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Impact of COVID-19 on changing consumer behaviour: Lessons from an emerging economy

Debadyuti Das[1] | Ashutosh Sarkar[2] | Arindam Debroy[3]

[1]Faculty of Management Studies, Delhi University, Delhi, India

[2]Indian Institute of Management Kozhikode, Kozhikode, India

[3]Symbiosis Institute of Business Management Nagpur, Nagpur, Maharashtra, India

Correspondence
Ashutosh Sarkar, Indian Institute of Management Kozhikode, Kozhikode, India.
Email: asarkar@iimk.ac.in

Abstract

The present study investigates the impact of COVID-19 on Consumers' changing *way of life* and *buying behaviour* based on their socio-economic backgrounds. A questionnaire survey was carried out to understand the impact of COVID-19 on consumers' affordability, lifestyle, and health awareness and how these effects influenced their buying behaviour. A total of 425 usable responses were analysed using the structural equation modelling considering *Consumers' socio-economic background* as exogenous variables and *Consumers' changing way of life* and *Adaptation in consumers' buying behaviour* as endogenous variables. The study reveals that COVID-19 has affected the consumers in the unorganised sectors more than others and induced an increase in the demand for affordable substitutes for daily necessities. The demand for wellness and entertainment products is found to depend upon the occupation and family earning status of consumers which is jointly mediated by affordability and lifestyle changes. Further, the findings show that the demand for health and hygiene products depends on the current employment status and family earning status of consumers which is jointly mediated by affordability and awareness towards health and hygiene. The model developed in the present study allows the decision-makers to identify which segments of the population with certain socio-economic backgrounds could be targeted for wellness products and which ones could be targeted for health and hygiene products. In addition, the model provides rich insights to the managers as to what kind of product substitution would be viable in the market during the pandemic.

KEYWORDS
consumers' buying behaviour, Consumers' changing way of life, COVID-19, socio-economic background

1 | INTRODUCTION

COVID-19 has disrupted humankind in a manner not seen in recent times, infecting 6.5 million people while leaving millions unemployed (Hensher, 2020). While the loss of life, occupation, and livelihood are well-articulated impacts of COVID-19, the loss of routine social and economic life over a prolonged period is having long-lasting effects on people (Chriscaden, 2020). COVID-19-imposed 'self-isolation and social lockdown' has increased mental stress and inflicted psychological

and behavioural changes (Witteveen, 2020). Under constant fear of infection and restricted mobility, people are becoming more aware of health and changing their lifestyles and eating habits (Sánchez-Sánchez et al., 2020). Reported preliminary studies also suggest that the nature and extent of the impact of COVID-19 is not similar across all citizens and depend on their condition of poverty, age, residential status, and other demographic variables (United Nations, n.d.).

As a consequence of the economic, social, and psychological impact of COVID-19, people have altered how and where they should

spend their money (Rogers & Cosgrove, 2020). Kirk and Rifkin (2020) argued that consumers react, cope, and adapt to environmentally-imposed constraints such as the COVID-19 pandemic. During the pandemic, consumers have displayed a variety of unusual behaviours (Laato et al., 2020; Pantano et al., 2020) and forced them to spend more on essentials while cutting back discretionary spending. Consumers are also observed to have changed brands and products, substituted spends when stocked out, and become more sensitive towards health and hygiene. Market studies pertaining to the impact of COVID-19 on consumers have also indicated increased spending on groceries, and health and hygiene products (Rogers & Cosgrove, 2020). The above changes have motivated researchers to explore how the consumers behaved during the pandemic and the reasons for such behaviour.

Some of the COVID-19-induced behaviours that were studied include consumption shifts (Kansiime et al., 2021; Pakravan-Charvadeh et al., 2021), impulsive buying (Naeem, 2020), stockpiling, and panic buying (Billore & Anisimova, 2021; Keane & Neal, 2021; Naeem, 2020; Prentice et al., 2021), product and brand substitution (Knowles et al., 2020), and shifts in channel preferences (Mehrolia et al., 2021; Pantano et al., 2020). Researchers have attributed such behaviour to COVID-19-induced impacts on consumers' socio-economic status, changing way of life, and influence on predisposed beliefs (Milaković, 2021), changes in the consumers' buying environment such as stockouts, supply and demand disruptions (Prentice et al., 2021), and external stimuli such as information and social media exposure. (Laato et al., 2020; Naeem, 2020). It was also reported that a significant number of people have lost their jobs (Montenovo et al., 2020) and family income dwindled as a consequence of COVID-19 (Kansiime et al., 2021). COVID-19 has affected consumers' disposable income or affordability (Mahmud & Riley, 2021), lifestyle (Sánchez-Sánchez et al., 2020), and awareness (Li et al., 2021)—in short, their way of life—making them change their pre-COVID spending habits. We, however, did not come across research studies that analysed the nature of changes in consumer behaviour due to changes in consumers' affordability, lifestyle changes, and awareness level. This suggests an opportunity to investigate the impact of COVID-19 on Consumers' changing way of life and consequently on their buying behaviour based on the varying socio-economic background of the population. Our research primarily focuses on studying consumption shifts and substitution behaviour and connects such changes to the changes in consumers' way of life. Such studies are very important for market researchers and firms in terms of segmentation of the market when a pandemic of this nature affects the entire population. Such studies would help firms in devising targeted marketing strategies during the ongoing pandemic and beyond. With this background, the present study seeks to address the following research questions:

- How has the socio-economic background influenced Consumers' way of life including affordability, lifestyle changes, and awareness towards health and hygiene arising out of COVID-19?

- To what extent has the Consumers' changing way of life arising out of COVID-19 influenced Adaptation in their buying behaviour?
- How has the socio-economic background led to the Adaptation in consumers' buying behaviour arising out of COVID-19?

The methodology followed in this study involves investigating the influence of exogenous variables including occupation, current employment status, and family earning status on the intervening variables representing Consumers' changing way of life and finally on the dependent variables which reflect the Adaptation in consumers' buying behaviour. The study provides important insights to managers in terms of designing affordable substitute products of daily necessities for the vulnerable section of the society. In addition, it also provides insights to the policy planners in terms of developing appropriate intervention strategies for the affected consumers.

2 | BACKGROUND LITERATURE

Adaptations in people's buying behaviour due to COVID-19 are in line with the existing literature encompassing changes in consumers' needs and preferences induced by events that are environmental, social, biological, cognitive, and behavioural in nature (Mathur et al., 2006). Such disruptions often force consumers to seek stability (Minton & Cabano, 2021) and, as a result, they display conservative and planned behaviour (Sarmento et al., 2019). Such stability-seeking behaviour induces austerity measures among consumers affected by economic recession or slowdown making consumers more price-sensitive (Hampson & McGoldrick, 2013). While, in the past, pandemics such as influenza have affected economic activities significantly (Verikios et al., 2016), some changes in consumers' behaviour are not entirely due to the economic impacts. For example, during the outbreak of the Asian flu, consumers have displayed risk-coping strategies that influenced their consumption of chicken meat (Yeung & Yee, 2012). Similarly, natural disasters such as Hurricane Katrina contributed to stress-induced compulsive and impulsive buying behaviour among the affected residents of the US Gulf Coast (Sneath et al., 2009). During natural disasters, consumers have been observed to have spent on luxury brands and premium categories displaying both cross-category indulgence (Mark et al., 2016) and impulsive buying behaviour (Kennett-Hensel et al., 2012).

Recently, adaptations in consumers' buying behaviour due to COVID-19 have been studied under various themes (Kansiime et al., 2021; Laato et al., 2020; Pakravan-Charvadeh et al., 2021; Pantano et al., 2020; Rayburn et al., 2021). Gordon-Wilson (2021) noted that external influences such as COVID-19 affected 'consumer's feelings for self-control' by changing their shopping behaviour, type of shopping and preference of store format, and consumption of unhealthy snacks and alcohol. Kim et al. (2021) highlighted the influence of protection motivation in explaining consumers' commitment to hygienic behaviour, prioritization of local restaurants, and conscious consumption. Guthrie et al. (2021) employed the react-cope-adapt framework to

understand how consumer behaviour has evolved in terms of their usage of e-commerce as a result of stressful events such as the COVID-19. Eroglu et al. (2022) revealed that the crowding in retail stores significantly affects the shopping satisfaction of consumers during COVID-19, which is mediated by customer-employee rapport. They further argued that such relationships significantly differ based on consumers' perceptions about the appropriateness of retailer precautions, the severity of threats, and vulnerability to COVID-19. Milaković (2021) demonstrated the moderating effect of consumer adaptability in explaining the influence of consumer vulnerability and consumer resilience on purchase satisfaction and finally on the repurchase intention of consumers. Yap et al. (2021) introduced a new dimension called technology-mediated consumption as a coping strategy adopted by consumers in coping with pandemic-induced stress and anxiety during the pandemic. They further discussed paradoxes explaining the nexus between the consumption of technology and consumer vulnerability. Nayal et al. (2021) identified various coping strategies for firms to take care of the employee and customer well-being. Digitalization and innovation emerged as the two focus areas for adoption by firms for their survival post-COVID-19. In addition, the study further revealed that consumers have demonstrated a shift in their consumption behaviour during the present pandemic in favour of hygiene, sustainability, and local products.

The present study also deals with the shifts in consumption behaviour and product substitution behaviour among consumers that were observed during COVID-19. However, our study is quite different from the existing studies in the sense that we attribute such shifts in consumption and product substitution behaviour to how COVID-19 has impacted the Consumers' way of life. COVID-19 pandemic has induced changes in consumers' demand—both in magnitude as well as in their preference (del Rio-Chanona et al., 2020). The pandemic has also resulted in increased consumption of certain products which were either consumed in lesser quantities or not consumed at all before the event (Kirk & Rifkin, 2020). Such effects have led to significant upward shifts in the market demand for these products. We refer to such shifts as 'new demand'. Examples of 'new demand' include cleaning and personal hygiene products such as Lysol and hand sanitizers (Chaudhuri, 2020), health and wellness products such as vitamins, healthy foods, and other immunity boosters (Hess, 2020), packaged goods and beverages, household care products, fresh and organic foods, personal care products (Knowles et al., 2020) and digital platforms (Debroy, 2020), which displayed a surge in demand during COVID-19. Consumers have also displayed substitution behaviour during the pandemic (Knowles et al., 2020) thereby changing significantly the consumption both by volume as well as product preference. Product substitution is also observed during this pandemic due to lifestyle changes while the change of preference is observed due to awareness of health. The literature on product substitution is characterized by several factors prompting substitution behaviour by consumers (Hamilton et al., 2014). However, while studying new demand and product substitution behaviour under disruptive events, we observed that most

of these studies are limited to the economic impacts of the events (Martin et al., 2020) and hence, there is still scope for studying such behaviour considering the non-economic impacts of the pandemic.

