



An investigation of Indian consumer's buying behaviour during COVID-19 towards the purchase of apparel items

Ruchi Kholiya^{1*} | Shefali Massey² | Arshia Hussain³

¹Assistant Professor, Department of Fashion Design, National Institute of Fashion Technology, Jodhpur, Rajasthan, India.
ruchi.kholiya@nift.ac.in

²Assistant Professor, Department of Clothing and Textiles, College of Home Science, GBPUA&T, Pantnagar, Uttarakhand, India.
shefali.massey@gmail.com

³Assistant Regional Director, Indira Gandhi National Open University (IGNOU), Regional Centre Delhi-1, India.
ahussain@ignou.ac.in

To Cite this Article

Ruchi Kholiya, Shefali Massey and Arshia Hussain. An investigation of Indian consumer's buying behaviour during COVID-19 towards the purchase of apparel items. *International Journal for Modern Trends in Science and Technology* 2022, 8 pp. 41-50. <https://doi.org/10.46501/IJMTST0802008>

Article Info

Received: 30 December 2021; Accepted: 28 January 2022; Published: 31 January 2022.

ABSTRACT

The COVID-19 caused by a novel coronavirus named SARS-CoV-2 was reported in December 2019 and that has brought the entire world to a standstill equitably, affecting the market, consumer demand, purchase decisions, and global supply chain. A critical situation pushes human behaviour towards different directions, and COVID 19 is one such situation that is not normal. To control the spread of disease, the lockdown was imposed on the whole nation, resulting in market stagnation, economic instabilities, and changes in consumers' purchasing patterns related to various products. The present study investigates the consumers' behavioural intention amid COVID-19 in the context of apparel. The study attempts to weave through the links about the consumer buying behaviour of apparel during the normal times and in crisis or pandemic by elaborate literature as well as consumer survey. The research helped understand consumers' shift towards online purchase of apparel using the confirmatory factor analysis (CFA) model. Other than the socio-demographic details of working employees, the corelation between different age groups and gender with the frequency of buying clothing during COVID was also explored by the researchers. Results revealed that there is no significant relationship between the dependent and independent variables. However, there was a positive influence of online shopping during the pandemic.

Keywords: Covid-19, consumer buying behaviour, online shopping, purchase decision.

1. INTRODUCTION

Pandemics are not exactly a new phenomenon related to modern times but have been recorded since ancient times (Butu, et.al., 2020). Over the past decades the world has been repeatedly affected by pandemics including the "Spanish Flu" (1918–1919), the "Asian

Flu" (1957–1958), the "Hong Kong Flu" (1968), SARS-CoV-1 (2002–2003), and the "Swine Flu" of 2009–2010 (Cherry, 2004; WHO, 2020). Presently the whole world was hit by the SARS-CoV-2 virus that started to spread across the globe at the start of 2020, and within a few weeks, it took the shape of a pandemic

that majorly affected many facets of life. Secretary-General of the United Nations, António Guterres, described the COVID-19 pandemic as “a global health crisis unlike any in the 75-year history of the United Nations—one that is spreading human suffering, infecting the global economy and upending people’s lives” (Guterres, A. 2020). Like any other pandemics, COVID-19 has caused significant changes on all levels of contemporary society (Li, et al., 2020; Di Gennaro, 2020). All states, continents; regions; urban and rural communities; families, and ultimately, the thinking and lifestyle of each individual have been impacted by the pandemic (Bock & Duncan, 2020; Gormsen and Koijen, 2020).

The crisis has shocked markets worldwide and will likely have a long-lasting impact on the global economy. In Asia, garment manufacturers have been forced to stop production or reduce capacity due to the significant disruption of end-to-end global supply chains and the emerging health crisis, resulting in national restrictions on people and economic activity (ILO, 2020). The Clothing Manufacturers Association of India (CMAI) predicts that garment manufacturers could face a 30 percent drop in sales due to the ongoing pandemic, ultimately resulting in the industry's unemployment level rising to 10-15 percent (Fibre2Fashion, 2020).

