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The Impact of COVID-19 Lockdown on Consumers' Consumption Behavior: An empirical evidence from Bangladesh

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Abstract

COVID-19 lockdown has plagued completely the human race with its ravaging death toll across the Globe. Bangladesh is also affected by the deadly virus that has retarded the rapidly forward marching economy of the country requiring everyone to stay at home suspending their earning activities. Given the economic condition of population of the country, the lockdown situation has brought about a significant and unprecedented negative change in the income of most of the people requiring them to adjust their consumption expenditures accordingly. This paper tends to identify exactly how the lockdown's impact negatively affected consumers' consumption behavior of the people of different social classes in Bangladesh. The present study used data collected through filed survey method with the help of a structured interview schedule. The study used percentage, pie charts and bar diagrams to present lucidly the findings of the study. The study found that owing to COVID-19 lockdown aggregate income of people has decreased by 61.55% and the consumption expenditure has decreased by 66.82%. Majority of the respondents of different social classes have forced to cut their household spending on consumption due to their low income.

Keywords: *COVID-19, Consumers, Income, Expenditure, Consumption*

JEL Classification: *D1, E20, E30*

Introduction

After the 1920s, the earth is witnessing a great COVID-19 pandemic since the very beginning of March 2020. This pandemic is hunting human lives all over the world. Due to the disease's rapid prevalence in most of the countries of the world, Governments in several countries declared lockdown that has unprecedentedly impeded people's normal lifestyle compelling them to stay at home. Most of the businesses were closed, public transports were shut down, international flight stopped operation, and people had to limit their trip,

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travel, and exposure outside. The scenario in Bangladesh is not unlike as Government declared lockdown following the spread of COVID-19 across the country in the mid of March 2020.

In Bangladesh, people employed in Agriculture, Service and Industry sectors are 39.76%, 39.71% and 20.53% respectively and 89% of total employment is related with the informal workforce as well as 42.36% is self-employed and the minimum wage of an unskilled person is only 5210 BDT (Statista, 2020). The International Labor Organization (ILO) has made a projection that unemployment in the informal sector may raise by 25 million in the "high-case scenario". In 2019, the total unemployment figure was 188 million and this represents about a 13% increase in unemployment based on 2019 unemployment. Even in the "low-case scenario", ILO projects that unemployment is likely to increase by about 13 million (Islam, 2020). It pictures how broad and severe a lockdown situation's impact has been on the income of the people employed in the informal sector since they have lost their jobs.

In Bangladesh, individual households as well as the economy have faced unprecedented stagnancy since it emerged as an independent nation. Entire industries and cities shut down led to a record slump in economic activities. The government introduced policies to mitigate the economic harm on households and shore up the small businesses. However, designing fiscal stimuli for households and credit provision for businesses has become difficult for policymakers because of the gravity of the economic downturn.

Lockdown situation has had a great impact on people's income that has ultimately shaped their consumption behavior. As Bangladeshis were forced to stay at home stopping their economic activities, they had to make adjustments in the expenditures influenced by both income loss and uncertainty about how the future economic condition is going to be. The present research work is an attempt to know scientifically how Bangladeshis from a large number of households and different social classes have responded to the pandemic lockdown situation in respect of their spending.

Literature Review

Existing pool of literature on the household's response to a pandemic situation is in the focal point of this paper. Priory done empirical work on this subject matter, such as Baker, Farrokhnia, Meyer, Pagel, & Yannelis (2020) and Andersen, Hansen, Johannesen, & Sheridan (2020) used Transactional Level Household Financial Data obtained from consumers bank account to study how Households' spending response to a pandemic.

Baker, Farrokhnia, Meyer, Pagel, & Yannelis (2020) discovered that the lockdown situation caused significant changes in the spending patterns of users across a wide range of categories. The study found that the degree of the response partly depended on the outbreak's severity in a user's state and in the states where the outbreak was more prevalent, users found to be responding by decreasing spending. The study also found that heterogeneity in spending responses to COVID-19 was provoked by demographic characteristics such as age and family structure to a greater extent while income did not. Andersen, Hansen, Johannesen, & Sheridan (2020) found that response in expenditure differs across categories and there is a strong correlation between the severity of government restrictions and spending response. Individuals who are more exposed to the economic risks and health risks introduced by the COVID-19 crisis experience a larger drop in expenditure compared to others. The study also found that that the closed sector of the economy is mainly responsible for a drop in consumer spending.

