Study on Purchasing Behaviour of Customers for Essential Goods Through E-Commerce Amidst COVID-19 Pandemic

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Abstract

COVID-19 pandemic has created an opportunity to study the buying behavior of online shoppers towards the purchase of essentials goods. They are willing to experience and try new technology. Given the growing importance of the online retail industry in India, it becomes imperative for web retailers and internet marketers to understand the determinants of purchase intention of online customers to decipher what is important for Indian online customers. This paper attempts to identify the determinants of online purchase intention among youth in the Indian context.

Methodology : Primary data were collected through Google forms from 194 respondents.

Findings : People from different tiers purchased essential goods online. 28% of respondents shifted towards online purchasing. There are no interesting offers provided online. There is a significant relationship between the satisfaction of customers and the frequency of purchase of essential goods.

Research limitations/implications : A bigger and more representative sample that includes respondents from all walks of life would have been appropriate, though the internet savvy students contribute the major share of online buyers.

Keywords : Buying behavior, COVID 19 pandemic, online shopping for essential goods

I. INTRODUCTION

Retail business has developed as one of the most relentless and dynamic ventures in India. Absolute Indian retail utilization use was expected to reach US $ 3600 billion before the end of 2020 [1]. The commitment of online stores is 1.6% of retail deals in India [2]. As indicated by the Indian e-commerce industry report [3], India's e-business income was required to reach the US $ 120 billion out of 2020, developing at a yearly pace of 51% in the recent three years, the most noteworthy on the planet [4]. However, presently the situation has changed and there is no uncertainty that the emergency brought about by the worldwide COVID-19 pandemic has created unforeseen troubles in business for both disconnected and online markets. Organizations are now confronting new difficulties as worldwide many outlets have shut down, brick and mortar organizations shut their entryways, and individuals are being advised to remain at home [5]. Fear of the Covid-19 pandemic and non-accessibility of things in nearby stores is changing purchasing behaviors. This move can be seen in web-based shopping utilization all around the globe. In India too it has prompted an increase in the number of internet business clients, who had so far been restrained in online shopping. This flare-up has significantly changed shopping propensities as people fear shopping outside. Despite the fact that it has been seen that Tier-II urban communities increased by 56% in April 2020 as compared with March 2020 while metros contributed about 35% for an organization like Big Basket [6]. The objective of the present research is to discover the

Manuscript Received : March 10, 2021 ; Revised : March 25, 2021 ; Accepted : March 27, 2021. Date of Publication: April 5, 2021.

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DOI : https://doi.org/10.17010/ijcs/2021/v6/i12/160697

adjustment in the purchase behavior of customers which has affected both the organizations where the move of buying fundamental merchandise online over the unnecessary is extensive. This paper concentrates on new proposals by e-stage and finding a connection between the fulfilment of customers through such online assistance and the recurrence of buying on the web. With respect to exploration, there are a few papers that have finished their investigations, the methodology of this examination will be to expound on the effect and foresee the market situation.

II. OBJECTIVES

Research Problem : Changes in purchasing pattern during pandemic and its effect on e-commerce has yet to be closely studied in the context of Indian retail market.

Objective of the Research Paper : To analyze the purchasing pattern of essential goods through e-commerce platforms amidst pandemic situation.

To analyze the relationship between the satisfaction of customer and frequency of online purchase of essential goods amidst the pandemic situation.

Hypotheses

↳ H_{a0} **:** There is no significant difference in purchasing pattern for essential goods through e-commerce platform amidst pandemic situation.

↳ H_{a1} **:** There is a significant difference in purchasing pattern for essential goods through e-commerce platform amidst pandemic situation.

↳ H_{b0} **:** There is no significant relationship between customer satisfaction and frequency of purchase of essential goods online during the pandemic.

↳ H_{b1} **:** There is a significant relationship between customer satisfaction and frequency of purchases of essential goods online amidst pandemic situation.

III. LITERATURE REVIEW

A. PURCHASE BEHAVIOUR

Lim, Osman, Salahuddin, Romle, and Abdullah [1] noted that perceived usefulness insignificantly influences online shopping behavior. Their findings also revealed that purchase intention has a significant positive influence on online shopping behavior. This research has shown an increased explanatory power of purchase intention and online shopping behavior. There are some drawbacks in this research such as the sample chosen was limited to university students with a higher education background. Thus, future study is suggested to select working adults, and other variables related to online shopping. This paper is useful in the shift towards online purchases and helps in understanding the behavior of customers.

Khare, Singh, and Khare [7] showed a positive relationship between innovativeness or novelty-seeking behavior and online shopping behavior. The article concluded that Indian youth are interested in online shopping websites because these websites provide the latest information about products and services. Their online shopping is influenced by website attributes such as convenience and flexibility. Services are offered by the platform for the satisfaction of customers.

According to Thamizhvanan and Xavier [8], with the growing importance of online retail in India, it becomes imperative for web retailers and internet marketers to understand the determinants of purchase intention of online customers to understand what is important for Indian online customers.

This paper attempts to identify the determinants of online purchase intention among youth in the Indian context. The study has implications for web-retailers, marketing managers, internet marketers, online vendors, and web-shoppers in India. Indian online shoppers typically tend to seek offers and great value price deals instead of brand or quality. Online retailers may target the impulse purchase nature of Indian consumers and should focus on increasing online trust. The paper focuses on the offers provided by e-platforms for seeking more customers and how companies are getting profited by this.

B. EFFECT OF COVID

Chauhan and Shah [9] found that in the more extended run, COVID-19 recuperation is probably going to bring about a more changeless move in perspectives of customers and shopping conduct, particularly in urban territories with expanded use of home and individual cleanliness items and a quickened move to online

purchases considered just in metro cities (tier-1 urban areas), while the e-stage for fundamental merchandise is present nearly in every level. The move must be investigated for all levels of India.

Junxiong, Hallsworth, and Coca-Stefaniak [10] analyzed data from the online study and proposed that the episode set off impressive degrees of exchanging practices among customers with ranchers' business sectors losing the vast majority of their customers, while nearby little autonomous retailers encountered the most significant levels of flexibility as far as customer retention was concerned. Specialists propose that the roads for additional insightful examination and policymaking identified with this conduct might be having an effect the world over on society's more weak gatherings, especially the older. The ranchers are losing the market and how the e-stage offering to the ranchers to sell their products is dissected through the paper.

Factors like a wide variety of products, offers, free home delivery, time-saving, convenience, cost-effective, easy terms and conditions, user-friendliness, authenticity, ease of ordering, and cash on delivery should be taken as strengths of online grocery shopping and these can be improvised or modified to extract maximum advantage for business [11].

C. K. Singh and Rakshit [12] underline investigating the mental effect on purchasers in Mumbai during the COVID-19 pandemic. It prompted the daily purchase of stocks generally centred around alarm purchasing which prompted veritable shortcomings whether or not the danger of a lack was genuine or not; the last circumstance is an occurrence of the inevitable outcome. Frenzied conduct has influenced the inclination to consider where the examination has drawn nearer to dissecting the inclinations of internet shopping.

