

# Online Grocery Shopping Behavior of Consumers in Hyderabad City – An Empirical Study

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*Abstract-The Indian retail industry is one of the most dynamic and fast paced industries. It accounts for over 10 percent of the Country's GDP . E retail is probably creating the biggest distribution in the retail industry. The Reports of CII and Wazir advisors (2019) puts the contribution towards the retail growth in clear perspective when it states the organized retailing in India. It would grow even seven folds and online retail folds by 2025. Over the past decade, competition from online retailers is gradually eating into the revenues and margins of physical retailers.*

*According to data analysis by internet based payment facility provider PayU India ( Etail India, 2019) online grocery shopping is expected to see the highest number of electronic transactions, after mobile recharges within a year. All these interesting facts about online grocery has given an instinct for the researcher and a small attempt is made to study the online grocery shopping behavior of people in Hyderabad . The objectives are to understand preferential criteria and satisfaction level towards online grocery shopping of the consumers .*

*The present study is based on primary research. The data collected by circulating questionnaire to sample of consumers who does online grocery shopping.*

*The findings of the study suggested that*

**Key words:** *E - retail, online shopping, online grocery, buyer's characteristics, food and grocery retailing.*

## **Introduction**

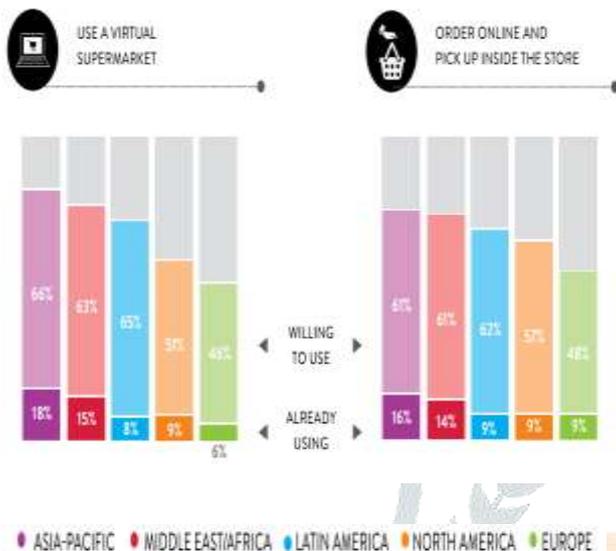
An article by CRISIL (2014) observed that the growth in India Online retail industry will be driven mostly by emerging categories of grocery, jewellery, and furniture segments, while the expansion in apparels and electronics verticals will continue. The Indian's online grocery market, which is less than \$ 100million at present, is expected to be worth billions in the coming years. Big basket cofounder Hari Menon anticipated that online grocery in India will cross \$ 20 billion by 2020.

The recent entry of established ecommerce companies like Amazon with Kirana Now and Flipkart with Nearby app – have heated up the competition and the pecking order in this space might see some changes down the line.

Due to technology advancement, access to internet, increase in exposure and income, shopping via internet has been showing signs of growth. These technological advancement lead to better lives and have provided a platform to shop grocery items online. Looking at this niche segment and potential of upcoming vibrant market, it would be interesting to understand Customer perception on such services. Today, online shoppers have high expectation as they have from any other store -- based retailers. To grab this opportunity retailers are using various strategies to attract Customers to shop online. This paper seeks to understand the

patterns of online grocery shopping in India; and explores the factors & trends influencing the online grocery shopping. While brick-and-mortar stores dominate the grocery shopping experience, e-commerce is a growing business that is still in its nascent stage in many parts of the world. Success in e-commerce does not come easy, but early movers often establish difficult-to-overcome positions and advantages. In developing countries, the landscape is more fragmented. Food and beverage is the most concentrated category. In the food and beverage category, traditional stores are growing fastest (+5%). Supermarkets and hypermarkets are still important to these categories, but consumers are increasingly relying on smaller formats such as traditional stores and kiosks, which fulfill their needs for convenience and speed. The story is similar for household product and personal care categories.

### Percentage Of Customers using or willing To Use E -Commerce Options



### Benefits and obstacles in Online Grocery Shopping

The primary benefit of online grocery shopping is convenience. By ordering online, one can quickly search for the products she needs and order them without having to physically walk through expansive aisles. It also saves travel expenses and time going to the grocery store. Considering the wide availability of the Internet, it also means grocery shopping can be done from remote locations or in the middle of doing other tasks. For instance, using an online grocery store can allow a person to do all her grocery shopping during her lunch break at work. It is also very useful for those without a car or who may be physically unable to move around easily, since the food is delivered right to their doors. The use of online-based grocery stores is increasing in popularity as more and more people become comfortable with using the Internet to make purchases.

The main disadvantage of online grocery shopping is one cannot check quality of non branded staples personally. So it becomes mandatory to order branded staples online or based on one's past experience and reference he or she can take risk of ordering staples.