Disruption affects people's lives in a variety of ways derailing their normal ways of living. Earlier studies on disruptions dealt with disruption-induced depression, lifestyle changes, changes in information, awareness, and education (Mathur et al., 2006; Sneath et al., 2009). During the present pandemic also, significant changes in lifestyle and health awareness (Arora & Grey, 2020) were observed. The fear of getting infected with COVID-19 and the government-imposed lockdowns have reduced mobility and physical activities (Sánchez-Sánchez et al., 2020); changed dietary and consumption behaviour (Kansiime et al., 2021; Pakravan-Charvadeh et al., 2021), and sleep behaviour (Chopra et al., 2020). COVID-19 has also increased health concerns and awareness impacting consumption of health and wellness products in a significant manner (Baiano et al., 2020; Hess, 2020). However, lifestyle changes, awareness towards health, and change in consumption behaviour arising out of COVID-19 were not found to be uniform across people of diverse socio-economic groups (Laato et al., 2020). As COVID-19 has affected the entire population in varying degrees based on their socio-economic background, there exists a scope for research as to how different consumer groups have adapted their buying behaviour.

3 | THEORETICAL MODEL AND DEVELOPMENT OF HYPOTHESES

In order to understand how COVID-19 has impacted consumers' way of life and consumer buying behaviour, we mainly draw from preliminary studies, market surveys, and published research articles on the impact of COVID-19. This study mainly has three dimensions: (1) Consumers' socio-economic background, (2) Consumers' changing way of life, and (3) Adaptation in consumers' buying behaviour as shown in Figure 1, which serves as the theoretical model of the present work. *Consumers' changing way of life* has been captured through 'Change in affordability', 'Lifestyle changes' and 'Awareness towards health and hygiene' arising out of COVID-19 while *Adaptation in consumers' buying behaviour* has been represented through 'Creation of new demand for wellness and entertainment products', 'Creation of new demand for health and hygiene products', 'Substitution of daily necessities due to affordability' and 'Substitution of daily necessities due to awareness towards health'.

3.1 | Consumers' socio-economic background and affordability

COVID-19 has significantly influenced individual and household incomes and spending habits. However, such economic hardships varied based on their occupation, employment status, and socio-demographic background (Witteveen, 2020). The adverse effects are estimated to be strongest for those occupations that are characterized by lower levels of skill, education, and income, have
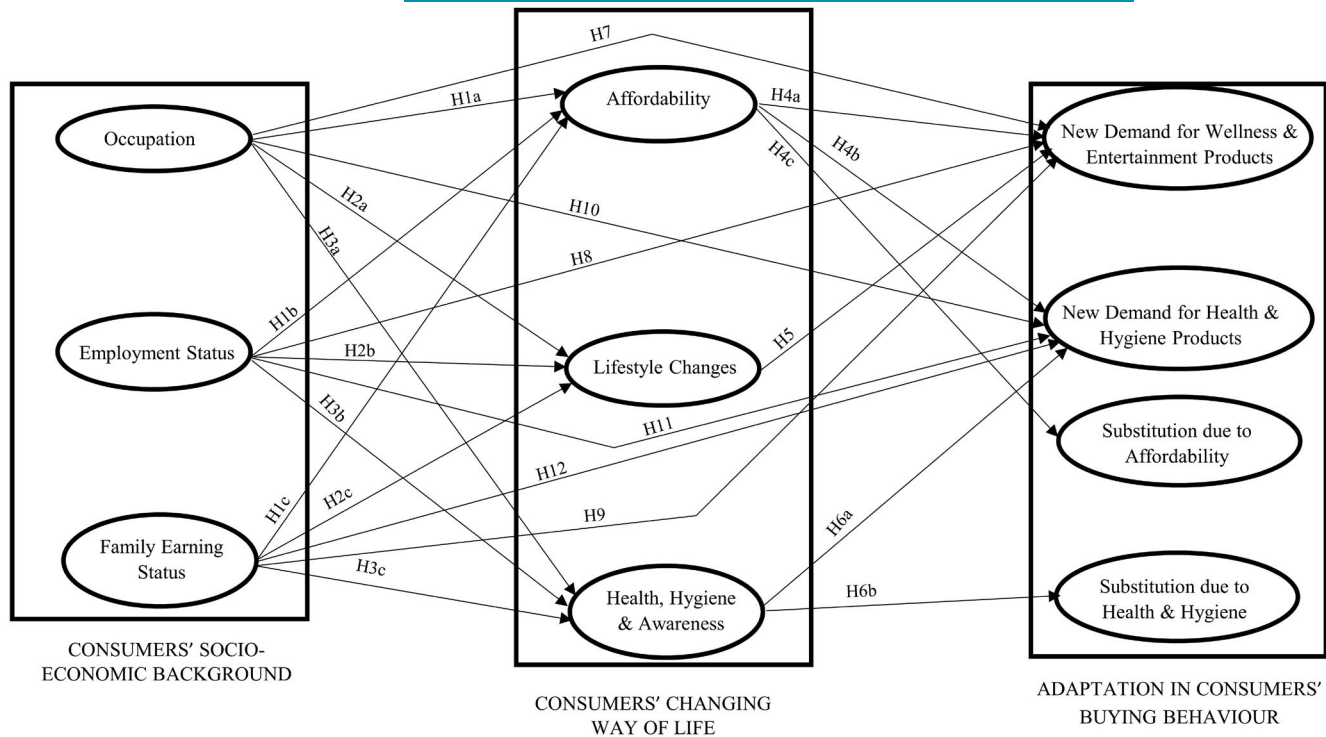
FIGURE 1 Theoretical model of the impact of COVID-19 on consumer behaviour

lesser possibilities of working remotely (Adams-Prassl et al., 2020), and require more face-to-face interpersonal contacts (Avdiu & Nayyar, 2020; Montenovo et al., 2020). We have observed that some people have received lower than the regular salary in their current employment while a few others have lost their jobs during lockdowns which has adversely affected their capacity to sustain the household expenditure. Many studies have observed that family income, personal savings, and occupational status affected the ability of a household to continue their pre-COVID spending (Kansiime et al., 2021; Pakravan-Charvadeh et al., 2021; Piyapromdee & Spittal, 2020). In addition, the ability to support the household expenditure is found to depend upon the number of earning members, which further reflects the earning potential of a family (Addabbo, 2000). Hence, based on the above discussion, we postulate the following hypotheses:

Hypothesis 1a *Occupation significantly influences the affordability of consumers.*

Hypothesis 1b *Current employment status significantly influences the affordability of consumers.*

Hypothesis 1c *Family earning status significantly influences the affordability of consumers.*

3.2 | Consumers' socio-economic background and lifestyle changes

COVID-19 has brought a dramatic change in the lifestyle of people. However, the change is different for people belonging to different socio-economic backgrounds. While occupations such as travel,

restaurants, Micro, Small, and Medium Enterprises (MSME) have seen reduced business activities, there are people in other occupations, for whom work from home during the pandemic is like a much-needed break from their monotonous schedule. Thus, the nature of occupation seems to have an impact on the work schedule and lifestyle changes of people. Many studies have noted that occupational social class and status are associated with the lifestyle of people (García-Mayor et al., 2021). Likewise, receiving a reduced salary or having lost their job during lockdown seems to have had a considerable influence on consumers' lifestyles in terms of daily routine, thought process, and social habits (Khubchandani et al., 2020; PTI, 2020). On the other hand, the lifestyle of a family with multiple earning members may be significantly different from a family with a sole earning member (Pew Research, 2008). Thus, we advance the following hypotheses:

Hypothesis 2a *Occupation significantly influences the lifestyle changes of consumers.*

Hypothesis 2b *Current employment status significantly influences the lifestyle changes of consumers.*

Hypothesis 2c *Family earning status significantly influences the lifestyle changes of consumers.*

3.3 | Consumers' socio-economic background and awareness towards health and hygiene

COVID-19 has resulted in people becoming more conscious about their health and personal hygiene (Baiano et al., 2020; Hess, 2020). Government advisories and campaigns for maintaining personal hygiene through regular hand washes and wearing masks have resulted

in people becoming concerned about their hygiene like never before. However, as occupation varies with the level of education, so does the awareness towards health and hygiene (Teisl et al., 1999). Similarly, awareness towards health and hygiene varies with employment status and family earning status (Prasad et al., 2008). Based on this, we posit the following hypotheses:

Hypothesis 3a *Occupation significantly influences the awareness level of consumers towards their health and hygiene.*

Hypothesis 3b *Current employment status significantly influences the awareness level of consumers towards their health and hygiene.*

Hypothesis 3c *Family earning status significantly influences the awareness level of consumers towards their health and hygiene.*

3.4 | Affordability and consumers' buying behaviour

Due to reduced affordability, a large number of people are restricting their expenditure to mostly essentials and healthcare products while cutting down on non-discretionary products (Martin et al., 2020). This has led to a reduction in sales of many non-essentials. The pandemic, however, has witnessed a significant rise in the demand for wellness and entertainment products delivered through digital platforms (Bakhtiani, 2021; Madnani et al., 2020). Since such subscriptions by consumers are discretionary (Singh, 2020), we expect an influence of reduced affordability due to the pandemic on the creation of new demand. Equivalently, it could also be stated that a positive change in affordability would have a positive impact on the usage of such products (Bakhtiani, 2021; Madnani et al., 2020). Earlier studies in economics and public health have noted that family income significantly influences demand for hygiene products and associated practices (Aunger et al., 2016; Jacob et al., 2014). In many cases, consumers with lower affordability also explored cheaper alternatives such as private labels and affordable brands (Mishra & Balsara, 2020). Therefore, based on the above arguments, we postulate the following hypotheses:

