

The Influence of Demographics on Consumer Perception in Online Grocery Shopping: A Case of Thiruvananthapuram City, Kerala, India

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Abstract—India is witnessing an electrifying competition in online retailing with steady growth prospects. However, the online grocery shopping is still far from saturation and, therefore, represents a big opportunity. This study was meant for ascertaining the influence of demographics on consumer perception in online grocery shopping at Thiruvananthapuram, Capital city of Kerala state, India. The primary data were collected through a survey among 100 respondents. Percentage analysis and chi-square test were the tools to analyse the collected data. The results revealed that among the various components of demographics such as age and occupation had significant effect on the online grocery shopping behaviour of people in Thiruvananthapuram city. This reveals the scope for online grocery shopping in Thiruvananthapuram city.

Keywords: Online grocery shopping, demographics, consumer perception, Thiruvananthapuram, Chi square test, Kerala.

1. INTRODUCTION

India, a fast-growing emerging Asian market, shows optimistic projections for the e-commerce industry. Over 120 million Indian consumers are expected to shop online in 2018. As per the Associated Chambers of Commerce and Industry of India (ASSOCHAM) - Resurgent joint study, online shopping in India is expected to clock annualized growth of 115% in 2018, aided by fast-increasing data consumption and improvement in logistics, along with a number of offers presented by e-commerce platforms [1]. The frequency of purchase was higher for categories like apparels & accessories (54%), beauty and personal care (43%) products, in comparison to electronics (33%). In the previous year, the study noted that as many as 108 million consumers did online shopping, with mobile phones becoming the preferred choice of device for e-commerce sales. The Internet and Mobile Association of India (IAMAI) and KANTAR-IMRB studies by predicting the number of mobile internet users in India is likely to reach 478 million by June 2018 [2] complements the finding of increased mobile e-commerce actions.

Despite of spending more than 50% of the monthly income on groceries, the online grocery business in India is only at emerging stages. It is estimated to be around \$500 million to a little over \$1 billion currently (around 0.25% of total grocery retail) and expected to cross \$3 billion to \$5 billion or even much more over the next three to four years [3]. Most grocery e-stores cater to a specific city or certain areas due to the logistic constraints [4]. Since it is a huge potential market, retailers need to overlook into the different factors that influence consumers' purchase intentions towards online grocery shopping in each area. Budhiraja *et al.* [5] observed that buying behavior of consumers for online grocery shopping is totally different than buying from physical markets. Na Li *et al.* [6] identified a total of ten factors influencing consumers' online shopping perception. Out of the ten factors, five are found to be independent like; external environment, demographics, personal characteristics, product/vendor characteristics and website quality. These five independent factors influences the consumer in adopting a perception in online shopping and are listed as attitude towards online shopping, intention to shop online, decision making, online purchasing and consumer satisfaction.

Several studies conducted by Morganosky *et al.* [7], Singh *et al.* [8], Lakshmi [9], Shankar *et al.* [10] and Saleem *et al.* [11] established the influence of demographics over the consumer perception in online shopping. The demographics tested includes, age, gender, income, educational level, number of members in household etc. The market area or the locality of each study was different. So the results also varied accordingly. Muhammed *et al.* [12] reported that in Malaysia the demographics were weakly related to online grocery shopping compared to strongly related e-service quality. This reveals the need for location specific studies in assessing consumer perception in online grocery purchase behavior.

The present study was conducted for ascertaining the influence of demographics on online shopping perception of consumers at Thiruvananthapuram city. As per the 2011 census the total population of Thiruvananthapuram city is 1,679,754 out of which 813,065 males and 866,689 females. Average Literacy (%) is 94.20 %. Kerala has one of the highest monthly per capita consumer expenditure in India, both in rural and urban areas [13] and this makes the outcome of this study vital for designing an acceptable online platform for shoppers.

2. METHODOLOGY

The study was mainly based on the primary data. Convenience sampling technique was used to collect data from 100 respondents of Thiruvananthapuram city. The data collection was done by means of a structured questionnaire during November 2018. Special care was taken to approach the member, who made the grocery purchase for the family.

The collected data was subjected to percentage analysis and chi-square test to draw the results. Simple percentage analysis was used to find the percentage on demographic factors such as gender, age, education, occupation, monthly income and family size.

The Chi Square statistic is commonly used for testing relationships between categorical variables. Here the chi – square test was used to test the relationship between willingness for online purchase of groceries with the demographics such as age, gender, education and occupation.

The χ^2 value was determined by

$$\chi^2 = \sum((O - E)^2 / E)$$

Were,

O – Observed frequency

E – Expected frequency

3. HYPOTHESIS

There is no significant association between the demographic variables and the consumer perception on online shopping.

