

**A STUDY ON CONSUMER PREFERENCE AND SATISFACTION TOWARDS  
ONLINE GROCERY ORDERING AND DELIVERY SERVICE IN CHENNAI**

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**Abstract**

E-commerce has witnessed phenomenal progress both in terms of value and figures in India during the last decade. Online Grocery shopping is a recent inclusion (since 2015) to the world of e-commerce in India. Consumers prefer to buy groceries online rather than traditional groceries shopping for several reasons. Shopping online has become more accessible as consumers can now shop from an Online grocery Mobile App sitting at home without having to go to the supermarket, push the cart, and stay in line for payment. Online grocery shopping allows shoppers to efficiently compare prices between products. Buyers now have a wider choice of products. Buyers can compare the goods without the physical touch of the goods. Due to the advancement in technology, online grocery shopping is gaining market share in the food retail industry. The traditional grocery shopping has braked in recent time due to the arrival of online grocery shopping. This article aims to examine the level of customer preference and satisfaction towards online grocery shopping in Chennai. Data was collected through a structured questionnaire from a sample of 120 respondents in Chennai. The data were interpreted using the Social Sciences Statistical Package (SPSS).

**Keywords:** E-Commerce, Traditional grocery shopping, Online grocery, Mobile APP, Convenient shopping.

**Introduction**

The era of globalization has come into existence because of the Internet and Mobile Applications. In this era of modernization, it is now veritably delicate for grocery shops to sustain without having an online shopping portal as there are numerous online service providers who vend groceries through their mobile Applications to match the changing shopping patterns of buyers. As e-commerce and online shopping is now getting popular and profitable, numerous companies are entering into this virtual world with their online shopping Mobile Apps. Utmost business in developing countries give an option of buying products through Mobile Apps because this helps in adding the

customer base. E-commerce has radically changed the business perspective across the world. “Due to the increase in internet users, its impact has been increasingly noticeable in developing nations like India (Chatterjee, 2016). There are already 225 million online buyers, and according to predictions, that number will rise to 530 million by 2025 (Chandra, 2021). This reinforces the idea that the E-commerce sector would increase its influence within the Indian

economy. Increased consumer expenditure, greater urbanisation, and more disposable incomes among India's working population are all factors that contribute to this issue (Choudhury, 2017).

### **Review of Literature**

1. Radka Bauerová, Martin Klepek (2018) “TECHNOLOGY ACCEPTANCE AS A DETERMINANT OF ONLINE GROCERY SHOPPING ADOPTION” This paper studies about the assumption of customers view on online grocery shopping as an interaction with system and web page interface. The aim of the paper is to explain consumer behaviour in the domain of online grocery shopping. Structural equation modelling was chosen to determine factors influencing online grocery shopping and moreover, to find positive relationships between them. The online quantitative questionnaire was given to 480 respondents. Analysis showed a positive relationship between Perceived Usefulness (PU), Perceived Ease of Use (PEOU), and Behavioural Intention (BI). It was concluded that the efforts of marketers should, therefore, focus primarily on raising awareness of the usefulness of online grocery shopping or improving the service.

2. Radka Bauerová (2018) “CONSUMERS’ DECISION-MAKING IN ONLINE GROCERY SHOPPING: THE IMPACT OF SERVICES OFFERED AND DELIVERY CONDITIONS” The aim of the paper is to extend external factors of online consumer decision process and examine the influence of offered services and delivery conditions toward consumer’s decision-making in online grocery shopping. The paper focuses primarily on the choice of the type of service and the determination of delivery conditions that have a positive impact on the customer’s decision-making. The empirical analysis was conducted on a sample of Czech online grocery buyers involving 536 respondents interviewed online. The results show the high customer sensitivity in delivery time and charge, while the impact of the minimum required order on the consumer’s intention to shop groceries online is not so decisive. The results suggest that Delivery Passes are the consumer’s most requested service and could play a role in building loyalty.

### **OBJECTIVES OF THE STUDY**

1. To study the level of awareness regarding online grocery service among the respondents
2. To identify the most preferred online grocery delivery service
3. To study the reason why respondents buy online grocery
4. To understand whether demographic parameters affect the choice of online delivery service
5. To study the factors that influenced respondents to buy groceries online
6. To study the level of consumer satisfaction in online grocery delivery service

### **RESEARCH METHODOLOGY**

The study was conducted in Chennai collecting primary data through a structured questionnaire from 122 respondents. A structured questionnaire was administered using Google forms to

collect responses. Statistical tools: Simple Percentage Analysis, Weighted average, ANOVA, **Factor analysis and Ranking**

**Sample Design**

The research design for this paper is descriptive. A structured questionnaire is designed to collect information. A convenient sampling method was used to find a total of 122 respondents from Chennai city. After the data were collected, each questionnaire was coded and scores were entered in (SPSS).

