

Consumer Acatalepsy Towards Buying Behaviour for Need-Based Goods for Sustainability During the COVID-19 Pandemic

*Dhiresk Kulshrestha*¹
*Muklesh Kumar Tiwari*²
*Kumar Shalender*³
*Sandhir Sharma*⁴

Abstract

Purpose : The study aimed to examine the consumer acatalepsy towards buying behavior for need-based goods (NBGS) for sustainability during COVID-19 and behavioral intentions for NBGS using the framework of value – attitude – behavior in India.

Design/Methodology/Approach: Using the extant literature review, the study developed a conceptual model describing consumers' buying behavior and behavioral intentions related to NBGS. The research employed the hypo-deductive research design approach for carrying out the study.

Findings : The study found that attitude, economic depression, subjective norms, perceived consumer effectiveness, availability of control, and buying intention were positively related to the buying behavior of consumers in the NBGS category.

Research Limitations/Implications : The research offered new insights into academia and practice using instrumental values, terminal values, and consumer buying behavior. It is unique for providing a fresh perspective on the NBGS and consumer behavior in COVID-19 times.

Practical Implications : As the study deep dived into the behavioral aspects of the consumers, it will help shape the attitude of market professionals to analyze the instrumental and terminal values thoroughly. The findings of the research will prove instrumental in more effective and efficient decision-making processes for need-based goods in the consumer market.

Social Implications : At individual and social levels, values represent the guiding force that shapes human behavior. This study will help to extend the overall understanding related to consumer behavior in the domain of NBGS using the basis of value and its impact on the behavioral patterns of consumers.

Originality/Value : In the context of NBGS, this research paper dealt explicitly with the behavioral factors related to instrumental and terminal values. The study is also unique in that it evaluates the various parameters related to consumers' buying behavior in the NBGS category during COVID-19. Evaluating these factors makes the research unique and one of its kind in consumer behavior.

Keywords : consumer buying behavior, economic depression, need-based goods for sustainability, theory of reasoned action, structural equation models

Paper Submission Date : January 5, 2022 ; **Paper sent back for Revision :** April 10, 2022 ; **Paper Acceptance Date :** August 20, 2022 ; **Paper Published Online :** October 15, 2022

¹ *Professor & Dean of Economics*, Chitkara Business School, Chitkara University, Punjab - 140 401. (Email : drdhireskulkulshrestha@gmail.com) ; ORCID iD : <https://orcid.org/0000-0002-8221-7929>

² *Assistant Professor*, Faculty of Management Studies, Marwadi University, Rajkot - 360 003, Gujarat. (Email : mukleshtiwari@gmail.com) ; ORCID iD : <https://orcid.org/0000-0003-2687-1720>

³ *Associate Professor*, Chitkara Business School, Chitkara University, Punjab - 140 401. (Email : kumar.shalender@chitkara.edu.in) ; ORCID iD : <https://orcid.org/0000-0002-7269-7025>

⁴ *Professor & Dean*, Chitkara Business School, Chitkara University, Punjab - 140 401. (Email : sandhir@chitkara.edu.in) ORCID iD : <https://orcid.org/0000-0002-3940-8236>

DOI : <https://doi.org/10.17010/ijom/2022/v52/i10/172347>

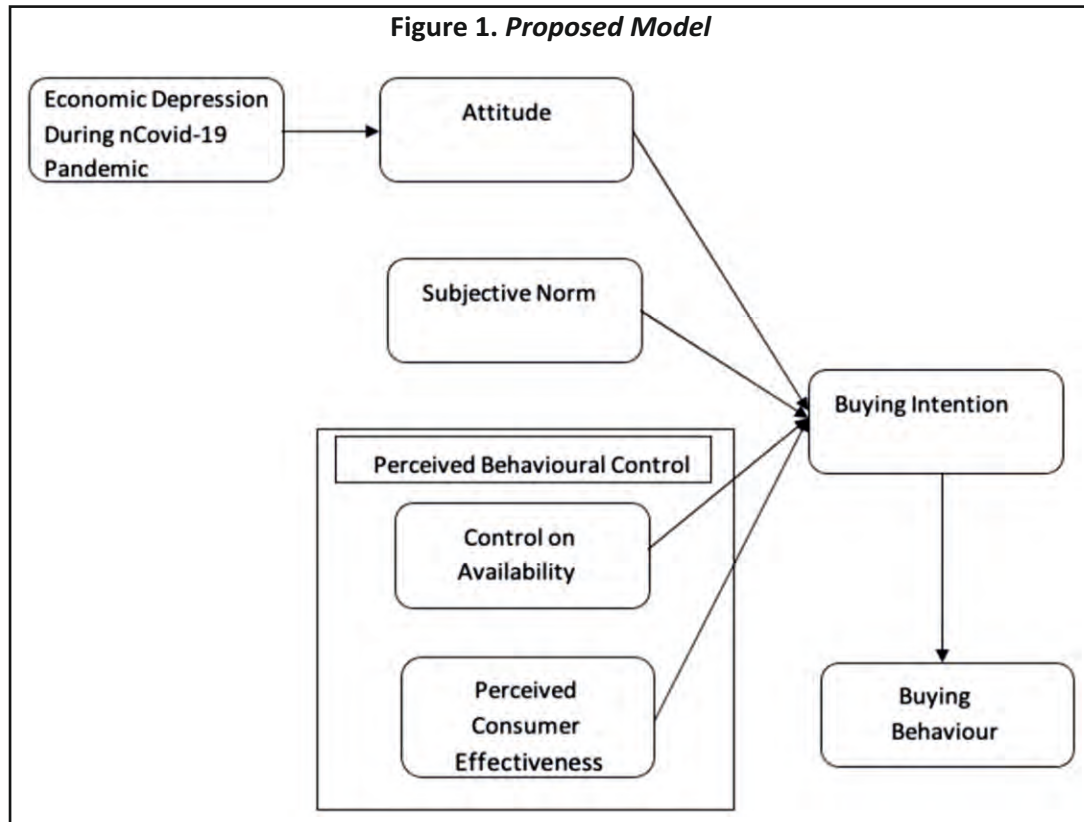
Based on India's consumer survey, the research takes a holistic approach to determine the factors for need-based goods for sustainability choices in the COVID-19 pandemic. Consumer's buying behavior indicates their acatalepsy situation towards buying other goods during pandemic conditions; now, consumers are shifting their buying behavior due to reasoned action. The theory of reasoned action was used in its modified form to explore the consumers' situational buying behavior in India. India is gradually reviving economic activities across the various states in a decentralized and planned manner.

