

Consumers' Buying Behavior Post COVID 19 Pandemic: An Exploratory Study of FMCG Products

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Abstract

COVID 19 strike has changed every walk of life all around the world. FMCG sector was largely hit being necessity every citizen. It has not only changed buying behavior of consumers but even change buying patterns and preferences were also observed. Particularly in a country like India where people considering themselves as high immune citizen thereby giving less priority to health and hygiene products were found to focus on these products. Present study aims at identifying factors of consumers' buying behavior post COVID and impact on demographic factors on it. The study is exploratory in nature and a sample size 385 was chosen from Udaipur district of Rajasthan using purposive random sampling. Study identified three factors related with consumers' buying behavior post pandemic namely Adaptive, Protective and Transformative. Further study found that demographic factors age and income have largely not affected post pandemic consumers' buying behavior while educational qualification and occupation was found to influence consumers' buying behavior.

Introduction

The decisions, actions or feelings that people express at the time of buying product or services is known as consumer behavior. From beginning of buying decision to consumption or use of product everything is studied and monitored by marketers to understand consumer behavior. Moreover, they also study whether buying of product is continued in future or not. Change in actions, feelings or decisions resulting in variation in consumption in existing product are treated as changes in consumer behavior. Change in consumer behavior is observed mainly due to psychological, surroundings, cultural and marketing influences. Sometimes situations and surrounding dominate consumer behavior in such a manner that the effect of marketing influences on consumer is minimum. The situation driven such psychology continues for longer time period and that shapes the direction of human behavior. More particularly pandemic like situations influences human psychology also and drives behavior demanded by

such situation. COVID-19 or the novel coronavirus disease began in December 2019 and by March 2020, the World Health Organization (WHO) officially classified the disease as a pandemic. It has since turned into a global health and an unprecedented economic crisis. Both the public and private sectors have struggled to manage the impact of the pandemic on business, both domestically and globally. The COVID 19 strike has changed consumer behavior and spending patterns world over. Some of these changes are going to exist even after pandemic. The internal and external drivers of consumer behavior have become inconspicuous during lockdown period which used to be prominent drivers earlier (Mehta et. al., 2020).

Consumer Behavior: An Overview

Consumer behavior in simple words means analysis of what consumer is going to buy, when he will be buying and how he would be proceeding for buying. In other words it is the study of processes that they use to select and consume and dispose of products and services. This also includes study of emotional, psychological and behavioral actions of consumers. Every consumer wants to satisfy their needs and wants for which they find, buy, use, evaluate and dispose of product and services. The American Marketing Association also defines consumer behavior in similar manner as to how customers both individual and organizations, satisfy their needs and wants by choosing, purchasing, using and disposing of goods, ideas and services (<https://www.ama.org/>). The nature of Consumer behavior is interdisciplinary. According to Schiffman et al (2017), it stems to emerge from four disciplines viz. psychology, sociology, anthropology and communication. The study of human mind and mental factors affecting behavior are related with psychology, the study of human societies' functioning, development and problems are related to sociology, comparison of human societies' culture and development is related with anthropology and communication of information to consumers, exchanging information etc. are related with communication discipline.

The consumer behavior is observed to be of various types. It is important to understand different types of consumer behavior as it can help organizations to design their marketing strategies. In most of the literature four types of

consumer behavior has been identified i.e. Complex buying behavior, Dissonance-reducing buying, habitual buying behavior and variety seeking buying behavior. Apart from this, Impulsive, limited or extensive decision making, variety seeking buying behavior are some other common types buying behavior observed in FMCG consumers.

Review of Literature on Consumers' Post COVID Purchase Behavior

The pandemic COVID 19 has not only affected human health and life but has also created disturbances to family economics. The normal trend of income, spending and savings of households has not only been disturbed but a different pattern in them has emerged. Cox et. al. (2020) investigates beginning impacts of pandemic on consumer behavior related with income spending and savings data using US household level bank data. Study found that cut in spending and large increase in liquid assets was observed across all income distribution in the core COVID 19 times i.e. march. The study found that in the mid of next month spending rebounded in low income group. Overall study finds that spending declined during the period.