The online grocery delivering sites like Zopnow.com has solved this problem to certain extent as customer knows the source of groceries. So if customer has an experience of the same store, he or she can buy it confidently any product which is sourced from known retail shop.

### Literature Review

The study has reviewed past empirical studies that have sought to directly or indirectly understand the impact and interactions of buyer's characteristics of various retail formats, particularly online shopping in a different geographical context.

Phau and Phoon ( 2000) conducted an empirical investigation of internet shopping in Singapore. Specifically, Internet Buyer behavior was compared between potential internet buyers and non internet buyers. It was found that the classification of different types of products and services that are suitable for selling through the internet was identified as those that have a low outlay are frequently purchased, have relatively high intangible value, and / or can be highly differentiated. Thus, it is necessary to explicitly consider product characteristics when evaluating web strategies. Based on cost outlay and intangibility, Vijayasathy ( 2002) classified products into four types. Grocery was placed in the first quadrant of low cost and tangible product. Vijayasathy investigated differences between internet shopping intentions of products categorized by cost and tangibility and found that consumers attitudes and beliefs towards online shopping tended to be more positive for intangible products for example, computer software and music than for tangibles. Girard, Silverblatt, and Korgaonkar ( 2002) examined the influence of product classification ( classified as search, experience, and credence products) on consumer preferences for shopping on the internet, The results indicated that the search category products were more likely to succeed online than the experience and credence category products. These results were supported by Korgaonkar, Silverblatt and Tulay ( 2006) . However it could be possible for e-tailors to motivate consumers to purchase difficult to sell products online by understanding and providing the attributes that are important to consumers.

Hynes and Ping( 2009) evaluated online purchase intentions for 15 different products or services on the Internet based on a five point Likert scale. Products showing high online purchase intentions were tickets for the entertainment ( 3,76) , online banking ( 3.70), and travel /vacation(3.58). The online purchase intention score for food categories/ groceries was low at 2.49. The researchers observed that even those HongKong shoppers with highly positive attitudes towards online shopping did not show significant interest in purchasing food/ groceries ( 2.49), furniture ( 2.19) or household appliances(2,47) on the internet; Yet these categories are some of the fastest growing in other countries. Hynes, and Ping ( 2009) conducted a study with a sample consisting of 121 respondents in HongKong which showed no significant differences between males and females or in age brackets in terms of internet adoption, although differences in education and income were significant. A study conducted in India by Shalini and Kamalaveni( 2013) stated that online shoppers are highly educated and knowledgeable .Banerjee, Dutta, and Dasgupta's ( 2010) study revealed that Internet users with high disposable monthly income are more likely to engage in online shopping.Wu, Cai, and Liu (2011) conducted a study on a sample of 1620 respondents in five Chinese Cities. Despite rapid growth of internet usage and online purchases in china, the results indicated that there is still a ' digital divide' among Chinese consumers with respect to their demographics and socioeconomic characteristics. Consumer's gender, education level, and income contributed to gap in internet usage and online shopping.

Park , Lee and Chung( 2013) observed that non interest shoppers in Korea: a) included more married persons, b) included people with high income, c) Included those with low frequencies of internet access, and d) those who are relatively older. Some studies focused on Indian consumers ( Dahiya, 2012, Goswami 2014, Motwani et al , 2014) revealed no significant difference in age, gender, and income on online shopping adoption .Hiser, Nayga, and Capps, Jr ( 1999) concluded an exploratory analysis on familiarity and willingness to use online food shopping services in Texas, USA. The findings on " willingness to use online food shopping revealed that income, the number of people living in the household, the presence of children, and gender were not significant determinants of interest in using online grocery, however, age and education is also determinant factors for adopting online grocery. People over age 50 were less likely to consider using the service( compared to people 18-29 years old) as were those with less education.

The literature on adoption of online shopping seems to be extensive, however the studies are mostly generic in nature. Despite persistent research, no comparative analysis between online and non online shoppers for product category- food & grocery in the existing literature in any geographical context, particularly on buyer characteristics. The study by Hiser et al( 1999) being based on willingness and not actual use was also limited in understanding the demographic differences in adoption of online grocery shopping. Based on the literature reviewed , we observed that the online food and grocery product category is characterized with low cost, repetitive purchases, and mostly, tangible offerings. It fails in the realm of experiences and credence category. Once the

retailer, have succeeded in motivating consumers to experience their product offerings and established credibility, the low cost and repetitive nature of food & grocery shopping is likely to result in favorable online adoption.

### **Objectives of the study:**

- 1.To understand the preferential criteria of choosing online grocery among people in Hyderabad
- 2.To examine the impact of demographic factors – age, gender, educational qualifications, income level of the respondents using online grocery.
- 3.To study the satisfaction level of online grocery usage among the respondents.