**Analysis And Interpretation of Data**

**PERCENTAGE ANALYSIS**

**DEMOGRAPHIC PROFILE**

(Dominant Classes)

Sample size: Total respondents = 122

SNO	DEMOGRAPHICPROFILE	DOMINANT CLASSES	NUMBEROF RESP.	% OF RESP.
1	Age	20-30, 30-40	55, 46	45.1%, 37.7 %
2	Gender	Female	103	84.4%
3	Education Qualification	Post Graduate, Graduate	67, 43	54.9%,35.2%
4	Occupation	Employee, Professional	40, 33	32.8%, 27%
5	Income level (Monthly)	Above 50000, Below 20	42, 31	34.4%, 25.4%

**AWARENESS OF ONLINE GROCERY SERVICES**

(Dominant Classes)

SNo	Question	DOMINANT CLASSES	NUMBER OF RESP.	% OF RESP.
1	Are u aware of online grocery delivery services	Yes	121	99.2%
2	Known Online grocery service providers	Bigbasket,Flipkart, Zepto	84,63,57	68.9%,51.6%,46.7%
3	Source of awareness	Advertisement, Friends & Relatives	88,62	72.1%, 50.8%

**P R E F E R E N C E A**

**MONG ONLINE GROCERY SERVICES**

SNo	Question	DOMINANT CLASSES	NUMBER OF RESP.	% OF RESP.
1	Preferred Service provider	Bigbasket, Amazon pantry, Flipkart	63,49,35	51.5%,40.2%,28.7%

2	Preferred Grocery for online purchase	Top 10		
		Food grains & Oil,	57	46.7%
		Fruits & Vegetables,	49	40.2%
		Cleaning &	43	35.2%
		Household, Kitchen	36	29.5%
		Accessories, Snacks,	32	26.2%
		Electronics,	31	25.4%
		Beauty &	29	23.8%
		Hygiene,	21	17.2%
		Noodles pasta &	19	15.6%
Soup, Stationery,	15	12.3%		
		Beverages		

**PURCHASE BEHAVIOUR OF ONLINE GROCERY BUYERS**

SNo	Question	DOMINANT CLASSES	NUMBER OF RESP.	% OF RESP.
1	Purchase periodicity	Once in 2 weeks, Once a Month	51,50	41.8%, 41%
2	Need to purchase online	Needs home delivery, Pricediscout available	47,28	38.5%, 23%
3	Average Spending	Rs 1,000- Rs 5,000 Rs 500 – Rs 1,000	51 32	41.8% 26.2%
4	Mode of payment	Cash on delivery, Credit card/Debit Card	45,33	36.9%, 27%

**FRIEDMAN RANKING**

**Preferred features**

FEATURES	MEAN RANK	RANK
<i>Easy sign up</i>	6.07	IV
<i>Add to cart</i>	7.47	II
<i>Schedule orders</i>	5.84	VII
<i>Faceted search ( Easy to find products)</i>	5.75	IX
<i>Push Notification</i>	4.63	XI
<i>Product Comparisons</i>	5.89	V
<i>Order tracking &amp; Status</i>	7.51	I
<i>Coupon codes &amp; special discounts</i>	6.39	III
<i>Reviews &amp; Ratings</i>	5.89	V
<i>Payment gateway</i>	5.75	VIII
<i>Wallet</i>	4.81	X

The respondents were highly attracted by the Order tracking & Status, Add to cart, Coupon codes & special discounts feature of the online grocery delivery service with a Mean rank of 7.51, 7.47 and 6.39 and Push Notification is the least attractive feature with a Mean rank of 4.63

**FACTOR ANALYSIS & INTERPRETATIONS**

**Factors influencing customers to buy grocery online**

**Comfort Factor**

**Value Factor**

Comfort Factor	Variable Loading	Value Factor	Variable Loading
Convenience Saves time	0.823	Find new brands	0.842
Quick delivery	0.813	Price comparison	0.821
Easy online payment	0.768	Unique product	0.801
Quality of product	0.707	Wide range of products	0.749
Same day delivery	0.707	Low price	0.744
Festive purchase	0.646		
Offers & Discount	0.635		
	0.593		
	0.533		
<b>Mean Value</b>	<b>0.689</b>	<b>Mean Value</b>	<b>0.791</b>

Factor analysis was performed to reduce the 13 variables influencing customer to purchase grocery online. The 13 variables were reduced into 2 factors namely Comfort factors and Value factors. The factor loading of the variables and the classifications into factors can be seen in the above table.