Similarly Melo (2020) analyses implication of COVID 19 caused changes in consumer behavior for food retail sector. Study finds that post pandemic, ready to eat food or convenience meals and food delivery services might see a growth in business more particularly technology driven food chains as work from home will be the new normal. Further, study advocates that during pandemic, consumer behavior was both slow and fast thinking driven and new norm in consumer behavior will be technology driven online retailing. Migliore et. al. (2021) has also examined ethnocentrism effects on consumers' behavior during pandemic using an online survey of 286 Italian consumers. The study confirms that ethnocentrism has been the factor which has influenced consumer behavior the most. Further study also advocates that after pandemic, national agri products would continue to be the preference of consumers.

Yuan et. al. (2021) explores changing patterns of consumers' behavior with special reference to China during and in relatively stable period of COVID 19. The study surprisingly noticed that life patterns of Chinese

consumers' have not significantly changed. However study suggests that consumers', who have developed new living habits, tend to continue post pandemic. Tyagi and Pabalkar (2021) examines impact of over purchasing behavior of consumers due to COVID 19. Study finds that pandemic has changed perspective at large level. Consumers' shift to distancing, online markets are going to be the new normal. However, study also finds that it is hard to predict rapidly changing consumers' behavior.

During COVID pandemic essential groceries demand rose significantly on the other demand of luxury declined subsequently. However, post pandemic sales of luxury items rose within offline departmental stores. Pang et. al. (2021) examines luxury products consumption using post pandemic luxury sales data form Korean National Statistical Office data. Study revealed that during COVID offline retailers faced difficulty while online businesses have grown. In mass fashion market, clothing products sales have declined while leather and jewelry segment luxury products sales have increased significantly. Many studies have analyzed short term changes in consumers' buying behavior due to pandemic but these changes are going to have far reaching effects. Das et. al. (2022) examines impact of COVID 19 on changing behavior based on socio economic background using a questionnaire designed to map buying behavior with reference to affordability, lifestyle and health awareness on 425 respondents. The study reveals that increase in demand for affordable substitutes of daily necessities was found. Further, family earning and occupation were determining factor for wellness and entertainment products with affordability and lifestyle changes as mediating factor. Similarly health and hygiene products depend on earning and employment status mediated by affordability and awareness. The study suggests a model for decision makers to decide target audience for wellness products or health and hygiene products.

Gupta and Mukherjee (2022) analyses long term changes in consumers' shopping behavior post COVID. Study has collected qualitative data from 59 respondents and interpretations drawn based on grounded theory approach.

The study concludes that consumers' took their experiences during COVID 19 positively have demonstrated in sustainable consumption and shift to online shopping. While those who took these experiences negatively, have demonstrated herd behavior and shifted to online shopping. Moharana and Pattanaik (2022) has conducted a study to evaluate effect of shopping value on shopping satisfaction and store revisit intention. Study concluded that shopping value has significant impact on shopping satisfaction and store revisit intention on the basis of data collected form 527 consumers. The utilitarian and hedonic value effects was stronger on satisfaction for frequent shoppers than infrequent shoppers. Brusset (2022) in his guest editorial presents conclusive remarks on papers presented in 6th Colloquium on European Research in retailing. The editorial suggests to revisit traditional visions of consumers' attitudes more particularly post pandemic new trends, new retail formats have been developed like adoption of mobile channel, choice of environment friendly products etc. Further, it can be concluded from papers presented in core areas of changing nature of consumers' attitude that big retail chains with physical stores are competing with their own network. The author concludes that research papers contributed shows that retail management has yet to find the best ways to resolve the challenges posed by pandemic.

Similarly Gonzalez et. al. (2022) examined difference in purchase behavior among those with long COVID, ones that recovered from COVID and ones who never had COVID. The study found that type of exposure to COVID has significant impact on purchase behavior. The individuals, who had long COVID and experience after effects, buy products form companies on which they are having stronger trust and reliability. While people recovered from COVID do not consider it risky thus no impact on buying behavior. However the researcher couldn't find any study which focused on Impact of buying behavior of FMCG products. More particularly studies based on Indian geography that Atoo tribally surrounded areas of country were completely missing.

Methodology

Present study aims to explore factors of consumer buying behavior post pandemic period. Further study is also aimed at examining the impact of demographic factors on overall and factors explored. The study has chosen a sample size of 385 respondents residing in tribally surrounded Udaipur district of Rajasthan using purposive random sampling. An instrument consisting of 25 statements drawn from a focused group discussion (FGD) was designed to map post COVID buying behavior. The FGD was organized on a WhatsApp group consisting of local retailers, distributors and marketers of FMCG products and clues for discussion was given based on point highlighted by literature on the subject. These statements drawn were sent for content validity to academicians and practicers. After incorporating suggestions these statements were

considered in final questionnaire. The response on these statement was tapped on five point likert type rating scale which was assigned numerical score ranging from strongly disagree as 1 to strongly agree as 5. A pilot survey on 125 respondents almost 1/3 of sample size was done and reliability check was done.