In the coming months, many experts expect India's economic growth to linger around zero, given the large population and economy's significant dependence on the informal sector, which has become highly vulnerable owing to the present situation. The impact of the pandemic is likely to be more acute for the lower strata of income bracket in addition to including upper middle income and the poor and migrant workers. They are struggling daily for their sustainability, so their buying behavior focuses on buying the need-based goods for their sustainability. Considering the pandemic situation, the study uses the research's need-based preferences, intention, and habits as independent variables. Structural equation modeling showed a significant favorable influence on all variables in the COVID-19 pandemic situation. There are many different studies conducted in the countries of the European Union where it has been found that habit has a far more influential impact on purchase behavior than the other parameters. This suggests that non-economic factors might play a role in determining consumer devices. Still, it is better not to have information about the role played by economic factors. The impact of COVID-19 on the Indian economy has been harmful to the country's economic development. It will highly impact the informal sector, agricultural sector, industrial sector, service sector, tourism industry, and balance of payments disequilibrium. The lower-income families, including migrant workers across the country, have been extremely affected due to the COVID-19 pandemic. It is essential to highlight that COVID-19 has transformed the way of living globally, and there has been a considerable impact on consumers' buying behavior.

As a result of the pandemic, many changes are expected to feature in the consumer markets, including a complete alteration in how enough is being done and things are sold in the physical and online markets. Retailers have started reshaping their business models, and they are focusing more on the sale of need-based goods like medicines or other goods for immunity boosters, hygienic health products, sanitizers, highly nutrient hygienic food, groceries, and other food items for sustainability to fight against depression and playing the vital role in the fight against the COVID-19 pandemic situation as per WHO guidelines. The consumer research conducted by our study indicates that there has been a complete change in the HABIT formation of customers that will endure even after the pandemic. This means the pandemic has already heralded permanent changes, and we will permanently reshape the processes and businesses in the long run.

Literature Review

TPB is a theory that states that subjective norms, perceived behavioral control, and attitude all impact intention, which influences behavior (Ajzen, 1985). The likelihood of a person acting in a given way is determined by their intention (Fishbein & Ajzen, 1975). A reference group's agreement with conduct is referred to as a subjective norm. Individual perceptions of the resource availability or the lack of opportunities required to engage in behavior are referred to as perceived behavioral control (Ajzen & Madden, 1986). Perceived behavioral control is determined by three factors: ability, resources, and opportunity. When people believe the capacity, resources, and chances to engage in a particular action, they will feel controlled, and behavioral intention will rise. Individual opinions and remarks about people, objects, and events are called attitudes (Fishbein & Ajzen, 1975). TPB is used in forecasting behavioral intention as well as consumer behavior across a wide range of products, for instance, green products (Taufique & Vaithianathan, 2018), organic food (Carfora et al., 2019; Massey et al., 2018), even further it is used to analyze the stockpiling of non-perishable items (Lehberger et al., 2021) and buying behavior



towards recycling products (Strydom, 2018). Further, even a recent study conducted by Hagger et al. (2022) contended that perceived behavioral control (PBC) is an integral part of the theory of planned behavior. When PBC is high, people are likely to respond to their intentions and report motives that are in line with their attitudes and subjective norms; even in the past, various studies through meta-analysis found that behavioral purposes are predictable from the components of the TPB (Abadi et al., 2012; Teo & Beng Lee, 2010). This study has been developed based on various previous studies (Arvola et al., 2008; Nolan-Clark et al., 2011; Qi & Ploeger, 2021; Sultan et al., 2020; Vermeir & Verbeke, 2008). In this study, we have incorporated attitudes, subjective norms, and PBC as predecessors of behavioral intentions. Figure 1 represents the proposed model.

