Variation In Consumer Behavior Due To Covid 19 In Jalandhar (Punjab)

Dr. Tirtha Saikia* , Ankita Wadhwa**

*Asstt. Professor, Lovely Professional University.
*M.Sc, Lovely Professional University.

ABSTRACT

A pandemic coronavirus is presently sweeping the globe (Covid-19). The pandemic that began in Wuhan, China, has put every country on the earth in an unprecedented situation, with social and economic ramifications. This research assesses the short- and mid-term impact of COVID-19 restrictions on consumer behavior using two waves. Businesses suffered a huge financial loss as a result of the COVID-19 outbreak and subsequent lockdowns. Now that, India has been hit by two major COVID-19 outbreaks, the rich data from these pulse checks allows us to take a step back and examine how the pandemic has changed people's behavior. Which shifts in the commodities and services purchased by Indian households and the techniques used to make those purchases have proven to be fleeting or driven by necessity. The goal of this research is to see if diseases and pandemics have an impact on consumption habits in rural and urban Punjab. To investigate the impact of the COVID-19 epidemic on Punjab consumption patterns.

I. INTRODUCTION

COVID-19 is a lower respiratory tract infection (SARS-CoV-2) that was initially diagnosed in China (Wuhan), in late December 2019. COVID-19 infections have been increasing every day since then all throughout the world. The World Health Organization (WHO) classified COVID-19 as a global virus in March 2020. To stop the virus's spread, several national governments instituted long-term complete or partial lockdown restrictions. Although these strict precautions were successful in keeping the virus from spreading, they had an important influence on the global economic system and economics. However, slight attention has been made to the research of antecedent psychological components, such as attitudes, feelings, and behaviors, that drive variations in consumer behavior during the COVID-19 epidemic[i]. Understanding the psychological factors that drive customer behavior and product selection, on the other hand, is important for two reasons. First, such research can help us better understand the underlying causes of changes in consumer behavior in the unusual COVID19 environment. Second, the findings could aid in the development of innovative marketing methods that consider psychological factors requirements and feelings of real customers. Businesses may be able to use this information to boost sales during COVID-19. The subsequent lockdown has drastically transformed consumer behavior; most consumers are sitting at home, and businesses are trying to modify and ensure that they reach out to consumers in a revitalized and quite different manner[ii].

2. OBJECTIVES OF THE STUDY:

1. To investigate the impact of the COVID-19 pandemic on the consumer behavior of Punjab.

2. To determine the relationship between affluent and poor consumer behavior in Jalandhar, Punjab during the Covid 19 period.

3. To see if there is any difference in consumer behavior in the urban and rural areas of Jalandhar, Punjab, during the covid period.

3. METHODOLOGY-:

A. SAMPLE-: The study's participants are the entire population of Punjab. For the study, we randomly selected 100 persons (out of 200 questionnaires sent, received 125 filled-in questionnaires and errors and omissions 25) from rural and urban parts of Punjab, along with their income disparities. The sample determination is chosen using a stratified random sampling procedure for the study.

B. COLLECTION OF DATA-: The study is on the source of primary data that will be collected with the advantage of Google form (questionnaire) asking about different aspects of consumption of necessaries, luxuries, and other commodities.

C. STATISTICAL TOOL -: For achieving the different objectives, we used the analysis of collected data and the simple regression analysis method. The overall result is derived through the analysis of data and the consequential results are derived through designing the mapping of different variables relating to the income and expenditure pattern of the sample consumers by e-view software.

3.1 HYPOTHESIS:

Null hypothesis for a study is that nearby no variations of consumer behavior observed during covid 19 pandemic in Punjab.

4. LITERATURE REVIEW

- **ANKUR KUMAR RASTOGI** According to him online purchasing in India has a promising future. In India, attitudes regarding online purchasing are improving. Consumers may shop anywhere, anytime, and for anything via the internet, with simple and secure payment choices. Consumers can compare products in addition to online retailers when buying[iii].

- **KAPUR,2020** As production and consumption are reduced in COVID-19 epidemic, the world economy will be thrown into chaos. Developing nations like India are not immune to such external shocks, and economic growth is likely to slow. The Indian economy has been sluggish since the implementation of demonetization and the goods and services tax (GST), and the government is looking for methods to get it rear on track (Kapur, 2020). COVID-19 has put an expiration to all aspirations of an economic recovery in the foreseeable future[iv].

- **LANE, 2020** People began expressing their thanks to hospital staff and neighborhood Kirana (grocery) stores for giving them critical items for survival, according to various updates from around the world. The behavior of residents expressed a logic of nationalism. Because of the increasing risk of unemployment of the global economic downturn, the emphasis during the epidemic was on saving money[v].