Comfort factor included variables such as Convenience, Time saving, Quick delivery, Easy online payment. The mean value of the factor loadings for comfort factor is 0.689

Value factor included variables such as Finding new brands, Price comparisons, Finding unique products, Wide range of products. The mean value of the factor loadings for Value factor is 0.791

From the above analysis we can interpret that consumers give slightly higher weightage to Value than Comfort

**ONE WAY ANOVA**

**DEMOGRAPHIC PROFILE-INFLUENCE ON ONLINE GROCERY PURCHASE**

Demographic profile	Factor		Sum of Squares	df	Mean Square	F	Sig.
<b>GENDER</b>	<b>COMFORT FACTOR</b>	Between Groups	0.11	1	0.11	0.11	.919
		Within Groups	120.989	120	1.008		
		Between Groups	6.815	1	6.815		

Demographic profile	Factor	Sum of Squares	df	Mean Square	F	Sig.	
	VALUE FACTOR	114.185	120	0.952	7.162	0.008	
OCCUPATION	COMFORT FACTOR	Between Groups	11.073	5	2.215	2.337	0.046
		Within Groups	109.927	116	0.948		
	VALUE FACTOR	Between Groups	9.884	5	1.977	2.064	0.075
		Within Groups	111.116	116	0.958		
Demographic profile	Factor	Sum of Squares	df	Mean Square	F	Sig.	
INCOMELEVEL	COMFORT FACTOR	17.505	4	4.376	4.947	0.001	

- Gender is an important factor influencing the respondents to buy groceries online. There is a significant difference between genders based on the Value Factor comprising variables Find new brands, Price comparison, Unique product, Wide range of products, Low price (sig = 0.008, F = 7.162).
- Occupation is an important factor influencing the respondents to buy groceries online. There is a significant difference between occupations based on the Comfort Factor comprising variables Convenience, Saving time, Quick delivery, Easy online payment, Quality of product, Same day delivery, Festive purchase, Offers & Discount (sig = 0.046, F = 2.337).
- Income Level is an important factor influencing the respondents to buy groceries online. There is a significant difference between Income tax based on the Comfort Factor comprising variables (Find new brands, Price comparison, Unique product, Wide range of products, Low price) and the Value Factor comprising variables (Convenience, Saving time, Quick delivery, Easy online payment, Quality of product, Same day delivery, Festive purchase, Offers & Discount) (sig = 0.001, F = 4.947) & Value Factor. (sig = 0.002, F = 4.380)

### CHI-SQUARE

Demographic profile	Services	$\chi^2$ Value	df	p Value	Significance
Age	Order tracking	13.969	6	0.030	Significant
Gender	Ease of use	10.997	3	0.012	Significant
	Coupons & Discounts	14.199	4	0.007	Significant
	Free Shipping	16.767	4	0.002	Significant
	Re-purchase	9.209	3	0.027	Significant

	<i>Trust</i>	12.582	3	0.006	Significant
<b>Education</b>	<i>Quick delivery</i>	14.487	6	0.025	Significant
	<i>Ease of use</i>	16.108	6	0.013	Significant
	<i>Trust</i>	14.531	6	0.024	Significant
<b>Occupation</b>	<i>Easy payments &amp; Refunds</i>	26.087	15	0.037	Significant
	<i>Order tracking</i>	19.750	10	0.032	Significant
	<i>Ease of use</i>	28.040	15	0.021	Significant
	<i>Coupons &amp; Discounts</i>	33.271	20	0.031	Significant
	<i>Free Shipping</i>	36.103	20	0.015	Significant
	<i>Re-purchase</i>	26.062	15	0.037	Significant

	<i>Trust</i>	26.191	15	0.036	Significant
<b>IncomeLevel</b>	<i>Quick delivery</i>	22.639	12	0.031	Significant
	<i>Ease of use</i>	32.348	12	0.001	Significant
	<i>Coupons &amp; Discounts</i>	26.791	16	0.044	Significant
	<i>Free Shipping</i>	31.303	16	0.012	Significant

SNo	Question	DOMINANT CLASSES	NUMBER OF RESP.	% OF RESP.
1	Is Online grocery purchase beneficial	Yes	122	92.2%
2	Why Online grocery purchase is beneficial	Easy to order, Saves time, Door step delivery Variety of products	122	76.1%,71.1%, 67.4% ,53.7%