Analysis and Interpretation

The numerical scores assigned to questionnaire items were used for analysis and drawing inferences. Statistical software SPSS 22 was used for analyzing data.

Reliability of Post COVID Consumer Buying Behavior Scale

Internal consistency in Post COVID Consumer buying behavior instrument consisting of 25 statements was done using Cronbach's Alpha. The reliability statistics are shown in table 1.

Table 1: Reliability Statistics for Post COVID Buying Behavior Scale

Cronbach's Alpha	N of Items
.966	25

As can be seen in table 1 that Cronbach's Alpha value of 0.966 was attained which is above the threshold value of 0.7. Thus it can be said that the instrument is reliable and internal consistency exists. In other words it can also be said that what researcher wanted to communicate through statements were understood well by the respondents.

Identification of Factors for Consumers' Buying Behavior Post COVID

The instrument for mapping Consumer buying behavior post COVID consisted of 25 statements or variables. It is

difficult to go ahead for further analysis with such a large number of variables. Thus it was decided to reduce the variables and identify few factors using factor analysis. Before applying factor analysis, sampling adequacy and appropriateness of data needs to be tested. Thus KMO for measuring sampling adequacy and Bartlett's Test of Sphericity for checking suitability of data was done for the data set using Statistical Package for Social Sciences (SPSS). The results attained are summarized in table -2.

Table 2: KMO and Bartlett's Test for Post COVID Buying Behavior Scale

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.949
Bartlett's Test of Sphericity	Approx. Chi-Square	8435.024
	Df	300
	Sig.	.000

As can be seen that KMO value of 0.949 was found which is above threshold of 0.6 (Kaiser and Rice, 1974) thus sampling adequacy can be claimed. Similarly the Bartlett's Test of Sphericity with chi square value of 8435.024 with

degrees of freedom 300 was also significant at 1 percent level of significance. The data set is also found to be suitable for factor analysis. Thus exploratory factor analysis was applied. As principle component analysis is most

commonly used method for exploratory factor analysis, the same has been applied for yielding factor solution. Further, varimax rotation was used to improve interpretation of results. The factor analysis solution has explained 67.60 percentage of variance and identified three factors with criteria of Eigen values more than one. A variance above 60 percent is accepted (Hair et al., 2006) thus this solution explains more than that variance. The first factor identified explains 56 percent of variance while second 6.62 and third 4.958 of variance. The variance extracted for each factor is shown in table as Eigen value of for each component thus Eigen values signifies total variation explained by each factor. The table - 3 for total variances explained shows Eigen values and total variances explained.

The rotated component matrix was used to group these three factors identified to overcome problem of cross loadings. The values of loadings in this matrix are used to club factors. As discussed earlier loadings vary between 0 and 1, the loading with highest values is the criteria for clubbing a particular variable in a particular factor. Further loading above 0.4 are only used to group variable as they are only considered to be significant. The rotated factor loadings are shown in table - 4 for rotated component matrix. For factor labeling convenience and understanding purpose the variables in form of statements have also been added in rotated factor solution.

A three factor solution was produced by SPSS on the basis of Eigen value greater than 1. The loadings are presented in

rotated component matrix table. The loading above 0.4 were used to group a variable in a particular factor. After grouping, labeling of factors was done based on characters explained by those variables. Loadings of few factors were higher than 0.4 for two factors also with marginal difference. In such cases grouping was done based on variables which is characterizing a particular factor more closely. For example variable BP12 had .603 loadings for factor 1 and .581 loading for factor 2. The highest value for loading was for factor one with marginal difference with factor 2. While looking at factor labeling it looked that variable is characterizing factor 2 in better manner thus was clubbed in factor 2.

