

# IMPACT OF COVID -19 ON THE CUSTOMERS' PERCEPTION TOWARDS THE SERVICES OF GROCERY SUPERMARKETS

(A Study with reference to select grocery supermarket shops in Villupuram district)

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## Abstract:

Food and grocery comprise the major part of Indian household consumption. Due to COVID-19 pandemic, the Indian food supply chain was interrupted. However, the grocery stores and supermarkets offering comfortable shopping experience with large number of varieties of brands and products. Therefore, the present study attempted to analyze the impact of COVID-19 pandemic on the customers' perception toward grocery supermarket attributes. A survey was conducted among the 175 customers (respondents) in Villupuram district of Tamilnadu using a structured interview schedule consisted two parts i.e. part one demographical profile of the respondents and part two consisted of 18 attributes (variables) of grocery supermarkets measurable with five point Likert's scale. The result shows that, there were changes in the shopping tendency of customers as they prefer to shop from home after the pandemic and also expecting free home delivery services from the grocery supermarkets. The COVID-19 pandemic has created significant impact on the customers' perception towards the home delivery service related attributes of the grocery supermarkets in Villupuram district.

**Key Words:** Grocery supermarket, customer, COVID-19 pandemic, perception, mean score, pandemic, attributes, physical, price, Service, Home Delivery.

## 1. INTRODUCTION

In the present business scenario, every business organizations are facing severe competition; it is not an exception to the retail industries and grocery supermarkets also. In modern marketing environment the customers are the 'king' and customer services are essential part of any organizations; it is necessary to identify key factors to success in terms of customer satisfaction. To ensure and develop viable business operations, all retail and grocery supermarkets have to provide quality of products and customer services; it can build up cordial relation with the customers and result in to the satisfaction. In the present study, an exertion has done to analyze the impact of COVID-19 pandemic on the customers' satisfaction towards various attributes of grocery

supermarkets located in Villupuram district in the state of Tamilnadu.

### 1.1. Customer Perception

Perception is defined as "the process by which people translate sensory impression into a coherent and unified view of the world around them" (Business Dictionary, 2015). In marketing, customer perception is how customers feel about particular product and services. In general, perception is simply the process of selecting, organizing and interpreting information inputs in order to produce meaning that would aid in consumption decision-making in addition it is taken into consideration experience of shopping, such as environment, atmosphere, pricing of product services of particular shop etc. Therefore, this study aims to highlight impact of COVID-19 pandemic upon customers' perception towards the various attributes of grocery supermarkets and to design suitable recommendation to wipe out the lacunas in the supermarkets after the pandemic.

### 1.2. Concept of grocery supermarket

The concept of supermarket was developed by entrepreneur Clarence Saunders, who founded the Piggly, Wiggly stores in 1916 in United States of America (USA), which later spread all over the world. The shift from grocery stores to supermarkets began with the introduction of cheaper vehicles which allowed people mobility. Grocery stores and supermarkets are more related rather than being completely different. The Supermarkets are large self-service grocery stores that offer customers a variety of foods and household supplies. The merchandise is organized into an aisle format, where each aisle is numbered or labelled and has only similar goods placed together. The grocery supermarkets have a special format where it allows customer/consumers to pass through aisles using shopping carts or baskets and pick up whatever they require. The grocery supermarkets are quite large compared to traditional grocery stores with average space of 3,500 to 5,000 sq.ft., a typical supermarket carrying 6,000 stock-keeping units.

