

Analyzing Changing Expenditure Patterns: A Study of Household Responses during the Pandemic in Nizamabad District, Telangana

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Abstract: *In the pandemic situation most of the people changed their expenditure patterns. An analysis of this change is very essential for the families to understand their financial situations and what adjustments they needed to make and how they overcome these financial gaps. Hence an attempt was made to analyze the changing expenditure patterns of households in Nizamabad district which is located in Telangana state. Due to COVID-19 restrictions, the researcher's location was selected randomly for convenience of data collection. Exploratory research design was followed for the present study. Total eighty respondent's data was collected because of pandemic restrictions. Pearson's correlation coefficient test was run by using SPSS. Results revealed that there is a significant relationship between independent variables like income of the family, size of the family, occupation of the respondents with dependent variable expenditure pattern before pandemic. During pandemic a significant relationship was found between independent variables like size of the family and occupation of the respondents with expenditures patterns. It was found that the amount spent on food increased during pandemic time when compared to before pandemic.*

Keywords: Expenditure patterns, households, before pandemic, during pandemic

1. Introduction

The COVID-19 pandemic created the largest shift in consumer behavior (Brinca, Duarte, and Castro, 2020; Triggs & Kharas, 2020). On the demand side, widespread and sudden income declines from job loss or reduced work hours have led to expenditure declines for many non-essential purchases and forced many families to sacrifice basic needs like food or housing payments. Consumers spending preferences also changed, shifting away from activities that may expose individuals to greater health risks such as going to the gym or dining out toward activities with limited risks such as dining or exercising at home.

The provision of food has always been a challenge facing mankind. Globally, around 820 million people face hunger daily and more than two billion people lack vital micronutrients, affecting their health and life expectancy (FAO, IFAD, UNICEF, WFP, & WHO, 2019). The root causes of food insecurity are complex and multidimensional. They are linked to a range of closely related factors, such as poverty, low access to basic social services, and inadequacy of some public policies (Abdullah *et al.*, 2019; Sriramand Tarasuk, 2016).

According to the ETMONEY Analysis (2020 March, April, May, June months) the overall spending have taken a back seat by a significant margin when compared to 2019. People have reduced their overall spending nearly by 40 per cent as compared to that of last year. Even though some economic activities have resumed, some people are still at the risk of losing their jobs or expecting a salary cut. Such anticipations are encouraging people to be more attentive about their spending habits. People are only spending on

essential items. People mostly were spent more on Groceries/Household Expenses, Discretionary Expenses like dining out, entertainment, shopping and traveling. Fixed expenses like EMIs, rents and insurances.

Objectives of the Study:

1. To understand the changing expenditure patterns of households due to the Pandemic
2. To study the relationship between independent and dependent variables on expenditure patterns due to COVID-19.

2. Review of Literature

Suresh *et al.*, (2021) investigated on spending pattern of Indian consumers during covid-19 with reference to Chennai city. Results revealed that the food, beverages, health and hygiene, medicines which has a high spending among the consumers during the Covid-19. The people decreased their buying on necessary products in a convenient manner with some unwillingness.

Baker *et al.*, (2020) investigated on 'how does household spending respond to an epidemic?' consumption during the 2020 COVID-19 pandemic. Findings of the study were in the first half of March 2020, individuals increased total spending by over 40 per cent. This was followed by a decrease in overall spending of 25-30 per cent during the second half of March according with the disease spreading, with only food delivery and grocery spending as major exceptions to the decline. Few differences across individuals with different income groups and family with children spent more during the latter part of March.

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Piyapromdee and Spittal (2020) conducted a study on the income and consumption effects of COVID-19 and the role of public policy. They mainly focused on the relationship between employment outcomes, occupational, industrial characteristics and assess the effects on consumption. Results revealed that 70 per cent of households in the bottom fifth of the earnings distribution hold insufficient money to maintain current spending for more than one week. They compared effectiveness of the UK's coronavirus job retention scheme and Economic Impact Payments (EIP) in the US. The EIPs were more effective at mitigating consumption reductions as they have full coverage; it depends on household structure and higher to low-income workers.

From the above reviews it can be inferred that, spending on food items by the consumers were changed, most of the respondents were willing to spend on medicines followed by food, hygiene and beverages due to corona virus attack. Economic status of the individuals were affected more on

expenditure, especially spending on consumption were reduced.