Hypothesis 4a *Creation of new demand for wellness and entertainment products is significantly associated with the change in affordability.*

Hypothesis 4b *Creation of new demand for products relating to health and hygiene is significantly associated with the change in affordability.*

Hypothesis 4c *The demand for affordable substitute products of daily necessities is significantly associated with the change in affordability.*

3.5 | Lifestyle changes and demand for wellness and entertainment products

Lifestyle changes due to COVID-19 have made people more sensitive to fitness that caused a surge in demand for wellness products (Ojha, 2020). Many people are now preferring organic and herbal products and are subscribing to fitness classes and channels (Wernau & Gasparro, 2020). Furthermore, institutional lockdowns imposed by governments have forced people to stay at home and spend time with their families (Debroy, 2020). Additionally, with a regular source of entertainment such as restaurants and movie theatres remaining restricted, people have turned to online platforms for recreation. Even online yoga classes have experienced a spike in their viewership with the spread of this virus (Debroy, 2020). Thus, we propose the following hypothesis:

Hypothesis 5 *Creation of new demand for wellness and entertainment products is positively associated with Lifestyle changes.*

3.6 | Awareness towards health and hygiene and demand for health and hygiene products

Marketing experts have always emphasized the importance of increasing awareness among consumers to increase product demand (Baiano et al., 2020; Hess, 2020). COVID-19 has resulted in people becoming more conscious about their health and personal hygiene. As part of maintaining a proper and healthy lifestyle, regular hand washes and wearing masks are considered to be the defence mechanisms of protecting oneself from the virus. Common people have been spending more on buying healthcare products (Rakshit, 2020). Moreover, the current times have witnessed an incomparable urge in people to substitute unhealthy food items and daily necessities with healthy ones (Master, 2020; Renner et al., 2020). Thus, the following hypotheses are advanced:

Hypothesis 6a *Creation of new demand for products relating to health and hygiene is positively associated with consumers' awareness towards health and hygiene.*

Hypothesis 6b *The demand for healthy substitute products of daily necessities is positively associated with consumers' awareness towards health and hygiene.*

3.7 | Consumers' socio-economic background and creation of new demand for wellness and entertainment products

During this pandemic, fitness and wellness products, and digital platforms such as Netflix have become very popular (Debroy, 2020). However, the nature of demand for wellness and entertainment products varied across people with different socio-economic backgrounds. A person's occupation, employment status, and family income influence consumers' preference for wellness products (Suresh & Ravichandran, 2011) and also have a considerable impact on the creation of new demand for wellness and entertainment products (Madnani et al., 2020). Therefore, we propose to investigate further the relationship between consumers with diverse socio-economic

backgrounds and the creation of new demand for wellness and entertainment products. Thus, we postulate the following hypotheses:

Hypothesis 7 *Occupation significantly influences the creation of new demand for wellness and entertainment products.*

Hypothesis 8 *Current employment status significantly influences the creation of new demand for wellness and entertainment products.*

Hypothesis 9 *Family earning status significantly influences the creation of new demand for wellness and entertainment products.*

3.8 | Consumers' socio-economic background and creation of new demand for health and hygiene products

This pandemic has also seen an increased demand for health and hygiene products (Dsouza, 2020). People have been forced to spend on hand washes, sanitizers, and masks to protect against this rapidly spreading virus. As there are occupations that would put an individual and her/his family into different levels of vulnerabilities (Avdiu & Nayyar, 2020), we expect variations in the consumption of health and hygiene products based on their occupation (Riise et al., 2003). Earlier research has established the relationship between family income and consumers' preference for healthy food (Galati et al., 2019; Pakravan-Charvadeh et al., 2021). The reduced income and job losses would have a significant bearing on both mental stress as well as disposable income (Witteveen, 2020) which, in turn, influence the choice of consumers for health and hygiene products (Khubchandani et al., 2020). Therefore, the creation of new demand for health and hygiene products seems to vary depending on the types of occupation, current employment status, and family earning status. Thus, we propose the following hypotheses:

Hypothesis 10 *Occupation significantly influences the creation of new demand for products relating to health and hygiene.*

Hypothesis 11 *Current employment status significantly influences the creation of new demand for products relating to health and hygiene.*

Hypothesis 12 *Family earning status significantly influences the creation of new demand for products relating to health and hygiene.*

4 | RESEARCH METHODOLOGY

4.1 | Design of survey instrument and its reliability

The findings of Paul and Bhukya (2021) reveal that the impact of COVID-19 on consumer behaviour is one of the important contemporary topics of research. However, we could not find any suitable questionnaire in the extant literature with specific reference to the hypothesized research model depicted in Figure 1 which could be directly utilized for data collection purposes. We came across several items in the literature for other kinds of disasters, which were found

relevant for our study. In addition, we also observed through newspapers, electronic media, and social media the challenges faced by the consumers in respect of reduced salary, job losses, health issues, the surge in demand for products relating to health and hygiene, etc. arising out of COVID-19. We took cognizance of all these aspects and framed an open-ended questionnaire in the initial phase to develop an understanding of different types of challenges faced by the consumers and their impact on changing consumer behaviour. The open-ended questionnaire was translated into Hindi, Malayalam, and Bengali with the help of three bilingual experts having expertise in Hindi, Malayalam, and Bengali languages respectively along with English. We administered this questionnaire to consumers with different linguistic and socio-economic backgrounds. We identified five respondents from Government/Public Sector organisations, five from Multinational/Private sector firms, and five from MSMEs. In addition, we identified three independent businessmen and seven daily wage-earners. All these respondents were requested to participate in the study after thoroughly explaining to them the purpose of undertaking this particular exercise. They agreed to take part in the study. However, the daily wage-earners had to be given INR100/- each to motivate them to take part in the study. Amongst these respondents, some of them could understand Hindi well, some of them could understand Malayalam well while a few others could understand Bengali well. In the case of employees of Public sector and Private sector firms, the questionnaire was sent through email with the request to provide unambiguous responses within a week. In the case of the employees of MSMEs and independent businessmen, we took separate appointments through telephonic calls and requested that one of the authors would seek responses from them in person by maintaining the protocol of social distancing. One author from Delhi and another author from Kozhikode separately conducted this exercise in Delhi and Kozhikode respectively. Finally, in the case of daily wage-earners, we directly talked to a few rickshaw-pullers, a few street vendors, and a few masons and managed to secure their responses after incentivizing them. We asked the questions verbally to this category of respondents and they replied to the specific questions based on their experience. Thus, we had to record the conversations which were later transcribed.

Based on the responses received from the preliminary study, we summarized them under different sections and designed another open-ended questionnaire. The purpose of designing the second-round open-ended questionnaire was to cross-check the same with the experts and to ensure adequate and appropriate coverage of the items under different sections thereby taking care of the content validity of the questionnaire. For example, we identified several items reflecting the financial distress faced by the common people due to COVID-19 and put them under 'Affordability'. We requested the experts to exercise their judgment in terms of whether those items represent the essence of 'Affordability'. Those experts were chosen who had considerable experience in selling essential items either through the offline or online channel. In addition, a few more experts were also selected who conducted research in consumer behaviour for a sufficient period. Accordingly, we selected experts from both

academia and industry, which included one Professor of Marketing, two researchers doing research in consumer behaviour, one manager from an offline store selling essential items, and one executive from an online retailer. These experts were known to be thoroughly conversant with the impact of COVID-19 on the consumers' way of life and also their changing buying behaviour across consumers of varying socio-economic backgrounds. The experts recommended the retention of most of the items and the removal of very few ones. Subsequently, we designed the close-ended questionnaire based on the recommendation of the experts. The close-ended questionnaire was divided into three sections. The first section contained questions relating to the socio-demographic profile and earning status of the respondents. The second section carried questions about the factors influencing Consumers' changing way of life arising out of COVID-19. Finally, the third section contained questions pertaining to the adaptations on consumers' buying behaviour due to COVID-19. A five-point Likert scale *ranging from 1 = Not at all True to 5 = Absolutely True* was used as a response format in the second and third sections. The questionnaire was shown to the same experts once again to elicit their opinion for evaluating its ease of understanding from the perspective of potential respondents. Based on the recommendation of experts, some questions were rephrased. This exercise helped us in ensuring the content validity of the questionnaire. Table 1 presents the first part of the questionnaire while Appendices 1 and 2 show the second and third parts of the questionnaire respectively.

Subsequently, the reliability of the questionnaire was tested by administering the survey on 30 respondents chosen carefully. Cronbach's alpha of the scale representing *Consumers' changing way of life* turned out to be 0.795 while the same for the scale showing *Adaptation in consumers' buying behaviour* was found to be 0.895.

Both the scales showed high corrected item-to-total correlations which indicated the presence of high internal consistency. Since the alpha value of both scales was well above the threshold level of 0.7, these scales were considered reliable (Hair et al., 2009).

4.2 | Target respondents and collection of data

The survey was administered amongst the respondents with diverse socio-economic backgrounds in India. The questionnaire was circulated among people working in Government organisations, private sector organisations, MSMEs, and also among the daily wage-earners. Given the diversity of the languages, we administered the survey in four languages including, English, Hindi, Malayalam, and Bengali. The above languages were chosen as a substantial percentage of the population of India speaks these languages. Efforts were also made to ensure that only one response is received from a single household. Because of the lockdown and the restrictions on mobility, we chose a variety of mediums to reach out to the potential respondents. We approached the potential respondents both through online and offline mode. In the case of online mode, the questionnaire was circulated on social media mainly through LinkedIn, WhatsApp, and Facebook urging people to respond to the questionnaire. These mediums were chosen for their immense popularity in India in terms of the number of users. They were further selected as the authors also have their active networks and groups in these platforms. In the case of offline mode, some respondents were sent questionnaires via email while others were administered through hard copies of the questionnaire in a language of their choice. Field-workers were hired against remuneration who physically received the responses directly by visiting the respondents' doorsteps or by

TABLE 1 Distribution of the respondents based on socio-demographic background (*n* = 425)

Variable	Percentage of respondents (%)	Variable	Percentage of respondents (%)
Gender		*Job profile*	
Male	71.53	Government or Public Sector	22.35
Female	28.47	Private Firm	27.53
Age		Micro, Small and Medium Enterprises, contractors and Daily Wage-earners	28.00
24–35 years	54.59	Independent Businesses	7.06
45–55 years	33.65	Others	15.06
56–65 years	10.59	*Employment status*	
66 years and above	1.18	Employed and getting full salary	51.53
Educational background		Employed and getting reduced salary	23.29
Graduates in a non- professional course	13.88	Lost job due to lockdown	12.47
		Others	12.50
Graduates in a professional course	56.00	*Family earning status*	
		Sole Earning Member	29.88
School Board or No Formal Education	25.64	Multiple Earning Member	55.29
Others	4.47	Non-earning Member	14.82

reaching out to them in public places like, malls, popular restaurants, and shops. Field-workers were clearly instructed to explain the essence of the questionnaire to the respondents thoroughly before asking them to fill out the questionnaire. They were further advised not to fill out the questionnaire on behalf of the respondents. The questionnaire survey was administered over two months during August and September 2020. During this period, different parts of India were experiencing a variety of restrictions depending on the number and severity of COVID-19 cases in different places. A total of 494 responses were received out of which 69 responses were found to be incomplete and incoherent. Thus, we were left with 425 usable responses for the final analysis.