Bunn, Le Roux, Reinold, & Surico (2018) found that changes in the consumption of British households are significantly influenced by the unanticipated and temporary falls in income than to increases of the same size. Theoretical models of household consumption responses have been provided in Gourinchas & Parker (2002); Kaplan & Violante (2010) and Kaplan & Violante (2014). Macroeconomic frameworks for studying epidemics have been provided in Jones, Philippon & Venkateswaran (2020), Barro, Ursua, & Weng (2020) and Eichenbaum, Rebelo, & Trabandt (2020).

In Bangladesh, this paper is the first-ever to study consumers' consumption response to income changes resulting from the lockdown. This paper also provides a view of the impacts of the COVID-19 lockdown on the consumers of different social classes that will be helpful in carrying on any future study in this field. The aim is to identify how the downfall in income caused by the lockdown situation changes the consumption pattern of the people. The differences between earlier studies and this one are that those studies were based on countries other than Bangladesh and used people's transactional level data obtained from bank account whereas in the present study, primary data have been collected from consumers of different social classes and regions of Bangladesh through online surveys.

Objectives of the study

1. To compare the consumption behavior of the people of Bangladesh between the pre and during COVID-19 period.
2. To analyze the consumption behavior due to decline in the income level across different classes of the people of Bangladesh.

Data and Methodology

The present study is descriptive in nature. The present study requires primary data and the requisite data have been collected through online filed survey. The study considered responses of total 117 numbers of respondents. Further, respondents of all social classes and age group have been considered and classified on the basis of income level and social classes. The responses of the consumers regarding their income, expenditures and consumption have been collected during the lockdown period. The study used percentage, pie chart, bar diagram and line chart to present the findings of the study.

Analysis & Findings

Table 1 shows the demographic profile of the respondents. Out of total 117 respondents surveyed, 74 are male and 43 are female. In other words, out of the total respondents, 63.25 percent are male and 36.75 percent are female. Further, the table illustrates the age group of the respondents of the study. Out of the 117 respondents, highest number of respondents, i.e., 54 comes under the age group of 31-40 years followed by 22 in the age group of 41-50 years and 21 in the age group of 50 & Above years.

Table1: Demographic profile of respondents

Demographics	Description	Number	Percentage
Gender	Male	74	63.25
	Female	43	36.75
	Total	**117**	**100**
Age	20-30	20	17.09
	31-40	54	46.15
	41-50	22	18.80
	50 & Above	21	17.94
	Total	**100**	**100**
Profession	Business	27	23.07
	Banker	13	11.11
	Govt. Employee	28	23.23
	Garments worker	6	5.12
	Teacher	10	8.54
	Rickshaw Puller	3	2.56
	Driver	5	4.28
	Middleman	3	2.56
	Day Labor	5	4.28
	Hawker	3	2.56
	Farmer	7	5.98
	Nurse	3	2.56
	NGO worker	2	1.70
	Student	2	1.70
	Total	**117**	**100**

Source: Field Survey

On the other hand, lowest number of respondents, i.e. only 20 comes under the age group of 20-30 years. The table also shows the profession of the respondents. Out of the 117 respondents, 28 are government employee, 27 are businessman, 13 are banker and 10 are teacher. Further, 7 respondents are farmer, 6 are garments worker, 5 are deriver, 5 are day labor, 3 are middleman, 3 are rickshaw puller, 3 are hawker, 3 are nurse, 2 are NGO worker and 2 are students.

Figure 1 presents social class of respondents based on Income. In Bangladesh, wealth is unevenly distributed among people living in the society resulting in the existence of social classes with the heterogeneity of wealth and income. In this study, firstly all respondents have been categorized according to their social classes based on income level (WB). Based on the income level, respondents have been classified into six social classes namely, Below Lower class, Lower class, Lower Middle class, Middle class, Upper-Middle class and Upper class. The study found that 10% of the total respondents belongs to the below lower class category with monthly income below 5000 BDT, 17% belongs to lower class having monthly income 5000-10000, 35% belongs to the lower middle class with 30000-50000 monthly income, 24% belongs to the middle class who earns 30000-50000 per month, 12% belongs to upper-middle class having income 50000-100000 BDT per month, and only 2% people belongs to upper or higher-income class who earns 100000 BDT & above monthly.