Rao and Moorthy [13] identified that most of the consumers never prefer to shop food from restaurants during COVID 19 pandemic, and sometimes prefer to shop daily household essentials during COVID-19 pandemic. For easy implementation, the researchers used convenience sampling method. This method is cost-effective to get higher response rates from the respondents. As per the research, there are no online purchases of fruit and vegetable which has to be re-studied more closely. The research paper has attempted to study the types of goods purchased online by customers .

IV. RESEARCH METHODOLOGY

A. Research Design

This particular research study mainly focuses on the study of situations or phenomena. This research paper focuses on finding the purchasing behavior of essential goods through e-commerce platforms amidst a pandemic situation from April 2020 to June 2020. Therefore, the research design which is being used here is the descriptive research design.

(a) Type of Sampling : This research mainly focuses on the purchasing behavior of consumers for essential goods online with respect to different tiers and different occupations. Therefore, the research is among a group of different tier populations with some characteristics. Hence, in this study, a random sampling technique was adopted.

(b) Sample Size : The sample size for the study is 194. The data from the respondents were collected by circulating a structured questionnaire with the help of Google forms.

B. Statistical Tools Used

The primary data which were collected from the respondents were analyzed with the help of the Chi-Square test and one-way ANOVA test. The Chi-Square test is used to determine whether there is any significant difference in purchasing patterns for essential goods through e-commerce platforms in a pandemic situation. The one-way ANOVA test was conducted to find the relationship between the satisfaction of customers and

TABLE I.
RELIABILITY STATISTICS

Reliability Statistics	
Cronbach's Alpha	*N* of Items
0.897	7

TABLE II.
SCALE STATISTICS

Scale Statistics			
Mean	**Variance**	**Std. Deviation**	***N* of Items**
24.04	25.988	5.098	7

frequency of purchase of essential goods online during the pandemic.

V. DATA ANALYSIS

A. Reliability Test

The first important table is the Reliability Statistics table that provides the actual value for Cronbach's alpha. This value indicates the level of consistency of our scale with the specific sample.

From this study we can see that Cronbach's alpha is 0.897 (Table I), which indicates a high level of internal consistency for our scale with this specific sample.

B. Scale Statistics

The scale statistics Table II shows the "Cronbach alpha if item deleted" in the final column.

C. Chi-Square Test

↳ **Null Hypothesis :** There is a no significant difference in purchasing pattern for essential goods through e-commerce platform amidst pandemic situation.

↳ **Alternative Hypothesis :** There is a significant difference in purchasing pattern for essential goods through e-commerce platform amidst pandemic situation.

TABLE III.
CHI-SQUARE TEST FOR FREQUENCY OF PURCHASE OF ESSENTIAL GOODS ONLINE BEFORE PANDEMIC

Crosstab

Count		**Essential_frequency_before**				**Total**
		Never	0-3 times per month	4-7 times per month	>8 times per month	
Essential before	Yes	25	104	6	2	137
	No	17	36	3	1	57
Total		**42**	**140**	**9**	**3**	**194**

Chi-Square Tests	**Value**	***df***	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	3.489[a]	3	0.322
Likelihood Ratio	3.366	3	0.339
Linear-by-linear association	1.339	1	0.247
N of valid cases	194		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 0.88.

TABLE IV.
CROSS-TAB FREQUENCY OF ONLINE PURCHASE OF ESSENTIAL GOODS AMIDST COVID-19 PANDEMIC

Crosstab

Count		**Essential_frequency**					**Total**
		Never	0-3	4-7 times per month	8-10 times a month	>10 times a month	
Essential frequency	Never	76	44	18	3	2	143
	1-3 times a month	38	8	3	0	2	51
Total		**114**	**52**	**21**	**3**	**4**	**194**

TABLE V.
CHI-SQUARE TEST FOR FREQUENCY OF ONLINE PURCHASE OF ESSENTIAL GOODS AMIDST COVID-19 PANDEMIC

Chi-Square Tests	Value	*df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.902[a]	4	0.042
Likelihood ratio	10.964	4	0.027
Linear-by-linear association	2.873	1	0.001
N of Valid cases	194		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 0.79

Chi-Square test for frequency of purchase of essential goods online amidst pandemic (Table III) shows that *p*-value is 0.322, degree of freedom *df* is 4, and Pearson Chi-Square value is 3.489. Since the *p*-value is more than 0.005, the null hypothesis is accepted. Thus, before lockdown, there was no significant difference in purchase patterns for essential goods through an e-commerce platform.

Table V shows that the *p*-value is 0.042 and *df* is 4. The Pearson chi-square value is 9.902. Since the *p*-value is less than 0.005, the null hypothesis is rejected. Thus, there is significant difference in purchasing patterns for essential goods through e-commerce platforms amidst pandemic situation.

↳ **Inference :** There is a significant difference in purchasing patterns for essential goods through e-commerce platforms amidst pandemic situations.

↳ **Interpretation :** Respondents have purchased essential goods more often online.

D. One-Way ANOVA

↳ **Null Hypothesis :** There is no significant relationship

TABLE VI.
ANOVA

ANOVA		Sum of Squares	*Df*	Mean Square	*F*	Sig.
Ease of placing order	Between Groups	13.625	4	3.406	3.482	0.009
	Within Groups	184.875	189	0.978		
	Total	**198.500**	**193**			
Availability of product	Between Groups	9.552	4	2.388	2.657	0.034
	Within Groups	169.855	189	0.899		
	Total	**179.407**	**193**			
Quality of product	Between Groups	47.069	4	11.767	6.240	0.000
	Within Groups	356.400	189	1.886		
	Total	**403.469**	**193**			
Price of product	Between Groups	41.721	4	10.430	5.097	0.001
	Within Groups	386.759	189	2.046		
	Total	**428.479**	**193**			
Payment process	Between Groups	201.477	4	50.369	3.469	0.009
	Within Groups	2744.461	189	14.521		
	Total	**2945.938**	**193**			
Hygiene safety	Between Groups	13.852	4	3.463	2.556	0.040
	Within Groups	256.091	189	1. 355		
	Total	**269.943**	**193**			
Delivery period	Between Groups	11.800	4	2.950	2.602	0.037
	Within Groups	214.242	189	1.134		
	Total	**226.041**	**193**			

TABLE VII.

CROSS-TAB : EASE OF PLACING ORDER AND FREQUENCY OF PURCHASING ONLINE

Crosstab							
Count		Ease_in_placing_order					
		Dissatisfied	Not very satisfied	Slightly satisfied	Satisfied	Very satisfied	Total
Essential_frequency	Never	9	17	15	42	31	114
_during	0-3	4	3	1	11	33	52
	4-7 times per month	1	1	7	6	6	21
	8-10 times a month	0	0	1	2	0	3
	>10 times a month	1	0	1	0	2	4
Total		**15**	**21**	**25**	**61**	**72**	**194**

TABLE VIII.