4.3 | Tests for potential bias in survey data

Non-response bias was assessed by performing a *t*-test on the scores of early and late respondents based on the assumption that the opinions of late respondents are representative of the opinions of non-respondents (Krause et al., 2001). A total of 241 responses (56.7%) were received in the first month (i.e., August 2020) while 184 responses (43.3%) were received in the second month (i.e., September 2020). Respondents giving responses in the first month were considered as early respondents while those giving responses in the second month were treated as late respondents. *T*-tests were carried out between early respondents with 241 responses and late respondents with 184 responses on individual items. The results did not reveal any significant difference between the two groups for most of the items. This indicates that the data was relatively free from non-response bias.

As this study relied on single respondents for doing the final analysis, the potential for common method bias to influence the results was also evaluated. We applied Harman's one-factor test to evaluate common method bias separately on the scale representing *Consumers' changing way of life* and the scale reflecting *Adaptation in consumers' buying behaviour.* We carried out the above test separately for both the scales in IBM SPSS (version 25) by doing exploratory factor analysis without rotation. All 13 items representing *Consumers' changing way of life* were allowed to be loaded into one single factor and again all 16 items reflecting Adaptation in consumers' buying behaviour were loaded into another single factor. It was found that the common factor representing Consumers' changing way of life explained only 25% of the total variance while the common factor capturing Adaptation in consumers' buying behaviour explained only 30.4% of the total variance. Since the total variance of a single factor was less than 50% in both the scales, the common method bias did not seem to be a concern for the present study (Podsakoff et al., 2003).

5 | DATA ANALYSIS AND INTERPRETATION

The 425 usable responses were also checked for missing values and inconsistency. An overview of the respondents' demographic profile,

descriptive statistics, Confirmatory Factor Analysis (CFA), and the validation of the conceptual model using the Structured Equation Modelling (SEM) is presented in the following sub-sections. We utilized IBM SPSS (version 25) for finding out the descriptive statistics of manifest variables and the demographic profile of the respondents. In addition, we also employed IBM SPSS AMOS (version 24) for carrying out CFA and SEM. Regarding descriptive statistics, we determined the minimum score, maximum score, mean and standard deviation of all items of both the scales and presented the same in Appendices 1 and 2.

5.1 | Demographic profile

The socio-economic profile of 425 respondents revealed that most of them were of working age with a sizeable number of respondents (71.53%) turning out to be male. A majority of the respondents were employed (74.83%). However, a substantial portion of respondents lost their jobs or was receiving reduced salaries after the imposition of lockdown (35.76%). In terms of educational qualification, a major portion of the respondents (69.88%) were graduates with 56% of them having earned their degree in a professional course. The family earning status of the respondents showed that 29.88% were the sole earners in their family. The details of the demographic profile are provided in Table 1.

5.2 | Confirmatory factor analysis

The questionnaire developed through several rounds of an iterative process and validated by the experts allowed us to determine the underlying constructs. We observed that *Consumers' changing way of life* consists of three constructs while *Adaptation in consumers' buying behaviour* comprises four constructs. We applied CFA to assess how well the observed variables including 13 items relating to the *Consumers' changing way of life* and another 16 items representing *Adaptation in consumers' buying behaviour* arising out of COVID-19 reflect unobserved or latent constructs in the hypothesized structure. In the CFA model, all seven constructs were allowed to be correlated with each other forming a composite measurement scale representing the *Consumers' changing way of life* and *Adaptation in consumers' buying behaviour* due to COVID-19. The model was assessed by utilizing the maximum likelihood (ML) method. One of the prerequisites of the ML method is the normality of the endogenous variables (Kline, 2016). Thus, for ascertaining whether the data of the endogenous variables follow a normal distribution or not, we computed the kurtosis value. We observed that the values of almost all variables remained within the range of −7 to +7, which assuaged the concern regarding the non-normality of the data (Mueller & Hancock, 2019).

All items were evaluated based on several criteria including items standardized regression weights, squared multiple correlations, and standardized residual covariance. In addition, the

TABLE 2 Summary of the measurement results and inter-construct correlations

Construct	Mean	SD	Cronbach's Alpha	1	2	3	4	5	6
1. Affordability	2.985	1.614	0.842	–					
2. Life-style Changes	3.147	1.376	0.645	−0.282***	–				
3. Awareness towards health & hygiene	4.458	0.862	0.736	−0.181**	0.567***	–			
4. Creation of new demand for wellness & entertainment products	4.29	0.927	0.816	−0.102*	0.616***	0.281***	–		
5. Creation of new demand for health & hygiene products	2.114	1.235	0.801	−0.170**	0.324***	0.405***	0.252***	–	
6. Substitution of daily necessities due to affordability	2.239	1.118	0.803	−0.197***	0.321***	0.187**	0.408***	0.149**	–
7. Substitution of daily necessities due to awareness towards health	2.856	1.248	0.817	−0.169**	0.440***	0.197***	0.272***	0.243***	0.481***

*p < .10; **p < .01; ***p < .001.

theoretical importance and practical significance of every item were taken into consideration while refining the model. This resulted in the removal of five variables of the *Consumers' changing way of life* and another three variables of *Consumers' buying behaviour* from the model thereby leaving eight items of *Consumers' changing way of life* and another 13 items of *Consumers' buying behaviour* in the final measurement model. This, however, did not significantly affect the content validity of the scale. Rather the model became further parsimonious. We found that one construct namely 'lifestyle changes' was left with only two items. However, it did not give rise to the problem of under-identification of the measurement model. The findings of Das (2018) and Pullman et al. (2009) revealed several constructs which contain only two items. The presence of such constructs with two items did not create the problem of under-identification of measurement models in the above research findings. Goodness of fit (GOF) measures of the final measurement model were as follows: χ^2 = 338.939, degrees of freedom (df) = 162, p = .00, χ^2/df = 2.092, goodness fit index (GFI) = 0.931, Adjusted Goodness of Fit Index (AGFI) = 0.902, Comparative Fit Index (CFI) = 0.951, Tucker-Lewis Index (TLI) = 0.937, Root Mean Square Error of Approximation (RMSEA) [90% CI] = 0.051 [0.043, 0.058], Standardized Root Mean Residual (SRMR) = 0.0512. For an adequate model fit, the fit indices of GFI, CFI, and TLI should be at least 0.9 while the same of RMSEA and SRMR should be less than 0.08 (Hair et al., 2009). Thus, based on the fit indices, it could be inferred that the measurement model fits well with the data on all major indices. The details of the measurement results are shown in Table 2, which includes the descriptive statistics of the constructs pertaining to the *Consumers' changing way of life* and *Adaptation to consumers' buying behaviour*. This includes the mean, standard deviation, and reliability value (Cronbach's alpha) of each construct and also the inter-construct correlations.

The above table shows that Cronbach's alpha coefficients of six constructs out of seven have exceeded 0.7 thereby indicating sound reliability of these constructs (Hair et al., 2009). Alpha coefficient of the remaining one construct reveals acceptable reliability value over 0.6 (Hair et al., 2009). In addition, Table 2 also shows that almost all inter-construct correlations are significant at 0.1% or 1% level. Only one inter-construct correlation is significant at 10% level. These inter-construct correlations help us in ascertaining the discriminant validity of all the constructs, which is discussed in the later part of this section.

This model was systematically evaluated for Construct Reliability (CR), convergent validity, and discriminant validity in order to validate the constructs of the *Consumers' changing way of life* and *Adaptation to consumers' buying behaviour* due to COVID-19. In the present study, we have estimated the CR coefficient of all constructs which is shown in Table 3. The estimate of CR lying between 0.6 to 0.7 is considered acceptable while the value above 0.7 suggests good reliability of a construct (Hair et al., 2009). Thus, the six constructs may be considered to possess excellent reliability while the remaining one construct is characterized by an acceptable level of reliability.

Convergent validity requires that the indicator variables of a given construct share a high proportion of variance in common. It was evaluated by following two different approaches. The first method involves the inspection of estimated factor loadings of items on the constructs in the final CFA model (Anderson & Gerbing, 1988). It was found that the standardized loadings of all items are greater than 0.5 and statistically significant (p < .001). The second method involves the assessment of convergent validity with the help of Average Variance Extracted (AVE). An AVE of 0.5 or more of a construct indicates a high level of convergent validity (Hair et al., 2009). The seven constructs have AVE ranging from 0.477 to 0.648 as shown in Table 3. Six constructs have more than the threshold level of AVE (0.5), thus indicating a high convergent validity of the above constructs. Only the lifestyle changes construct is found to have an AVE slightly below the threshold value. However, since this construct meets the criteria of convergent validity in the first method and in the second method, the value of AVE is somewhat close to the threshold value, the lifestyle changes construct may be considered to possess a reasonable level of convergent validity.