Figure 1: Social class of respondents based on income

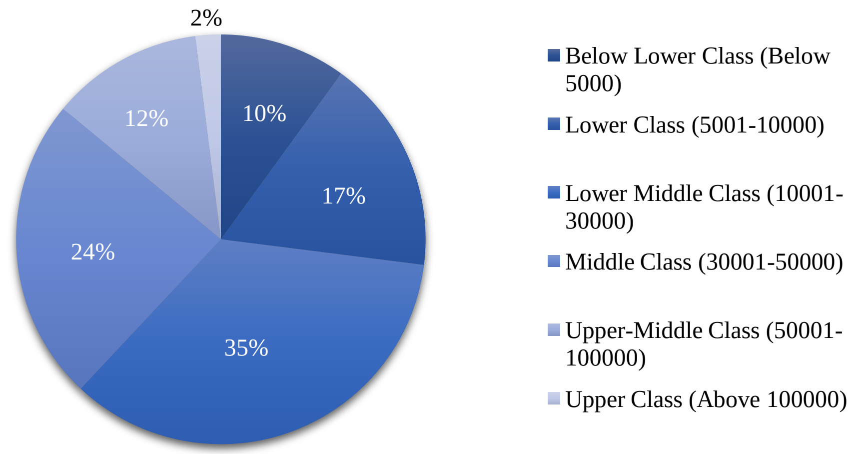


Figure 2 depicts the impact of lockdown on income of the respondents. The study found that income of 74.30% respondents have declined due to the lock down situations while 25.70% didn't experience any drop in their income due to the lockdown. This lockdown has stopped the running wheel of the swiftly forward-moving economy of Bangladesh. In Bangladesh, the population living below the national poverty line dropped to 21.8% in 2018 from 24.3% in 2016 (Asian Development Bank, 2020). Living standard, purchasing power, income, education, and consumption were increasing day by day depicting a good sign of the economy until the lockdown started. The growth rate of Bangladesh was 7.88% in 2019 and was expected to exceed 8% in 2020. However, the lockdown has slowed down the ongoing progress of the economy halting all the economic activities and affecting the income of all classes of people.

Figure 2: Impact of lockdown on Income of respoendents

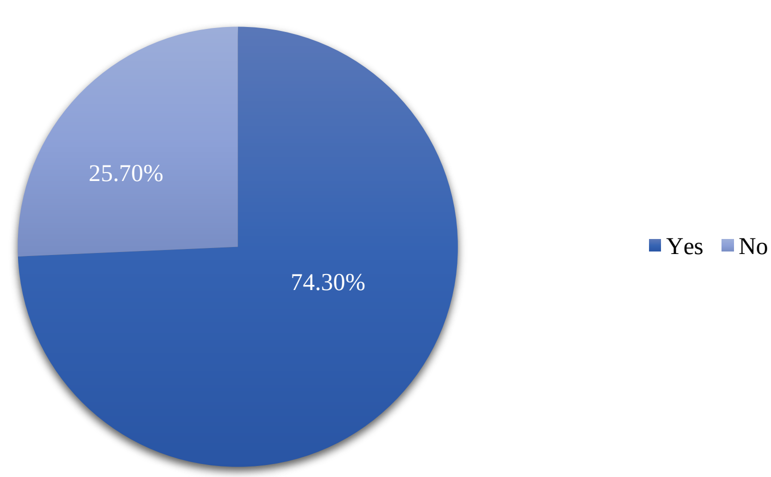


Table 2: Reduction of income across social classes

Social class	Income *(pre-covid-19) (Total)*	Income *(during covid-19) (Total)*	Income *(reduction in %)*
Below lower class	44000	20900	52.50
Lower class	160000	48000	70.00
Lower middle class	984000	470352	52.20
Middle class	1120000	815360	27.20
Upper middle class	1120000	819840	26.80
Higher class	330000	290400	12.00