CHI-SQUARE : SATISFACTION IN EASE OF PLACING ORDER AND FREQUENCY OF PURCHASES

Chi-Square Tests	Value	*df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	51.934[a]	24	0.001
Likelihood Ratio	51.223	24	0.001
Linear-by-Linear Association	1.378	1	0.240
Valid Cases (*N*)	194		

a. 24 cells (68.6%) have expected count less than 5. The minimum expected count is 0.08.

between the satisfaction of customers and frequency of purchase of essential goods during the COVID-19 pandemic.

↳ **Alternative Hypothesis :** There is a significant relationship between the satisfaction of customers and the frequency of online purchase of essential goods during the pandemic situation.

It can be seen from Table VI that *p*-values for ease of placing an order, availability of the product, quality of product, price of the product, payment process, hygiene safety, and delivery period are less than 0.05. Therefore, the null hypothesis is rejected. Thus, there is a significant relationship between the satisfaction of customers, and the frequency of purchase of essential goods online amidst a pandemic situation.

↳ **Inference :** There is a significant relationship between the satisfaction of customers and the frequency of purchase of essential goods online amidst pandemic situation.

↳ **Interpretation :** Respondents are satisfied with services and thus, the frequency of purchases is more.

E. Chi-Square

It can be seen from Table VIII that the *p*-value is 0.001, the degree of freedom (*df*) is 24, and the Pearson Chi-square value is 51.934. Since the *p*-value is less than 0.005, the null hypothesis is rejected. Thus, there is a significant relationship between the satisfaction in ease of placing an order online and the frequency of purchase of essential goods.

It can be seen from Table X that the *p*-value is 0.033, degree of freedom (*df*) is 16, and Pearson Chi-Square value is 27.821[a]. Since the *p*-value is less than 0.005, the null hypothesis is rejected. Thus, there is a significant relationship between the satisfaction of customers for the availability of products and the frequency of purchases of essential goods online amidst pandemic situations.

Table XII shows that the *p*-value is 0.001, the degree of freedom (*df*) is 16, and the Pearson Chi-square value is 40.359[a]. Since the *p*-value is less than 0.005, the null hypothesis is rejected. Thus, there is a significant relationship between the satisfaction of customers for quality of product and frequency of purchases of essential goods online amidst pandemic situations.

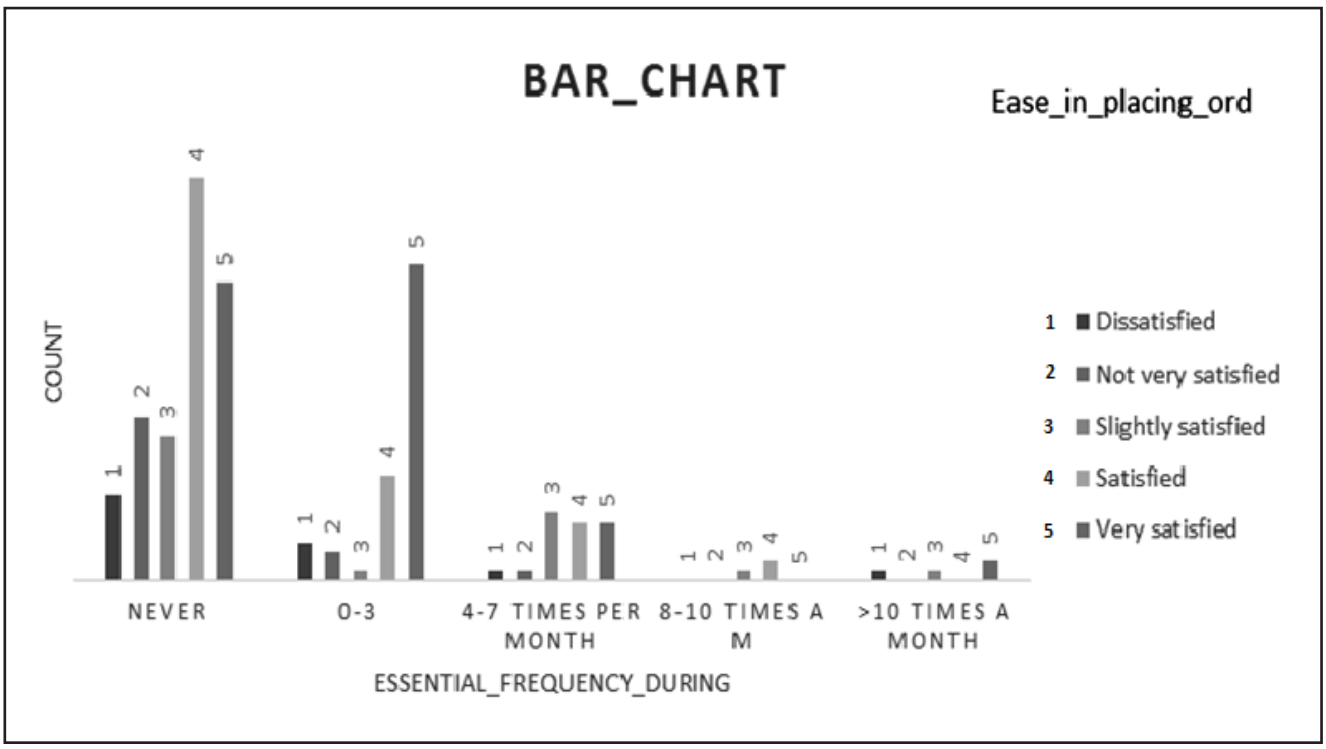

Fig. 1. Ease of Placing Orders and Frequency of Purchases

TABLE IX.
CROSS-TAB : AVAILABILITY OF PRODUCT AND FREQUENCY OF PURCHASING ONLINE

Crosstab

Count		Availability of product					
		Dissatisfied	Not very satisfied	Slightly satisfied	Satisfied	Very satisfied	Total
Essential_frequency _during	Never	1	10	35	44	24	114
	0-3	1	4	13	18	16	52
	4-7 times per month	0	1	8	7	5	21
	8-10 times a month	0	0	2	0	1	3
	>10 times a month	0	3	1	0	0	4
Total		**2**	**18**	**59**	**69**	**46**	**194**

TABLE X.
CHI-SQUARE : SATISFACTION IN AVAILABILITY OF PRODUCT AND FREQUENCY OF PURCHASES

Chi-Square Tests	Value	*Df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.821[a]	16	0.033
Likelihood Ratio	20.086	16	0.216
Linear-by-Linear Association	1.627	1	0.202
N of Valid Cases	194		

a. 16 cells (64.0%) have expected count less than 5. The minimum expected count is 0.03.