### 1.3. Review of literature and research gap

Grocery stores were observed to be resilient to COVID-19 disruptions, even adding employees during the crisis time. Many grocery retailers has been trying to handle the situation by disseminating information about availability of food items, restricting quantity purchase per customer, providing online queuing facilities and providing preferential slots to elderly and vulnerable persons. Also they had been taking steps to protect health of their employees and customers (Martin-Neuninger & Ruby, 2020; Pantanoa et.al. 2020 Worstell, 2020). With shifting consumer choice, realignment of fresh produce supply chains from food service to retail chains has become essential. The pandemic is also affecting food processing industry due to slowdown in activities and decline in export and import (Hailu, 2020; Martin-Neuninger & Ruby 2020; Richards & Rickard, 2020). In a study of 411 households from Nigeria, Turkey, the USA and the UK, a similar shift of food item preferences was observed and the causes for preferring the items were identified as changing from cost and health to quality and health after pandemic outbreak (Celik& Dane, 2020). The big crowd that came to buy important items became difficult for the owner of the shop. Because of the market scarcity of goods, consumers are in a confused state of mind (Patil, 2020). In the investigation into the impact of the lockdown on retailers Krishna (2020) found that essential goods continue to be a top priority; consumer conduct is well taken in retail stores that stock up on such items prior to the announcement of the lockdown. Customer almost three fourth (70%) choose food in person, while approximately two fifth (47%) favored home delivery and seventeen relied on curbside pick-ups (research released by Adobe). According to a survey about the impact of the Coronavirus (COVID-19) on Indians between March and May 2020, retail stores consistently seemed more reliable during the survey period for consumers to be able to buy essential goods. Online grocery retail took a hit in the days following the lockdown with overbooking and disrupted services. India implemented a lockdown for 21 days, announced on March 24, 2020. This was after the “Janata Curfew” on March 22,2020 it is so called practice lockdown. Panic-buying commenced among consumers days before the lockdown was announced, much like in other countries. One of the papers that investigate the customer’s needs and behavior is the one published by Chen et.al. 2012, using the Quality Function Deployment (QFD) tool in order to investigate a new service development for a home delivery service of specialty foods in traditional market (Chen et al. 2012). Result show that customer put emphasis on the security of personal information and trading mechanism, as well as to the speed of delivery service, and the quick response from the company when problems occur.

All the above research studies have attempted to explore the existing scenario of retail industry and the consequences of lockdown due to COVID-19 pandemic, but there no studies conducted on analyzing impact of COVID-19 towards the perception of customers of grocery supermarkets. Hence, the researcher has taken up the present study to investigate the above inadequacies and expand to composite knowledge about the influence of different attributes addressing the level of customers’ perception towards the grocery supermarket services in Villupuram District.

### 1.4. Need and Scope of the Study

The present study becomes important because of it focuses to identify and analyze the impact of COVID -19 on the customers’ perception towards the services of grocery supermarkets with respect to select grocery supermarkets in Villupuram district. The study will be an eye opener to Indian retail industry in particular the grocery supermarkets in Villupuram district of Tamilnadu to understand the attributes of grocery supermarket influencing customer perception before and after the COVID-19 pandemic, this will also enable them to render more customer services and to attain the loyal customers.

### 1.5. Statement of the Problem

The success of Indian retail or supermarket industries depends up on the perception of the valid and potential customers. The grocery supermarkets play a vital role in providing provisions and grocery goods to the consumers and it is also acted as a middle man to the producers and consumer in the market. The COVID pandemic in the world wide has created more impact on the services of grocery supermarkets. The Indian government has declared national wide lock down to prevent COVID infections among the people. Consequently, the grocery supermarket supply chain has been interrupted and the grocery supermarkets were failed to satisfy the customers’ needs and preferences. Simultaneously, the shopping behavior of the customer has changed drastically. Therefore, the present study has made an attempt to identify the attributes of grocery supermarkets that are influencing the customer perceptions on the services of grocery supermarkets before and after the pandemic.

### 1.6. Objectives of study

- To identify and analyze the demographic profile that influencing customers’ Perception (satisfaction) towards grocery supermarkets in Villupuram district.
- To determine the level of customer perception before and after COVID-19 pandemic on the attributes of selected grocery supermarkets in Villupuram district.
- To suggest appropriate measure to wipeout impact of COVID-19 to improve quality of service so as to satisfy the customers.

### 1.7. Research questions

- What are the attributes of grocery supermarkets that determining the customer satisfaction?
- How the COVID-19 pandemic has created impact on the services of grocery supermarkets?

### 1.8. Hypothesis

In order to find the answers for the research questions, the following hypothesis was formulated.

**H<sub>0</sub>:** The COVID-19 pandemic does not create significant impact on the customers’ perceptions towards the services of grocery supermarket.

### 1.9. Definition of Key terms used in this study

#### **COVID -19 pandemic**

**Corona virus**, a mild to severe respiratory illness that is caused by a coronavirus (Severe acute respiratory syndrome coronavirus is transmitted chiefly by contact with infectious material (such as respiratory droplets) or with object or surfaces contaminated by the causative virus and is

characterized especially by fever, cough, and shortness of breath and may progress to pneumonia and respiratory failure.