Discriminant validity is a measure of how a construct is distinct from other constructs in the same model and whether each construct is measuring different concepts (Hair et al., 2009). Discriminant validity was also assessed by following two different approaches. The first method involves the investigation of the correlation between each pair of constructs in the CFA model. If the correlations between constructs are well below 0.9; then there is very little possibility that a group of items loading significantly on one construct would also load on another construct (Kline, 2016). The correlations between the constructs occurred within the range of −0.282 to 0.616, which were well below 0.9. This is reported in Table 2. The second method involves the comparison of the AVE of each construct with the shared variance of each pair of constructs. If the square root of the AVE of each construct is more than the correlation of each pair of constructs, then this implies that the constructs account for a greater proportion of variance of the items that are assigned to them (Fornell & Larcker, 1981). Table 3 shows that the lowest value of AVE of a construct is 0.477. Its square root is 0.690, which exceeds the maximum correlation coefficient of 0.616 between a pair of constructs as reported in Table 2. Thus, the seven construct CFA model demonstrates a satisfactory level of discriminant validity. This facilitated the SEM on the final measurement model to be carried out for investigating the relationships hypothesized in Section 3.

5.3 | Structural equation modelling

The final measurement model has been taken as the main input for developing the structural model. In the structural model, demographic variables of the respondents including occupation, current employment status, and family earning status were considered as the exogenous variables while *Consumers' changing way of life* and *consumers' buying behaviour* arising out of COVID-19 were treated as endogenous variables. This was investigated through SEM and the hypotheses formulated earlier were tested. The model was assessed utilizing the ML estimation method. GOF measures of the structural model were as follows: $\chi^2 = 887.533$, $df = 324$, $p = .00$, $\chi^2/df = 2.739$, GFI = 0.878, AGFI = 0.825, TLI = 0.840, CFI = 0.881, RMSEA [90% CI] = 0.064 [0.059, 0.069], SRMR = 0.075. The fit indices indicate that TLI and CFI are below the acceptable level of 0.9 while RMSEA and SRMR are within the acceptable range of 0.08 (Hair et al., 2009). In this context, it is to be mentioned that the model complexity in terms of the number of observed variables, number of parameters estimated, etc. has a significant negative impact on GFI, AGFI, and CFI. Thus, the general rules of thumb with the cut-off values of GFI or CFI being at least 0.9 may sometimes be misleading for complex models (Baumgartner & Homburg, 1996). A similar observation was also made by Srinivasan et al. (2002) in respect of model complexity. In one of the measurement models developed by them, both CFI and TLI were found below 0.9. However, since both RMSEA and SRMR remained within the acceptable range of 0.08, the model was considered reasonably fitting to the data. Based on the above argument, we can infer that the present findings indicate an acceptable level

of fit to the above indices. The final structural model is shown in Figure 2. We have shown only the significant paths in this model, which include both direct effects and total effects covering both direct and indirect effects. The interpretation of these paths has been provided in appropriate places of the following section.

6 | MAJOR FINDINGS

6.1 | Influence of occupation, employment status and earning status on affordability

The profile of the socio-demographic and economic background of the respondents provided in Table 1 reveals that they differ in terms of their occupations, current employment status, and also their earning status. The respondents were categorized into five types of occupations described as Job1 through Job5. In terms of employment status, they were categorized into four types which have been shown as Emp1 through Emp4. Finally, the respondents were classified into three categories in terms of the earning potential of their family, which have been designated as Earn1 through Earn3. All these categorizations in terms of occupation, employment status, and earning status have been indicated in Table 4. The categorical variables were transformed into binary variables individually before considering them as exogenous variables. In the structural model, Job1, Emp1, and Earn2 were considered as the reference categories for occupation, employment status, and earning status respectively following Cohen et al. (2003), as each one of them was the most dominant category in the respective socio-economic classes and least likely to be affected compared to other categories by the pandemic. Out of 21 hypotheses formulated in Section 3, 15 hypotheses had a direct effect while the remaining six hypotheses involved both direct and indirect (mediating) effects. Tables 4 and 5 present the results of hypotheses that only have a direct effect, based on standardized regression weights (β), critical ratios (t-value), and p values. Table 4 specifically describes the results of the effect of Consumers' socio-economic background on their changing way of life. The results of Hypothesis 1a showing the relationship between occupation and affordability reveal that the affordability of people with four types of occupations (Job2 through Job5) was negatively affected due to COVID-19 compared to the affordability of people belonging to the reference category, i.e., Job1. However, the negative effect was found to be significant only for people with occupation categories Job3 and Job5. This suggests that the lockdown affected the affordability of people in the unorganised sector more than the organised sector. The results of Hypothesis 1b explaining the relationship between current employment status and affordability indicate that there was a significant negative effect on the affordability of people of three types of employment (Emp2 through Emp4) due to COVID-19 compared to the same belonging to the reference category, i.e., Emp1. This directly demonstrates that people having lost their job or receiving reduced salaries due to COVID-19 were severely affected in terms

TABLE 3 Results of Reliability, Convergent and Discriminant validity of the consumers' changing way of life and consumers' buying behaviour

Construct	Observable item	Standardized Loading	T-value	AVE	CR
Affordability				0.648	0.846
	Restricted economic activity arising out of Covid-19 has resulted in significant reduction of my regular income	0.752	15.256		
	Restricted economic activity arising out of Covid-19 has resulted in significant reduction of my savings	0.881	16.212		
	Restricted economic activity arising out of Covid-19 has reduced my ability to meet the day-to-day household expenses	0.777	[a]		
Lifestyle changes				0.477	0.646
	The spread of Covid-19 has forced me and my family-members to do Yoga/Physical exercise on regular basis	0.707	[a]		
	The spread of Covid-19 has renewed our interest towards the importance of herbal products in our day-to-day life	0.674	10.301		
Awareness towards health & hygiene				0.504	0.752
	The spread of Covid-19 has increased the level of awareness of the health of my family members including me	0.769	[a]		
	The spread of Covid-19 has increased the level of awareness of my family members including me about maintaining cleanliness and hygiene	0.712	9.573		
	The spread of Covid-19 has increased the level of awareness of my family members including me about the adoption of safety measures in terms of using masks and gloves	0.643	8.363		
Creation of new demand for wellness & entertainment products				0.553	0.827
	Creation of new demand for Herbal products for external use due to Covid-19	0.526	[a]		
	Creation of new demand for subscription to channels of Art of living lessons due to Covid-19	0.792	9.865		
	Creation of new demand for subscription to Yoga channels due to Covid-19	0.888	10.018		
	Creation of new demand for subscription to Fitness channels due to Covid-19	0.720	9.515		
Creation of new demand for health & hygiene products				0.605	0.820
	Creation of new demand for liquid hand-wash due to Covid-19	0.688	[a]		
	Creation of new demand for hand sanitizer due to Covid-19	0.854	13.821		
	Creation of new demand for masks due to Covid-19	0.782	13.614		
Substitution of daily necessities due to affordability				0.612	0.823
	Substitution of Expensive staple food items with the Inexpensive staple food items	0.719	[a]		

(Continues)

TABLE 3 (Continued)

Construct	Observable item	Standardized Loading	T-value	AVE	CR
	Substitution of Expensive Fast moving consumer goods with the Inexpensive Fast moving consumer goods	0.934	15.521		
	Substitution of Expensive packaged food with the Inexpensive packaged food	0.669	13.74		
Substitution of daily necessities due to awareness towards health				0.640	0.839
	Substitution of Conventional staple food items with the Healthy staple food items	0.793	a		
	Substitution of Conventional Fast moving consumer goods with the Organic (Non-toxic) Fast moving consumer goods	0.931	18.147		
	Substitution of Conventional Packaged food with the Organic food	0.651	14.671		

Abbreviations: AVE, average variance extracted; CR, construct reliability.

[a]The items for which the factor loading estimates have been set to 1 by AMOS software.
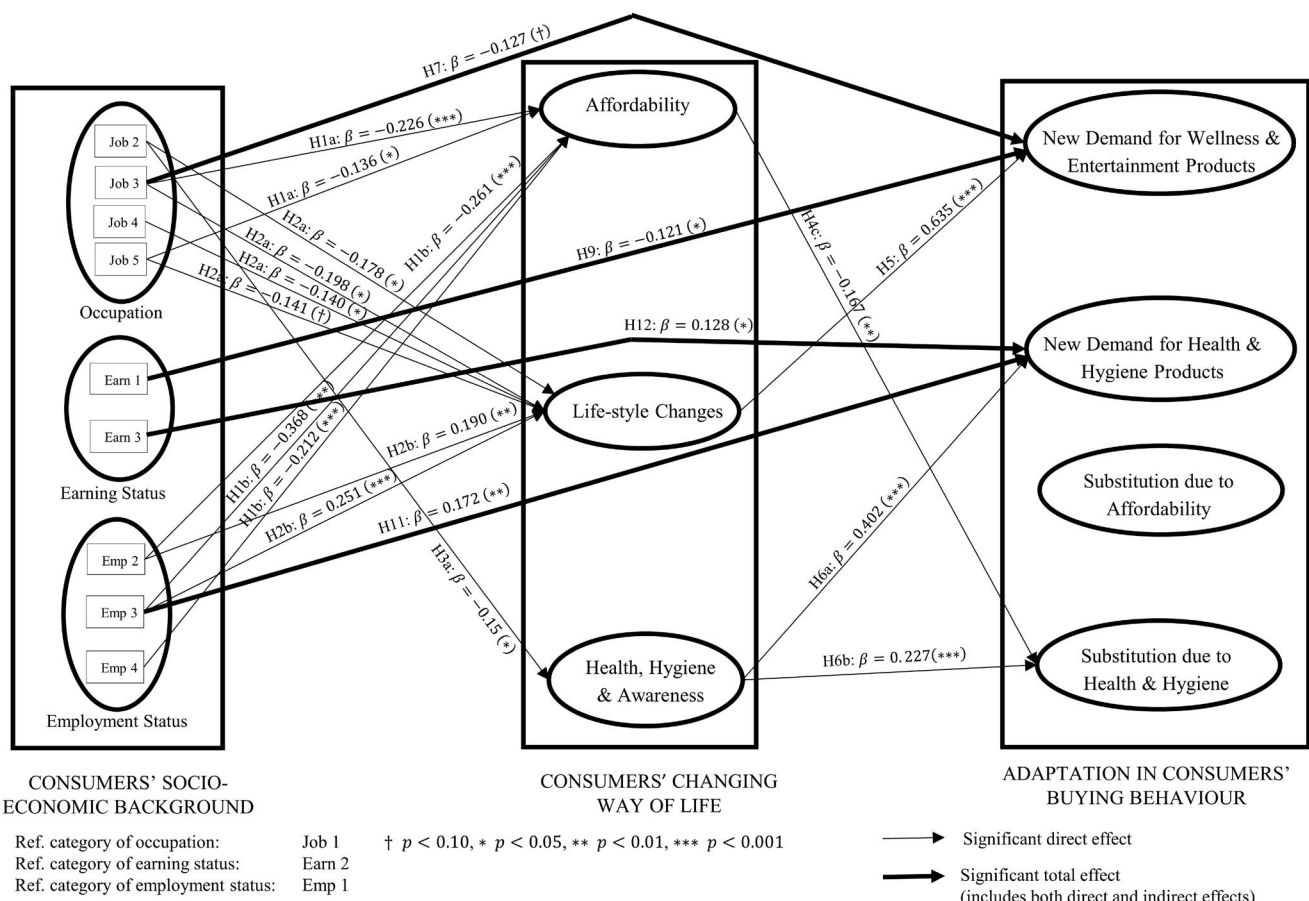