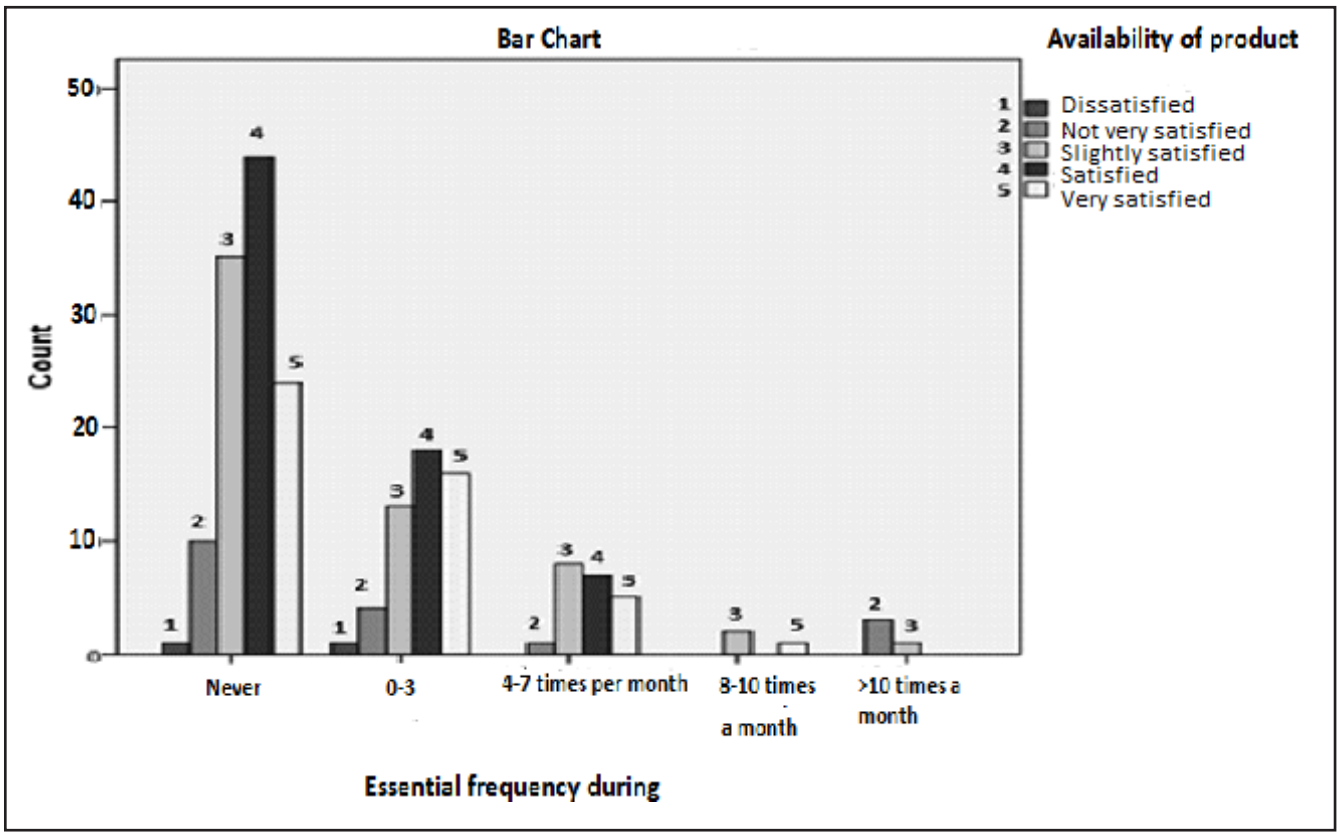

Fig. 2. Availability of Product and Frequency of Purchases

TABLE XI.
CROSS-TAB : QUALITY OF PRODUCT AND FREQUENCY IN PURCHASING ONLINE

Crosstab

Count		Quality of product					
		Dissatisfied	Not very satisfied	Slightly satisfied	Satisfied	Very satisfied	Total
Essential frequency	Never	6	9	13	32	54	114
during	0-3	19	2	4	14	13	52
	4-7 times per month	3	1	1	3	13	21
	8-10 times a month	1	0	0	0	2	3
	>10 times a month	0	0	0	0	4	4
Total		**29**	**12**	**18**	**49**	**86**	**194**

TABLE XII.
CHI-SQUARE : SATISFACTION IN QUALITY ORDER AND FREQUENCY OF PURCHASES

Chi-Square Tests	Value	*df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.359[a]	16	0.001
Likelihood Ratio	41.480	16	0.000
Linear-by-Linear Association	0.351	1	0.554
N of Valid Cases	194		

a. 15 cells (60.0%) have expected count less than 5. The minimum expected count is 0.19.

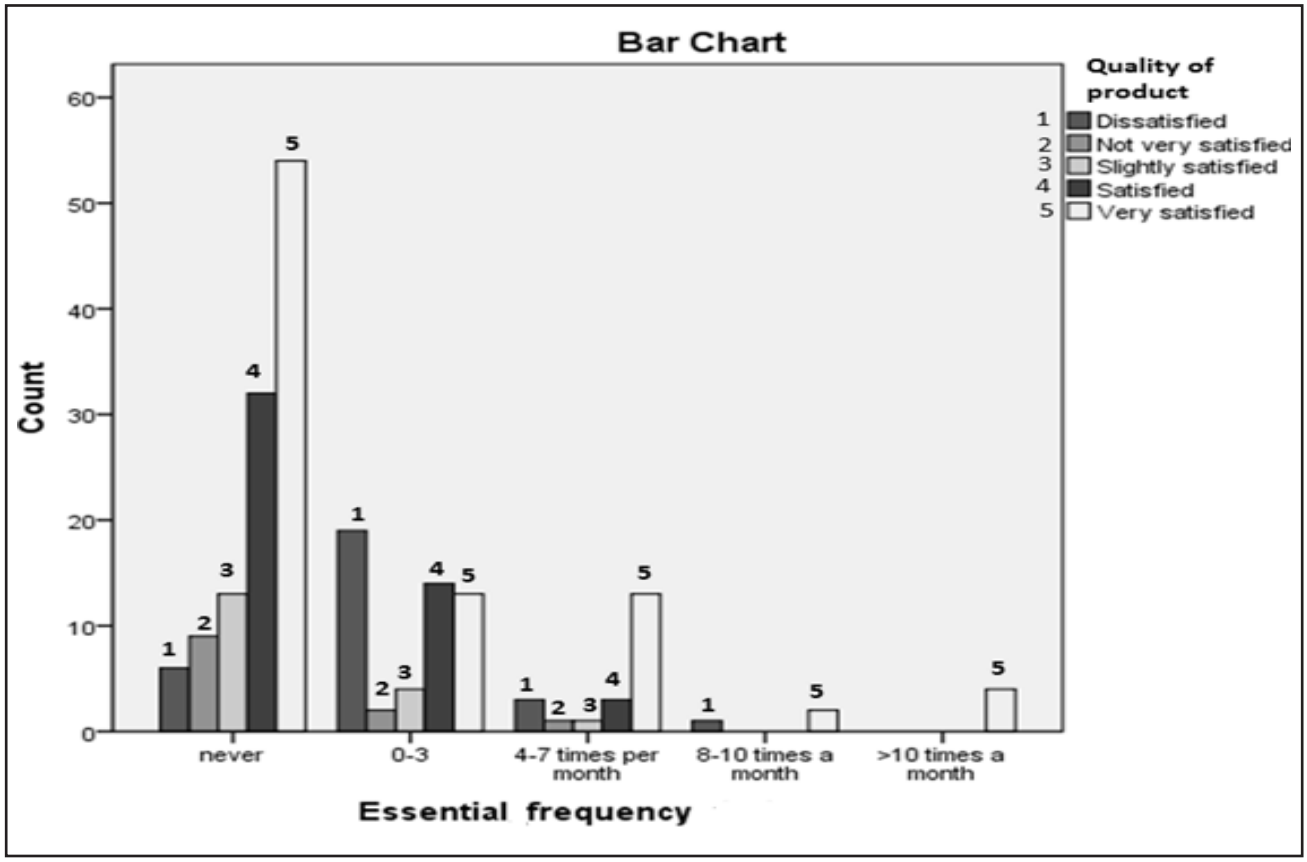

Fig. 3. Quality of Product and Frequency of Purchases

TABLE XIII.