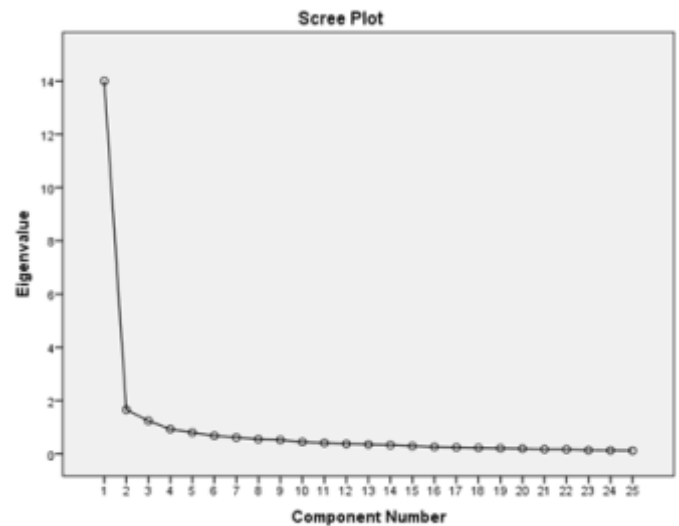


Figure 1: Scree Plot for Consumer buying Behavior Post COVID Scale

Table 3: Total Variance Explained for Post COVID Buying Behavior Scale

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.004	56.015	56.015	14.004	56.015	56.015	8.055	32.221	32.221
2	1.657	6.627	62.643	1.657	6.627	62.643	6.364	25.457	57.679
3	1.239	4.958	67.600	1.239	4.958	67.600	2.480	9.921	67.600
4	.924	3.698	71.298						
5	.797	3.187	74.485						
6	.678	2.713	77.198						

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
7	.610	2.440	79.638						
8	.546	2.184	81.823						
9	.521	2.083	83.906						
10	.444	1.777	85.683						
11	.407	1.630	87.313						
12	.372	1.490	88.802						
13	.352	1.409	90.211						
14	.328	1.311	91.522						
15	.288	1.153	92.675						
16	.260	1.041	93.716						
17	.240	.959	94.675						
18	.222	.888	95.563						
19	.207	.828	96.391						
20	.191	.765	97.156						
21	.170	.678	97.834						
22	.165	.658	98.493						
23	.135	.539	99.031						
24	.126	.505	99.536						
25	.116	.464	100.000						

Extraction Method: Principal Component Analysis.

Table 4: Rotated Component Matrixa

Codes	Statements/ Variables	Component		
		1	2	3
BBP1	Post Covid I have started buying groceries in bulk			.864
BBP2	A habit of Stock piling of FMCG product continues in me			.897
BBP3	Hygiene and cleanliness products are now part of my monthly buying		.744	.
BBP4	I have added buying of Sanitizers, Disinfectant etc to my regular groceries		.595	
BBP5	I am quite cautious about my health and hygiene Post COVID learnings		.791	
BBP6	I have started limiting my expenses to save more		.684	
BBP7	Taking learnings form COVID, I have started saving		.734	
BBP8	I prefer now local brands in place of previous habit of buying International brands		.521	
BBP9	Limited spending during pandemic has made me to realize that my monthly requirements are much lower		.679	
BBP10	I am able to save some portion from my monthly income		.669	
BBP11	I understood that future is uncertain thus started saving contingency funds	.	.691	
BBP12	I prefer to buy products at affordable prices only		.581	
BBP13	I avoid buying products without description of precautions and harmful effects	.526		
BBP14	Post Covid, My monthly spendings are mostly focused on survival products rather than luxurious goods	.622		
BBP15	I have started buying products online due my online experience during COVID Times	.534	.	

Codes	Statements/ Variables	Component		
		1	2	3
BBP16	Post COVID, my frequency of online shopping has increased	.637		
BBP17	I give first priority to Indian brands over International brands	.781		
BBP18	I buy Indian brands with feelings that it would contribute in countries economic development	.819		
BBP19	I have stopped unnecessary shopping as I have realized importance of savings	.721		
BBP20	Post COVID, I have realized that spending on hygiene and cleanliness is more required than fashion products	.740		
BBP21	I have started encouraging others to buy Indian Products	.756		
BBP22	I will consciously avoid buying foreign products	.767		
BBP23	Saving need realized during COVID prompted me limit my expenses	.672		
BBP24	I now prefer digital payment for transactions after COVID	.734		
BBP25	Post COVID I give preference to environment friendly products	.729		
	Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
	a. Rotation converged in 5 iterations.			