FIGURE 2 Final model of the impact of COVID-19 on consumer behaviour

of their affordability compared to the people who were receiving full salaries. Hypothesis 1c describing the relationship between family earning status and affordability shows that the affordability of people with two categories of earning status (Earn1 and Earn3)

was not affected due to COVID-19 compared to the reference category, i.e., Earn2. This further illustrates the fact that the respondents with a single earning member, multiple earning members, or non-earning members cannot be differentiated in terms of their

TABLE 4 Results of structural model for socio-economic factors (direct effects) (n = 425)

Hypothesis	Structural path	β	t-value	p-value	Comments
Hypothesis 1a	Job2 → Affordability	−0.040	−0.669	.503	Not supported
	Job3 → Affordability	−0.226	−3.387	***	Supported in opposite direction
	Job4 → Affordability	−0.013	−0.241	.809	Not supported
	Job5 → Affordability	−0.136	−2.060	.039*	Supported in opposite direction
Hypothesis 1b	Emp2 → Affordability	−0.261	−4.722	***	Supported in opposite direction
	Emp3 → Affordability	−0.368	−6.462	***	Supported in opposite direction
	Emp4 → Affordability	−0.212	−3.273	.001***	Supported in opposite direction
Hypothesis 1c	Earn1 → Affordability	0.029	0.577	.564	Not supported
	Earn3 → Affordability	0.052	0.900	.368	Not supported
Hypothesis 2a	Job2 → Lifestyle changes	−0.178	−2.301	.021*	Supported in opposite direction
	Job3 → Lifestyle changes	−0.198	−2.306	.021*	Supported in opposite direction
	Job4 → Lifestyle changes	−0.140	−1.969	.049*	Supported in opposite direction
	Job5 → Lifestyle changes	−0.141	−1.659	.097†	Supported in opposite direction
Hypothesis 2b	Emp2 → Lifestyle changes	0.190	2.676	.007**	Supported
	Emp3 → Lifestyle changes	0.251	3.469	***	Supported
	Emp4 → Lifestyle changes	0.054	0.658	.511	Not supported
Hypothesis 2c	Earn1 → Lifestyle changes	−0.087	−1.365	.172	Not supported
	Earn3 → Lifestyle changes	0.042	0.554	.579	Not supported
Hypothesis 3a	Job2 → Awareness towards health	−0.150	−2.024	.043*	Supported in opposite direction
	Job3 → Awareness towards health	−0.052	−0.641	.521	Not supported
	Job4 → Awareness towards health	−0.101	−1.489	.137	Not supported
	Job5 → Awareness towards health	−0.125	−1.537	.124	Not supported
Hypothesis 3b	Emp2 → Awareness towards health	0.084	1.253	.210	Not supported
	Emp3 → Awareness towards health	0.097	1.430	.153	Not supported
	Emp4 → Awareness towards health	0.030	0.380	.704	Not supported
Hypothesis 3c	Earn1 → Awareness towards health	−0.017	−0.276	.783	Not supported
	Earn3 → Awareness towards health	0.054	0.758	.449	Not supported

Note: Job1: Respondents who are working in government or public sector jobs; Job2: Respondents who are working in private sector jobs; Job3: Respondents who are working in MSME sectors/ Contractors/ Daily wage earners;

Job4: Respondents who own their own business or startups; Job5: Respondents with other job profiles.

Emp1: Respondents who are currently employed and getting full salary; Emp2: Respondents who are currently employed but are getting reduced salary; Emp3: Respondents who have lost their jobs during lockdown; Emp4: Respondents with other employment status;

Earn1: Respondents who are the sole earners of the family; Earn2: Respondents who are one of the earning members of the family; Earn3: Respondents who are the non-earning members of the family.

†p < .10.

*p < .05; **p < .01; ***p < .001.

affordability due to COVID-19. The significant impact of occupation with categories Job3 and Job5 on affordability and again the significant effect of employment status including categories Emp2 through Emp4 have been indicated in the final structural model (Figure 2).

6.2 | Influence of occupation, employment status and earning status on lifestyle changes

Following a similar approach, we investigated the influence of occupation, current employment status, and earning status on

TABLE 5 Results of structural model of consumers' way of life (direct effects) (*n* = 425)

Hypothesis	Structural Path	β	*t*-value	*p*-value	Comments
Hypothesis 4a	Affordability → Demand for wellness products	−0.092	−1.559	.119	Not supported
Hypothesis 4b	Affordability → Demand for health products	−0.104	−1.645	.110	Not supported
Hypothesis 4c	Affordability → Substitution of affordable necessities	−0.167	−3.079	.002**	Supported
Hypothesis 5	Lifestyle changes → Demand for wellness products	0.635	6.434	***	Supported
Hypothesis 6a	Awareness towards health → Demand for health products	0.402	5.822	***	Supported
Hypothesis 6b	Awareness towards health → Substitution of healthy necessities	0.227	3.673	***	Supported

**p* < .01; ****p* < .001.

lifestyle changes of people due to COVID-19. Hypothesis 2a showing the relationship between occupation and lifestyle changes reveals that the lifestyle changes of people with Job2 through Job5 were significantly affected in opposite direction compared to the lifestyle changes of people with reference category, i.e., Job1. This demonstrates that people other than those engaged in the Government or Public sector did not indulge themselves in lifestyle changes arising out of COVID-19. Hypothesis 2b explaining the relationship between current employment status reveals that the lifestyle changes of people with Emp2 and Emp3 were positively affected compared to the lifestyle changes of people with reference category, i.e., Emp1. The effect was found to be significant. This signifies that the people receiving a reduced salary or having lost their jobs are becoming more concerned with doing yoga and using herbal products in their day-to-day life compared to the people receiving full salary. Hypothesis 2c delineating the relationship between family earning status and lifestyle changes shows that the lifestyle changes of people with Earn1 and Earn3 were not affected compared to the reference category, i.e., Earn2. This indicates that the lifestyle changes of people cannot be differentiated based on their earning status. The significant effect of occupation with categories Job2 through Job5 on lifestyle changes and further the significant effect of employment with categories Emp2 and Emp3 on lifestyle changes have been shown in Figure 2.

6.3 | Influence of occupation, employment status and earning status on awareness towards health

Hypothesis 3a describing the relationship between occupation and awareness towards health reveals that the health awareness of people with occupations Job2 through Job5 was negatively affected compared to the awareness of people with reference category, i.e., Job1. However, the effect was found significant only in the case of Job2. Hypothesis 3b showing the relationship between employment status and awareness towards health indicates that the awareness of people with categories Emp2, Emp3, and Emp4 was not affected

compared to the reference category, i.e., Emp1. This implies that the awareness of people towards health cannot be distinguished based on their employment status. Finally, Hypothesis 3c outlining the relationship between earning status and awareness towards health shows that the awareness of people with Earn1 and Earn3 was not affected compared to the reference category, Earn2. This further explains that the awareness of people towards health cannot be discriminated against based on their earning status. The significant effect of occupation with category Job2 on awareness towards health is shown in Figure 2.

6.4 | Association of Affordability, Lifestyle Changes and Health Awareness with Demand for Wellness Products, Health Products, Substitution of Affordable necessities etc

Table 5 presents the results of the impact of different constructs constituting *Consumers' changing way of life* on the *Adaptation in consumers' buying behaviour*. Hypothesis 4a reveals that the increase in demand for wellness and entertainment products was associated with a fall in affordability. However, the effect was not significant. Similarly, the increase in demand for products relating to health and hygiene was associated with a non-significant decrease in affordability as specified in Hypothesis 4b. Hypothesis 4c shows that the fall in affordability had a significant influence on the demand for affordable substitute products of daily necessities. Hypothesis 5 shows that lifestyle changes had a significant positive influence on the demand for wellness products which explains the reported rise in demand for wellness and entertainment products during the pandemic. Further, increased awareness towards health and hygiene had a significant positive influence on the demand for products relating to health and hygiene as also on the demand for healthy substitute products of daily necessities as described in Hypotheses 6a and 6b respectively. The significant results of Hypotheses 4c, 5, 6a, and 6b have been delineated in Figure 2. Thus, our study validates many of the anecdotal explanations that are observed in market surveys and news reports on the effect of COVID-19 on consumers' changing buying behaviour.