**Pandemic** is an outbreak of a disease that occurs over a wide geographic area (such as multiple countries or continents) and typically affects a significant proportion of the population. The outbreak of disease due to coronavirus happened in the year 2019 is called COVID-19.

### **Grocery Supermarkets**

A supermarket is a type of grocery store that is typically larger in scale and carries a wider selection of items. The supermarket and grocery supermarket are almost same, but supermarkets are usually very large.

### **Customer perceptions/Satisfaction**

Customer perception refers to the customers' feeling about particular product or services. It incorporates beliefs, expectations, and experiences with the business units and their products and services. Hence, the different services offered by grocery supermarkets may be perceived positively by certain set of customer and another set of customers may be perceived negatively. The customers usually prefer the favorable information on the products and services which are well-suited with their need values and expectations and try to avoid hostile information.

## **2. METHODOLOGY**

### **2.1. Research Design**

The main purpose of the present study is to identify the impact of COVID-19 pandemic on the customers' perception towards the services of grocery supermarkets and find out the level of customer satisfaction before and after the pandemic. Thus, the descriptive research design is adopted achieve the research objectives.

### **2.2. Population and Sample**

#### **Population**

The population of interest comprised all customers of grocery supermarkets in Villupuram district was selected because the district is gradually becoming urbanization and grocery supermarkets are emerging.

#### **Sampling**

Multi stage mixed sampling procedures adopted for the selection of respondents to conduct this study.

- **Stage one selection of Taluks**, Villupuram district consist of 9 revenue Taluks out of which 3 Talukssuch as Vilupuram, Tindivanam and Gingeeselected by using *simple random sampling* method.
- **Stage two selection grocery supermarkets**, top 5 grocery supermarkets were listed from each Taluk (3x5 =15 grocery Supermarkets) out of which 10 Grocery supermarkets were selected by adopting *purposive sampling* method.
- **Stage Three Selection of Respondents**, it was decided to fix a quota to select 20 Customers(*Quota Sampling*) from each selected Grocery supermarkets and they were selected *at random* (10x20=200). Hence, ultimate sample size is 200 respondents.

### **2.3. Data Collection**

To conduct the present study, both primary and secondary data sources were used. The primary data were collected from the respondents (regular customers) by using a structured interview schedule to know the customer perception (satisfaction) towards services of grocery supermarkets, whereas, the secondary data were collected from published sources of books, journals magazines and previous research studies.

### **2.4. Tool for data Collection**

To achieve the objectives and to test the hypotheses of the study, a structured interview schedule was prepared with two parts. Part one consisted of demographic profile of the customers and part two contains 20 attributes of grocery supermarkets were listed to measure the customers' perception and customer (respondents) were requested to rate each of the attributes with five point Likert's scale from one Strongly disagree to five strongly disagree. A total of 200 interview schedule were distributed to customers and asked to respond, 180 were returned, conversely, only 175 were fully completed and were considered to analyze.

### **2.5. Validity and reliability**

The reliability test for the grocery supermarket attributes was undertaken. Reliability is used to test if particular techniques would yield the same results if applied repeatedly to the same object under the same conditions (Mouton, 2002). In order to test the reliability and validity of the developed tool, Cronbach's-Alpha reliability test was applied and to determine internal consistency of the tool, it gives the alpha value for all the 18 variables is (0.911>0.7, 18 variables) as alpha coefficient at 0.7 or more is considered acceptable and hence the data collection tool is more reliable to executed the this study.

### **2.6. Limitations of the Study**

- The present study is confined to Villupuram district only.
- The study is limited to 10 grocery Supermarkets selected from various Taluks of Villupuram district.
- Number of sample limited to 175 respondents
- The present study is also assumed that there is no respondent's bias.

### **2.7. Data Analysis**

The data were analyzed using SPSS version 20 for windows and appropriate statistical techniques like descriptive statistics, arithmetic mean and paired sample t- test have been adopted to measure the impact of COVID-19 pandemic on the customers' perception towards grocery supermarket attributes. To apply paired sample t-test, the collected response for 18 variable composite score was computed for each dimensions, based on the score further analysis has been made.