CROSS-TAB : PRICE OF PRODUCT AND FREQUENCY OF PURCHASING ONLINE

Crosstab

Count		Price of Product					
		Dissatisfied	Not very satisfied	Slightly satisfied	Satisfied	Very satisfied	Total
Essential frequency	Never	6	15	25	26	42	114
	0-3	12	14	6	11	9	52
	4-7 times per month	2	2	6	3	8	21
	8-10 times a month	0	0	0	2	1	3
	>10 times a month	1	1	2	0	0	4
Total		**21**	**32**	**39**	**42**	**60**	**194**

TABLE XIV.

CHI-SQUARE : SATISFACTION WITH PRICE OF PRODUCT AND FREQUENCY OF PURCHASE

Chi-Square Tests	Value	*df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.976[a]	20	0.034
Likelihood Ratio	34.457	20	0.023
Linear-by-Linear Association	4.982	1	0.026
N of Valid Cases	194		

a. 19 cells (63.3%) have expected count less than 5. The minimum expected count is 0.02.

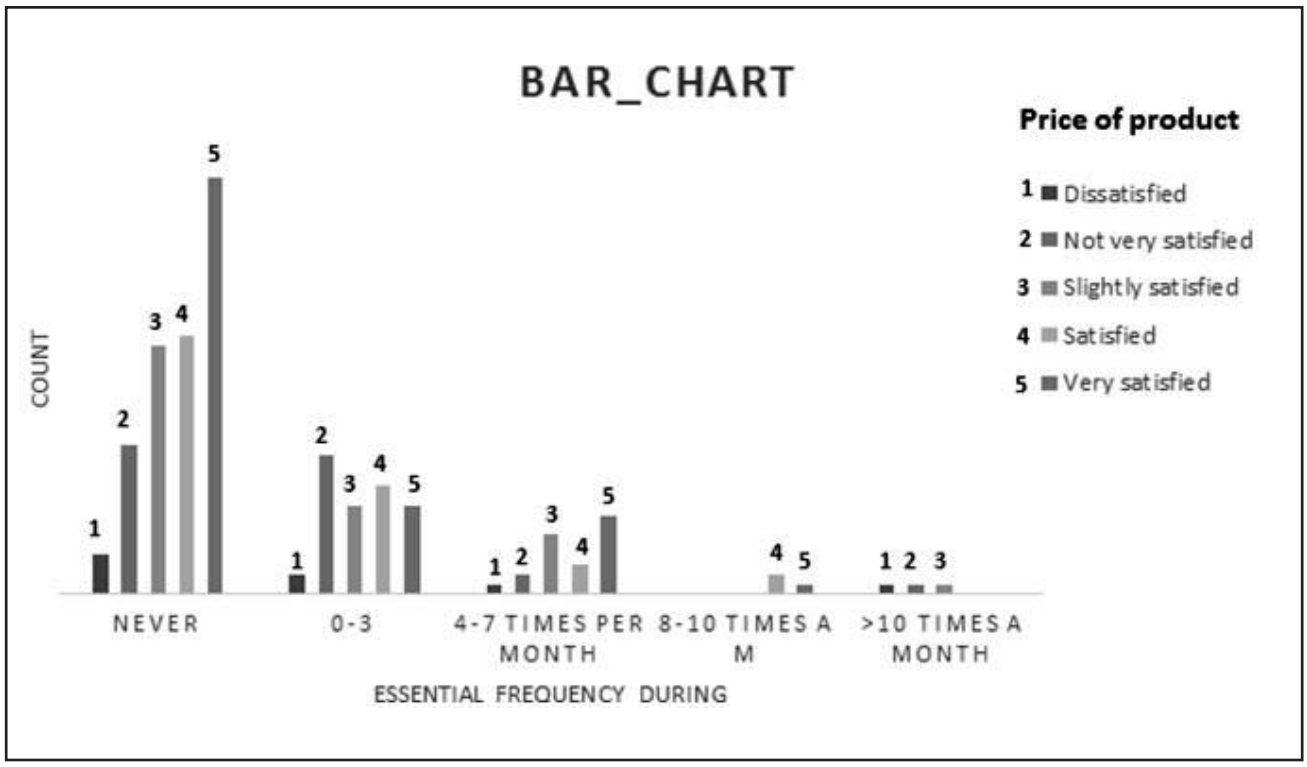

Fig. 4. Price of Product and Frequency of Purchases

TABLE XV.
CROSS-TAB : PAYMENT PROCESS AND FREQUENCY OF PURCHASING ONLINE

Crosstab							
Count		**Payment process**					
		Dissatisfied	**Not very satisfied**	**Slightly satisfied**	**Satisfied**	**Very satisfied**	**Total**
Essential frequency during	Never	4	17	25	42	26	114
	0-3	2	4	9	11	25	52
	4-7 times per month	1	1	5	9	3	21
	8-10 times a month	0	1	0	0	2	3
	>10 times a month	1	0	1	0	2	4
Total		**8**	**23**	**40**	**62**	**58**	**194**

TABLE XVI.
CHI-SQUARE : SATISFACTION IN PAYMENT PROCESS AND FREQUENCY OF PURCHASES

Chi-Square Tests	**Value**	***df***	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	46.058[a]	28	0.017
Likelihood Ratio	38.845	28	0.083
Linear-by-Linear Association	4.748	1	0.029
N of Valid Cases	194		

a. 30 cells (75.0%) have expected count less than 5. The minimum expected count is 0.02.