Source: Filed survey

Figure 3: Reducation of income accross social classes

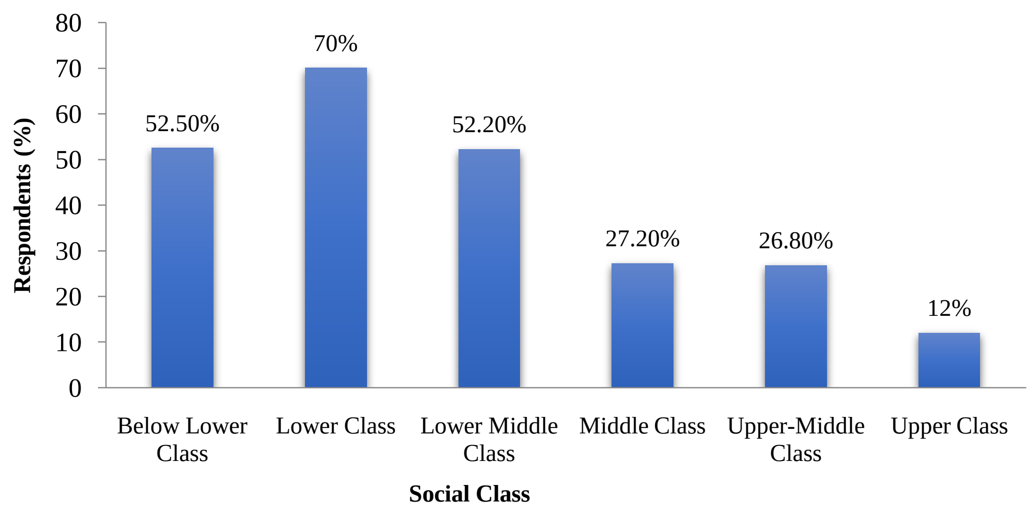


Table 2 and Figure 3 provide reduction of income across different social classes. The study observed heterogeneity in the reduction of income across different social classes. The study found that Below Lower class, Lower class, Middle class, Upper Middle class and Higher class have lost their income by 52.50%, 70%, 52.20%, 27.20%, 26.80%, and 12% respectively. The people of the Lower class and Below Lower class are largely affected by lockdown and the percentage of their income losses is 70% and 52.50% respectively but the Upper-Middle class and the Higher class people are among the least affected people having a decline in their income by 26.80% and 12% respectively.

The reasons behind such decline are:

1. Lower class people are vastly affected by lockdown because a large portion of this faction of the society is garments worker, blacksmith, rickshaw puller etc.

Their earning depends largely on daily activities, which are stopped owing to the lock down. That is why they lost a huge portion or all of their earning.

2. Below lower class people hold the second position. These people do not have any permanent jobs. Therefore, their income is low and so is the reduction.
3. Lower middle-class people are usually low salary jobholders, drivers, and very small businessmen. Therefore, the lockdown has hampered their income substantially by 52.20%.
4. Middle-class people are mainly Government job holders, private company service holder, owner of small businesses like Grocery etc. That is why their income loss is comparatively lower than the earlier others.
5. Upper middle class people loses one third of their income because they are mainly investor in firm/ industry/production firm, MNC service holder etc.

Figure 4 shows responses regarding cutting down of food expenditure due to decline income during the pandemic period. The study discovered a substantial relationship between income and the expenditures on food. The study observed that 70.20% people had to cut their food expenditures but 20.80% people didn't require an adjustment in their expenditures on food with the decline in their income. As income of the people decline due to lockdown, food expenditures also follow the similar trend across different social classes.

