

A SYSTEMATIC REVIEW ON CONSUMER'S BEHAVIOUR FOR ONLINE GROCERY SHOPPING

Baldev Sandhu¹, Eramalla Aravind²

^{1,2}Student, Department of Computer Science and Engineering, Lovely Professional University, Phagwara, Punjab

Abstract - Online grocery shopping is the most growing business in the market. It is fetching large number of consumers to adapt online shopping and is the most promising area of e-commerce. It is also very challenging task to find out the consumers' need and understanding their attitude towards online grocery shopping. This review paper is made to reveal the consumers' attitude. The reason for this investigation is to distinguish the factors that influence the consumer to go for online grocery shopping and aims to explore their attitude towards it. To carry out this study information was gathered from no. of respondents through questionnaires. It surveyed different people around different regions (Mumbai and Delhi) of India. Analysis was done using the **frequency test** and **Anova** mean to get the demographic factors influencing the consumers' attitude. The findings of the study describes that the result of this analysis shows that middle aged people, female, under graduate and graduate, frequency of shopping and income are the significant **demographic factors** influencing respondents attitude towards online grocery shopping. And the online shopping service factors like **product choice, availability of products and delivery time options** (most important variable for respondents) also get influenced by the demographic factors of the buyers. The primary and the most concerned goal of e-commerce service is the convenience and time saving.

Key Words: online grocery shopping, consumers' attitude and behaviour, e-commerce, Online shopping, customer relationship

1. INTRODUCTION

World is moving towards the digital world, and due to all these advancements in the technology every single thing which have some value to the people is being handled online in order to save time, energy, fuel and to avoid rush. Online service provider platforms has been rapidly growing business on internet. The rapid growth of e-commerce company is mainly due to consumer convenience and choice. Consumers are continuously changing the way they shop for their needs and items.[1]online grocery shopping gives better various enhanced qualities of services like product choice and quality, its description, best offers, time, availability of product, delivery time options, online safe mode of payment as compared to offline shopping(supermarkets)[2]. This study analyzes what are reasons which motivates consumers to go for online grocery shopping. E-commerce shopping overcomes the problem of

going at rush places to buy any item, car parking, carrying heavy bags to the door steps, waiting in line at counter to pay the bill by giving the better product quality, choice, availability of products, price, payment security, replacement of products etc. It adds value to the shopper's and user's money, time and make long time marketing relationships with them by providing best offers.[1]E-commerce has main four type of properties such as convenience, sustainability, technology and performance, personal. Online application service is convenience means it delivers the service to users at time and easier to use. This is main objective of each consumer in online and offline shopping. Technology helps for transforming supply chains and customers' relations with products and services. Sustainability is important for every online shopping or any online service providers from environment point of view. Personal marketers use a marketing strategy to attract consumers to their service and build long term relationship with them.

2. RELATED WORK

Research on online shopping has been limited since this is a relatively new retail channel. Most of the researches are reviewed only with regards to United state market. This paper is bases on previous studies and researches on online shopping.[1]In a study **Rupali Rajesh(2019)** studied the factors influencing for online shopping for food and evaluated the demographic factors which influence consumers to buy items or grocery online.The survey was taken place in Mumbai for data collection of 117 respondents sample.No.of interviews and questionnaire was prepared to collect the data for determining the demographic factors like age, gender, income, qualification, frequency of shopping and shopping sites used. And Maan Whitney and Kruskal Wallis Test was used to validate the data collected through analysis.[2]**Gabriela Hanus(2016)**research found the conditions of consumers' attitude towards buying food online and services and advantages offered in online shopping for food. This study also reflects the disadvantages and risks identified with internet shopping. Hanus study mostly draws the difference between online shopping for food and supermarket's offline shopping and tells the importance of ordering food and household items online. There was also research conducted on respondents of perhaps the most developed e-commerce in Europe country Sweden by [3] **Anna Blomqvist, Frida Lennartsson and Louise Nyman(2015)** which outlines the

consumers' behaviour and attitude towards using e-Commerce for shopping online. It was based on previously made studies and used explanatory strategy and deductive approach to test the theory. They collected data through quantitative approach and analyzed it using SPSS method.[4]Harjinder Kaur and Rakesh K.Shukla(2017) researched on sample of respondents in Delhi area and elaborated the consumers' furthermore, demeanor towards the online grocery shopping. Data was collected and analyzed through Anova mean and standard deviation. And comes up with the result of significant factors which influence the consumers' attitude and behaviour towards the online shopping. Chandini A.V. and Nagesh [5]study identified demographic profile of online customers in South Bangalore and analyzed the factors influencing return policy. They analyzed consumers' attitude by collecting data from 209 samples of respondents in South Bangalore. And came on result showing 87% respondents were positive Customers' disposition towards online basic food item.