### **Research Methodology and Data Analysis**

The present study is based on primary research. The primary research involved an empirical analysis of buyer behavior towards online grocery shopping by representative sampling technique .100 respondents using online grocery is made used for the study.

Though 125 respondents were covered in the data collection , the final sample size of the study was 100 after excluding incomplete questionnaires.

**Method of Data analysis:** Collected data was coded and entered in the SPSS software 24 version. Statistical tools like frequency, cross tabulation, chi-square, correlations, garret ranking are used to summarize the data.

### **Hypothesis**

1. **H01** : There is no relationship between Gender and frequency of online grocery purchase.

### **Correlations**

		Frequency of usage	gender of the respondents
Frequency of usage	Pearson Correlation	1	.494**
	Sig. (2-tailed)		.000
	N	100	100
gender of the respondents	Pearson Correlation	.494**	1
	Sig. (2-tailed)	.000	
	N	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Inference:** There is very poor correlation between gender and frequency of online purchase of grocery as r value is 0.494.

2. **H02:** There is no relationship between age and satisfaction of online grocery purchase

**Correlations**

		age of the respondents	satisfaction on online grocery
age of the respondents	Pearson Correlation	1	.849**
	Sig. (2-tailed)		.000
	N	100	100
satisfaction on online grocery	Pearson Correlation	.849**	1
	Sig. (2-tailed)	.000	
	N	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Inference:** There is very high positive correlation between age of respondent and satisfaction of online grocery purchase as  $r=0.849$

**3. H0<sub>3</sub> :** There is no relationship between income of the respondents and frequency of usage.

**Frequency of usage \* Income of the respondents**

**Crosstabulation**

Count

		Income of the respondents			
		3- 5L	6-8L	>8L	
Frequency of usage	every month	52	0	0	52
	Once in 2 months	16	16	6	38
	once in 6 months	0	0	5	5
	rarely	0	0	5	5
Total		68	16	16	100

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	96.904 <sup>a</sup>	6	.000
Likelihood Ratio	92.226	6	.000
Linear-by-Linear Association	62.621	1	.000
N of Valid Cases	100		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .80.

**Inference:** There is relationship between income of respondents and frequency of usage since p value is 0.000 is less than significance value 0.05. Hence we reject null hypothesis.

**5.H0<sub>4</sub>:** There is no relationship between income of respondents and interest on future purchase of online grocery.

**Income of the respondents \* Interest on future Crosstabulation**

Count

		Interest on future		Total
		Yes	No	
Income of the respondents	3- 5 L	68	0	68
	6-8L	5	11	16
	>8L	0	16	16
Total		73	27	100

## Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	82.560 <sup>a</sup>	2	.000
Likelihood Ratio	96.777	2	.000
Linear-by-Linear Association	79.575	1	.000
N of Valid Cases	100		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 4.32.

**Inference:** There is relationship between income and future interest of consumers in online grocery purchase since p value is 0.000 is less than sig.0.05. Hence we reject null hypothesis.

Table 1 : Gender of the Respondents

Particulars	Frequency	Percentage
Male	28	28%
Female	72	72%

Table 2: Age of Respondents

Age groups (yrs)	Frequency	Percentage
25-29	60	60%
30-35	20	20%
36-40	10	10%
>40	10	10%

Table 3: Education of Respondents

Education	Frequency	Percentage
Graduates	20	20%
Post Graduates	80	80%

Table 4: Occupation of Respondents

Particulars	Frequency	Percentage
Self employed	12	12%
Govt. employee	Nil	Nil
Pvt. employee	65	65%
Home maker	23	23%

Table 5: Income Level of Respondents

Income groups (In lakhs)	Frequency	Percentage
3-5L	45	45%
6-8L	35	35%
>8L	20	20%

Table 6: Time Spent of Internet Daily

No. of Hrs.	Frequency	Percentage
2-4 hrs.	64	64%
5-7 hrs.	16	16%
>7 hrs.	25	25%

Table 7: Frequency of online grocery purchase

Particulars	Frequency	Percentage
Every month	52	52%
Once in 2-3 months	32	34%
Once in 6months	10	10%
>6 months	4	4%

### Inference for the Demographic Profile of consumers

The sample consists of maximum number of consumers in the age group of 25-29 (60 percent) followed by 30-35 yrs .which is 20 percent . The respondents above 35yrs of age are 10 percent . Most of the respondents (80 percent ) are post graduates. Maximum respondents are private employees by their occupation (65 percent) followed by home makers (23 percent) and self employed are 12 percent.

The percentage of respondents between income levels 3-5 L is 45 percent, 6-8 L percentage is 35 percent and above 8L is 20 percent.

Among all respondents 64 percent spend on internet .52 percent of respondents purchase grocery online every month, 34 percent purchase online once in 2-3 months.