Development of Hypotheses : Economic Depression During COVID-19 and Attitude Towards NBGS Products

Economic depression means the economy of a country/world experiences a significant drop in output, an upset in natural/regular economic activity and growth, as well as a higher rate of unemployment. These symptoms may be profound and continue for long-term negative economic growth (Chalmers, 2020). Early predictions about the impact of COVID-19 will be worse than the Great Depression of the 1930s, which looms pessimism all over (Barbate et al., 2021; Kulshrestha & Agrawal, 2019). Many researchers worked and found that economic depression and attitude are well related. Economic depression is connected with an attitude toward near future worry and survival during a pandemic-type situation (Kulshrestha & Tiwari, 2021). As per the discussion and evidence about the positive consequences of economic depression on need-based goods for sustainability, it is hypothesized that:

➤ **H1** : Economic depression during the COVID-19 pandemic has a relationship with attitude toward need-based goods for sustainability (NBGS).

Attitude and Buying Intention for NBGS Products

Allport (1935) defined attitude as “a mental and neural state of readiness.” The condition of the mind impacts the customer's reaction towards things and other conditions the customer faces. Further, in theory, Ajzen (1985) highlighted the critical aspect of attitude, which can be defined as a favorable/unfavorable disposition of a person towards a specific activity. In one of the recent studies, findings unraveled that the TPB fits the data best and explains the most variance in online grocery purchase intention, which helps define the consumer attitude. Further, in a somewhat different setting, it is found that a favorable attitude positively impacts buying intention (Arora et al., 2019; Han et al., 2019; Khan et al., 2022). Consumer attitudes generated throughout selecting a behavioral action have been shown to influence the user's actual behavior in previous studies in the industry. Accordingly, we anticipate that real intention will be affected by attitude towards shopping. This explains a positive attitude toward shopping (Siddiqui & Siddiqui, 2021; Singh et al., 2021). Thus, further pandemic control measures cause consumers to develop a positive attitude towards the intention to buy. Hence, we hypothesize that :

➤ **H2** : Buying intentions toward need-based goods for sustainability (NBGS) have a positive relationship.

Subjective Norms and Buying Intention Toward NBGS Products

Specialists from the humanities field found in their research that India's culture is more collectivistic. In such a culture, people act/react in such a manner that they portray the collectivistic culture, i.e., interest in belonging to a group. There is more influence on group members with this type of culture, which is distinguished by rational norms' dependence on each other. Social models are essential for looking into people's lives in a collectivistic society. Their decision-making is more affected by the emotional dimension rather than rational analysis of cost and benefit in a relationship. In a collectivistic culture, social norms become the primary way to view people's lives and are more critical to the emotional aspect, especially in decision-making (Sinha et al., 2001).

People of India believe in integrating collectivistic and individualistic behavior in a complex form based on the proper structure and handling of a condition. Whenever they are dealing with a situation that belongs to family members, they are primarily collectivistic (Sinha et al., 2002).

Lee and Green (1991) found that people who believe in the collective culture are keen to listen to society. Authors unraveled that people are habituated to paying more attention to referent sources that are part of their society. Hence, it is hypothesized that :

➤ **Ha3** : Subjective norms of Indian consumers have a profound impact on their outlook towards NBGS buying intention compared to their attitude during the economic depression of the COVID-19 pandemic.

Control on Availability and Buying Intention Toward NBGS Products

According to the theory of planned behavior, the intensity of the PBC-behaviour association is determined by the precision of the PBC (Sheeran et al., 2003). Further, a person is unlikely to plan to engage in a behavior that is beyond his/her control; PBC should be linked to intention (Sheeran, 2002). In the previous literature, it was observed that persons who judge the behavior favorably are more or less likely to act on it depending on how strong or weak their perceptions of behavioral control are, implying that PBC will mitigate the impact of attitudes on behavior (Eagly & Chaiken, 1993; Li et al., 2021; Umeh & Patel, 2004). Based on this, we propose that control on availability during the time of COVID-19 will play a significant role when it comes to buying NBGS goods

(Gibson et al., 2021), and therefore, there is a positive relation between COA with intention toward purchasing the product.

✦ **Hb3 :** Controls on availability and buying intentions towards NBGS products have a positive relationship.

Perceived Consumer Effectiveness and Purchase Intention Toward NBGS Products

In the previous literature, it was suggested that enhancing consumers' perceptions that individual actions do make a difference is part of inspiring them to show their concern through actual conduct (Ellen et al., 1991); further, in one of the recent studies conducted by Emekci (2019) through quantitative methods found that perceived consumer effectiveness (PCE) is the variable with the most significant effect on behavioral attitudes and purchase intention. One of the studies conducted by Kabadayı et al. (2015) unraveled that PCE is one of the most robust constructs to influence the PCE. During COVID-19, it was found that PCE had a more significant benefit than risk while buying the products (Laato et al., 2020; Naeem, 2021; Pham et al., 2021). Thus, we posit that PCE will have a solid and positive relationship with buying intention.

✦ **Ha4 :** Perceived consumer effectiveness and buying intention for NBGS has a positive relationship.

Buying Intention and Buying Behaviour Toward NBGS Products

In the past literature, it was found that behavioral intents are directives to oneself to behave in particular ways (Triandis, 1979). Further, as per Fishbein et al. (1980), intentions are critical since they are the best predictor of behavior; in one of the recent study which was conducted by Dangi et al. (2020), they contended that intention was found to be more profound rather than other factors when it comes to buying behavior. Somewhat in different settings, Singh and Verma (2017) found that purchase intention functions as a moderator when it comes to buying products; especially during the time of the pandemic, it was observed in many studies that there is a strong relationship between intention and buying behavior of consumers (Singh et al., 2021; Yoo et al., 2021). Thus, we postulate that consumers' intention is positively related to their buying behavior.