Figure 4: Decline in expenditure on consumption of food

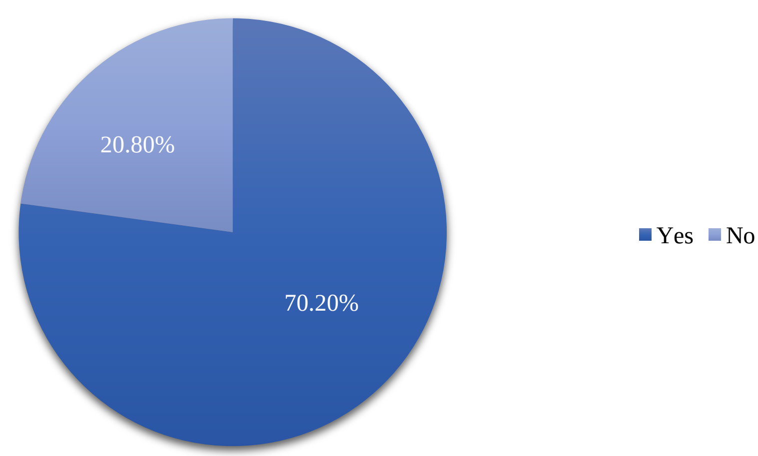


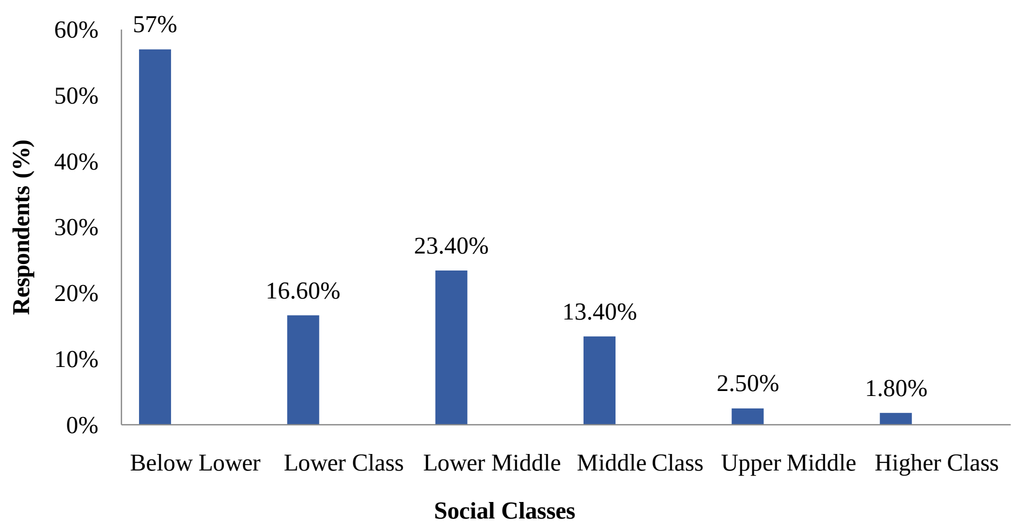
Table 3 and Figure 5 show the reduction of food expenditure across the different social classes of people of Bangladesh. The most affected social class due to decline in food expenditures in response to income drop is Below Lower class with 57% decrease in their expenditures on food. That means, as they lose job they can hardly feed themselves as long as only three to four days. It implies that this faction of the society is hugely dependent on government aid to survive during a pandemic situation because they live by hand to mouth and they don't have any savings which can keep them afloat for some days during such crisis. The other social classes also had to cut their food expenditures except the Upper class. Lower class, Lower Middle class, Middle class and Upper Middle class is responsible for 16.60%, 23.40%, 13.40% and 0.40% cut in food expenditures respectively. The only single class which was not affected by the decline in income in their food expending is Higher or Upper class. Because this faction of the society has sufficient income and wealth which can support them for years in crisis situation. They don't require any relief aid for survival during a longer period of pandemic situation. However, Lower class and Lower Middle class can afford as long as some weeks to one or two months indicating that a longer period of pandemic will upend them and coerce to seek Government aid.

Table 3: Food expenditure reduces across social classes

Social class	**Expenditure** *(pre-covid-19) (Total)*	**Expenditure** *(during covid-19) (Total)*	**Expenditure** *(reduction in %)*
Below lower class	39600	17028	57.00
Lower class	144000	120096	16.60
Lower middle	885600	678370	23.40
Middle class	1008000	872928	13.40
Upper middle	1008000	982800	2.50
Higher class	297000	291654	1.80

Source: Field survey

Figure 5: Reducation of expenditures on food across social classes



Middle class and Upper Middle class can sustain a bit longer compared to the earlier two groups with their savings enough to keep them up for some couple of months or even a year. But a longer period of pandemic situation than that can deplete all of their savings ultimately making them dependent on government aid and relief.