The three factors of consumer behavior post COVID identified were labeled as factor 1 -adaptive, factor 2 - protective and factor 3 transformative. Detailed discussion on these factors is as under:

Factor 1: Adaptive Factor

This construct included variables which were concerned with consumers' behavior related with adapting practices which they experienced during COVID times. These practices included behavior spending for survival products and hygiene products in place of luxury products, avoiding unnecessary shopping, limiting expenses, adoption of digital mode for buying and payment, buying and encouraging local Indian brands and eco friendly products. The variables included in this factor are BBP13, BBP14, BBP15, BBP16, BBP17, BBP18, BBP19, BBP20, BBP21, BBP22, BBP23, BBP24 and BBP25. Variable wise detailed statement is mentioned in the table.

Factor 2: Protective Factor

The construct Protective was labeled based on item characteristics of protection related with health and future monetary uncertainties. The practices showed protective behavior consumers mainly from hygiene perspective to avoid chances for infection and contamination causing health hazardous. More importantly practices related with saving money for future uncertainties. The variables

included in this factor were BBP3, BBP4, BBP5, BBP6, BBP7, BBP8, BBP9, BBP10, BBP11 and BBP12. In this variable number BBP8 was mainly concerned with choice of local brands over international brands habit but included in this factor as most people during COVID times shifted to local brands as these were comparatively cheaper. Thus they realized that it would help them to save some money for future. A large number of variables i.e. 10 of 25 were grouped in second factor too.

Factor 3: Transformative Factor

Indian community used to do bulk buying of FMCG products historically to ascertain availability of such products in off season. Due to easy availability of products at all seasons, this habit was faded and consumers used to buy product when required. More particularly FMCG products are bought on monthly or half monthly basis. The COVID period uncertainty about availability of FMCG products has transformed storing habit among consumers. The variables characterizing this were clubbed in this factor. BBP1 and BBP 2 were such factors in which one was related with bulk buying while another related with storing or stock piling.

Impact of Demographic factors on Post COVID Buying Behavior

The impact of demographic factors on post COVID buying

behavior was also examined for aggregate score of post COVID buying behavior instrument and factor wise clubbed instruments score. The score for post COVID buying behavior was calculated by adding numerical value of response received for all 25 variables for each respondent. This score was termed as PBBCI (Post Covid Buying Behaviour Composite Index). Similarly scores received for variables clubbed in a particular factor were added to generate factor score and they were termed as Adaptive Post Covid Buying Behavior Composite Index (APBBCI), Protective Post COVID buying behavior Composite Index (PPBBCI) and Transformative Post COVID buying behavior Composite Index.

a. Post COVID Buying Behavior: Gender wise Analysis

It was assumed that Post COVID buying behavior of male and female respondents will be different. Therefore gender wise analysis was undertaken for both factor wise as well as aggregate score for post buying behavior i.e. Adaptive Post Covid Buying Behavior Composite Index (APBBCI), Protective Post COVID buying behavior Composite Index (PPBBCI), Transformative Post COVID buying behavior Composite Index and aggregate PBBCI (Post Covid Buying Behaviour Composite Index). Following

hypotheses were formulated .

H01 The Adaptive Post Covid Buying Behavior Composite Index (APBBCI) of Male and Female respondents does not differ significantly.

H02 There is no difference in Protective Post COVID buying behavior Composite Index (PPBBCI) of male and female respondents.

H03 There is no difference in Transformative Post COVID buying behavior Composite Index of male and female respondents

H04 The aggregate PBBCI (Post Covid Buying Behaviour Composite Index) of Male and Female respondents does not differ significantly.

These hypotheses were tested using test of difference between means as grouping variable in gender was two i.e. male and female. The results attained are summarized in tables 5 and 6. Table -5 presents basic statistics including mean, Standard deviation and Standard Error of mean while table 5.30 presents hypothesis wise t value and significance. The last column of the table is about significance of hypothesis or result i.e. hypothesis is rejected or failed to reject.