✦ **Hb4 :** Buying intention and buying behavior are positively related to NBGS economic depression during the COVID-19 pandemic.

Research Methodology

Construct Operationalization

We used a survey method with a structured questionnaire for response collection and established the proposed model leading to the hypotheses. This questionnaire was developed after reviewing the literature, and we used well-established scales in the same area of study—the measurement of responses on a 1 to 5-point Likert scale.

Sampling Design and Data Collection

The consumers of NBGS (need-based goods for sustainability) products are the units of this study. Due to fear of COVID-19 and various awareness programs by Central and local governments, people were more aware of the NBGS products for sustainability to fight against the pandemic depression and to play a vital role in boosting immunity as per WHO guidelines (Cheah & Phau, 2011; Mostafa, 2006). The purpose was to discover consumer acatalepsy towards purchasing NBGS items in India. The online survey method was used to collect the responses,

Table 1. Demographic Details of the Sample

Gender	Frequency	Percent	Cumulative Percent
Male	314	60.9%	60.9%
Female	201	39.0%	99.8%
Prefer not to say	1	.2%	100.0%
Total	516	100.0%	
Income Group*			
Low Income [₹ 70,069 or less]	87	16.9%	16.9%
Lower-middle income [₹ 70,137 – ₹ 273,098]	127	24.6%	41.5%
Upper-Middle Income [₹ 273,167 – ₹ 845,955]	188	36.4%	77.9%
High Income - [₹ 846,023 or more]	114	22.1%	100.0%
Total	516	100.0%	

Note. * Income Group (The World Bank classifies economies based on GNI Per Capita) annually

where convenience sampling was used to select the participants; the same way it has been used in similar research (Kautish & Sharma, 2021; Punyatoya, 2015) in Indian cities. The number of responses obtained was 517 out of 700 email/shared questionnaire links, meaning the response rate = 73.86%. Table 1 shows the demographic details of the sample on gender and income group.

Analysis and Results

To study the proposed framework and to test the hypotheses, SEM (structural equation modeling) is used with AMOS (21.0 version) as described and suggested by Byrne (2016), including MLE (maximum likelihood estimation). Anderson and Gerbing (1988) recommended using SEM, a two-stage model-building process. This study used the same in the first step, a confirmatory factor analysis (CFA), to confirm the proposed factor structure (Hair et al., 2012). Then, in the second step, structural equation modeling (SEM) is performed to describe the structural relationship. Finally, the models are analyzed using the AMOS. SEM based on covariance is used to minimize the difference between the observed and estimated covariance matrices (Kautish & Sharma, 2021).

The Measurement Model

The confirmatory factor analysis (CFA) model for all the constructs, that is, economic depression during COVID-19 of three - items scale, attitude with four - items scale, subjective norms with four - items scale, control on availability (scale with three items), perceived consumer effectiveness (scale with four items), buying intention for NBGS products with four - items scale, the last construct is purchase behaviour for NBGS products using the 6-items scale.

This proposed model produced good fit indices: $\chi^2 = 456.304$, df (degrees of freedom) = 247, CFI (comparative fit index) = 0.961, TLI (Tucker – Lewis index) = 0.952, NFI (normed fit index) = 0.919, RMSEA (root mean square error of approximation) = 0.045, Hoelter .05 index = 263. The t -values came out to be significant at $p < 0.001$. The SRMR, that is, the “badness-of-fit” measure value, is 0.045, less than 0.08 (Hu & Bentler, 1998). Based on these parameters, we conclude that the data can be used (Iacobucci, 2010; Kline, 2016; Sarstedt et al., 2016).

Composite reliability (CR) is checked to measure internal consistency in each construct. Table 2 has details of CR with values lying between 0.716 to 0.936 (Bagozzi & Yi, 1988; Hu & Bentler, 1995) found to be satisfactory.

Table 2. Detailed Measure of Correlation, Composite Reliability, and Average Variance Extracted

	Economic Depression	Attitude	Subjective Norms	Control on Availability	Perceived Consumer Effectiveness	Buying Intention	Purchase Behaviour	AVE	Composite reliability	Cronbach's α
Economic Depression	1.000							0.736	0.582	.798
Attitude	0.052	1.000						0.931	0.818	.716
Subjective Norms	0.098	0.092	1.000					0.894	0.759	.936
Control on Availability	0.426	0.132	0.032	1.000				0.879	0.710	.874
Perceived Consumer Effectiveness	0.303	0.167	-0.023	0.352	1.000			0.909	0.713	.907
Buying Intention	0.272	0.244	0.035	0.392	0.676	1.000		0.782	0.545	.812
Purchase Behaviour	0.235	0.243	0.101	0.352	0.620	0.730	1.000	0.854	0.541	.886

Note. Correlations significant at 0.05 level ; Model measurement fit : $\chi^2 = 456.304$ ($df = 247$, $p < 0.001$) ; RMSEA = 0.045 ; RMSR = 0.0369 ; CFI = 0.961 ; TLI = 0.952 ; NFI = 0.919.

We also calculated AVE (average variance extracted) and observed it to be convergent. Discriminant validity by AVE and reliability by CR were suggested by Gefen et al. (2000). Discriminant validity is also checked through the AVE > shared variance of the paired construct (Fornell & Larcker, 1981), which is also satisfactory. All the model constructs satisfy the requirement of Cronbach's α levels and composite reliability of scales within the acceptable range. As per the above description of various parameters, all the constructs show reliability, convergent, and discriminant validity. Harmon's single-factor test also checks for any common method bias for the proposed relationship among the conceptual constructs (Podsakoff & Organ, 1986).