TABLE 6 Hypothesis 7 Influence of occupation on the demand for wellness products (direct, indirect and total effects) (n = 425)

Structural path	Direct effect		Specific indirect effect		Total indirect effect		Total direct & indirect effect		Comments
	B	p-value	β	p-value	β	p-value	β	p-value	
Job3 → Demand for wellness product	−0.022	0.753							Direct effect is negative & insignificant while the total indirect effect is negative & significant at 10% level. Total direct and indirect effect is negative & significant at 10% level. (Partial mediation)
Job3 → Affordability → Demand for wellness product			0.021	0.095					
Job3 → Lifestyle changes → Demand for wellness product			−0.126	.014	−0.105	.077	−0.127	.069	

TABLE 7 Hypothesis 9 Influence of earning status on the demand for wellness products (direct, indirect and total effects) (n = 425)

Structural path	Direct effect		Specific indirect effect		Total indirect effect		Total direct & indirect effect		Comments
	B	p-value	β	p-value	β	p-value	β	p-value	
Earn1 → Demand for wellness product	−0.062	.233							Direct effect is negative and insignificant while total indirect effect is also negative and insignificant. However, total direct and indirect effect is negative and significant at 5% level (Full mediation)
Earn1 → Affordability → Demand for wellness product			−0.003	.393					
Earn1 → Lifestyle changes Demand for wellness product			−0.056	.212	−0.059	0.214	−0.121	.047	
Earn3 → Demand for wellness product	−0.074	.228							Direct effect is negative and insignificant while total indirect effect is positive and insignificant. However, total direct & indirect effect is negative and insignificant.
Earn3 → Affordability → Demand for wellness product			−0.005	.263					
Earn3 → Lifestyle changes → Demand for wellness product			0.026	.58	0.021	0.652	−0.053	.409	

TABLE 8 Hypothesis 11 Influence of emp. Status on the creation of new demand for health products (direct, indirect and total effects) (n = 425)

Structural path	Direct effect		Specific indirect effect		Total indirect effect		Total direct & indirect effect		Comments
	β	p-value	β	p-value	β	p-value	β	p-value	
Emp3 → Demand for health products	0.095	0.137							Direct effect is positive & insignificant while total indirect effect is positive & significant at 5% level. The total direct & indirect effect is positive and significant at 1% level. (Partial mediation)
Emp3 → Affordability → Demand for health product			0.038	.137					
Emp3 → Awareness towards health → Demand for health product			0.039	.211	0.077	.049	0.172	.004	

TABLE 9 Hypothesis 12 Influence of earning status on the creation of new demand for health products (direct, indirect and total effects) (n = 425)

Structural path	Direct effect		Specific indirect effect		Total indirect effect		Total direct & indirect effect		Comments
	β	p-value	β	p-value	β	p-value	β	p-value	
Earn1 → Demand for health product	-0.076	.155							Direct effect is negative & insignificant while total indirect effect is also negative & insignificant. The total direct & indirect effect is negative and insignificant
Earn1 → Affordability → Demand for health product			-0.003	.436					
Earn1 → Awareness towards health → Demand for health product			-0.007	.767	-0.010	.731	-0.086	.195	
Earn3 → Demand for health product	0.111	.081							Direct effect is positive and significant at 10% level while total indirect effect is positive and insignificant. The total direct & indirect effect is positive and significant at 5% level. (Partial mediation)
Earn3 → Affordability → Demand for health product			-0.005	.263					
Earn3 → Awareness towards health → Demand for health product			0.022	.468	0.017	.546	0.128	.05	

6.5 | Influence of occupation on the demand for wellness products

Test results of the remaining six hypotheses involving both direct and indirect effects of *socio-economic background*, *Consumers' changing way of life*, and *consumers' buying behaviour* have been shown individually in Tables 6 through 9. These tables show the direct effect, indirect effect, and total effect of the relationships. We utilized the AMOS plugin developed by Gaskin and Lim (2018) for estimating the specific indirect effect in IBM SPSS AMOS (version 24). Table 6 presents the results of Hypothesis 7 explaining the influence of occupation on the demand for wellness and entertainment products. We considered Job1 as the reference category and tested the scores obtained by categories Job2 through Job5 against the reference category. The results show that the occupation with category Job3 had a significant negative influence on the creation of new demand for wellness and entertainment products compared to the reference category. The association is moderate which is mediated through two mediating constructs: (1) Change in affordability and (2) Lifestyle changes. Further, the mediation is partial. However, it was observed that the creation of new demand for wellness and entertainment products by the remaining categories of occupations including Job2, Job4, and Job5 did not significantly differ from the demand created by the reference category. We present the results of Hypothesis 7 in Table 6 for occupation with category Job3 only. We further show the results of the total significant effect of occupation with category Job3 on the demand for wellness and entertainment products in Figure 2 through a bold arrow.

6.6 | Influence of employment status and earning status on the demand for wellness products

We investigated the results of Hypothesis 8 describing the influence of current employment status on the demand for wellness products considering Emp1 as the reference category and observed that the current employment status of people with categories Emp2 through Emp4 did not have a significant influence on the creation of new demand for wellness and entertainment products compared to the reference category. Since the results of Hypothesis 8 involving all categories of employment status were insignificant, we have not reported the results. We analysed the results of Hypothesis 9 explaining the influence of family earning status on the demand for wellness products considering Earn2 as the reference category. The results are presented in Table 7. The results reveal that the earning status of people of category Earn1 had a significant negative influence on the creation of new demand for wellness and entertainment products compared to the reference category. The relationship is mediated by two mediating constructs: (1) Change in affordability and (2) Lifestyle changes and the mediation is full. It was further observed that the earning status of people of category Earn3 did not have any significant influence on the demand for wellness and entertainment products compared to the reference category. The significant effect of Hypothesis 9 explaining the influence of earning status with

category Earn1 on the demand for wellness and entertainment products is represented in Figure 2.

6.7 | Influence of occupation, employment status and earning status on the demand for health products

We analysed the influence of occupation on the creation of new demand for health and hygiene products considering Job1 as the reference category and found that the occupation with categories Job2 through Job5 did not have a significant influence on the creation of new demand for health and hygiene products compared to the reference category. We, therefore, have not reported the results of Hypothesis 10. We investigated the results of Hypothesis 11 delineating the influence of current employment status on the creation of new demand for health and hygiene products considering Emp1 as the reference category. The results show that the employment status of category Emp3 had a significant positive influence on the creation of new demand for health and hygiene products compared to the reference category. The association is mediated by two constructs: (1) Change in affordability and (2) Awareness towards health and hygiene and the mediation is partial. We did not observe any significant influence of employment status with categories Emp2 and Emp4 on the creation of new demand for health and hygiene products compared to the reference category. Table 8 presents the results of hypothesis Hypothesis 11 for employment status with category Emp3 only. We have further shown the total significant effect of Hypothesis 11 in respect of employment status of category Emp3 in Figure 2. Finally, Table 9 outlines the results of Hypothesis 12 explaining the influence of earning status on the creation of new demand for health and hygiene products considering Earn2 as the reference category. The results reveal that the family earning status of category Earn3 had a significant positive influence on the creation of new demand for health and hygiene products compared to the reference category. The association is mediated by two constructs: (1) Change in affordability and (2) Awareness towards health and hygiene and the mediation is partial. The significant total effect of Hypothesis 12 in respect of earning status of category Earn3 is depicted in Figure 2. The earning status of people of category Earn1 did not have any significant influence on the demand for health and hygiene products compared to the reference category.

7 | DISCUSSION

7.1 | Theoretical contributions

The main theoretical contribution of the study involves understanding the impact of the socio-economic background of the respondents in terms of their occupation, employment status, and family earning status on Consumers' changing way of life and subsequently on consumers' changing buying behaviour at a granular level in the context of the pandemic. While earlier researchers had studied consumption

shifts during the pandemic (Laato et al., 2020; Pakravan-Charvadeh et al., 2021), we are not aware of any study that investigated the Consumers' changing way of life and their changing buying behaviour arising out of COVID-19 based on the socio-economic background of the consumers. Although the survey was carried out in India in the backdrop of COVID-19 pandemic, the findings of the study could provide important insights to other emerging economies afflicted with COVID-19. Thus, it may be considered as a significant contribution to the existing body of consumer behaviour literature.

Second, we have gone beyond panic buying and stockpiling behaviour, which are extensively covered in the earlier works (Kirk & Rifkin, 2020; Laato et al., 2020), with an attempt to link affordability, lifestyle changes, and health awareness with consumer behaviour. The findings of the study demonstrating the impact of consumers' socio-economic background on their affordability, lifestyle changes, and awareness towards health and finally on the adaptation in consumers' buying behaviour arising out of COVID-19 have enabled us to develop a theoretical model which seems to be generalisable for other similar kinds of pandemics in the emerging economies. *Third*, the extant literature suggests that during the period of the pandemic, consumers focus mostly on essential products and exercise control on discretionary expenditure. However, the present study notes that the demand for some discretionary products (e.g., the demand for wellness and entertainment products) has shown a varying pattern depending on the occupation and earning potential of a family during the pandemic. We have further demonstrated that this change in demand for wellness products among consumers of certain socio-economic groups is not merely due to the economic impacts but also due to the pandemic-induced lifestyle changes. By including lifestyle changes, we have added a new dimension to the understanding of consumers' behaviour during the pandemic and enriched similar studies by earlier researchers such as Naeem (2020) who attributed consumers' impulsive buying to information overload. *Fourth*, the study reveals that the creation of new demand for health and hygiene products was found to depend upon the current employment status and family earning status of consumers which is jointly mediated by affordability and awareness towards health and hygiene. These findings enrich our understanding of consumers' behaviour in terms of their demand for wellness products as also the demand for health and hygiene products during the pandemic (Pakravan-Charvadeh et al., 2021). *Finally*, the study further reveals that the consumers demonstrated product substitution behaviour due to the availability of affordable substitutes of daily necessities and also due to the availability of healthy substitutes of daily necessities. Therefore, our study confirms product substitution behaviour during the pandemic as noted by Knowles et al. (2020). Thus, it may also be considered to be another unique contribution of the present study.

7.2 | Managerial implications

The study reveals that the affordability of the most vulnerable section of people including daily wage earners and those working in MSMEs has been affected due to COVID-19. The study also finds

that the affordability of the people receiving a reduced salary or having lost their jobs has also been severely affected. This provides an important insight to the policy planners in terms of developing targeted intervention strategies with a view to providing economic aid to the affected people. In addition, the study provides insights to marketing managers in terms of designing and introducing affordable substitute products of daily necessities for a substantial section of the population. Thus, there lies an opportunity to penetrate the market with inexpensive substitutes in a market already occupied by established brands.