### 3. RESULT AND DISCUSSION

#### 3.1. Demographical Profile

**Table- 1**  
**Demographic Profile of the Customers**  
(N=175)

Variable Description	N	Percentage
<b>1. Age</b>		
Below 20 Years	15	08.6
20-25 Years	43	24.6
25-30 Years	45	25.7
30-35 Years	38	21.7
35-40 Years	10	05.7
Above 40Years	24	13.7
<b>2. Gender</b>		
Male	102	58.3
Female	73	41.7
<b>3. Educational Qualifications</b>		
School Level	64	36.6
HSC/PUC	51	29.1
Graduate Level	22	12.6
Post Graduate Level	26	14.9
Professional Qualification	12	06.9
<b>4. Occupational Status</b>		
House Wife	47	26.9
Employee	43	24.6
Business	27	15.4
Students	29	16.6
Others	29	16.6
<b>5. Marital Status</b>		
Married	103	58.9
Unmarried	72	41.1
<b>6. Type of Family</b>		
Joint Family	88	50.3
Nuclear Family	87	49.7
<b>7. Number of Family Members</b>		
Only 1 Member	8	4.6
2 Members	19	10.9
3 Members	25	14.3
4 Members	52	29.7
5 and Above	71	40.6
<b>8. Monthly Income</b>		
Less than 10,000	29	16.6
10,001 - 15,000	54	30.9
15,001 - 20,000	31	17.7
20,001-25,000	18	10.3
25,001 - 30,000	15	08.6
Above 30,000	28	16.0
<b>9. Amount Spent on Shopping</b>		

Blow 2,000	34	19.4
2,001 - 4,000	71	40.6
Above 4,000	70	40.0
<b>10. Frequency of Shopping</b>		
Daily	16	09.1
Weekly	37	21.1
Monthly	91	52.0
Fortnight Basis	31	17.7

More than one fifth (25.7%, N=45) of the respondents between 25-30 years of age groups and majority of (58.3%, N=102) of the respondents were male. Over one third (36.6%, N=64) of the respondents were at school level compared to 29.1 percent (N=51) at higher secondary level and 14.9 percent (N=26) at post graduate level of educational qualifications respectively.

With respect to the occupational status of the respondents, more than 26 percent (N=47) of the respondents were homemakers and over 24 percent (N=43) were employees. More than half (58.9%, N=103) were married and over 50 percent (N=88) belong to joint family.

More than two fifth (40.6%, N=71) and over 29 percent of the respondents were being possessed more than 4 to 5 members in their family. With respect to monthly income of the respondents over 30 percent (N=54) have Rs.10, 001 to 15,000 as monthly income and more than 16 percent have Rs.15, 001 to 20,000 (N=31), less than Rs.10, 000 (N=29) and above Rs. 30,000 (N=28) as monthly income respectively, with regard to the monthly expenses of the respondents, more than 40 percent of the respondents have spent Rs.2001-4000 and above Rs.4000 respectively.

#### 3.2. Analysis of customer perceptions

The present study has attempted to analyze the impact of COVID-19 on the customers' perception towards grocery supermarket attributes. There were 18 variable identified and were regrouped into four dimensions such as physical facilities, pricing related attributes, customers service attributes and Home Delivery service attributes have been taken into consideration to highlight the customers' perception before and after the COVID – 19 pandemic, arithmetic mean was applied to compute mean score perception towards grocery supermarket attributes and the result of arithmetic mean score analysis presented in the following table.

**Table – 2**  
**Mean Score Perception of Customers on the Supermarket Attributes**  
**before and after the COVID 19 pandemic**  
(N=175)

S.No	Grocery Supermarket Attributes	Before and After			
		Before COVID- 19 Pandemic		After COVID- 19 Pandemic	
		Mean Score	Average Mean Score	Mean Score	Average Mean Score
<b>Physical Facilities</b>					