Results of Structural Model

The structural model analysis was performed using a maximum likelihood estimate (MLE). The data results of the structural model are shown in Table 3. Overall, the fit indices of the model produced an adequate model fit, ($\chi^2 = 494.380$, $df = 259$, CFI = 0.956, IFI = 0.956, TLI = 0.949, NFI = 0.912, RMSEA = 0.047), which fulfils all the conditions as recommended (Hu & Bentler, 1998; Singh, 2009). All the fit indices are within an acceptable range.

Table 3. Summary of the Structural Model

Hypothesis	Hypothesized path	Coefficient	Standard Error	t - value	Results
H1	Economic Depression → Attitude	0.73	0.62	1.164**	Accepted
H2	Attitude → Buying Intention	.139	0.34	2.798**	Accepted
Ha3	Subjective Norms → Buying Intention	0.028	0.025	1.448**	Accepted
Hb3	Control on Availability → Buying Intention	0.171	0.027	3.521**	Accepted
Ha4	Perceived Consumer Effectiveness → Buying Intention	0.652	0.049	10.734**	Accepted
Hb4	Buying Intention → Buying Behaviour	0.775	0.080	11.878**	Accepted

Note. $\chi^2 = 494.380$, $df = 259$, CFI = 0.956, IFI = 0.956, TLI = 0.949, RMSEA = 0.047.

** $p < 0.01$.

The CFI (comparative fit index) value is 0.956, and the TLI (Tucker–Lewis Index) is 0.949. These two values are within the acceptable limit (Hair et al., 2012). To test the applicability of the proposed model, we checked the root mean square error of approximation (RMSEA), which is 0.047 and well within the acceptable level (Hair et al., 2011). The value of chi-square (χ^2) is also divided by the degree of freedom (*df*); this ratio is 1.909, which falls below the suggested level of 3 (Kline, 2016).

As displayed in Table 3, the relationship between economic depression during COVID-19 and attitude towards NGBS products ($\beta = 1.164, p < 0.01$), attitude and buying intention ($\beta = 2.798, p < 0.01$), subjective norms and buying intention ($\beta = 1.448, p < 0.01$), control on availability and buying intention ($\beta = 3.521, p < 0.01$), perceived consumer effectiveness and buying intention ($\beta = 10.734, p < 0.01$), and purchase behaviour and buying intention ($\beta = 11.878, p < 0.01$) for environmentally sustainable products — are all positively and significantly related.

Managerial and Theoretical Implications

The research explores the relationship between terminal and instrument values and their impact on customers' buying behavior towards NBGS in the context of the Indian market. The hypotheses were tested and resulted in insightful information on factors that influence the sustainability of NBGS beyond the previous perspective of consumer behavior. The study found that economic depression impacts the customers' attitude toward buying NBGS during the COVID-19 pandemic. This implies that marketers have to put a significant amount of effort into improving the attitude of customers towards their products and services. The industry implication for professionals is to conceive marketing communication and promotion strategies that directly shape the customers' attitudes towards NBGS.

The research also found that subjective norms positively impacted the buying intention of Indian consumers. This is very much apparent from the collective and social nature of the Indian culture, where society has a considerable impact on the decisions made by individual consumers. The relationship between the joint influence of society and purchase intention was found significant in the empirical analysis, which warrants the organizations to take care of society's norms and values while devising their product and promotion strategies. The study's empirical results revealed that the control on availability and purchase intention were significantly related. This implies that having power in the hands of the consumers is crucial for their positive disposition towards buying NBGS during the COVID-19 pandemic.

Along the same lines, it has been found that perceived consumer effectiveness positively influences the purchase intention towards NBGS. When consumers feel that their actions can lead to the solution of a specific problem, they have a positive purchase intention towards buying NBGS. This implies that, along with other factors, empowering consumers and making them feel positive about their purchase decisions can effectively improve product sales and market share.

Limitations of the Study and Scope for Further Research

This study concentrates on consumer acatalepsy towards buying behavior for need-based goods for sustainability during the COVID-19 pandemic. Further research, keeping in mind other environmental conditions, also helps explore consumer behavior. In this study, we focused on NBGS products which can be further extended to different types of products or services to measure the consumer's buying behavior. This study has important implications for both researchers and practitioners. Scholars in consumer buying behavior can further explore the relationship between the terminal and instrumental values and replicate the same model for different categories of products and their purchases during COVID-19. The research can also compare consumers' buying behaviour before and during the COVID-19 pandemic in both NBGS and other product segments.

This comparative assessment will offer insightful information about specific changes in the consumer buying process. On the other hand, the industry can draw from these findings to develop a holistic marketing strategy to devise product, price, place, and promotion strategies to impact customer buying behavior positively. This specifically means coming up with the processes that positively influence the attitudes, societal values, control of supply, perceived consumer effectiveness, and purchase intention during the economic depression that COVID-19 inflicted on the entire world. Researchers can also apply the models to different categories of products within the same economically downturn environment as a part of the future exploration of the study. Regarding the limitation, the search focused on the NBGS and hasn't covered the other categories owing to the limited resources. We intend to cover more types under this research series that will also help us to find out whether the categories of the products and services make a difference in customer buying behavior during COVID-19 or not.