3. CONSUMERS' ATTITUDE TOWARDS ONLINE GROCERY SHOPPING

Consumers' make several decisions like product brand, financial satisfaction, shopping place and network. Consumers' attitude can be understood in two way, rationally and irrationally[2].Rational behaviour means finding out the demographic factors(like age, gender, martial status etc) and psychological terms. Consumer behave rationally means they aim to maximize their satisfaction and utility functions. The second group of theoretically concepts is related with irrationality of consumers, which means characterizing customers' behaviour by emotionally, unconsciousness, contingency or hastiness. It has been seen in various reports that consumers are choosing the product of their interest area and high proportion of emotions and impulse to the products. There are techniques that generate immediate impulsive shopping like sales, coupons and additional discounts with short expiry date and free delivery service.

4. DATA ANALYSIS AND INTERPRETATION

The purpose of study is to give the consumers extra features with major services and factors influencing the consumers to buying items via online shopping. Demographic factors like age, gender, martial status, qualification, occupation, money spending in online shopping of consumers is very helpful in finding out the consumers' selection of product, product's quality and its price. These factors will be found out in this study using the previous studies made. So[1] it will be finished through the secondary data collection method. Secondary data is collected through recent researches, magazines, journal, books and websites. Recent studies collected data through various respondents from particular region

4.1 Data is interpreted using Frequency test analysis

Data is interpreted using Frequency test analysis done in city Mumbai[1] to determine the demographic factors of male and female for online shopping.

Variables	Characteristics	Frequency	Percentage(%)
Sex	Male	51	43.59
	Female	66	56.34
Age group	18-25	16	13.71
	25-35	37	31.62
	35-45	49	41.90
	Above 45	15	12.80
Marital status	single	49	41.91
	married	68	58.10
Qualification	Under graduate	83	39.70
	graduate	62	29.70
	Post graduate	64	30.61
How often consumer use online shopping	weekly	45	38.50
	fortnightly	39	33.30
	Every few months	8	6.81
	On special occasion	11	9.40
Other shopping websites	monthly	14	12.0
	Swiggy	30	25.70
	Amazon.com	9	7.810
	naturebasket	28	23.80

In Frequency Test Analysis table, Factors like age,gender and martial status of consumers predict the their choice of product to be bought for online shopping.[1]Maan Whitney test shows that female are doing more online grocery shopping I.e. mean 56% as compared to men 43%.This study shows the high interest of online shopping in female. Since mostly women don't like to go to supermarkets and standing in queue as they have kids. Age also affect the customers go for shopping online. It proved that middle aged person from 35-45 prefer more I.e. 41.6% to go for online shopping as compared to young age(18-35) 13.7% and 31.6% average percentage respectively and old age (above 45) have only 12.8 %. Martial status e.g. married prefer (58.1%)more than single people(49.1%).Frequency of shopping and most visited website for shopping also help in knowing the customer attitude towards online grocery shopping.

FREQUENCY TEST

4.2 Avona mean analysis

Avona Mean analysis[4] is used in Delhi region to find the consumer’s attitude towards online grocery shopping in India. It works on the demographic profile of consumer, shopping frequency, average monthly expenditure and time spent on shopping. These factors can be seen in the tabular form

	5001-7500	24			
	7501-10000	11			
	10001-15000	5			
	More than 15000	2			
Frequency of Grocery shopping	Weekly	11			
	Fortnightly	14	2.342	0.048	
	Monthly	63			
	Quarterly	12			