The study shows that people engaged in most of the occupations other than Government or public sector jobs are not much concerned with lifestyle changes arising out of COVID-19. However, it shows that people receiving a reduced salary or having lost their jobs have become quite active in practicing yoga and utilizing herbal products. This possibly indicates that these consumers have become sensitive in maintaining their health due to the fear of contagion despite the challenging situation faced by them in their professional lives. On further scrutiny, we observed that the demand for wellness products by people working in the unorganised sectors is significantly lower than those working in the organised sectors. It is significantly less in a family with a sole earning member than in a family with multiple earning members. In addition, the demand for wellness products by people receiving a reduced salary or having lost their jobs does not significantly differ from people receiving full salary. Thus, the market planners need to carefully take into consideration the socio-economic factors of the consumers including occupation, employment status, and family earning status while introducing wellness products in the market. Increased awareness towards health and hygiene motivates marketing managers to introduce innovative products relating to health and hygiene and healthy substitute products of daily necessities. To boost demand, designing appropriate awareness campaigns would be very useful. It is observed that the demand for health and hygiene products by people belonging to different occupations does not significantly differ from the people working in the government or public sector jobs. Further, the people who lost their jobs exhibited significantly more demand for health and hygiene products than those receiving full salary. In addition, the demand for such products by the non-earning members of a family has significantly increased compared to the multiple earning members of a family. This is quite surprising. This probably indicates that even though the pandemic has negatively affected the economies across the globe, the sale of products relating to health and hygiene has significantly increased. The companies selling products relating to health and hygiene should go all out in their efforts to advertise and increase their sales during such a crisis. Finally, there is an opportunity to introduce healthy substitutes of daily necessities in a market already occupied by established brands.

Given that emerging economies such as India, where this study was carried out, have a large share of the unorganised or informal sector (Murthy, 2019), our findings are indicative of the nature of the economic impact that the unorganised sector has experienced

during this pandemic. Post-COVID it would be essential for firms dealing with daily necessities to expand their product assortments to include cheaper alternatives. Emerging economies are further characterized by a smaller market for health and hygiene as well as the wellness and digital entertainment market (Sood, 2020). The study observed that it is lifestyle and health awareness that affect the demand for wellness and entertainment products, and hygiene products respectively. Hence, firms dealing with such products in emerging markets should realise that it is important to focus on market creation through lifestyle changes and health awareness in addition to regular promotions. The study also gives enough insights into the customer segments that could be targeted for such efforts.

8 | CONCLUSION

In this paper, we have carried out a questionnaire survey to understand the impact of COVID-19 on consumers' affordability, lifestyle, and health awareness and how these effects influenced their buying behaviour. Analysis of the survey data revealed several interesting facts about the impact of COVID-19 and how the consumers behaved. Some of the major findings of this study include: (1) COVID-19 affected the affordability of consumers employed in the unorganised sectors more than those who were employed in the organised sector, (2) Type of occupation, current employment status, and the earning potential of a family had a varying degree of impact on lifestyle changes undergone by consumers, and (3) the health awareness was significantly higher for consumers who lost their jobs or had lower family earning status. It was observed that the demand for wellness and entertainment products was not affected much by affordability but by lifestyle changes while the demand for health and hygiene products was more influenced by consumer awareness towards health. Affordability, on the other hand, influenced the demand for affordable substitutes of daily necessities. Therefore, this study and the findings would be very useful for studying the effects of disruptive events on the nature of the shift in consumption behaviour and substitution behaviour exhibited by consumers. Further, the findings of this study would help organizations formulate appropriate strategies to cope with the shift in consumption and substitution behaviour as a result of the pandemic.

The study is not free from certain limitations. The imposition of lockdown in different parts of India at different points of time made it very difficult for us to carry out the survey. Further given the diversity and the large geographical size of India, we could not reach out to all the diverse groups, communities, and cultures. Increasing reach possibly could have generated more insights into consumer behaviour and market segmentation. Moreover, our study was limited to wellness, entertainment, and health products as also the products of daily necessities. Therefore, extending this research to include more diversity in terms of the nature of products would be useful in further refinement of marketing strategies under disruption.

The observations of Paul and Bhukya (2021) encourage us to propose extension of the present research primarily along the

following directions: (1) cross-country studies for understanding how the pandemic-induced disruptions have affected consumer behaviour across various social groups based on culture, region, and age, (2) studies on how organizations cope with such adaptations in consumers' needs during pandemic, and (3) studies focusing on understanding how and to what extent consumers' consumption shifts influence retailers' strategies related to product selection, channel choice, promotions, and discounts. It can also be expected that the choice of the above strategies would differ based on retailers' location, the scale of operations, and the target segments. A major influence on the Consumers' changing way of life during such pandemic-induced disruptions includes government interventions in the form of schemes, aids, and subsidies. An important extension of the present research would be to understand how such interventions were able to mitigate the adverse impacts of the pandemic on consumers' life and at the same time maintain the sustainability of business organizations.

ORCID
Ashutosh Sarkar https://orcid.org/0000-0001-5870-8018

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AUTHOR BIOGRAPHIES

Debadyuti Das is a Professor at the Faculty of Management Studies, Delhi University in the Operations Management Area. He received his Ph.D. from IIT BHU. He has a rich blend of experience in both industry and academics spanning over more than two and half decades. He has extensive experience in executive education and management development programs. His current areas of research include Sustainable Supply Chain Management, Managing Carbon Footprint in Supply Chain, Distribution Network Design in Public Health, Efficient Sourcing and Distribution of water etc.

Ashutosh Sarkar is an Associate Professor at the Indian Institute of Management Kozhikode in the Quantitative Methods & Operations Management Area. He received his Ph.D. from Indian Institute of Technology Kharagpur and was a Fulbright Visiting Scholar at the Naveen Jindal School of Management, University of Texas at Dallas. Earlier, Dr. Sarkar has served as a faculty member at IIT Kharagpur and Institute of Technology-Banaras Hindu University (now IIT BHU). He has extensive experience in executive education and training. His areas of interests include Inventory and Supply Chain Optimization, Application of Stochastic Dynamic Programming in Operations Management Problems, Purchasing and Supply Chain Risk Management.

Arindam Debroy is an Assistant Professor at the Symbiosis Institute of Business Management Nagpur in the Operations Management Area. He received his Ph.D. from Indian Institute of Technology Kharagpur. He has also received the Institute Fellowship during his doctoral program at IIT Kharagpur. His areas of interests include Inventory and Logistics & Supply Chain Management, Purchase Management, and Project Management.

APPENDIX 1.

DESCRIPTIVE STATISTICS OF FACTORS INFLUENCING CONSUMERS' CHANGING WAY OF LIFE

Factors influencing consumers' changing way of life	Min. score	Max. score	Mean	SD
Affordability				
(1) Not at all True (2) Scarcely True (3) Somewhat True (4) Considerably True (5) Absolutely True				
Restricted economic activity has resulted in significant reduction in my regular income[a]	1	5	2.73	1.70
Restricted economic activity has resulted in significant reduction in my savings[a]	1	5	2.96	3.27
Restricted economic activity has reduced my ability to meet the day-to-day household expenses[a]	1	5	1.59	1.54
Lifestyle changes				
Covid-19 has forced me and my family-members to change our daily routine[b]	1	5	3.87	1.19
Covid-19 has forced me and my family-members to do Yoga/Physical exercise on regular basis[b]	1	5	3.01	1.39
Covid-19 has renewed our understanding towards the importance of herbal products in our day-to-day life	1	5	3.28	1.37
I have more free time now than it used to be earlier[b]	1	5	3.45	1.48
Awareness towards health and hygiene				
Covid-19 has increased the level of awareness of my own health and the health of my family members	1	5	4.21	1.03
Covid–19 has increased the level of awareness of me and my family members about cleanliness and hygiene	1	5	4.42	0.90
Covid-19 has increased the level of awareness of me and my family members about the adoption of safety measures in terms of using masks and gloves	1	5	4.74	0.59
Covid-19 has made me sensitive to what I should eat[b]	1	5	3.44	1.39
Covid-19 has allowed me to get online appointment of Doctor very easily[b]	1	5	3.55	1.56
Covid-19 has allowed me to get hassle-free online consultation of the Doctor through video-call[b]	1	5	2.29	1.24

[a] Negatively framed statements have been suitably reversed.

[b] The items have been dropped while carrying out Confirmatory factor analysis (CFA).

APPENDIX 2.

DESCRIPTIVE STATISTICS OF ADAPTATION IN CONSUMERS' BUYING BEHAVIOUR

Adaptation in consumers' buying behaviour	Min. score	Max. score	Mean	*SD*
Creation of new demand for products relating to health and hygiene				
(1) Very low (2) Low (3) Moderate (4) High (5) Very High				
Liquid hand wash	1	5	4.13	0.98
Hand sanitizer	1	5	4.31	0.93
Masks	1	5	4.42	0.87
Gloves[a]	1	5	3.10	1.39
Immunity booster supplements[a]	1	5	3.13	1.41
(Vitamin C, Zinc, Ayurveda formulations etc.)				
Creation of new demand for products relating to wellness and entertainment				
(1) Never (2) Rarely (3) Sometimes (4) Often (5) Always				
Herbal products for external use	1	5	2.55	1.29
Subscription to Art of living lessons	1	5	1.80	1.12
Subscription to Yoga channels	1	5	1.98	1.20
Subscription to Fitness channels	1	5	2.12	1.32
Subscription Web-series channels[a]	1	5	2.77	1.59
Substitution due to affordability				
(1) Very low (2) Low (3) Moderate (5) High (5) Very high				
Substitution of Expensive staple food (Rice, Ata, Pulses, sugar, salt, edible oil, spices etc.) with the Inexpensive staple food	1	5	2.22	1.09
Substitution of Expensive Fast-moving consumer goods (FMCG) (Soap, detergent, shampoo, toothpaste, disinfectants etc.) with the Inexpensive FMCG	1	5	2.28	1.10
Substitution of Expensive Packaged food (Noodles, pasta, pizza base, bread, canned soups, Tomato sauce, Frozen food, oats, soft drinks, biscuits etc.) with the Inexpensive one	1	5	2.22	1.17
Substitution due to awareness towards health				
(1) Very low (2) Low (3) Moderate (5) High (5) Very high				
Substitution of Conventional staple food (Rice, Ata, Pulses, sugar, salt, edible oil, spices etc.) with the Healthy staple food	1	5	2.84	1.20
Substitution of Conventional FMCG (Soap, detergent, shampoo, toothpaste, disinfectants etc.) with the Organic (Non-toxic) FMCG	1	5	2.82	1.22
Substitution of Conventional Packaged food (Noodles, pasta, pizza base, bread, canned soups, Tomato sauce, Frozen food, oats, soft drinks, biscuits etc.) with the Healthy one	1	5	2.90	1.32

[a] The items have been dropped while carrying out Confirmatory factor analysis (CFA).