Authors' Contribution

Prof. Dhiresh Kulshrestha conceived the idea and developed qualitative and quantitative designs to undertake the empirical study. Dr. Muklesh Kumar Tiwari and Dr. Kumar Shalender extracted research papers with high repute, filtered these based on keywords, and generated concepts and codes relevant to the study design. Dr. Muklesh Kumar Tiwari performed all the statistical work using SPSS 26 and AMOS 21, some in colloquial language and some in English. Prof. Sandhir Sharma verified the manuscript, language issues, and overall flow in consultation with all other authors.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this manuscript.

Funding Acknowledgement

The authors received no financial support for this article's research, authorship, and/or publication.

References

- Abadi, H. R., Ranjbarian, B., & Zade, F. K. (2012). Investigate the customers' behavioral intention to use mobile banking based on TPB, TAM and perceived risk (A case study in Meli Bank). *International Journal of Academic Research in Business and Social Sciences*, 2(10), 312–322.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behaviour. In, J. Kuhl, & J. Beckmann (eds.). *Action control. SSSP Springer series in social psychology* (pp. 11–39). Springer. https://doi.org/10.1007/978-3-642-69746-3_2
- Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behaviour: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology*, 22(5), 453–474. [https://doi.org/10.1016/0022-1031\(86\)90045-4](https://doi.org/10.1016/0022-1031(86)90045-4)
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>

- Arora, N., Prashar, S., Parsad, C., & Tata, S. V. (2019). Influence of celebrity factors, consumer attitude and involvement on shoppers' purchase intention using hierarchical regression. *Decision*, 46, 179–195. <https://doi.org/10.1007/s40622-019-00208-7>
- Arvola, A., Vassallo, M., Dean, M., Lampila, P., Saba, A., Lähteenmäki, L., & Shepherd, R. (2008). Predicting intentions to purchase organic food: The role of affective and moral attitudes in the theory of planned behaviour. *Appetite*, 50(2–3), 443–454. <https://doi.org/10.1016/j.appet.2007.09.010>
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16, 74–94. <https://doi.org/10.1007/BF02723327>
- Barbate, V., Gade, R. N., & Raibagkar, S. S. (2021). COVID-19 and its impact on the Indian economy. *Vision: The Journal of Business Perspective*, 25(1), 23–35. <https://doi.org/10.1177/0972262921989126>
- Byrne, B. M. (2016). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (3rd ed.). Routledge.
- Carfora, V., Cavallo, C., Caso, D., Del Giudice, T., De Devitiis, B., Viscecchia, R., Nardone, G., & Cicia, G. (2019). Explaining consumer purchase behaviour for organic milk: Including trust and green self-identity within the theory of planned behaviour. *Food Quality and Preference*, 76, 1–9. <https://doi.org/10.1016/j.foodqual.2019.03.006>
- Chalmers, H. (2020). 1932: Economic difficulties under deepening depression shape course of trade policies. In, *World trade politics* (pp. 91–112). University of California Press. <https://doi.org/10.1525/9780520349353-010>
- Cheah, I. & Phau, I. (2011). Attitudes towards environmentally friendly products: The influence of ecoliteracy, interpersonal influence and value orientation. *Marketing Intelligence & Planning*, 29(5), 452–472. <https://doi.org/10.1108/02634501111153674>
- Dangi, N., Gupta, S. K., & Narula, S. A. (2020). Consumer buying behaviour and purchase intention of organic food: A conceptual framework. *Management of Environmental Quality*, 31(6), 1515–1530. <https://doi.org/10.1108/MEQ-01-2020-0014>
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.
- Ellen, P. S., Wiener, J. L., & Cobb-Walgren, C. (1991). The role of perceived consumer effectiveness in motivating environmentally conscious behaviours. *Journal of Public Policy & Marketing*, 10(2), 102–117. <https://doi.org/10.1177/074391569101000206>
- Emekci, S. (2019). Green consumption behaviours of consumers within the scope of TPB. *Journal of Consumer Marketing*, 36(3), 410–417. <https://doi.org/10.1108/JCM-05-2018-2694>
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behaviour: An introduction to theory and research*. Addison-Wesley.
- Fishbein, M., Jaccard, J., Davidson, A. R., Ajzen, I., & Loken, B. (1980). Predicting and understanding family planning behaviours. In, *Understanding attitudes and predicting social behaviour*. Prentice Hall.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>