### Garret Ranking

The respondent of the study chooses online grocery based on the factors like

availability, quality, Price / discounts, ease in transactions, convenience, mode of payment and customer service. Hence Garret Ranking method is used to find the most important factors for choosing online grocery method of purchase.

Table 8: Factors for choosing online grocery

Ranks

Factors	1	2	3	4	5	6	7	Total
Availability	8	8	44	16	4	16	4	100
Quality	8	28	32	20	8	-	4	
Price/ discounts	24	20	8	16	20	4	8	100
Ease of transactions	24	16	4	24	16	12	4	100
Convenience	20	8	8	8	20	36	-	100
Mode of payment	8	12	8	12	32	20	8	100
Customer service	8	4	-	4	4	12	68	100

Source: Primary data

Table above elucidates the Garret scores. Firstly the Garret ranks are calculated by using appropriate Garret Ranking formula. Then based on the Garret ranks the Garret tables' values are ascertained. The Garret table value and scores each rank is multiplied to record scores in table. Finally by adding each row, the total Garret scores are obtained.

$$\text{Garret 's Rank} = 100( R_{ij}-0.5)$$

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N<sub>j</sub>

R<sub>ij</sub>= Rank given by the ith factor by the jth respondents

N<sub>j</sub> = Number of factors ranked by the jth respondent

Garret score

Factors : 7

	Percentage	Score
1= 100( 1-0.5)/7	7.14	78
2 = 100(2-0.5)/7	21.42	66
3 = 100(3-0.5)/7	35.71	62
4= 100(4-0.5)/7	50	49
5 = 100(5-0.5)/7	64.28	43
6= 100(6-0.5)/7	78.52	34
7 =100(7-0.5)/7	92.85	21

**Table 9: Garret results on the factors for choosing online grocery**

Factor	Ranks							Garret Score	Avg	Garret Rank
	1	2	3	4	5	6	7			
Availability	624	48	27 28	78 4	17 2	544	84	4984	49.8 4	V
Quality	624	18 48	19 84	98 0	34 4	-	84	5864	58.6 4	I
Price/ discounts	1872	13 20	49 6	78 4	86 0	136	16 8	5636	56.3 6	II
Ease transaction	1872	10 56	24 8	11 76	68 8	408	84	5532	55.3 2	II I
Convenience	1560	52 8	49 6	39 2	86 0	122 4	-	5060	50.6 0	I V
Mode of payme nt	624	79 2	49 6	58 8	13 76	680	16 8	4724	47.2 4	V I
Custom er service	624	26 4	-	19 6	17 2	408	14 28	3092	30.9 2	V II

The above table exhibits the Garret Ranking and scores. The table highlights Garret scores which help to decide the most important factor to choose online grocery by the respondents. The highest score is 58.64 % ranked I for Quality of the grocery, and the lowest rank is 30.92 % for customer service. It is inferred from the above table that an individual chooses to buy online grocery out of his/ her own interest in order to satisfy their needs.

### **Findings and Conclusion**

**1.** There is very poor correlation between gender and frequency of online purchase of grocery as per the statistical analysis which means that behavior of consumer towards online grocery is not gender specific.

**2.** There is very high positive correlation between age of respondent and satisfaction of online grocery purchase. It can be taken as an input by online retailers to design their strategies for target age group.

**3.** There is relationship between income of respondents and frequency of usage of method of online purchase especially in case of grocery purchase. There is relationship between income and future interest of consumers in online grocery purchase

4.The above data analysis shows the demographics of the consumers and relationship among their demographic characteristics and behavior towards online method of grocery purchase. This can be a good input for the online grocers to define their target consumer segment based on demography.

7.The quality of grocery items is the most preferred criteria for purchasing it online . The second and third rank goes to price and discounts offered by marketrs and ease of transactions. The convenience is at the fourth rank which may be major difference in preferential criteria of consumers from online purchase of other non grocery products like fashion items or apparels and grocery. This can be one more important input for online grocery retailers.

## References

1. Aggarwal, A.(2000 ). ‘Current Issues in Indian Retailing ,European Retail Digest. 25, 70-71
2. Ali M. Noor et al (2011). ‘Exploratory Studies on Online Grocery Shopping’ 3rd International Conference on Information and Financial Engineering IPEDR vol.12 © (2011) IACSIT Press, Singapore
3. Banerjee, N., Dutta, A., & Dasgupta, T. (2010). A study on customers' attitude towards online shopping – An Indian perspective. Indian Journal of Marketing, 40 (11), 36-42.
4. Chitra Sharma (2019). ‘Consumer perceptions towards online grocery stores’Indian Journal of Research 4(4) pp 4-5.
5. Dahiya, R. (2012). Impact of demographic factors of consumers on online shopping behaviour: A study of consumers in India. International Journal of Engineering And Management Sciences (IJEMS), 3 (1), 43-52.