The apparel industry is highly unstable; thus, most business models depend on high sales and must ensure that they swiftly respond to variations in the market (Cachon & Swinney, 2011; Tokatli, 2008). To maintain their competitive edge in the market it is important for the apparel companies to quickly respond to changes that are taking place in consumer demand and for the same they require precise knowledge about the requirements of consumers at all times, including during the COVID-19 pandemic. Further, due to the high environmental and social costs of clothing production, it is even more significant to study consumer behavior during the COVID-19 crisis to prevent newly produced clothing from becoming unfashionable and obsolete (Koch et. al., 2020).

Researchers have long studied consumer behaviour and their response to textile products (Sanad, 2016). Various consumer-dominated variables affect the purchase of textiles and apparel, and consumer involvement shows consumers' mental or physical

participation in making purchase decisions. Still, there is a need to examine how the pandemic has changed the way consumers use e-commerce and digital solutions to make purchase decisions for buying apparel. Little has been done on understanding consumer behaviour towards apparel from developing countries during present COVID times. Thus, in the present-day context, with consumers facing the COVID crisis, learning and analysing Indian consumer behavior is highly vital to the success of an apparel business in the Indian market as consumers drive the market. The present research fills in the gap and aims to study the impact of COVID-19 on Indian consumer buying behaviour or their purchase decision towards apparel. It is anticipated that this research will contribute to understanding the reasons or factors in the paradigm shift of consumer's behaviour during the COVID-19 crisis and analyse how factors influence consumers' e-commerce purchase behaviour under these current extraordinary circumstances. This will ultimately aid in developing a relationship between online purchase intentions and changes in consumers' decision-making related to online buying of apparel items due to COVID-19.

2. LITERATURE REVIEW AND HYPOTHESES

2.1 Consumer's Buying Behaviour

“Behaviour is generally defined as the way in which living organisms deal and act with environmental conditions through an activity whose purpose is to modify or change these conditions as per their requirements in order to live and survive” (Han et al, 2015). The understanding of the consumer is prerequisite before referring to the concept of consumer behaviour. A consumer is a “*person who identifies a need or desire, makes a purchase and then disposes of the product in the consumption process*” (Grundey, 2009). In the fields of economics, marketing, and advertising, a consumer is generally defined as the “*one who pays to consume the goods and services produced by a seller*.”

As for understanding consumer behaviour, scholars presented many definitions, among them Echchakoui (2016), who stated that consumer's behaviour is defined as the “*behaviour that the consumer highlights in the search for buying or using goods, services, and ideas, which he expects will satisfy his desires or needs according to his available purchasing capabilities*.”

Consumer buyer behaviour is considered an inseparable part of marketing (Kotler and Keller, 2011). It is essential to view and study-specific aspects of consumer behaviour from the marketing aspect, including the reasons behind consumers purchases, specific factors influencing the patterns of consumer purchases, analysis of changing elements within the society that affect purchase behaviour, and others. Over the past 25 years consumer behavior has changed drastically, and the changes are reflected in the generations (Solomon, 2017). However, in unexpected situations like recession or the recent COVID pandemic, consumer behaviour established new purchasing behavior landmarks. According to Ang et al. (2000), who studied the financial crisis in Asia, reported that consumers reduced their consumption and wastefulness in a crisis as they became more careful in the decision-making process by seeking more information about products and bought necessities rather than luxuries, switched to cheaper brands, and also smaller packages. Thus, crises have an economic and social impact on consumer behavior (Kar, 2010).

It is reported that the pandemic also caused consumer behavioural shifts that have, since March 2020, been popularly addressed as the 'new normal' behaviour (The Straits Times, 2020). It has been observed that consumers have changed their shopping behavior, becoming more cautious about the environmental impact, carbon footprints, and are shopping more cost consciously during the COVID-19 pandemic. Based on the preceding discussion, it is hypothesized that:

Hypothesis 1 COVID-19 pandemic have a significant impact on the consumer's buying behaviour

2.2 Factors influencing consumer behaviour

Understanding factors influencing consumer behaviour is one of the techniques used in contemporary marketing of textile products employed as a strategy by textile companies for attracting and advertising the target consumer (Sanand, 2016). There may be several factors for changed buying behavior, among which income and financial stability of the consumers play a significant role in affecting consumer buying decisions during the financial crisis (Ang et al, 2000).