1	Ease of locating the merchandise within the store	<b>3.874</b> 3	<b>3.664</b>	3.920 0	<b>3.717</b>
2	Clean & spacious atmosphere	3.817 1		3.651 4	
3	Display/decoration	3.508 6		<b>3.937</b> 1	
4	Supermarket located near my place of stay	3.542 9		3.434 3	
5	Super market design and layout	3.577 1		3.645 7	
<b>Price Related Attributes</b>					
1	Cost price	3.851 4	<b>3.871</b>	3.222 9	<b>3.345</b>
2	Frequently have product items on special prices or sale	3.771 4		3.125 7	
3	Festival offer price	3.874 3		<b>3.520</b> 0	
4	Competitive price	<b>3.988</b> 6		3.514 3	
<b>Customer Service</b>					
1	Number of check-out counters/ expresses check-outs	3.668 6	<b>3.744</b>	3.725 7	<b>3.737</b>
2	Queues -waiting time at counters	3.742 9		3.680 0	
3	Friendliness, helpful	3.754 3		<b>3.800</b> 0	
4	Individual attention to loyal customers	<b>3.811</b> 4		3.742 9	
<b>Home Delivery Service</b>					
1	Availability of staffs to offer help	3.640 0	<b>3.519</b>	3.811 4	<b>3.659</b>
2	Deliver purchased goods on time	3.617 1		3.880 0	
3	Deliver at free of delivery cost	<b>3.834</b> 3		<b>3.971</b> 4	
4	Good and smooth approach of delivery personnel	3.531 4		2.931 4	
5	Right goods to right customer	3.674 3		3.005 7	

**Source: Primary data compiled from field**

The average means score values with respect to customers' perception towards physical facilities, price related attributes; customer service related attributes and home delivery service related attributes given in the above table.

The average means score perception on the physical facilities before pandemic 3.664 and after pandemic 3.717.

Therefore, it could be stated that the level of customers' perception towards physical facilities of grocery supermarkets has been increased.

It implies that the grocery supermarkets have improved the physical facilities such as cleanliness, location of merchandise, display and decoration, and layout design after the pandemic.

The average mean score with respect to the pricing attributes before pandemic 3.871 and after pandemic 3.345. Therefore, it could be concluded that the level of customers' perception towards pricing attributes has been decreased.

It is inferred that there is hiking price of the commodities after the pandemic in particular the grocery supermarkets has adopted competitive pricing method.

The average mean score with respect to the customer service related attributes before pandemic 3.744 and after pandemic 3.737. Therefore, it could be concluded that the level of customers' perception towards customer service attributes has been slightly decreased.

It is inferred that there is no changes in the tendency of grocery supermarkets in offering customer services they appreciate friendly approach with the customer after the pandemic.

The average mean score with respect to the home delivery service related attributes before pandemic 3.519 and after pandemic 3.659. Therefore, it could be concluded that the level of customers' perception towards home delivery service attributes has been slightly increased.

It implies that there are changes in the tendency of customers in shopping the grocery supermarkets and they prefer to shop from home after the pandemic and also expecting home free home delivery services from the grocery supermarkets.

#### **Analysis of impact of COVID-19 pandemic on the customers' perception towards grocery supermarket attributes**

To find out significant changes in the mean score values before and after COVID-19 pandemic, Paired sample t-test was applied and the following hypothesis was formulated.

#### **Physical Facilities**

To measure the mean score perception, the researcher has identified 5 variable with regard to the physical facilities of grocery supermarkets such as Ease of locating the merchandise within the store, clean and spacious atmosphere, display and decoration, supermarket located near the customers' place and layout and design of the grocery supermarkets.

*H<sub>0</sub>: The COVID-19 pandemic does not create significant impact on the customers' perceptions towards the Physical facilities of grocery supermarket.*

Paired sample t-test was applied to find out the impact on the customers perception between before and after pandemic and result presented in the following table.

**Table – 3**  
**Paired Sample Statistics**

Problems		Statistics	df.	t-value	Sig.
<b>Before COVID-19 Pandemic</b>	18.3200	Mean	174	1.154	<b>0.250</b>
	175	N			
	3.02678	Std. Deviation			
<b>After COVID-19 Pandemic</b>	18.5886	Mean			
	175	N			
	2.47095	Std. Deviation			

The above table shows the result of paired sample t-test. There is no significant differences in the mean score values of the customers' perception on the physical facilities of grocery supermarkets before and after pandemic as the level of significance (P-value  $0.250 > 0.05$ ) is more than 0.05. Hence, null hypothesis ( $H_0$ ) is accepted.

Therefore, it can be concluded that there is no changes in the customers' perception towards physical facilities of grocery supermarkets before the pandemic.

This implies that the COVID-19 pandemic did not create impact on customers' perception towards the physical facilities of the grocery supermarkets in Villupuram district.

**Price Related Attributes**

To measure the mean score perception, the researcher has identified 4 variable with regard to the price related attributes of grocery supermarkets such as cost price, frequently have product items on special prices or sale, festival offer price and competitive price of the grocery supermarkets.