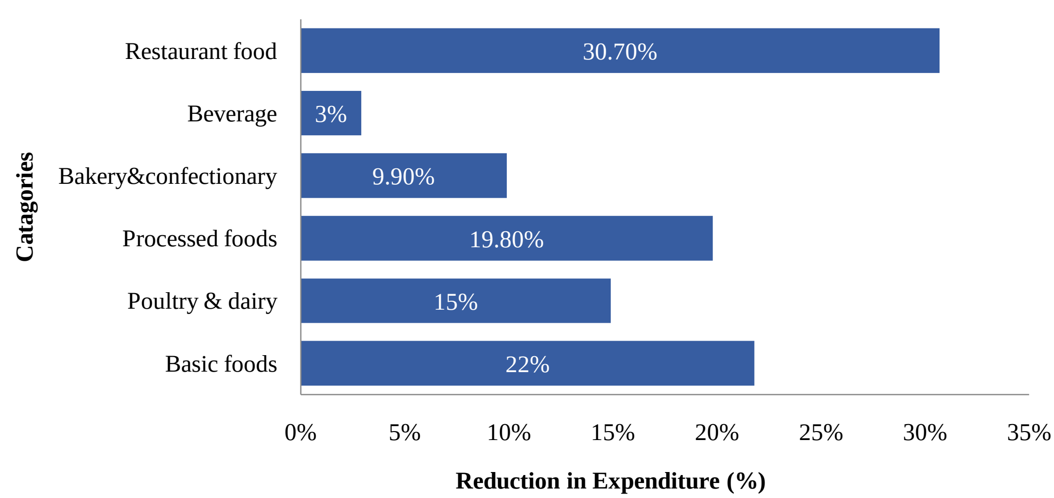
Table 4 and Figure 6 provide reduction of food expenditure across the different categories of food items. Reduction in consumption largely affects some categories of foods than the others and the study tried to estimate how consumers reduced their food consumption across various categories in response to their income reduction.

Table 4: Household consumption fall-down across categories

Categories	**Expenditure** *(pre-Covid-19) (Total)*	**Expenditure** *(during Covid-19) (Total)*	**Expenditure** *(reduction in %)*
Basic food	17830800	13908024	22.00
Restaurant food	1485900	1029729	30.70
Beverage food	8564400	830747	3.00
Bakery & confectionary food	1485000	1352835	9.90
Processed food	594360	476677	19.80
Poultry & dairy food	1483000	1260550	15.00

Source: Field Survey

Figure 6: Households' consumption falldown across different categories



The figure shows the percentage change in consumption across categories during the lockdown period. The study found that consumers who belong to the Middle class, Upper-Middle class, Upper or Higher class reduce their consumption of restaurant food by 30.70% which is the highest of all categories. Because in lockdown all the restaurants were closed to ensure social distancing to reduce the likelihood of more positive cases. Consumers lessened consumption of basic foods (Rice, Vegetables etc.) by 22% which is the second-highest. Consumers of the Below Lower class, Lower class, and Lower Middle class are mainly responsible for this reduction in this category of foods. As they mainly live on these foods, the decline in income compelled them to reduce consumption of those leaving no alternative for them. People of the Middle class, Upper-Middle class and Upper class are not responsible for the reduction in basic foods because of their higher income level they can effortlessly afford them. Consumers also minimize their processed food consumption and poultry food consumption by 19.80% & 15% respectively. The study also find that in lockdown situation consumers also had no other choice than to reduce bakery & confectionary consumption and beverage consumption by 9.9% & 3% respectively and such reduction occurred from the Below Lower class, Lower class, Lower-Middle class and middle class peoples' end. From the above analysis it can be said that the lockdown situation due to COVID-19 leaves a great impact on households' consumption behavior across categories especially in the case of the Below Lower class, Lower class and Lower-Middle class consumers. But this lockdown situation does not greatly impact the Upper-class people and has slight to mediocre impact on Upper-Middle class and Middle class people respectively.

Conclusion

Most of the people of the country are still poor with 21.8% of people living below the poverty line, who can't manage to buy food for more than three days if they cannot earn money (Asian Development Bank, 2020). The COVID-19 lockdown has made the situation much more severe by making them unable to earn money to afford their food. The study found three key results. First, a decline in income by 61.55% has substantially caused the consumption expenditures to fall by 66.82%. Second, the decline in income has mainly affected the consumption expenditures of the Lower class people of the society most, by 47%. Third, in lockdown Upper class, Upper-Middle class and Middle class people have been forced to reduce the consumption of Restaurant food most by 30.70% prior to lockdown and Recreation Industry has also been shaken by sector has also indicating that Restaurant business is undergoing a great crisis in this lockdown situation. As income declined due to the lockdown Below Lower class, Lower class and Lower-Middle class people became completely dependent on Government's aid and relief because their earning stopped due to the lockdown.

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