**FINDINGS**

**GENERAL FINDINGS**

**Awareness:**

- 99.2% of the respondents are aware of online grocery shopping.
- The most Known Online grocery service providers are Big Basket3, Flipkart, Zepto.
- Advertisement, Friends & Relatives are the sources of awareness

**Preference:**

- 51.5%, of the respondents preferred Big Basket for buying groceries online
- The most Preferred Online groceries are Food grains & Oil, Fruits & Vegetables, Cleaning & Household, Kitchen Accessories, Snacks,

### **Purchase Behaviour :**

- 41.8% of the respondents buy groceries online once in 2 weeks
- 38.5% of the respondents buy groceries online when they need home delivery of goods
- 41.8% of the respondents spend Rs 1000 – Rs 5000 monthly in online grocery purchase
- 36.9% of the respondents preferred cash on delivery as a mode of payment

### **Perceived Benefits:**

- 92.2% of the respondents stated that online grocery shopping is beneficial
- Easy to order, Saves time, Door step delivery Variety of products are benefits of online grocery shopping.

### **SPECIAL FINDING- FRIEDMAN RANKING**

Order tracking & Status, Add to cart, Coupon codes & special discounts are the most attractive features of the online grocery delivery service with a Mean rank of 7.51, 7.47 and 6.39, and Push Notification is the least attractive feature with a Mean rank of 4.63

### **SPECIAL FINDING- FACTOR ANALYSIS**

The 13 variables were reduced into 2 factors namely Comfort factors and Value factors. As the mean value of the value factor is 0.791 which is slightly more than the comfort factor, It can be found that the respondents give more weightage to values than comforts while purchasing groceries online.

### **SPECIAL FINDING- ONE WAY ANOVA**

Value factor is influenced by Gender in buying online groceries (sig = 0.008, F = 7.162). Comfort Factor is influenced by Occupation for buying online groceries (sig = 0.046, F = 2.337). Comfort Factor (sig = 0.001, F = 4.947) & Value Factor. (sig=0.002, F= 4.380) is influenced by Income level for buying groceries online

### **SPECIAL FINDING- CHI-SQUARE**

- Age: There is an association between the Age of the respondents and their satisfaction with the services of online grocery purchases such as Order tracking ( $\chi^2$ -13.969 & p-value - 0.030),
- Gender: There is an association between the Gender of the respondents and their satisfaction towards the services of online grocery purchases such as Ease of use ( $\chi^2$ -10.997 & p-value - 0.012), Coupons & Discounts ( $\chi^2$ -14.199 & p value - 0.007), Free Shipping ( $\chi^2$ -16.767 & p-value - 0.002), Re-purchase ( $\chi^2$  -9.209 & 0.027 ), Trust ( $\chi^2$ -14.531 & p-value - 0.024)
- Education: There is an association between the Education of the respondents and their satisfaction with the services of online grocery purchases such as Quick delivery ( $\chi^2$ -14.487 & p-value - 0.025), Ease of use ( $\chi^2$ -16.108 & p value - 0.013), Trust ( $\chi^2$ -14.531 & p-value - 0.024).
- Occupation: There is an association between the Occupation of the respondents and their satisfaction with the services of online grocery purchases such as Easy payments & Refunds ( $\chi^2$ -26.087 & p-value - 0.037), Order tracking ( $\chi^2$ -19.750 & p-value - 0.032), Ease of use ( $\chi^2$ -



28.040 & p-value - 0.021). Coupons & Discounts ( $\chi^2$ -33.271 & p-value - 0.031), Free Shipping( $\chi^2$ -36.103 & p-value - 0.015), Re-purchase ( $\chi^2$ -26.062& p-value - 0.037), Trust  $\chi^2$ -26.191 & p-value - 0.036).

- Income level: There is an association between the Income level of the respondents and their satisfaction with the services of online grocery purchases such as Quick delivery ( $\chi^2$ -22.639& p-value - 0.031), Ease of use ( $\chi^2$ -32.348 &p value - 0.001), Coupons & Discounts ( $\chi^2$ -26.791 & p-value - 0.044), Free Shipping ( $\chi^2$ -31.303 & p-value - 0.012).

## CONCLUSION

The above analysis reveals that there is better reception for Online grocery shopping among the respondents due to Saves time, Quick delivery & Ease of use. The respondents prefer online grocery purchases as it is very convenient to shop from home. There are two essential factors influencing the online purchase of groceries 1. Comfort level in online purchase 2. The value derived from online purchases. The study also reveals that comfort factor and value factors are influenced by the demographic variables of consumers. It is also evident that the respondents not only looked for Comfort in online grocery purchases but also gave equal importance to values in the purchase of online grocery services.

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