*H<sub>0</sub>: The COVID-19 pandemic does not create significant impact on the customers' perceptions towards the Price Related Attributes of grocery supermarket.*

Paired sample t-test was applied to find out the impact on the customers perception between before and after pandemic and the result presented in the following table.

**Table – 4**  
**Paired Sample Statistics**

Problems		Statistics	df.	t-value	Sig.
<b>Before COVID-19 Pandemic</b>	Mean	15.4857	174	9.623	<b>0.001</b>
	N	175			
	Std. Deviation	2.20203			
<b>After COVID-19 Pandemic</b>	Mean	13.3829			
	N	175			
	Std. Deviation	2.99362			

The above table shows the result of paired sample t-test. There is significant differences in the mean score values of the customers' perception on the price related attributes of grocery supermarkets before and after pandemic as the level of significance (P-value  $0.001 < 0.05$ ) is less than 0.05. Hence, null hypothesis ( $H_0$ ) is rejected.

Therefore, it can be concluded that there is changes in the customers' perception towards price related attributes of grocery supermarkets before the pandemic.

This implies that the COVID-19 pandemic has created significant impact on the customers' perception towards the price related attributes of the grocery supermarkets in Villupuram district. It was also observed that there was fluctuation in the price of commodity due to the pandemic.

**Customer Service Related Attributes**

To measure the mean score perception, the researcher has identified 4 variable with regard to the customer service related attributes of grocery supermarkets such as number of check-out counters/expresses check-outs, queues waiting time at counters, Friendliness and helpful and individual attention to loyal customers services rendered by the grocery supermarkets.

*H<sub>0</sub>: The COVID-19 pandemic does not create significant impact on the customers' perceptions towards the Customer Service Related Attributes of grocery supermarket.*

Paired sample t-test was applied to find out the impact on the customers perception between before and after pandemic and the result presented in the following table.

**Table – 5**  
**Paired Sample Statistics**

Problems		Statistics	df.	t-value	Sig.
<b>Before COVID-19 Pandemic</b>	Mean	14.9771	174	0.147	<b>0.883</b>
	N	175			
	Std. Deviation	2.05374			
<b>After COVID-19 Pandemic</b>	Mean	14.9486			
	N	175			
	Std. Deviation	2.33482			

The above table shows the result of paired sample t-test. There is significant differences in the mean score values of the customers' perception on the customer service related attributes of grocery supermarkets before and after pandemic as the level of significance (P-value  $0.883 > 0.05$ ) is more than 0.05. Hence, null hypothesis ( $H_0$ ) is accepted.

Therefore, it can be concluded that there is no changes in the customers' perception towards customer service related attributes of grocery supermarkets before the pandemic.

This denotes that the COVID-19 pandemic did not create significant impact on the customers' perception towards the customer service related attributes of the grocery supermarkets in Villupuram district. Moreover, the COVID-19 pandemic did not influencing the tendency of the grocery supermarkets in providing customer services.

### Home Delivery Service Related Attributes

To measure the mean score perception, the researcher has identified 5 variable with regard to the home delivery service related attributes of grocery supermarkets such as availability of staff to offer home delivery service, Deliver purchased goods on time, deliver at free of cost, good and smooth approach of delivery personnel and right goods to right customer home delivery services rendered by the grocery supermarkets.

*H<sub>0</sub>: The COVID-19 pandemic does not create significant impact on the customers' perceptions towards the Home delivery Service Related Attributes of grocery supermarket.*

Paired sample t-test was applied to find out the impact on the customers perception between before and after pandemic and result presented in the followingtable.

**Table – 6**  
**Paired Sample Statistics**

Problems		Statistics	df	t-value	Sig.
<b>Before COVID-19 Pandemic</b>	Mean	18.2971	174	3.288	<b>0.001</b>
	N	175			
	Std. Deviation	2.53997			
<b>After COVID-19 Pandemic</b>	Mean	17.6000			
	N	175			
	Std. Deviation	2.99233			

The above table shows the result of paired sample t-test. There is significant differences in the mean score values of the customers' perception on the home delivery service related attributes of grocery supermarkets before and after pandemic as the level of significance (P-value 0.001<0.05) is less than 0.05. Hence, null

The above table shows the result of paired sample t-test. There is significant differences in the mean score values of the customers' perception on the home delivery service related attributes of grocery supermarkets before and after pandemic as the level of significance (P-value 0.001<0.05) is less than 0.05. Hence, null hypothesis (H<sub>0</sub>) is rejected.