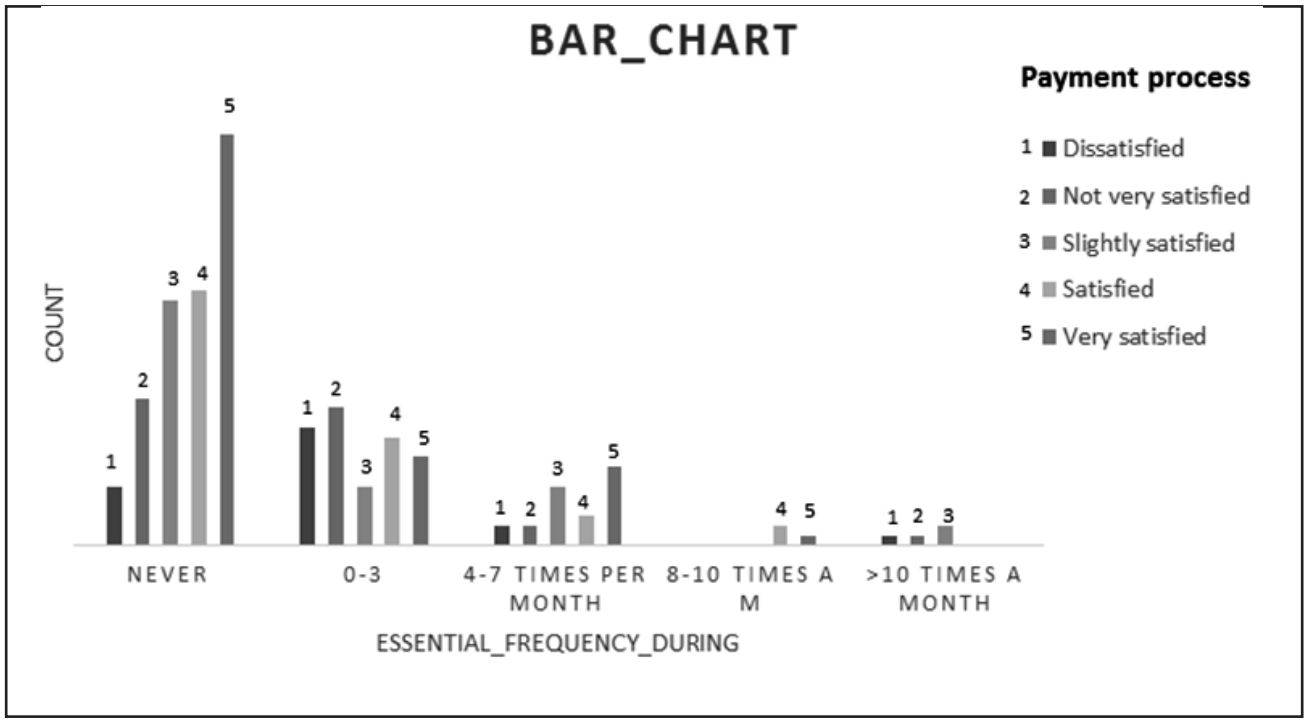

Fig. 5. Payment Process and Frequency of Purchases

TABLE XVII.
CROSS-TAB : HYGIENE AND SAFETY AND FREQUENCY IN PURCHASING ONLINE

Crosstab							
Count		**Hygiene safety**					
		Dissatisfied	**Not very satisfied**	**Slightly satisfied**	**Satisfied**	**Very satisfied**	**Total**
Essential_frequency	Never	36	32	11	13	22	114
_during	0-3	22	9	0	3	18	52
	4-7 times per month	4	3	4	6	4	21
	8-10 times a month	0	1	0	1	1	3
	>10 times a month	1	0	0	0	3	4
Total		**63**	**45**	**15**	**23**	**48**	**194**

TABLE XVIII.
CHI-SQUARE : SATISFACTION IN HYGIENE, SAFETY, AND FREQUENCY OF PURCHASES

Chi-Square Tests	**Value**	***df***	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	32.189[a]	16	0.009
Likelihood Ratio	35.275	16	0.004
Linear-by-Linear Association	5.300	1	0.021
N of Valid Cases	194		

a. 14 cells (56.0%) have expected count less than 5. The minimum expected count is 0.23.

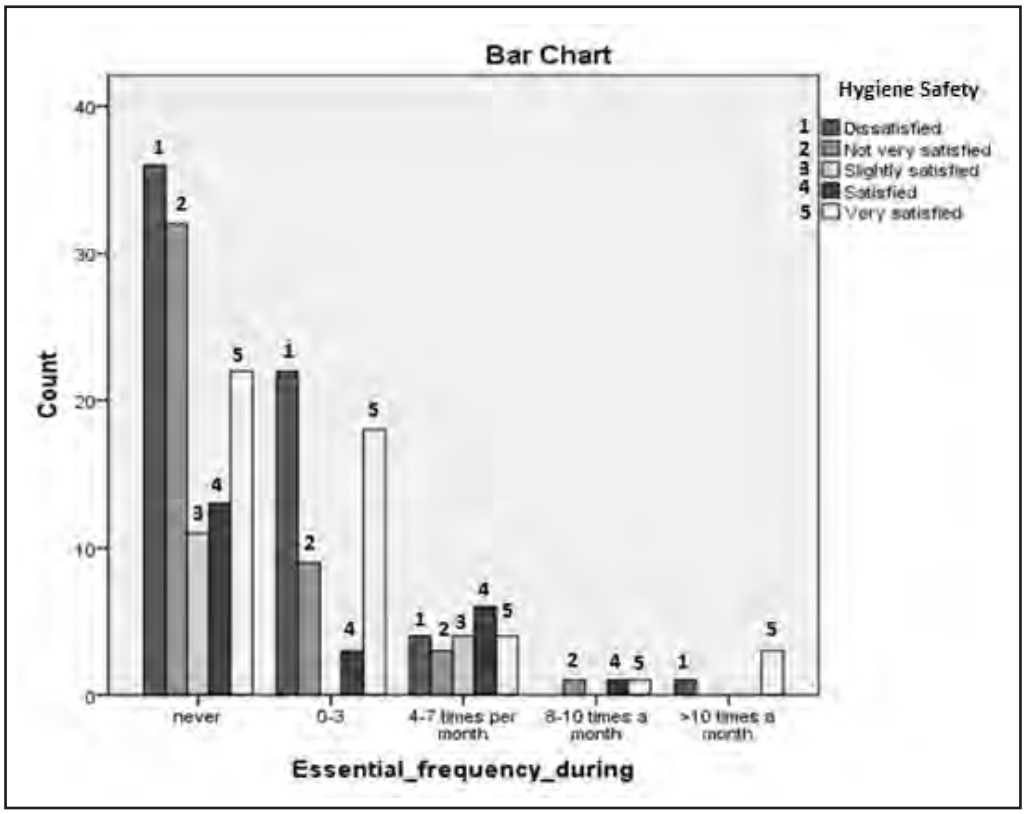

Fig. 6. Hygiene and Safety and Frequency of Purchases

TABLE XIX.
CROSS-TAB : DELIVERY PERIOD AND FREQUENCY IN PURCHASING ONLINE

Crosstab

Count		Delivery period					
		Dissatisfied	Not very satisfied	Slightly satisfied	Satisfied	Very satisfied	Total
Essential_frequency	Never	2	9	25	40	38	114
_during	0-3	2	4	16	16	14	52
	4-7 times per month	1	1	2	8	9	21
	8-10 times a month	1	1	0	0	1	3
	>10 times a month	1	1	0	2	0	4
Total		**7**	**16**	**43**	**66**	**62**	**194**

TABLE XX.
CHI-SQUARE : SATISFACTION IN DELIVERY PERIOD AND FREQUENCY OF PURCHASES

Chi-Square Tests	Value	*df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.556[a]	16	0.047
Likelihood Ratio	21.768	16	0.151
Linear-by-Linear Association	2.970	1	0.085
N of Valid cases	194		

a. 16 cells (64.0%) have expected count less than 5. The minimum expected count is 0.11.