4. RESULTS AND DISCUSSION

Table 1: Demographics of respondents

Particulars	% to total
Gender	
Male	74
Female	26
Age	
< 20 years	1
20-30 years	7
31-40 years	32
41-50 years	16
> 50 years	44
Education	
Under 10 th	10
10 th pass	5

Plus two	8
Bachelor’s degree	60
Master’s and above	17
Occupation	
Self employed	7
Private sector	20
Government	26
Professional	11
Business	12
House making	5
Retired	19
Family Size	
1 or 2	25
3	25
4	28
5	14
> 5	8
Monthly income	
< Rs. 20000	8
Rs. 20000-30000	50
Rs. 31000-40000	12
Rs. 41000-50000	20
> Rs. 50000	10
Average monthly purchase	
< Rs. 2000	22
Rs. 2000-3000	23
Rs. 3001-4500	23
Rs. 4501-6000	25
> Rs. 6000	7

The analysis of the collected data is explained and the results are discussed below. The data was collected on gender, age, education, monthly income, family size and willingness for online purchase.

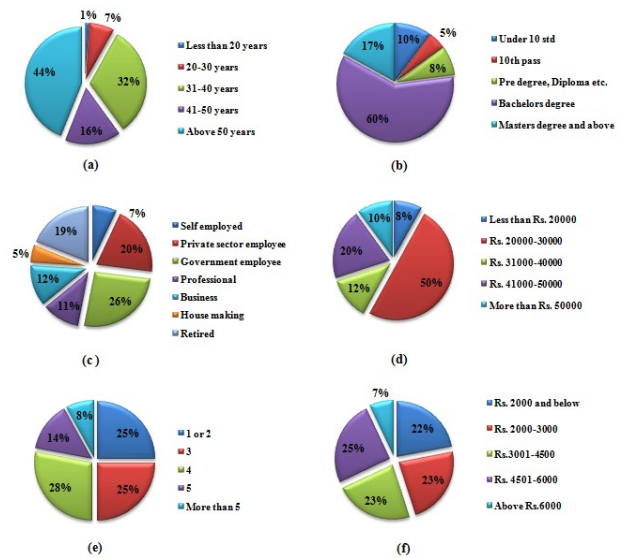


Figure 1: Percentage analysis of demographics (a) age (b) education (c) occupation (d) monthly income (e) family size (f) Monthly purchase

The analysis of table 1 on percentage analysis on demographics of the respondents revealed that majority of the respondents was males (74 %). Most of them (44%) were having age more than 50. Majority of the respondents were educated up to bachelor’s degree (60%). 26 % of them were having government job. As observed all over the state and as per the expectation majority of the families were nuclear with a family size of 4. Nearly 50 per cent of them had a monthly income ranging from Rs. 20000/- to 30000/- . It was also observed that majority (25 %) of them had a monthly purchase ranging between 4500 and 6000/-.

4.1 Perception on Online Shopping

The willingness to online purchase of the respondents was recorded for different segments of demographics such as age, gender, education and occupation. The tabulated data presented in table 2.

Chi square test was done to assess the influence of demographics on online purchasing behavior of grocery. The use of chi square test for determining online purchase behavior was also confirmed by the studies by Padmavathi *et al.* [14]. The results of the chi square analysis presented in table 3.

Table 2: Demographics and willingness for online purchase of grocery

Particulars	Willingness		
	Yes (%)	No (%)	Total (%)
Gender			
Male	21	53	74
Female	11	15	26
Total	32	68	100
Age			
< 20 years	0	1	1
20-30 years	5	2	7
31-40 years	17	15	32
41-50 years	5	11	16
> 50 years	5	39	44
Total	32	68	100
Education			
Under 10 th	0	10	10
10 th pass	0	5	5
Plus two	2	6	8
Bachelor’s degree	23	37	60
Master’s and above	7	10	17
Total	32	68	100
Occupation			
Self employed	0	7	7
Private sector	11	9	20
Government	9	17	26
Professional	8	3	11
Business	4	8	12
House making	0	5	5
Retired	0	19	19
Total	32	68	100

Table 3: Demographics and willingness for online purchase of grocery – Chi square test

Demographic factors	Chi square value	Degrees of Freedom	Significance
Gender	1.72	1	0.19
Age	20.65	4	0.0004*
Education	9	4	0.06
Occupation	27.93	6	0.0001*

*significant at 5 percentage level of significance

The chi square analysis revealed that the most important factors that influence the perception on online grocery purchase of the respondents were age and occupation. Gender and education has no significant relation. Thus we reject the null hypothesis.

5. CONCLUSION

The potential of the grocery market was realized and will expand with the population and improved living conditions. The study revealed some factors related to demographics which were the real hindrance to the acceleration of online shopping of grocery. It also recommends the segment of customers actually targeted by the retailers to expand their business. On looking into the specific age and occupational groups expressed their willingness to the online grocery shopping, one can predict that the future of the online grocery shopping in Kerala is bright. As age and occupation are the important factors that affect the online grocery purchasing behaviour of people in Thiruvananthapuram city, marketing efforts can be made targeting these factors.

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