3. Methodology

Exploratory research design was followed. Size of the Sample was 80 respondents from the Nizamabad district of Telangana state. Simple random sampling technique was adopted to select the area and sample of the study. Structured interview schedule was developed for the present study by taking the objectives and variables under consideration. Frequency and percentages were calculated to analyze the socio-demographic profile of the sample. Pearson's correlation coefficient was used to find the relationship between independent and dependent variables used in the study such as income, size of the family and occupation as independent variables and expenditure pattern as dependent variable.

4. Results and Discussion

Results of the current study was tabulated, analyzed, presented and discussed in this section.

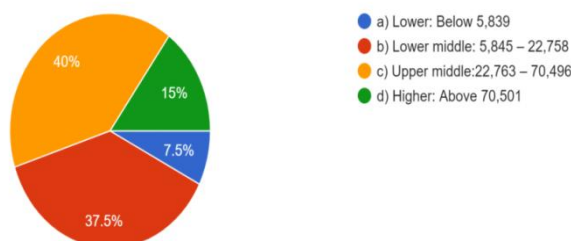


Figure 1: Distribution of respondents by monthly income of the family

The figure 1 shows that most of the respondent's monthly income was upper middle income (40%) followed by lower

middle income (37.5%), higher income (15%), lower income (7.5%).

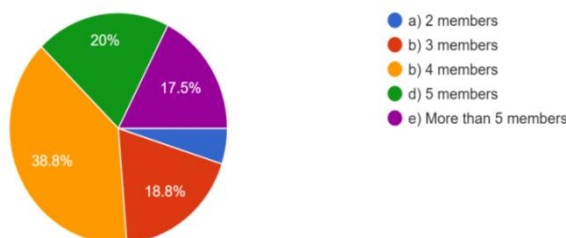


Figure 2: Frequency distribution of family size of the respondents

The figure 2 reveals that most (38.8%) of the respondents family size was 4 members that is nuclear family followed

by 5 members (20%), 3 members (18.8%) and more than 5 members' i.e. joint family (17.5%).

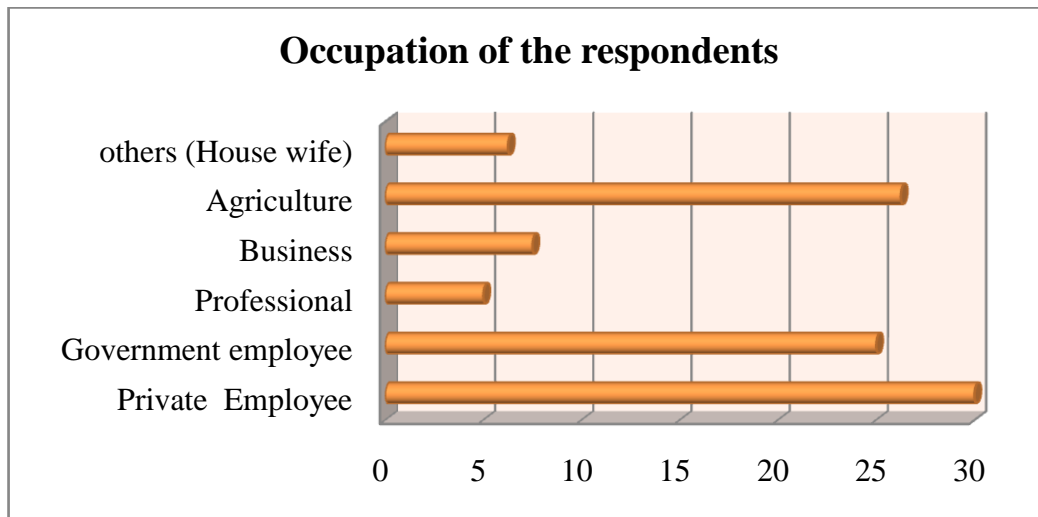


Figure 3: Distribution of respondents by occupation

The figure 3 revealed that most of the respondents were doing private jobs (30%) followed by agriculture, government jobs and business.