- **MANU NANDA ET AL. (2019)** Apart from 'income,' 'friends,' 'variety of models/range,' 'ease of returns,' 'delivery services, "shelf display factors,' and 'in-store advertisements,' Manu Nanda et al. (2019) discovered that 'income,' 'friends,' 'variety of models/range,' 'ease of returns,' 'delivery services, "shelf display factors, In situations where product price, brand, and specifications are similar or same, Indian consumers choose to select products based on their income and affordability[vi].

- **V. K. PHAM AND ASSOCIATES (2020)** The Covid-19 outbreak has prompted more Vietnamese customers to engage in online shopping, which previously required a great deal of effort from online businesses but was unproductive. The goal of this study is to see how customers change throughout the Covid-19 outbreak as a result of the perceived risks and benefits of online shopping. These two categories of factors, other than the effect of the Covid-19 influence as a moderator, will be assessed[vii].

5. DATA ANALYSIS

This section examines the research data and interprets the outcomes of variations in consumer behavior as a consequence of covid 19 on urban

and rural populations. We have taken 50 respondents through goggle form.

Table 1. It shows the no of respondents from urban and rural population

Respondents	No of respondents	Percentage
Urban respondents	35	70%
Rural respondents	15	30%
Total	50	100%

As the table predicts that in the survey urban respondents are 35 and rural respondents are 15. The urban population have more respondents than the rural population. The percentage of urban respondents is 35% and rural respondent's percentage is 15%.

5.1 URBAN POPULATION

To make the study easy we have divided the urban population into three categories, each table predicts three categories of the urban area. We have divided people into three categories-

1. **Low-income people:** those people who fall in less than 2 lakh (per annum) income
2. **Middle income:** those people who fall in more than 2 lakh and less than 10 lakh (per annum) income.
3. **High income:** those people who fall in more than 10 lakh income per annum.

Table:2 it shows the defendants fall in which category

We have categorized urban population in three parts			
Urban respondents	Low income	Middle income	High income
No. of respondents out of 50 urban respondents	15	20	15
Total percentage out of 50 respondents	30%	40%	30%

In the above table, we can see that in an urban area there is less number of people who fall in the middle-income category. But the high-income category has more respondents, which means we can say that in Jalandhar in urban areas people have a high income. There are 15 respondents who fall into the low-income category. We can clearly see the percentage also which category has higher income and which has a lower income. The percentage of these categories is low income with the percentage of 30%, middle income with the percentage of 40% and high income with the percentage of 30%.

Table:3 It shows the respondents fall in which category

We have categorized urban population in three parts			
Urban respondents	Poor class	Middle class	High class
No. of respondents out of 50 urban respondents	15	15	20
Total percentage out of 50 respondents	30%	30%	40%

In this category, we divided respondents into three parts are

1. **Poor class:** A social class below the middle class, with the lowest social rank or standing as a result of low money, lack of skills or education, and other factors.'

2. **Middle class:** Individuals and households who fall between the working class and the upper class in a socio-economic system are referred to as the middle class.

3. **Higher class:** The highest social class, which is mainly made up of the wealthy and those with hereditary titles.

In the above table, we can see that in an urban area there is less number of people who fall in the poor class category. But the high-class category has more respondents than 20, which means we can say that in Jalandhar, in urban areas, people have high income and high class. There are 15 respondents who fall in the poor class category, and the middle-class respondents are 15. We can clearly see the percentage also which category has higher class and which has lower class. Percentage of high class category is 40% and low class with percentage of 30%, middle class with percentage of 30%.

Table 4: Percentage of total expenditure on necessity items, percentage on luxury item

We have categorized urban population in three parts by expenditure pattern			
Urban respondents	Necessary items	Luxury items	Other items
No. of respondents out of 50 urban respondents	10	30	10
Total percentage out of 50 respondents	20%	60%	20%

In this category we have categorized urban population in three parts by expenditure pattern

1. **Necessary items:** The terms "necessary," "essential," and "indispensable" all refer to something that is required to meet a need. The term "necessary" refers to something that must be present in order for a condition to be met or to an unavoidable result of specific events, conditions, or other factors: Food is required for survival.
2. **Luxury items:** A luxury item is not required for survival, yet it is highly valued in a culture or civilization. When a person's wealth or income rises, so does demand for luxury products.

3. **Other items**: Individuals or things that are diverse or heterogeneous and are difficult to categories or group**.**

5.2 RURAL POPULATION

To make the study easy we have divided rural population into three categories, each table predict three category of rural area.