Table 5: Gender-wise Group Statistics of Post COVID Buying Behavior

Factors	Gender	N	Mean	Std. Deviation	Std. Error Mean
Adaptive Factor BBPF1	Male	253	42.08	10.393	.653
	Female	132	42.67	11.539	1.004
Protective Factor BBPF2	Male	253	37.77	9.126	.574
	Female	132	38.30	10.380	.903
Transformative Factor BBPF3	Male	253	5.12	1.950	.123
	Female	132	4.78	1.935	.168
Aggregate Post COVID Buying Behavior SumBBP	Male	253	84.96	19.255	1.211
	Female	132	85.75	22.595	1.967

Table 6: t-Statistics for Post COVID Buying Behavior: Gender wise Analysis

Hypothesis	t value	p value	Significance
H ₀₁	-.513	0.608	Failed to Reject
H ₀₂	-.514	0.607	Failed to Reject
H ₀₃	1.620	0.338	Failed to Reject
H ₀₄	-.358	.721	Failed to Reject

As can be seen from table-6 that test could not reject any of the null hypotheses as p value for all the hypotheses were more than the threshold of .05. Thus it can be said that Consumer behavior after COVID was almost similar for both male and female respondents. Observing mean table it can be said that although mean consumer behavior post COVID was more for most of the factors for female respondents with more variation measured by standard deviation. However difference in mean was not significant. The mean score of female may be more because of the fact that they are more precaution oriented and emotionally connected with family chores i.e. FMCG products buying. Moreover difference are not significant as COVID stroke was such that male as well as female both were shocked and have taken precaution to continued supply of FMCG products. Testimony to the fact is this that few changes like digital transaction, online ordering is clearly visible in both male and female post pandemic.

a. Post COVID Buying Behavior: Age Wise Analysis

The age group of respondents was classified as youth, middle aged and old aged people. Impact of age group of respondents on Post COVID buying behavior was analyzed

and following hypotheses were formulated.

H05 : There is no influence of age categories on Adaptive Factor of Consumer Behavior Post COVID measured as APBBCI (Adaptive Post-COVID buying behavior composite Index).

H06: The Protective Factor of Post COVID Consumer buying behavior (PPBBCI) among various age categories do not differ significantly.

H07 The Transformative Factor of Post COVID Consumer buying behavior (TPBBCI) among various age categories do not differ significantly.

H08 There is no influence of age categories on aggregate score of Post COVID Buying Behavior measured as PBBCI (Post- COVID buying behavior composite Index).

These hypotheses were tested using one way ANOVA to examine differences in means of Post COVID buying behavior among these three categories of age. As the grouping variables in age categories were three thus F ANOVA was applied to test null hypotheses. The results attained are summarized including F-value, significance and status of hypotheses is shown (result column) in table 7.

Table 7: F ANOVA Statistics for Post COVID Buying Behavior: Age wise Analysis

Factor		Sum of Squares	Df	Mean Square	F	Sig.	Result
H05 Adaptive Factor (BBPF1)	Between Groups	15.767	2	7.884	.067	.935	Failed to Reject
	Within Groups	44678.373	382	116.959			
	Total	44694.140	384				
H06 Protective Factor (BBPF2)	Between Groups	45.071	2	22.536	.245	.783	Failed to Reject
	Within Groups	35079.890	382	91.832			
	Total	35124.961	384				
H07 Transformative Factor (BBPF3)	Between Groups	55.919	2	27.959	7.612	.001	Rejected
	Within Groups	1403.079	382	3.673			
	Total	1458.997	384				
H08 Aggregate Post COVID Buying Behavior (SumBBP)	Between Groups	85.123	2	42.561	.101	.904	Failed to Reject
	Within Groups	160277.838	382	419.575			
	Total	160362.961	384				

As can be seen from the table-7 that only one null hypothesis was rejected as its p value was less than .05 thus it can be said that Transformative factors of Consumer

Behavior are influence by age categories. While observing post hoc data for this analysis it was found that differences were significant for Youth with both Middle aged and Old

aged people but differences in middle aged and old aged was not significant. The mean score of youth was also higher reflecting that they have shown more transformative as far as buying post COVID is concerned. Rest all Hypotheses H05, H06 and H08 could not be rejected. Thus adaptive, protective and aggregate consumer buying behavior has no influences of age groups.

a. Post COVID Buying Behavior: Educational Qualification Wise Analysis

The educational qualification of respondents was categorized in three categories i.e. literate, graduate and post graduate. Impact of educational qualification was also examined and following hypotheses were framed.

H09 : There is no influence of Educational Qualification categories on Adaptive Factor of Consumer Behavior Post

COVID measured as APBBCI (Adaptive Post-COVID buying behavior composite Index).

H010: The Protective Factor of Post COVID Consumer buying behavior (PPBBCI) among various Educational Qualification categories do not differ significantly.