- Gefen, D., Straub, D., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information Systems*, 4. <https://doi.org/10.17705/1CAIS.00407>
- Gibson, L. P., Magnan, R. E., Kramer, E. B., & Bryan, A. D. (2021). Theory of planned behaviour analysis of social distancing during the COVID-19 pandemic: Focusing on the intention–behavior gap. *Annals of Behavioral Medicine*, 55(8), 805–812. <https://doi.org/10.1093/abm/kaab041>
- Hagger, M. S., Cheung, M. W.-L., Ajzen, I., & Hamilton, K. (2022). Perceived behavioral control moderating effects in the theory of planned behavior: A meta-analysis. *Health Psychology*, 41(2), 155–167. <https://doi.org/10.1037/hea0001153>
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40, 414–433. <https://doi.org/10.1007/s11747-011-0261-6>
- Han, H., Hwang, J., Lee, M. J., & Kim, J. (2019). Word-of-mouth, buying, and sacrifice intentions for eco-cruises: Exploring the function of norm activation and value-attitude-behaviour. *Tourism Management*, 70, 430–443. <https://doi.org/10.1016/j.tourman.2018.09.006>
- Hu, L. T., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (ed.), *Structural equation modelling: Concepts, issues, and applications* (pp. 77–99). Sage.
- Hu, L.-T, & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424–453. <https://doi.org/10.1037/1082-989X.3.4.424>
- Iacobucci, D. (2010). Structural equations modeling: Fit indices, sample size, and advanced topics. *Journal of Consumer Psychology*, 20(1), 90–98. <https://doi.org/10.1016/j.jcps.2009.09.003>
- Kabadayı, E. T., Dursun, İ., Alan, A. K., & Tuğer, A. T. (2015). Green purchase intention of young Turkish consumers: Effects of consumer's guilt, self-monitoring and perceived consumer effectiveness. *Procedia - Social and Behavioral Sciences*, 207, 165–174. <https://doi.org/10.1016/j.sbspro.2015.10.167>
- Kautish, P., & Sharma, R. (2021). Study on relationships among terminal and instrumental values, environmental consciousness and behavioral intentions for green products. *Journal of Indian Business Research*, 13(1), 1–29. <https://doi.org/10.1108/JIBR-01-2018-0013>
- Khan, A., Arafat, M. Y., & Azam, M. K. (2022). Role of Halal literacy and religiosity in buying intention of Halal branded food products in India. *Journal of Islamic Marketing*, 13(2), 287–308. <https://doi.org/10.1108/JIMA-08-2019-0175>
- Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
- Kulshrestha, D., & Agrawal, K. K. (2019). An econometric analysis of agricultural production and economic growth in India. *Indian Journal of Marketing*, 49(11), 56–65. <https://doi.org/10.17010/ijom/2019/v49/i11/148276>
- Kulshrestha, D., & Tiwari, M. K. (2021). A global outlook of economic expansion and environmental degradation: An empirical study. *International Journal of Scientific & Engineering Research*, 12(10), 911–920.

- Laato, S., Najmul Islam, A. K., Farooq, A., & Dhir, A. (2020). Unusual purchasing behavior during the early stages of the COVID-19 pandemic: The stimulus-organism-response approach. *Journal of Retailing and Consumer Services*, 57, 102224. <https://doi.org/10.1016/j.jretconser.2020.102224>
- Lee, C., & Green, R. T. (1991). Cross-cultural examination of the Fishbein behavioral intentions model. *Journal of International Business Studies*, 22(2), 289–305. <http://www.jstor.org/stable/155211>
- Lehberger, M., Kleih, A.-K., & Sparke, K. (2021). Panic buying in times of coronavirus (COVID-19): Extending the theory of planned behavior to understand the stockpiling of nonperishable food in Germany. *Appetite*, 161, 105118. <https://doi.org/10.1016/j.appet.2021.105118>
- Li, Y., Yao, J., & Chen, J. (2021). The negative effect of scarcity cues on consumer purchase decisions in the hospitality industry during the COVID-19 pandemic. *International Journal of Hospitality Management*, 94, 102815. <https://doi.org/10.1016/j.ijhm.2020.102815>
- Massey, M., O'Cass, A., & Otahal, P. (2018). A meta-analytic study of the factors driving the purchase of organic food. *Appetite*, 125, 418–427. <https://doi.org/10.1016/j.appet.2018.02.029>
- Mostafa, M. M. (2006). Antecedents of Egyptian consumers' green purchase intentions: A hierarchical multivariate regression model. *Journal of International Consumer Marketing*, 19(2), 97–126. https://doi.org/10.1300/J046v19n02_06
- Naeem, M. (2021). Understanding the customer psychology of impulse buying during COVID-19 pandemic: Implications for retailers. *International Journal of Retail & Distribution Management*, 49(3), 377–393. <https://doi.org/10.1108/IJRDM-08-2020-0317>
- Nolan-Clark, D. J., Neale, E. P., Probst, Y. C., Charlton, K. E., & Tapsell, L. C. (2011). Consumers' salient beliefs regarding dairy products in the functional food era: A qualitative study using concepts from the theory of planned behaviour. *BMC Public Health*, 11, Article 843. <https://doi.org/10.1186/1471-2458-11-843>
- Pham, M. H., Plonsker, J., Diaz-Aguilar, L. D., Osorio, J. A., & Lehman, R. A. (2021). Simultaneous robotic single-position surgery with oblique lumbar interbody fusion with software planning: 2-dimensional operative video. *Operative Neurosurgery*, 20(5), E363. <https://doi.org/10.1093/ons/opaa451>
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531–544. <https://doi.org/10.1177/014920638601200408>
- Punyatoya, P. (2015). Effect of perceived brand environment-friendliness on Indian consumer attitude and purchase intention: An integrated model. *Marketing Intelligence & Planning*, 33(3), 258–275. <https://doi.org/10.1108/MIP-04-2013-0069>
- Qi, X., & Ploeger, A. (2021). Explaining Chinese consumers' green food purchase intentions during the COVID-19 pandemic: An extended theory of planned behaviour. *Foods*, 10(6), 1200. <https://doi.org/10.3390/foods10061200>
- Sarstedt, M., Hair, J. F., Ringle, C. M., Thiele, K. O., & Gudergan, S. P. (2016). Estimation issues with PLS and CBSEM: Where the bias lies! *Journal of Business Research*, 69(10), 3998–4010. <https://doi.org/10.1016/j.jbusres.2016.06.007>
- Sheeran, P. (2002). Intention — behavior relations: A conceptual and empirical review. *European Review of Social Psychology*, 12(1), 1–36. <https://doi.org/10.1080/14792772143000003>