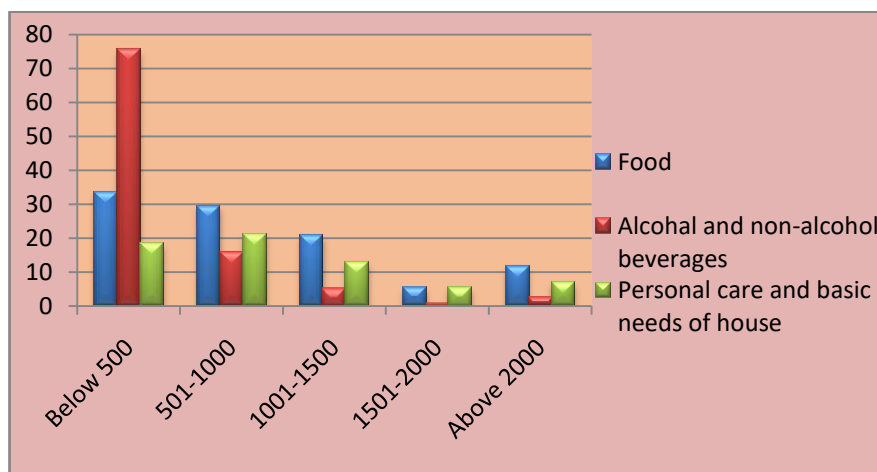


Figure 4: Distribution of respondents on an average per month expenditure on food during pandemic

Figure 4 shows that majority (75%) of the respondents spent below 500 rupees for alcohol and non-alcoholic beverages followed by food and personal care and basic needs of the house. More than one-fourth (29%) of the respondents spent 501-1000 rupees for food followed by personal care and basic needs of house and alcohol, non-alcoholic beverages. More or less one-fifth (21%) of the respondents spent 1001-1500 rupees for food followed by personal care and basic needs of house and alcohol, non-alcoholic beverages.

During pandemic people preferred to spend money on food items like meat, fruits, vegetables, dairy and poultry

products to improve immunity power to fight against corona virus followed by personal care like medication and gym etc. which is similar to the result from the studies by Renzo1 *et al.*, (2020), and Suresh *et al.*, (2021) which showed an increase of homemade recipes (e. g. sweets, pizza and bread), cereals, legumes, white meat and hot beverages consumption, and a decrease of fresh fish, packaging sweets and baked products, delivery food and alcoholics intake in pandemic situation. Also found that increased intake of fruit, vegetables, nuts, legumes and fish during pandemic.

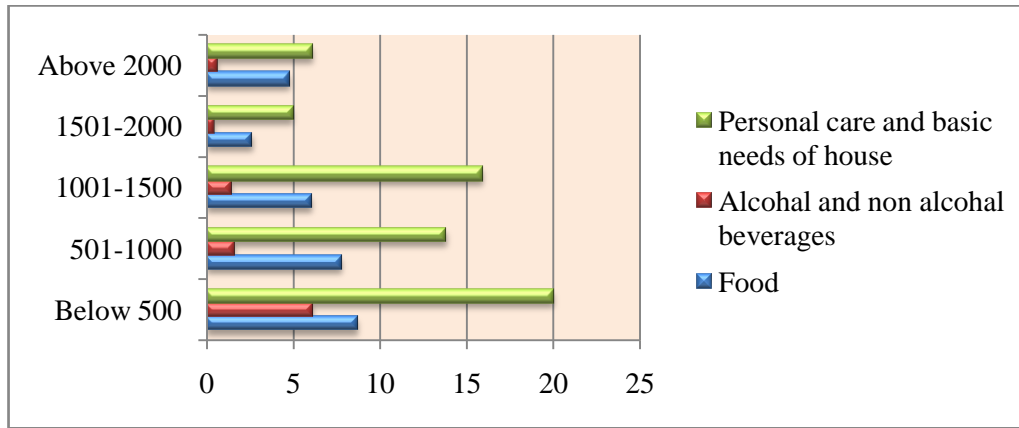


Figure 5: Frequency distribution of average per month expenditure on food before pandemic

Figure 5 depicted that One-fourth (20%) of the respondents spent below 500 rupees for personal care and basic needs of house followed by food and alcohol, non-alcoholic beverages. Only (15%) of the respondents spent 1001-1500 rupees for personal care and basic needs of house followed by food, alcohol, non-alcoholic beverages. Very few (12%) of the respondents spent 501-1000 rupees for personal care and basic needs of house followed by food, alcohol, non-alcoholic beverages. Before pandemic people preferred to spend money on basic needs of the house like lighting, fuel, furniture etc. followed by personal care like medication and also on different food items especially on meat, cereals, and dairy and poultry products which is similar to Renzo *et al.*, (2020) study.