We have divided people in three category

1. **Low income people:** those people who fall in less than 2 lakhs per annum income
2. **Middle income:** those people who fall in more than 2 lakh and less than 10 lakh per annum income.
3. **High income:** those people who fall in more than 10 lakh income per annum.

Table:5 It shows the respondents fall in which category

We have categorized rural population in three parts			
Rural respondents	Low income	Middle income	High income
No. of respondents out of 50 rural respondents	23	17	10
Total percentage out of 50 respondents	46 %	34%	20%

In above table, we can see that in rural areas, there are less number of people who fall in high income category. But the low income category has more respondents, it means we can say that in Jalandhar in rural area people have less income. There are 23 respondents who fall in low income category.

And the middle income respondents are 17 and the last high income respondents are 10. We can clearly see the percentage also which category has higher income and which has lower income. Percentage of this categories are as low income with percentage of 46%, middle income with

percentage of 34% and the high income with percentage of 20%.

Table:6 It shows the respondents fall in which category

We have categorized rural population in three parts			
Rural respondents	Poor class	Middle class	High class
No. of respondents out of 50 rural respondents	22	16	12
Total percentage out of 50 respondents	44%	32%	24%

In this category we divided respondents into three parts that are

1. **Poor class:** A social class below the middle class, with the lowest social rank or standing as a result of low money, lack of skills or education, and other factors.'
2. **Middle class:** Individuals and households who fall between the working class and the upper class in a socio-economic system are referred to as middle class.
3. **Higher class:** The highest social class, which is mainly made up of the wealthy and those with hereditary titles.

In above table we can see that in rural area there are more number of people who fall in poor class category 22 respondents. But the high class category has less respondents 12, it means we can say that in Jalandhar in rural area people have low income and low class. the rest middle class respondents are 16. We can clearly see the percentage also which category has higher class and which has lower class. Percentage of high class category is 24% and poor class with percentage of 44 and middle class with percentage of 32%.

Table 7: Percentage of total expenditure on necessity items, percentage on luxury item

We have categorized rural population in three parts by expenditure pattern			
Rural respondents	Necessary items	Luxury items	Other items
No. of respondents out of 50 rural respondents	34	07	09
Total percentage out of 50 respondents	68%	14%	18%

In this category we have categorized urban population in three parts by expenditure pattern

1. **Necessary items:** The terms "necessary," "essential," and "indispensable" all refer to something that is required to meet a need. The term "necessary" refers to something that must be present in order for a condition to be met or to an unavoidable result of specific events, conditions, or other factors: Food is required for survival.
2. **Luxury items:** A luxury item is not required for survival, yet it is highly valued in a culture or civilization. When

a person's wealth or income rises, so does demand for luxury products.
3. **Other items**: Individuals or things that are diverse or heterogeneous and are difficult to categories or group

For further analysis and to observe the variation in consumers' behavior, we considered 100 families as samples, and the results found displayed below-

TOTAL_EXPENDITURE = C (1) + C(2)*AVERAGE_MONTHLY_INCOME + C(3)*SAVINGS

Considering the total expenditure as the dependent variable and the average monthly income and as independent.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000000	0.000000	NA	1.0000
AVERAGE_MONTHLY_IN COME	1.000000	0.000000	NA	0.0000
SAVINGS	-1.000000	0.000000	NA	0.0000
R-squared	1.000000	Mean dependent var	15319.20	
Adjusted R-squared	1.000000	S.D. dependent var	10549.34	
S.E. of regression	0.000000	Sum squared resid	0.000000	

The results of the analysis throughout the substitute coefficients show the relationship of the variables as follows-

TOTAL_EXPENDITURE = 0 + 1*AVERAGE_MONTHLY_INCOME - 1*SAVINGS

Thus, the total expenditure is positively impacted by the average monthly income of the households and negatively impacted by the saving.