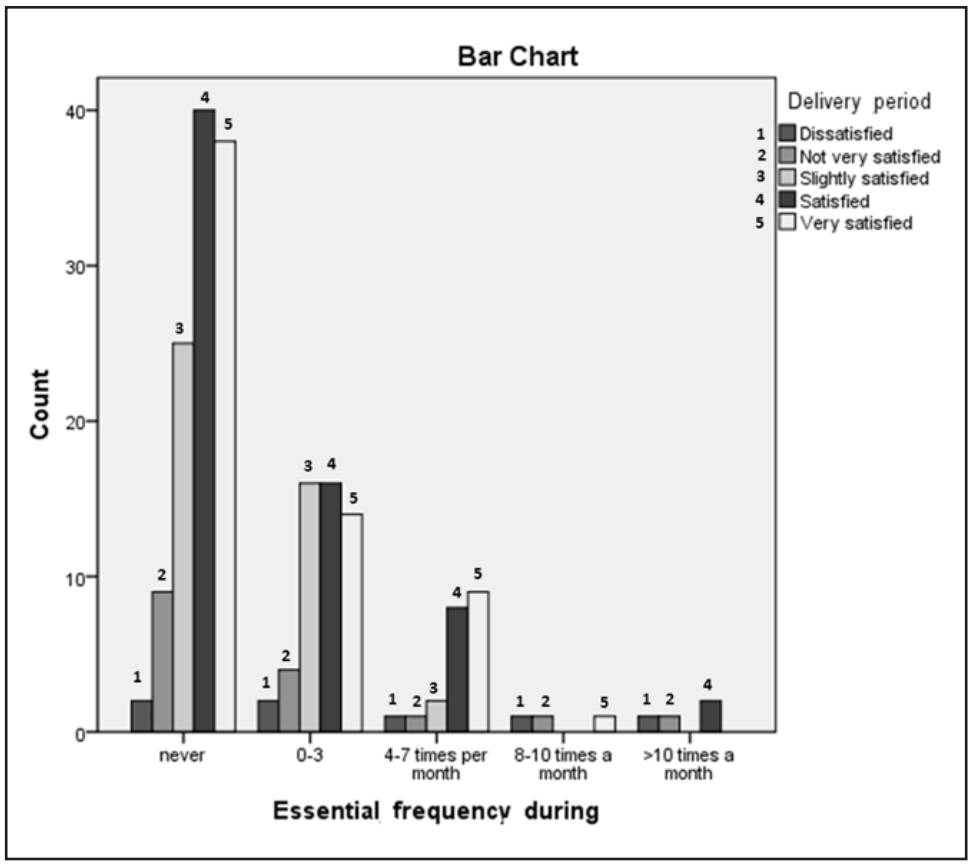

Fig. 7. Delivery Period and Frequency of Purchases

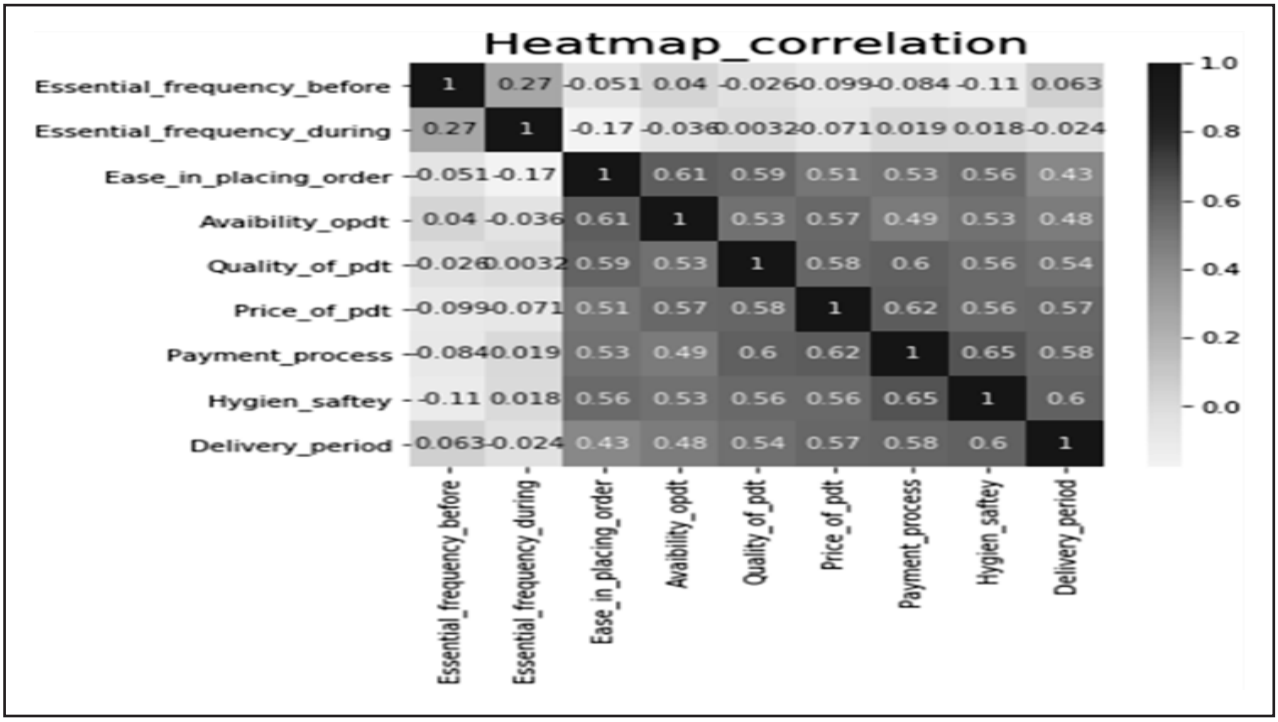

Fig. 8. Heatmap

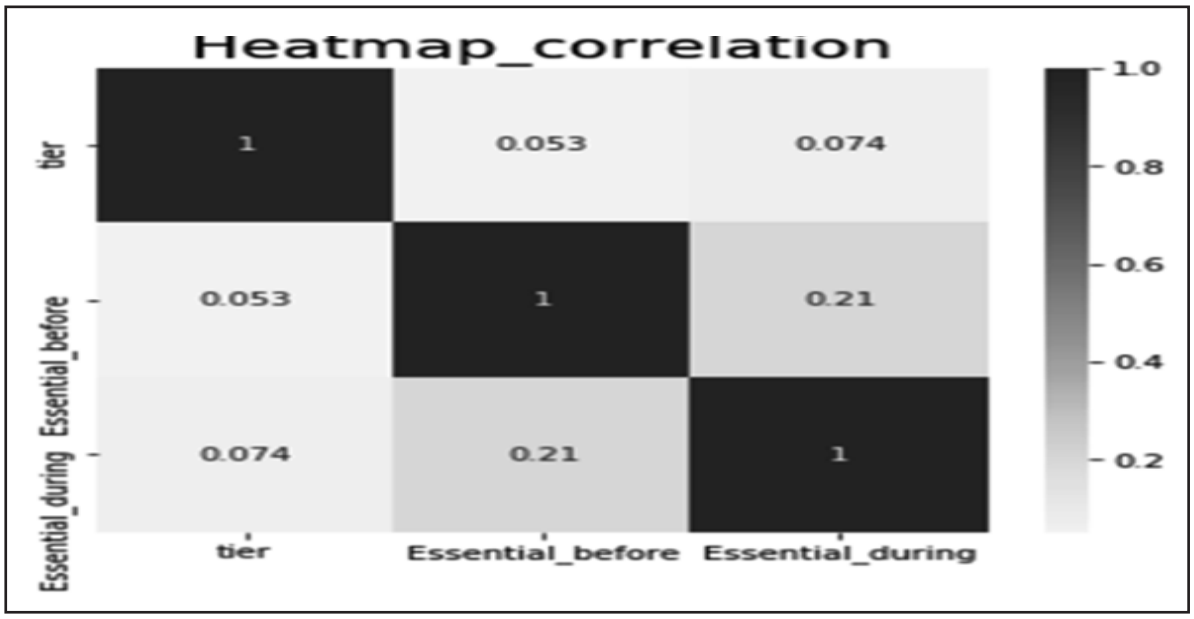

Fig. 9. Heatmap Correlation Between Tiers, Essential Goods Purchased Before and During Pandemic

It can be seen from Table XIV that the *p*-value is 0.034, degree of freedom (*df*) is 16, and Pearson chi-square value is 32.976[a]. Since the *p*-value is less than 0.005, the null hypothesis is rejected. Thus, there is a significant relationship between satisfaction of customers with the price of products and the frequency of purchase of essential goods online amidst the COVID-19 pandemic.

It can be seen from Table XVI that the *p*-value is 0.017, the degree of freedom (*df*) is 28, and the Pearson Chi-Square value is 46.058[a]. Since the *p*-value is less than 0.005, the null hypothesis is rejected. Thus, there is a significant relationship between satisfaction of customers with the payment process and the frequency of purchase of essential goods online amidst a pandemic situation.

It can be seen from Table XVIII that the *p*-value is 0.009 and degree of freedom (*df*) is 16 and the Pearson Chi-Square value is 32.189[a]. Since the *p*-value is less than 0.005, the null hypothesis is rejected. Thus, there is a significant relationship between the satisfaction of customers with the payment process and the frequency of purchase of essential goods online amidst the COVID-19 pandemic.

From Table XX, it can be seen that the *p*-value is 0.047, the degree of freedom (*df*) is 16, and the Pearson Chi-Square value is 26.556[a]. Since the *p*-value is less than 0.005, the null hypothesis is rejected. Thus, there is a significant relationship between the satisfaction of customers with the payment process and the frequency of purchase of essential goods online amidst the COVID-19 pandemic.

↳ **Interpretation :** Respondents satisfied with services and frequency of purchases are the maximum.

The satisfaction component has a correlation between them as if one of the components is good other component has to be good, that is, other services have to be good. The heatmap shows that there is some correlation between the frequency of purchases and satisfaction.

The heatmap (Fig. 9) shows some relationship between essential purchases before and during the pandemic, that is, not all respondents have shifted to online purchase of essential goods.

Also, the different tiers of India do not have any correlation between the purchases before and during the pandemic.

VI. FINDINGS

While investigating the purchase behavior of essential goods through e-commerce platforms, amidst the pandemic situation, it was observed that the respondents from different tiers have changed their purchasing

behavior by buying goods online. The major findings are given below :

- People from different tiers purchased essential goods online (57%) and amidst lockdown, the majority of people started purchasing essential goods online (73%). Thus, 28% of respondents shifted towards online purchasing.
- Majority of respondents purchased groceries (48%) online amidst the pandemic, 38% of daily household products, 33% of hygiene and medicine products, 27% of snacks, and 18% of fruits and vegetables.
- Majority of respondents prefer online platforms like Amazon, Flipkart, Big-Basket, and D-mart for the purchase of essential goods.
- Majority of respondents didn't find any interesting offers on purchases of essential goods through online platforms.
- Amidst the pandemic, majority of respondents didn't purchase any medicine through any of the online platforms.