H011: The Transformative Factor of Post COVID Consumer buying behavior (TPBBCI) among various Educational Qualification categories do not differ significantly.

H012: There is no influence of Educational Qualification categories on aggregate score of Post COVID Buying Behavior measured as PBBCI (Post- COVID buying behavior composite Index).

Table 8: F ANOVA Statistics for Post COVID Buying Behavior: Educational Qualification wise Analysis

Factors		Sum of Squares	Df	Mean Square	F	Sig.	Results
H09 Adaptive Factor (BBPF1)	Between Groups	5080.594	2	2540.297	24.497	.000	Rejected
	Within Groups	39613.546	382	103.700			
	Total	44694.140	384				
H010 Protective Factor (BBPF2)	Between Groups	3441.979	2	1720.989	20.750	.000	Rejected
	Within Groups	31682.982	382	82.940			
	Total	35124.961	384				
H011 Transformative Factor (BBPF3)	Between Groups	75.836	2	37.918	10.472	.000	Rejected
	Within Groups	1383.162	382	3.621			
	Total	1458.997	384				
H012 Aggregate Post COVID Buying Behavior (SumBBP)	Between Groups	19033.930	2	9516.965	25.724	.000	Rejected
	Within Groups	141329.031	382	369.971			
	Total	160362.961	384				

These hypotheses were tested using one-way ANOVA and results are presented in table -8. As can be seen from the table that all hypotheses were rejected as the p values are less than .05. It signifies that post COVID consumer behavior was influenced by educational qualification. An analysis of post hoc shows that mean value of literate category was just half of other categories i.e. graduate and post graduation. Literate or less educated people may not be

sensitive about buying FMCG due to the fact that COVID stress may not have properly reached to them and they may not have been able to foresee future situation. However it would be appropriate to mention here that number of literate people were very less in study thus it cannot be taken as absolute conclusion due of improper representation of literate people.

a. Post COVID Buying Behavior: Occupation Wise Analysis

To examine impact of occupation categories (Not earning, Government, Private and Business) on Post COVID buying behavior following null hypotheses were framed.

H013: There is no influence of Occupation categories on Adaptive Factor of Consumer Behavior Post COVID measured as APBCCI (Adaptive Post-COVID buying behavior composite Index).

H014: The Protective Factor of Post COVID Consumer buying behavior (PPBCCI) among various Occupation categories do not differ significantly.

H015 The Transformative Factor of Post COVID Consumer buying behavior (TPBCCI) among various Occupation categories do not differ significantly.

H016 There is no influence of Occupation categories on aggregate score of Post COVID Buying Behavior measured as PBCCI (Post- COVID buying behavior composite Index).

The null hypotheses framed for occupation categories were also examined using F ANOVA as the grouping variables were four i.e. not earning, government, private and business owners). The results are summarized in table 9.

Table 9: F ANOVA Statistics for Post COVID Buying Behavior: Occupation wise Analysis

Factors		Sum of Squares	Df	Mean Square	F	Sig.	Results
H013 Adaptive Factor (BBPF1)	Between Groups	3043.797	3	1014.599	9.281	.000	Rejected
	Within Groups	41650.343	381	109.318			
	Total	44694.140	384				
H014 Protective Factor (BBPF2)	Between Groups	1223.887	3	407.962	4.585	.004	Rejected
	Within Groups	33901.074	381	88.979			
	Total	35124.961	384				
H015 Transformative Factor (BBPF3)	Between Groups	28.635	3	9.545	2.542	.056	Failed to Reject
	Within Groups	1430.362	381	3.754			
	Total	1458.997	384				
H016 Aggregate Post COVID Buying Behavior (SumBBP)	Between Groups	8572.882	3	2857.627	7.173	.000	Rejected
	Within Groups	151790.079	381	398.399			
	Total	160362.961	384				

Above table depicts that null hypotheses for adaptive, protective factors and aggregate post COVID behavior were rejected as the p value for these hypothesis were less than .05. Thus it can be said that significant differences exist for these factors among various occupation categories. While observing LSD post hoc analysis it was found that not earning category of occupation was having differences with all other categories with regards to these three hypotheses. Further, no differences were found in categories of people having jobs either private or government. The mean score of government service was highest followed by private job. Regularity of monthly salary helped them buying FMCG products and related

behavior is exhibited most. The business owners also had variable income still they could afford to buy and continue with COVID time behavior. Null hypothesis for transformative behavior could not be rejected by the test meaning thereby similar trend was visible in all the categories. Observing post hoc analysis it can be said that most categories were close to upper bound of mean which means, they continued to buy in bulk and store items. It can be said that their earlier habit of fish shopping is transformed to bulk shopping.

a. Post COVID Buying Behavior: Income Wise Analysis

Income of the respondents was categorized in four

categories i.e. livable, low middle, middle and high income. Income and buying are considered to be correlated. Thus researcher thought of examining impact of income group on post COVID buying behavior. Following null hypotheses were formulated.