Pearson's Correlation coefficient interpretations showed a significant relationship between expenditure pattern and size of the family and occupation of the respondents during pandemic. The coefficient of correlation on expenditure pattern during pandemic between family size and expenditure on all items except meat and poultry were found negative correlation since all the values were more than the table value of "*r*" (0.172) at 5 and 1 per cent level of significance. Hence the null hypothesis was rejected and empirical hypothesis was accepted. Therefore, it could be inferred that there was negatively significant relationship between the family size and expenditure pattern on all the items of the respondents. It was clear from the value that even though the family size was small expenditure on all the items were increased this might be due to pandemic situation people spent more on food items to improve immunity.

The coefficient of correlation on expenditure pattern during pandemic between occupation of the respondent and expenditure on all items except dairy and egg products, gifts were found negative correlation since all the values were more than the table value of "*r*" (0.172) at 5 and 1 per cent level of significance. Leading to the inference that there was negatively significant relationship between the occupation and expenditure pattern on all the items except dairy and egg products, gifts. It was clear from the value that expenditure on all the items increased even though the occupation of the respondent earns fewer amounts. Because of COVID-19 virus attach people preferred to spend more on food items to improve health condition which is also supported by Baker *et al.*, (2020) and Hall *et al.*, (2021).

Dou *et al.*, (2020) found demographic characteristics such as age and family structure forced larger levels of heterogeneity in spending responses to COVID-19, while income did not. Kasmiee *et al.*, 2021 mentioned that the poor income households and those dependent on labour income were more vulnerable to income shock, and had poorer food consumption during the COVID-19 pandemic compared to other respondent categories.

Pearson's correlation coefficient interpretation showed a significant relationship between expenditure pattern and family income and family size and occupation of the respondents before pandemic. The coefficient of correlation on expenditure pattern before pandemic between income of the family and expenditure on all items were found negative correlation since all the values were more than the table value of "*r*" (0.172) at 5 and 1 per cent level of significance. Hence the null hypothesis was rejected and empirical hypothesis was accepted. Therefore, it could be inferred that there was a significant relationship between the income of the family and expenditure pattern on all the items of the respondents. It was clear from the table that expenditure on all the items decreases by increasing family income, this might be due to ignorance of health, busy schedules and more concentration on earnings in before pandemic situation which is different to the study by Bachas *et al.*, (2020) where it was mentioned that it is contradictorily evident that while high-income households were spending more than low-income households.

The correlation on expenditure pattern before pandemic between size of the family and expenditure on all items were found negative correlation except education since all the values were more than the table value of "*r*" (0.172) at 5 per cent level of significance. Hence the null hypothesis was rejected and empirical hypothesis was accepted. Therefore, it could be inferred that there was a significant relationship between the size of the family and expenditure pattern on all the items except education of the respondents. It was clear from the table that even though size of the family is large expenditure on all the items decreases in before pandemic situation; this might be due to ignorance of health and family in before pandemic situation.

The correlation on expenditure pattern before pandemic between occupation and all items were found negative correlation except education since all the values were more

than the table value of “r” (0.172) at 5 and 1per cent level of significance. Hence the null hypothesis was rejected and empirical hypothesis was accepted. Therefore, it could be inferred that there was a significant relationship between the occupation and expenditure pattern on all the items except education of the respondents. It was clear from the value that expenditure on all the items decreases before pandemic even though the occupation of the respondent earns good amount, this might be due to ignorance of health and family also occupation of the respondents needs more skilled work.

5. Summary and Conclusion

Expenditure pattern during pandemic was negatively correlated with size of the family and occupation. Expenditure pattern before pandemic was negatively correlated with size of the family, occupation and income. Because during pandemic income of the family decreased so income was not significantly correlated with expenditure pattern.

By this study it can be concluded that most of the respondents changed their expenditure patterns as most of the money was spent on basic needs like food dairy items, fish and sea foods. Few of the respondents were spent more on alcoholic and non-alcoholic items during pandemic when compared to before pandemic. Therefore there is a change in expenditure patterns of households due to the COVID-19 attach.

Authors' Contribution:

Conceptualization of research work and designing of experiments (VR and RK);

Execution of field/lab experiments and data collection (VR);
Analysis of data and interpretation (VR);

Preparation of manuscript (VR and RK)

Declaration: We do not have conflict of interest as authors.

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