Researches have been done to understand the factors working on different levels affecting buying behaviour, from broad cultural and social influences to

motivations, beliefs, and attitudes lying deep within humans (Kotler & Armstrong, 2018). In general, there may be internal factors that have an influence on consumer behaviour which can be further divided into the following four groups: cultural, social, personal, and psychological factors and external influencing factors also (Hoyer et al., 2008). Other studies elaborated cultural, social, personal, and psychological factors also. Cultural factors influence the behaviour of larger groups of consumers, social influencing factors are reference groups such as family, social role, and the status of the consumer, personal factors influencing buying behaviour include age, profession, income, lifestyle, and the personality or self-image of the consumer and psychological factors are the individual motivation, attitude, perception, and individual learning behaviour of each consumer (Kotler & Armstrong, 2018).

Due to the COVID-19 pandemic, existing behaviours, factors, and structures are being questioned. As crises can trigger fundamental economic and societal changes, companies need to understand consumer behaviour at this particular time (Koch et al., 2020). Therefore, the following hypothesis is proposed:

Hypothesis 2 Cultural and personal factors have a significant impact on the consumer's buying behaviour during COVID-19

2.3 Paradigm shift towards online shopping

Since the advancement in innovation and information technology, the internet has been playing a massive part in our everyday lives, making communication easier. Internet shopping has become increasingly popular over time (Bourlakis et al., 2008). Online or electronic shopping is a purchase process conducted via the internet using a web browser or mobile app (Sanad, 2016). Now, one can send email all day and night, seek data, play games with others, and even purchase things on the web. In the meantime, Internet shopping has been broadly acknowledged as a method for buying items and administrations.

The world is facing one of the nastiest adversities in history. As the world is in a devastating situation and countries have been forced to impose lockdown, restrictions have been imposed on citizens on moving out of their homes, gathering, and going for shopping. Almost every business has been shut down around the

world in the wake of COVID-19, and people are forced to stay in their homes. Hence people cannot go to markets to buy products, so this is probably pushing people to do online shopping. Online shopping allows consumers to fulfill their needs by staying at home and without going to markets. This research intends to investigate if the current pandemic is responsible for the paradigm shift towards online shopping.

Hence, the current study hypothesizes that consumer behavior changed dramatically due to the limited movement among individuals restricted during the overall lockdown in India. Their interest, intention, and behaviour leaned more towards using online shopping methods through multiple online websites platforms. Based on this observation, we propose the following hypothesis:

Hypothesis 3 COVID-19 have a significant impact on the online buying behaviour

3. METHODOLOGY

Behavioral research involves collecting data, and there are various ways to do so; however, surveys are the most popular tools that often include interviews, questionnaires, observations, and instruments or inventories. A survey is an attempt to estimate the opinions, attitudes, and characteristics of a large number of individuals and to determine relationships and explore connections between variables (Kabir, 2016). The present research work is based on consumer behaviour; thus, a quantitative survey is considered to be appropriate for the present study. An online survey is a new norm in today's digital world that offers several advantages like easy accessibility, quick automation in data input and handling, less cost, higher response rate, etc. (Evans and Mathur, 2005). Data was collected using an online survey using Google forms and was conducted during summer 2021 in different cities all over India. A total of 200 respondents from 20 to 40 years of Indian working employees were surveyed, and convenience sampling technique and snowball sampling technique were used in selecting study respondents. Participants were asked to invite people they knew to participate in the study, who were then asked to invite their friends and family. A total of 196 completed the survey, and valid responses were used for analysis with a response ratio of 98%.

