agree" was used to measure the consumer preference to purchase products and perceptions towards online shopping. Respondents were asked to choose their options on a five-point Likert scale (1= Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree and 5= Strongly Agree). These were used for the data analysis.

The data was analyzed by using SPSS 16.0 software. As per requirements of the study, reliability tests were conducted, and only those dimensions that met the requirements of reliability have been considered for further analysis. The descriptive statistics, Chi-square test, was done for collected data.

Results and Discussions

Online shopping was measured as responses of consumers toward the purchase of the different type of product on the consumer experience.

Table.1 Demographic variables Vs. Expected Benefits of Online Shopping

| S.No. | Demographic Variables | Chi-Square value | (Sig. Value) | Null Hypothesis Status (at $\alpha=0.05$) |
|-------|-----------------------|------------------|--------------|--|
| 1 | Age | 16.383 | .037 | Rejected |
| 2 | Gender | 0.413 | .981 | Not Rejected |
| 3 | Income | 27.380 | .287 | Not Rejected |
| 4 | Education | 2.334 | .969 | Not Rejected |
| 5 | Marital Status | 2.606 | .626 | Not Rejected |
| 6 | Occupation | 2.022 | .732 | Not Rejected |

Table:1 shows the chi-square results for the cross tabulation between demographic variables and expected benefits of online shopping. The anticipated benefits include parameters like saving of time in shopping, product variety in online shopping, availability of discounts, etc. The results indicate that all the demographic variables (except for the age of the respondents) have no significant relationship with the benefits expected from online shopping.

Table: 2 Demographic Variables vs. Expected Post Order Attributes

| S. No | Demographic Variables | Chi-Square Value | (Sig. Value) | Null Hypothesis Status (at $\alpha=0.05$) |
|-------|-----------------------|------------------|--------------|--|
| 1 | Age | 22.279 | .900 | Not Rejected |
| 2 | Gender | 53.785 | .000 | Rejected |
| 3 | Income | 1.014 | .333 | Not Rejected |
| 4 | Education | 26.289 | .751 | Not Rejected |
| 5 | Marital Status | 16.787 | .400 | Not Rejected |
| 6 | Occupation | 15.025 | .523 | Not Rejected |

Table: 2 shows the chi-square results for the cross tabulation between demographic variables and Post order attributes in online shopping include parameters like time duration involved from placing the order and the physical delivery of the product, post order tracking facility, ease of return of the product in case of any damage, etc. The results indicate except for the demographic variable gender, the other demographic variables like age, income, education, marital status, and occupation have no significant relationship with the post order attributes considered by the respondents.

Table: 3 Demographic Variables vs. Concerns in Online Transaction

| S. No | Demographic Variables | Chi-Square Value | (Sig. Value) | Null Hypothesis Status (at $\alpha=0.05$) |
|-------|-----------------------|------------------|--------------|--|
| 1 | Age | 13.468 | .958 | Not Rejected |
| 2 | Gender | 18.279 | .107 | Not Rejected |
| 3 | Income | 62.660 | .776 | Not Rejected |
| 4 | Education | 24.797 | .417 | Not Rejected |
| 5 | Marital Status | 15.875 | .197 | Not Rejected |
| 6 | Occupation | 9.506 | .659 | Not Rejected |

Table, 3 shows the chi-square results for the cross tabulation between demographic variables and Online transaction concerns include security of personal details in online transactions, safety in the payment process, and ease of performing an online transaction (placing an order). The results indicate that there is no significant relationship between demographic variables and concerns in online transactions.

Table: 4 Demographic Variables vs. Quality of Online Products

| S. No | Demographic Variables | Chi-Square Value | (Sig. Value) | Null Hypothesis Status (at $\alpha=0.05$) |
|-------|-----------------------|------------------|--------------|--|
| 1 | Age | 32.178 | .123 | Not Rejected |
| 2 | Gender | 33.849 | 0.01 | Rejected |
| 3 | Income | 61.380 | .810 | Not Rejected |
| 4 | Education | 28.711 | .231 | Not Rejected |
| 5 | Marital Status | 14.516 | .269 | Not Rejected |
| 6 | Occupation | 17.831 | .121 | Not Rejected |

Table: 4, the results indicate that there is a significant relationship between the gender and the perceived quality of online products. Other demographic variables like age, income, education, occupation have no significant relationship with the perceived quality of goods purchased online.

Table: 5 Demographic Variables and Perceived Ease of Making Payments

| S. No | Demographic Variables | Chi-Square Value | (Sig. Value) | Null Hypothesis Status (at $\alpha=0.05$) |
|-------|-----------------------|------------------|--------------|--|
| 1 | Age | 8.439 | .392 | Not Rejected |
| 2 | Gender | 3.476 | .481 | Not Rejected |
| 3 | Income | 45.200 | .006 | Rejected |
| 4 | Education | 10.700 | .219 | Not Rejected |
| 5 | Marital Status | 2.487 | .647 | Not Rejected |
| 6 | Occupation | 8.705 | .069 | Not Rejected |

Table: 5, the results indicate that income of the respondents has a significant relationship with perceived ease of making payments. The other demographic variables have no significant relationship with perceived ease and security of payments.

Limitations of the study

The limitations of the study are as follows:

- The present study has been confined to Hyderabad metro city, Telangana, India.
- E-tailers perceptions are not captured.
- The study only explores the role of demographic variables issues in online retailing.

Conclusion

The advent of information technology coupled with the adaptation of Internet (which is yet to reach its full potential) by customers has paved the way for online retailing. Online retailing offers opportunities and challenges for the customers as well retailers. The traditional retailing formats are bound to undergo a radical change in the wake of online retailing. While online retailing promises to deliver greater value to the customers (it does not require a huge investment in physical retail space in prime locations), it also poses challenges to the retailers, regarding ensuring secure transaction procedures, managing seamless supply chain and efficient logistics systems.

The customers of online retailing expect the convenience of shopping with the click of a button (without the need to move from the home, facing heavy traffic, dealing with parking space, etc.) making price comparisons online and search across a wide variety of product assortments in the virtual space. However, the customers also face the challenges of dealing with unknown retailers making online payments and ordering products which they can only feel and touch after the physical delivery of the product. Given the vast potential of electronic retailing especially in the context of Indian environment which constitutes a higher percentage of the younger population, the role of demographics in online purchasing should be carefully analyzed for the success of

online retailing. This would enable the retailers to understand the needs and concerns of various target groups and accordingly offer the services.

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