***p<0.05 AVONA MEAN**

Avona mean gives the result as mean value of different demographic factors. In the above table Avona was performed and result comes out to be significant (F=4.486) in age factor. People under 45-54 yrs age (mean=2) are more active than age from 15-24 (mean=1.761), age from 24-34 (mean=1.520), age from 35-44 yrs (mean=1.777) and from age above than 54 yrs (mean=1.833). It means middle aged people are more active towards online shopping than young and old aged people. Next demographic variable factors shows the effect of qualification on attitude of consumers to buy foods and other stuffs online. Qualification factor has a significant outcome on performing Anova mean (F=0.888). So it simply describe by showing the professional or well educated people (having mean value=2.33) most often prefer online grocery shopping. For the next factor Anova does not show significant outcome (F=1.983), which means respondents were not significantly differ for their attitude going for online grocery shopping. Next factor martial status also not showing significant outcome (F=0.066) value, that means consumer status does not relate to prefer online shopping. Thus, this factor is not specifying consumer behaviour towards online grocery shopping. On observing mean value and F values it can be said that consumer income (f=11.62) gives the significant outcome to determine the attitude of consumer. Annual income less than 5 lac (mean=1.902) have positive attitude than income 5-10 (1.722), 10-20 (mean=1.307) and more than 20 lac (mean=1.44). It means consumers with less income prefer

Variab les	Values	N	Mean	F	Sig.
Age in yrs	15-24	28	1.761		
	25-34	48	1.520		
	35-44	16	1.777		
	45-54	6	2		
	Above 54 yrs	2	1.833	4.486	0.013
Gender	female	55	1.751		
	male	45	1.740	0.009	0.926
Qualifi cation	Under Graduate	3	1.888		
	Graduate	36	1.712		
	Post Graduate	56	1.708		
Occupat ion	Professional	5	2.33	0.828	0.036
	Business	4	2.166		
	Govt. Service	9	1.666		
Martial Status	Private Service	67	1.776		
	Students	9	1.518		
	Home maker	4	2.111		
Family Incom e	Self employed	7	1.523	1.983	0.162
	Married	63	1.761		
	Unmarried	35	1.714		
Monthl y Grocer y Expens es	Divorced	2	1.833	0.066	0.797
	Less than 5 lac	48	1.902		
	5-10	36	1.722	11.62	0.001
Monthl y Grocer y Expens es	10-20	13	1.307		
	More than 20 lac	3	1.444		
	Less than 2500	25		2,540	0.033
	2500-5000	33			

to go for online shopping. It might due to money saving offers and best price on product are available in online grocery shopping. Monthly grocery expenses and frequency of online grocery shopping gives significant outcomes (F=2.540 and

F=2.342) which is also helpful in knowing the consumers' attitude towards online grocery shopping.

5. OVERALL MEAN OF FACTORS

Table 3 shows the overall factors which are responsible for describing the customers' behaviour towards shopping.[4]Convenience is the primary reason which consumer is getting in online shopping.These results are shown with the mean value of all the factors.These mean values represent how much respondents are effective towards the shopping with suitable factors that means a lot to the consumers.

Overall mean

Variables	Mean
Personnel convenient Factors	1.58
No time	1.51
No Queues	1.62
health problem	1.93
Traffic problem	1.87
parking problem	1.82
Children	1.38
Convenience & Flexibility of 24*7	1.91
Super market far away	1.70
Overall Personnel Convenient Factors	1.21
Website Designing Factors	1.36
User friendly website	1.30
Adequate search options	1.38
Easy ordering Process	1.27
product assortment	1.39
Display pics of products	1.43
comparison with other brands	1.33
Access of last shop list	1.33
Overall Website Designing Factors	1.37
Delivery Factors	1.16
Free Delivery	1.29
same day delivery	1.30
Time slot options	1.40
Over all Delivery Factors	1.32
Add-on Services Factors	1.35
Customer Care services	1.32
Loyalty Bonus Schemes	1.34
Discount /Offers alert messages	2.09
Mobile Applications	1.77
Tracking of order option	2.11
Overall Add-on Services	2.09
Social Influence Factors	2.02
Friends	1.00
Customer Reviews	1.23
Relatives	1.50
Family	1.41
Overall Social influence	1.53
Fear/Issues Factors	1.61

