

# Chapter 85

## Does Demographics Affect Purchase Frequency in Online Retail?

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### ABSTRACT

*This research determines whether association exist between the demographic characteristics of online shoppers, such as education, age, gender, monthly income, occupation, marital status and their online purchase frequency. Web survey has been applied to 308 customers of four most popular e-retailers in India, who have made at least one online purchase in past six months. Based on extensive literature review hypotheses have been developed for six demographic factors i.e. education, age, income, occupation, marital status and gender. A chi-square test has been deployed to check association between demographic factors and purchase frequency. Significant association has been found between two demographic variables i.e. gender, occupation and purchase frequency. Further, a chi-square post hoc test via standard residual method confirmed that purchase frequency of 1-3 times in past six months by student customers contributes significantly to significant omnibus chi-square statistic.*

### INTRODUCTION

E-commerce is skyrocketing with every passing year. One of the most promising segment of e-commerce is retail. In 2014, retail e-commerce sales increased more than 20 percent worldwide to reach \$840 billion mark. This impressive growth can be attributed to fact that online retailers are continuously expanding themselves to new geographies and physical retailers are entering new markets (Ben-Shabat, Moriarty, Nilforoushan, & Yuen, 2015). In terms of digital retail sales, Asia-Pacific region is growing at more than 10 percentage points faster than the worldwide average rate. Since this study has been conducted in India it is worth mentioning that growth in Asia-Pacific region will be driven by China, India and Indonesia with the latter two markets clocking growth at 129.5% and 65.6%, respectively, in 2015 (eMarketer, 2015; Kalia et al., 2016). Because of booming e-commerce market in India, competition is getting fierce

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(Kalia, 2016b) to an extent that that e-retailers in India are adapting their business model to survive (Kalia, 2015). However, there is dearth of studies which examine the profiles of Asian e-shoppers (Kau, Tang, & Ghose, 2003). To gain advantage of this tremendous opportunity, businesses should identify customer's shopping motivations (van der Heijden et al., 2003).

In traditional marketing, demographic variables have often been studied for segmentation of consumer population and for developing better marketing strategies. Many researchers have highlighted how demographic factors can influence customers' preference of online store visit (Phang, Kankanhalli, Ramakrishnan, & Raman, 2010), consumer's online buying behavior (Li, Kuo, & Russell, 1999), differentiation of web-shoppers and non-shoppers (Karayanni, 2003) and evaluation of the e-service quality (Barrera, García, & Moreno, 2014). In a scenario where marketers are investing a large amount of their resources to understand online buying behavior of their customers, demographic variables can easily be accessed as compared to decrypting perceptual surveys which require considerable time and effort from researchers and customers (Phang et al., 2010).

The objective of this research was to ascertain whether the demographic characteristics of online shoppers, such as education, age, gender, monthly income, profession and marital status really moderate their online purchase frequency. Customers of four most popular e-retailers from three major capital cities (identified as e-commerce hub) in India have been considered in this study to identify association between demographic variables and purchase frequency. Hypotheses have been developed and tested on the basis of extensive literature review, which are discussed in next section.

## **LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **Education**

There are number of studies which confirmed that consumer engaging in Internet shopping are well educated (Sin & Tse, 2002; Vrechopoulos, Siomkos, & Doukidis, 2001). Pereira (1998) noticed that moderate education will serve to reinforce status quo and increase resistance to change whereas an individual with advance education will challenge existing norms and show less resistance to change. Therefore, more education will lead to greater acceptance of shopping at the electronic malls. Similarly, a person who is more open-minded, venturesome, cosmopolitan in outlook, socially mobile, self-confident, mature the consumer, he will show greater tendency to shop at electronic malls. Bellman et al. (1999) concluded that person with higher education is more likely to buy online or more online transactions. Similarly, Chen et al. (2002) observed that most of the early adopters of online shopping are more likely to be well educated. Kim and Lim (2001) surveyed on Korean consumers with respect to perceived importance of and satisfaction with Internet shopping. Their sample was highly skewed toward the highly educated. Segment of individuals with a higher level of education often shows strong purchase intention due to their higher income. Li et al. (1999) proposed and tested a model of consumer online buying behavior which posits that consumer online buying behavior is affected by demographics, channel knowledge, perceived channel utilities, and shopping orientations. Findings indicated that education, convenience orientation, experience orientation, channel knowledge, perceived distribution utility, and perceived accessibility are robust predictors of online buying status (frequent online buyer, occasional online buyer, or non-online buyer) of Internet users. Basahih (2013) found that respondents who dislike physical shopping and have proficiency in English language favored e-shopping. He also discovered that education

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