Similarly, the other impacts to show the variations in consumers behavior are also traced and as such the impact of average monthly expenditure and saving on the expenditure is shown as-

EXPENDITURE_ON_LUXURY_ITEMS = C(1) + C(2)*AVERAGE_MONTHLY_INCOME + C(3)*SAVINGS

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-33.24149	593.0764	-0.056049	0.9554
AVERAGE_MONTHLY_IN COME	0.376636	0.030565	12.32260	0.0000
SAVINGS	-0.378970	0.038564	-9.826992	0.0000
R-squared	0.642112	Mean dependent var	5666.730	
Adjusted R-squared	0.634733	S.D. dependent var	4935.417	
S.E. of regression	2982.834	Akaike info criterion	18.86868	
Sum squared resid	8.63E+08	Schwarz criterion	18.94683	
Log likelihood	-940.4338	Hannan-Quinn criter.	18.90031	
F-statistic	87.01733	Durbin-Watson stat	1.462272	
Prob(F-statistic)	0.000000			

The substituted Coefficients display the relational impacts as:

EXPENDITURE_ON_LUXURY_ITEMS = -33.2414920088 +

0.376636224539*AVERAGE_MONTHLY_IN COME - 0.378970288436*SAVINGS

Hence, a mild positive impact of the average monthly expenditure and a mild negative impact of saving on luxuries is encountered.

The impact of average monthly expenditure and saving on the expenditure is shown as-
EXPENDITURE_ON_NECESSITY_ITEMS = C(1) + C(2)*AVERAGE_MONTHLY_INCOME + C(3)*SAVINGS

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	407.4614	740.1749	0.550493	0.5832
AVERAGE_MONTHLY_IN COME	0.485265	0.038146	12.72143	0.0000
SAVINGS	-0.473997	0.048129	-9.848446	0.0000

R-squared	0.666950	Mean dependent var	8178.280
Adjusted R-squared	0.660083	S.D. dependent var	6385.079
S.E. of regression	3722.655	Akaike info criterion	19.31180
Sum squared resid	1.34E+09	Schwarz criterion	19.38996
Log likelihood	-962.5901	Hannan-Quinn criter.	19.34343
F-statistic	97.12376	Durbin-Watson stat	1.443406
Prob(F-statistic)	0.000000		

The substituted Coefficients display the effective impacts as:

EXPENDITURE_ON_NECESSITY_ITEMS = 407.461421882 + 0.485265403566*AVERAGE_MONTHLY_IN COME - 0.473997392221*SAVINGS

In this case, a moderately positive impact of the average monthly expenditure and a moderate negative impact of saving on necessary commodities is encountered.

When it comes to the expenditure on the other commodities, the impact of average monthly expenditure and saving on the expenditure on other commodities is shown as-

EXPENDITURE_ON_OTHERS_ITEMS = C(1) + C(2)*AVERAGE_MONTHLY_INCOME + C(3)*SAVINGS

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-374.2199	256.6478	-1.458107	0.1480
AVERAGE_MONTHLY_IN COME	0.138098	0.013227	10.44100	0.0000
SAVINGS	-0.147032	0.016688	-8.810516	0.0000

R-squared	0.544522	Mean dependent var	1474.190
Adjusted R-squared	0.535131	S.D. dependent var	1893.175
S.E. of regression	1290.791	Akaike info criterion	17.19344
Sum squared resid	1.62E+08	Schwarz criterion	17.27159
Log likelihood	-856.6719	Hannan-Quinn criter.	17.22507
F-statistic	57.98161	Durbin-Watson stat	1.813290
Prob(F-statistic)	0.000000		

The substituted Coefficients display the estimated impact as:

EXPENDITURE_ON_OTHERS_ITEMS = -374.219929873 +

0.138098371894*AVERAGE_MONTHLY_IN
COME - 0.147032319342*SAVINGS

In this case, a low positive impact of the average monthly expenditure and a low negative impact of saving on necessary commodities is encountered.

CONCLUSION

In conclusion, our data clearly show that COVID-19 has influenced consumer behavior and perceptions toward spending patterns as a result of governmental pressure, laws, and regulations, and that the pandemic has had a significant impact on consumers' financial situation. Consumer spending patterns were also altered as a result of the epidemic, with fewer people visiting and spending in public places, and tourists cancelling and postponing their travel plans. Due to the significant danger of illness spreading, consumers' lodging choices were influenced, and the majority of customers preferred to stay at home due to the high to change.

degree of hygiene and sanitation. Our findings support the premise that the COVID-19 pandemic influenced consumer purchase behavior significantly. As a result, consumers are more likely to place online orders that are delivered directly by producers. Consumers' preference for digital instruments for gathering information, ordering, and paying demonstrates that changes in consumer buying behavior are reflected not only in purchase intentions within this distribution system, but also in their desire for SFCSs to be digitally transformed. Because of the lockdown and social separation employed to combat the covid-19 virus, consumer behavior has been drastically disturbed. All consumption is constrained by time and location. Consumers have learned to adapt in new and novel ways due to time flexibility but location rigidity. People nowadays work, study, and unwind at home, blurring the distinction between work and personal life Adopting digital technology is likely to cause established habits

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