Quality of Products	1.52
Refund on spoil items	1.59
Hacking of Personnel information	1.70
Mismatching of items ordered	1.66
Difference from actual image	1.77
Problem in Transferring Money	1.50
Delay Del of order	1.45
Extra Delivery Charges	1.56
Difficult ordering Process	1.61
Overall Attitude Factors	1.74

In the above tables data is analyzed and can be seen that there are some common factors in both(frequency test and Avona Mean) which shows the consumers' positive attitude.Although these data is collected through different kind of people living in different region of India, but still it can predict the effective result. The above given tables show the average percentage of people preferring online grocery shopping based on different demographic factors.So on seeing the data analysis on demographic profile of consumer using different methods, it can be said that consumers' behaviour and attitude[5] for online grocery shopping can be studied well by choosing right factors to be analyzed with mean and average percentage.Factors like age,gender,family income,frequency of shopping and education are placed common in both data collections and changes the consumers' selection of product choice, product quality,price,delivery time,availability of product,offers,replacement of product and some more.This study found that how different age groups of consumers are impacting the e-commerce shopping and what service factors it is effecting.Consumers with different age groups can affect the product's availability according to their need.It might happen that consumers at young age wants to buy different thing and middle aged and old man wants to buy other things on the basis of their daily needs.This service factor however effected in online grocery shopping but not that much, because now everything is available in e-commerce shopping.Second demographic factor, that can effect the service factor(product choice,availability of product,delivery time) is gender of consumer. Males could have different choices and can send different time to get their product delivered than females.And could also affect availability of product. Various other demographic factors like family income,qualification,frequency of shopping also affect service factors offered in e-commerce shopping.

6. CONCLUSION AND DISCUSSION

Online shopping services is the fastest growing e-commerce business around the world.Product quality,convenience and offers are attracting the consumers towards online shopping.The finding of this study demonstrated the significant differences in age,gender,family income,qualification and frequency of shopping which contributes in enlightening the fact that how many consumers think of e-commerce in the context of these

demographic variables values. Age and gender are significant factors in this study[4] as it tells that females and people under age 45 or middle aged people are more active to e-commerce shopping. Family income is one of the most significant factors in terms of spending money on purchases, because family income less than 5lac annually are more positive towards digital shopping. Similarly consumers' qualification(under graduate and graduate) and frequency of shopping also helpful in knowing the consumers' behaviour.[5][2]Convenience is the most concerned goal of consumers, they agree to pay extra for instant delivery and saving time. They can order anything, anytime,anywhere from their comfort zone in e-commerce shopping.

The first important implication is that retailers must provide easy to use and convenient service to their users[5]. They should give good product images, product description, overall design, search categories and safe online payment mode(cash on delivery if possible) environment for their online shopping service consumers.[3]The researchers should conduct more data analysis and evaluation rather on depending market search, which will help them to study more about consumers' profile and their mind set regarding opting for online grocery shopping.It is suggested that retailers or researchers should provide the platform to consumers they are able to compare between and among different products according to their need in e-commerce shopping.

7. FUTURE SCOPE

This study is based on market review and quantitative research of previous findings.[3]In order to go further into topic qualitative approach must be taken into account. Since it is market review, which is one of its limitation, fixed no of respondents and markets and only factors are followed that influence consumer's attitude to go for online shopping. As many markets are coming form offline to online, they could have different factors and reasons for their study. So future study can extend the study to know more factors and reasons affecting consumers buying items online. It will help them to stand in competitive growth of e-commerce and position their services in the market.