Therefore, it can be concluded that there is changes in the customers' perception towards home delivery service related attributes of grocery supermarkets before the pandemic. This implies that the COVID-19 pandemic has created significant impact on the customers' perception

towards the home delivery service related attributes of the grocery supermarkets in Villupuram district.

It was also observed that due national wide lock down to prevent COVID infections, the people were willing to buy grocery products through telephonic orders directly given to the respective grocery supermarkets and they deliver the purchased goods at home. Therefore, customers' perception on the home delivery related attributes have also been positively increased.

### 4. MAJOR FINDINGS

From the foregoing analysis with respect to impact of COVID -19 pandemic on the service of grocery supermarkets in Villupuram district and the following major findings derived.

- The pandemic has created impact on the customers' perception towards physical facilities has been increased and the supermarkets have been improved the physical facilities after the pandemic.
- The grocery supermarkets hiking price of the commodities after the pandemic in particular they adopted competitive pricing method.
- There was no change in the tendency of the grocery supermarkets in offering customer services as they maintaining friendly approach with the customer after the pandemic.
- There were changes in the shopping tendency of customers as they prefer to shop from home after the pandemic and also expecting free home delivery services from the grocery supermarkets.
- The COVID-19 pandemic has created significant impact on the customers' perception towards the home delivery service related attributes of the grocery supermarkets in Villupuram district.

### 5. SCOPE FOR FURTHER RESEARCH

- Impact of COVID-19 towards profitability grocery supermarkets in Villupuram district
- Problems faced by customers while shopping in grocery products during the lock down- (A study with special reference to select grocery supermarkets in Villupuram district)
- A comparative study of impact of COVID-19 pandemic towards supermarkets and hypermarkets
- Analysis of various problems faced by retail outlets due to the COVID-19 pandemic.

### 6. SUGGESTIONS AND CONCLUSION

In the globalized business scenario, the COVID 19 pandemic has affected almost all the aspects of the economy. The grocery supermarkets havehad many ups and downs between different retailing the food and grocery products. Therefore, this study has attempted to suggest as follows.

#### 6.1. Suggestions and Recommendations

- The fear of this pandemic has created significant impact on the customers' perception, and shopping habits have also changed. In order to restore the changed shopping habitsthe grocery supermarkets have to be rethink and adopt appropriate business strategies to satisfy the customers' needs and wants.
- The home delivery service to be reinforced because most of the customers willing to have home delivery

service due to existence of the 'Standard Operating Procedure' SOP, implemented by government.

- The private sector employees, self-employed, farmers and farm laborers who were economically affected after the pandemic. Therefore, the grocery supermarkets have concentrated towards pricing perspectives for the food and grocery products.
- Moreover, this study recommends that, it is the time for retail sectors in particular, grocery supermarkets to continually modernize a new business scenario and to make a smooth, joyful and customer friendly shopping environment.
- Transportation costs and fuel prices are playing important in pricing the commodity and therefore, the Central and state Governments have to consider and also encourage take remedial steps to help food and grocery producers, retailers and grocery supermarkets by tax relief and subsidies, if so, the customers and grocery supermarkets will be happy on the pricing of the commodities.

## 6.2. Conclusion

The Indian retail and industry is dynamic in nature and facing challenges due to changes imposed by the environment. The grocery supermarkets have the highest retail density in the world and able to offer the customers services by supplying food and grocery products. The COVID-19 pandemic has created an abundant impact on essentials and non-essentials commodities in retail business and whereas, it has shown ways to essential commodities grocery supermarkets to form a new strategies to satisfy the customers. This study found that impact of COVID-19 pandemic on the customers' perceptions towards grocery supermarket and there are some lacunas in customer service, price related attributes, and home delivery systems. Moreover, due to existence of standard operating procedures, the customer willing to buy food and grocery products by giving online order and expecting the ordered goods to be delivered at home. Therefore, the grocery supermarkets strengthen the home delivery systems and have to appoint adequate delivery personnel to execute home delivery services effectively and to

attract more number of customers. Ultimately, the COVID-19 pandemic created high impact in pricing of commodities as well as shopping tendency of the customers of grocery supermarkets.

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