H017 : There is no influence of Income categories on Adaptive Factor of Consumer Behavior Post COVID measured as APBBCI (Adaptive Post-COVID buying behavior composite Index).

H018: The Protective Factor of Post COVID Consumer buying behavior (PPBBCI) among various Income

categories do not differ significantly.

H019 The Transformative Factor of Post COVID Consumer buying behavior (TPBBCI) among various Income categories do not differ significantly.

H020 There is no influence of Income categories on aggregate score of Post COVID Buying Behavior measured as PBBCI (Post- COVID buying behavior composite Index).

These hypotheses were examined using one way ANOVA and results are summarized in table -10..

Table 10: F ANOVA Statistics for Post COVID Buying Behavior: Income wise Analysis

Factors		Sum of Squares	Df	Mean Square	F	Sig.	Results
H017 Adaptive Factor (BBPF1)	Between Groups	284.487	3	94.829	.814	.487	Failed to Reject
	Within Groups	44409.654	381	116.561			
	Total	44694.140	384				
H018 Protective Factor (BBPF2)	Between Groups	395.157	3	131.719	1.445	.229	Failed to Reject
	Within Groups	34729.804	381	91.154			
	Total	35124.961	384				
H019 Transformative Factor (BBPF3)	Between Groups	42.623	3	14.208	3.822	.010	Rejected
	Within Groups	1416.374	381	3.718			
	Total	1458.997	384				
H020 Aggregate Post COVID Buying Behavior (SumBBP)	Between Groups	1457.378	3	485.793	1.165	.323	Failed to Reject
	Within Groups	158905.583	381	417.075			
	Total	160362.961	384				

It was surprising to note that test could not reject majority of null hypotheses i.e. H017, H018 and H020, as the p value was greater than threshold of .05. While observing post hoc analysis and descriptive it was found that all of the categories were having mean value closer to upper bound of 95 percent interval for mean and mean of all categories was closer to factor mean. Thus it can be inferred that buying behavior was affected of all categories. Hypothesis for transformative factor was rejected, and mean value of livable income was highest. It may be due to the fact that this category mostly included dependents, students who had limited income and they were the most affected mass during COVID as they were stuck both way immovability and grocery limitation. Thus to safeguard their FMCG requirements they may have invested their total pocket money in these products which is reflected in behavior form as transformative factors. Similar trend was visible in Low

middle income too but mean differences are not significant with middle and high income groups.

Epilogue:

Consumer is the kingpin of market place. Marketers are required to understand behavior of consumers minutely. The behaviors of consumers have large variation as human mind is diverse. Still a judgment about expected behavior can be done after observing buying pattern. Study mapped post COVID buying behavior and diagnosed three factors. These factors were named based on common characteristics in clubbed variables as Adaptive, Protective and Transformative factors. Researcher couldn't find such characteristic factors existing in literature on the subject. Thus it is unique and new contribution for professionals practicing in the field of consumer behavior. Study found that in some cases (income, age and gender) demographics

were having no impact on consumers' post buying behavior which is in consonance with research findings of Joshi and Choudhary (2021). However, the impact of educational qualification and occupation was visible on consumer buying behavior post COVID. It is suggested that marketers are now required to take in to consideration adaptive, protective and transformative factors also for designing marketing campaign for FMCG products in post COVID era. Health and hygiene which earlier was not the preference of Indian consumers but now they have been giving focus. Thus focus on hygiene, health, organic nature and contribution to national economy in marketing campaign may give them added advantage. Moreover, availability of digital transaction facility is also going to add value as most consumers have experienced it and is now going to become habit.

Overall it can be said that consumers buying behavior was largely affected by COVID pandemic as the aggregate score as well as factor wise mean score measured was above the average mean.

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