- Sheeran, P., Trafimow, D., & Armitage, C. J. (2003). Predicting behaviour from perceived behavioural control: Tests of the accuracy assumption of the theory of planned behaviour. *British Journal of Social Psychology*, 42(3), 393–410. <https://doi.org/10.1348/014466603322438224>
- Siddiqui, A., & Siddiqui, M. (2021). Buy my trust, before I buy your food – Consumers' insights for online food delivery platforms during the COVID-19 pandemic. *Indian Journal of Marketing*, 51(12), 26–40. <https://doi.org/10.17010/ijom/2021/v51/i12/167218>
- Singh, A., & Verma, P. (2017). Factors influencing Indian consumers' actual buying behaviour towards organic food products. *Journal of Cleaner Production*, 167, 473–483. <https://doi.org/10.1016/j.jclepro.2017.08.106>
- Singh, G., Aiyub, A. S., Greig, T., Naidu, S., Sewak, A., & Sharma, S. (2021). Exploring panic buying behavior during the COVID-19 pandemic: A developing country perspective. *International Journal of Emerging Markets*, Vol. Ahead-of-Print. <https://doi.org/10.1108/IJOEM-03-2021-0308>
- Singh, R. (2009). Does my structural model represent the real phenomenon?: A review of the appropriate use of Structural Equation Modelling (SEM) model fit indices. *The Marketing Review*, 9(3), 199–212. <https://doi.org/10.1362/146934709X467767>
- Sinha, J. B., Sinha, T. N., Verma, J., & Sinha, R. B. (2001). Collectivism coexisting with individualism: An Indian scenario. *Asian Journal of Social Psychology*, 4(2), 133–145. <https://doi.org/10.1111/j.1467-839X.2001.00081.x>
- Sinha, J. B., Vohra, N., Singhal, S., Sinha, R. B., & Ushashree, S. (2002). Normative predictions of collectivist-individualist intentions and behaviour of Indians. *International Journal of Psychology*, 37(5), 309–319. <https://doi.org/10.1080/00207590244000124>
- Strydom, W. F. (2018). Applying the theory of planned behavior to recycling behavior in South Africa. *Recycling*, 3(3), 43. <https://doi.org/10.3390/recycling3030043>
- Sultan, P., Tarafder, T., Pearson, D., & Henryks, J. (2020). Intention-behaviour gap and perceived behavioural control-behaviour gap in theory of planned behaviour: Moderating roles of communication, satisfaction and trust in organic food consumption. *Food Quality and Preference*, 81, 103838. <https://doi.org/10.1016/j.foodqual.2019.103838>
- Taufique, K. M., & Vaithianathan, S. (2018). A fresh look at understanding green consumer behavior among young urban Indian consumers through the lens of theory of planned behavior. *Journal of Cleaner Production*, 183, 46–55. <https://doi.org/10.1016/j.jclepro.2018.02.097>
- Teo, T., & Beng Lee, C. (2010). Explaining the intention to use technology among student teachers: An application of the theory of planned behavior (TPB). *Campus-Wide Information Systems*, 27(2), 60–67. <https://doi.org/10.1108/10650741011033035>
- Triandis, H. C. (1979). Values, attitudes, and interpersonal behavior. *Nebraska Symposium on Motivation*, 27, 195–259.
- Umeh, K., & Patel, R. (2004). Theory of planned behaviour and ecstasy use: An analysis of moderator-interactions. *British Journal of Health Psychology*, 9(1), 25–38. <https://doi.org/10.1348/135910704322778704>
- Vermeir, I., & Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, 64(3), 542–553. <https://doi.org/10.1016/j.ecolecon.2007.03.007>

Yoo, W. S., Min, J., Chung, P.-S., & Woo, S. H. (2021). Biochemical and pain comparisons between the laser lancing device and needle lancets for capillary blood sampling: A randomized control trial. *Lasers in Surgery and Medicine*, 53(3), 316–323. <https://doi.org/10.1002/lsm.23298>

About the Authors

Dhiresk Kulshrestha received PhD in Economics from Jiwaji University, Gwalior (2004). He currently works as Professor & Dean (Economics), Chitkara Business School, Chitkara University, Chandigarh (Punjab). His current research interests include poverty and inequalities, rural-development, microeconomics and macroeconomics, and international economics.

Muklesh Kumar Tiwari received PhD in HR in 2019 from MGCGU Chitrakoot (MP). He currently works as an Assistant Professor at FMS, Marwadi University, Rajkot. He has 15 years of research and academic experience in HR and management.

Kumar Shalender received PhD from Jaypee University of Information Technology. He currently works as an Associate Professor (Economics), Chitkara University, Chandigarh (Punjab). In a leadership role, he is involved in long-range planning, leading the product-development teams, and creating synergies between different business verticals.

Sandhir Sharma received PhD in strategic management. He has nearly 22 years of experience in higher education and five years in the telecom industry. He currently works as Pro Vice Chancellor, Chitkara Business School, Chitkara University, Chandigarh (Punjab).