REFERENCES

- [1] Rajesh,Rupali(2019) "Assessing the impact of Online Grocery Shopping in Mumbai",JOURNAL RESEARCH. Vol-9
- [2] Hanus,Gabriela(2016)."Consumer Behaviour During Online Grocery Shopping",JOURNAL RESEARCH CBU International Conference Proceedings,Vol 4,SP010
- [3] Anna Blomqvist,Frida Lennartsson and Louise Nyman(2015)."Consumer Attitudes Towards Online Grocery Shopping".Jonkoping International Business School
- [4] Harjinder Kaur and Rakesh K.Shukla(2017)."Consumers Attitude For Acceptance Of Online Grocery Shopping in India",International Journal of Current Research,Vol.9,Issue 05,pp.50776-50784
- [5] Chandini A.V. and Nagendra(2015)."An Exploratory Study on Consumer Attitude Towards Online Grocery shopping",Ramaiah University of Applied Sciences,Bangalore 56005.
- [6] Chitra Sharma (2015). Consumer Perception towards Online Grocery Stores. PARIPE INDIAN JOURNAL OF RESEARCH. Vol. 4, Issue: 4. pp: 4-5.
- [7] Choudhury R. (2017). Challenges and future of grocery business in India. Advance Research Journal of Multidisciplinary Discoveries. 14, C-3. pp: 09-19. ISSN-2456-1045.
- [8] G.B. Jishya and K. Maran (2017). Identifying the Online Grocery Opportunity and the Buying Behaviour of Urban Indian Millennial. Journal of Advance Research in Dynamical & Control Systems, 15-Special Issue pp: 420-428.
- [9] Gopal, R and Deepika Jindoliya (2016). Consumer Buying Behaviour towards Online Shopping: A Literature Review. International Journal of Information Research and Review. vol.03, Issue, 12, pp: 3385-3387.
- [10] Jayasankara Prasad and Yadaganti Raghu (2018). Determinant Attributes of Online Grocery Shopping In India - An Empirical Analysis. IOSR Journal of Business and Management. Vol 20, issue 2.pp: 18-31.
- [11] Amit, B. Sanjoy, Ghose. (2004). A latent class segmentation analysis of e-shoppers, Journal of Business Research. Vol.57, pp.758-767. 2.
- [12] Andrew, J. R &Vanitha, S. (2004). A typology of online shoppers based on shopping motivations. Journal of Business Research. Vol. 57, pp.748- 757 3.
- [13] Gefen, D., Karahanna, E. and Straub, D.W., Trust and TAM in online shopping: an integrated model. MIS Quarterly, 27, 1, pp.51- 90 . 4.
- [14] Guangping Wang, W. D. (2006). Consumption attitudes and adoption of new consumer products: a Contingency approach. European Journal of Marketing, pp. 63-72 5.
- [15] Gulden Bozkurt (2010). A comparison of physical store versus online grocery shopping habits based on consumers' environmental characteristics. International Journal of Business and Social Science, pp.121-156.
- [16] Coupey, Picot and Karine et al. 2009. Grocery shopping and the Internet: Exploring French consumers' perceptions of the 'hypermarket'and 'cybermarket'formats. The International Review of Retail, Distribution and Consumer Research 19(4): 437-455.
- [17] Davis, F.D. 1989. Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology. MIS Society for Information Management and Research Centre 13(3):319-340.

- [18] Donald R. Lehmann and Lyman E. Ostlund 1974. Consumer Perceptions of Product Warranties: an Exploratory Study. *NA- Advances in Consumer Research* 20(1): 51-65.
- [19] Hansen, T. 2005. Consumer adoption of online grocery buying: A discriminant analysis. *International Journal of Retail and Distribution Management* 33(2): 101-121.
- [20] Huang, Y. and H. Oppewal 2006. Why consumers hesitate to shop online: An experimental choice analysis of grocery shopping and the role of delivery fees. *International Journal of Retail & Distribution Management* 34(4/5): 334-353.
- [21] Aguila-Obra, A. and Padilla-Melendez, A. (2006). Organizational factors affecting Internet technology adoption. *Internet research*, 16(1), pp.94-110.
- [22] Agwu, E. (2013). From Reluctance to Resistance – Study of Internet Banking Services Adoption in the United Kingdom. *Journal of Internet Banking and Commerce*, 18(3).
- [23] Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In J. Kuhl & J. Beckmann, *Action Control - SSSP Springer Series in Social Psychology* (1st ed.), pp. 11-39. Springer Berlin Heidelberg.
- [24] Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), pp. 179-211.
- [25] Ajzen, I. (2001). Nature and Operation of Attitudes. *Annual Review of Psychology*, 27.
- [26] Andrews, R. L., & Currim, I. S. (2004). Behavioural differences between consumers attracted to shopping online versus traditional supermarkets: implications for enterprise design and marketing strategy. *Int. J. Internet Marketing and Advertising*, 1(1), 38-61.