- Some of the respondents increased the frequency of purchasing essential goods online amidst the pandemic.
- Majority of the respondents are satisfied with the services provided by essential service providers in ease of placing products (73%), payment process (85%), hygiene of product (91%), delivery period (65%), quantity of products (86%), and are slightly satisfied with availability of products (76%), and price of products (77%)·
- Majority of respondents said that they prefer the online platform for the purchase of essential goods after the pandemic.

VII. CONCLUSION

This investigation was coordinated towards recognizing the effect of COVID - 19 and lockdown on a buying example of Indian shoppers during a pandemic. The examination has uncovered some fascinating realities about online buying of basic merchandise of Indians. It is seen that this pandemic and lockdown have affected the online market for basic products. It has been discovered that there is a critical affect on buying basic products online through stages amidst a pandemic. The title of this research paper holds true because it has been proven that there is a significant difference in purchasing pattern for essential goods through e-commerce platform amidst pandemic situation. It has likewise been demonstrated that there is a huge connection between the fulfilment of clients and the recurrence of acquisition of basic products online during pandemic situations. Thus, understanding the need to contemplate the purchasing conduct of online customers for basic merchandise particularly during pandemic circumstance emergencies is exceptionally basic, as this can empower online advertisers to offer a better shopping experience. Additionally, empowering a superior web-based shopping experience can support buying of basic products online.

VIII. LIMITATIONS

There were some limitations of this research study.

- One of the biggest limitations of this research study was extracting information from respondents. The respondents may not have given correct information.
- The survey was limited because of time constraints, Using Cochran's formula, the sample size of this research paper was limited to 98% of the confidence level. The sample size was only 194 respondents.

IX. SCOPE FOR FURTHER RESEARCH

- Online advertisers of basic merchandise and pharma organizations must comprehend significant segments of customers regarding purchasing conduct and fulfilment levels to give better service in this emergency.
- The examination may prompt thinking about the inclinations to online markets over disconnected stores by knowing the buying frequencies and the number of items that are being bought by shoppers.
- The interest in therapeutic items has been expanded during the lockdown. However, the online pharma stage may not prevail with regards to catching the market, which can be profoundly concentrated later on to improve the online pharmaceutical areas.
- Advertisers must dissect the recurrence of online purchases of a specific product and thereafter, increase in online purchase of essential goods.

↳ To target new customers, online platforms must also provide new offers on essential goods. The study also finds various factors which if considered will be helpful for an online marketer to develop better marketing strategies. It will help to convert their potential online customers into active online customers by improving the after services, providing more secured/safe payment options, and timely delivery of products with better packaging.

ACKNOWLEDGEMENT

The author expresses sincere gratitude to her Faculty Dr. Subhasis Sen (Mentor/ Research Guide), for his never-ending encouragement and support.

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