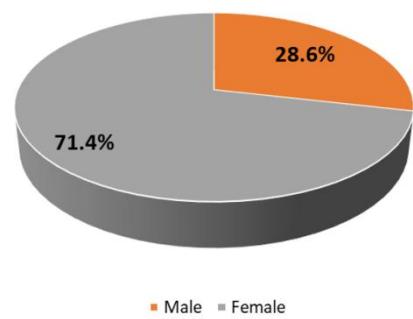
The final survey instrument comprised two parts: (a) the first part of the survey collected respondents' socio-demographic information; (b) the second part of the survey studied consumers' interest or buying behaviour in purchasing apparel during COVID times. A 5-point Likert scale was used in the questionnaire, where 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree. The datasets have been analysed, and simple statistical tools like frequency, percentage, and Pearson Chi-Square were used. With a total of 196 valid responses obtained, confirmatory factor analysis (CFA) was conducted employing Smart PLS 3.0. To guarantee the reliability of the variable of changed buying behavior, a Cronbach's Alpha test was conducted.

4. RESULTS

Sample Characteristics

Our study included 71.4% of females, and the remaining 28.6% were male respondents (Figure 1). The results of Table 1 showed that more than half of the respondents were from Gen Y (1977-1995), i.e., 54.6% were between the ages of 26-45 years, while the second majority of the samples, i.e., 27.6%, were from Gen Z (1995-2010). Around 16.3% of the respondents were from Gen X (1965-1976), and only 1.5% were between 56-75 years of age, i.e., Baby Boomers (1946 – 1965). So, it may be concluded that the respondents who took up the survey were mainly as young as in their 20's and elder by their late 50's. The reason may be that the survey was conducted online, and the respondents in this age group are more friendly with online digital

Figure 1: Gender of the respondents



ways.

Table 1 indicates that more than half of the respondents were from the north zone of India (56%), followed by the west zone (24%) and east zone (12.2%), whereas

very few respondents were from south, central, and northeast zones.

According to the data presented in Table 1, an almost similar number of respondents have completed their masters i.e. 41.8% and 40.3% of respondents were graduates. Only 15.3% of the respondents were doctorate (Ph.D.), and significantly fewer are diploma holders, i.e., 2.6%. The consumer's income is one of the detrimental factors in consumer purchase behaviour. The data indicate that 39.3% of the respondents in the sample population have less than Rs. 30,000 monthly incomes. Around thirty percent had a monthly income of more than Rs. 60,000 while the remaining 30.6% of respondents reported having a monthly income that falls between 30,000-60,000 rupees.

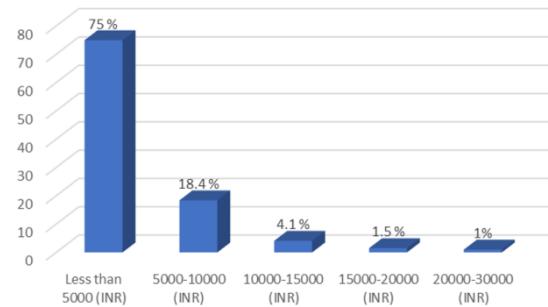
Table 1: Socio-Demographic Profile of the Respondents n=196

Variable	Frequency	Percentage (%)
<i>Age</i>		
Baby Boomers (1946 – 1965)	3	1.5
Gen X (1965 – 1976)	32	16.3
Gen Y (1977 – 1995)	107	54.6
Gen Z (1995 – 2010)	54	27.6
<i>Geographical Location</i>		
North Zone	110	56.0
East Zone	24	12.2
West Zone	47	24
South Zone	5	2.6
Central Zone	5	2.6
North East Zone	5	2.6
<i>Education</i>		
Diploma	5	2.6
Bachelor's degree	79	40.3
Master's Degree	82	41.8
Ph.D.	30	15.3
<i>Monthly Income</i>		
Less than 30000 (INR)	77	39.3
30000-40000 (INR)	20	10.2
40000-50000 (INR)	19	9.7
50000-60000 (INR)	21	10.7
More than 60000 (INR)	59	30.1

Expenses on apparel during COVID times

Out of the total 196 employees surveyed, we were also interested in knowing the monthly clothing budget spent by consumers, and 75% reported that they spend less than 5000 INR on clothing budget during COVID times (Figure 2). However, 18.4% of the respondents indicated that their monthly clothing budget was only between 5000 and 10000 INR. A few employees suggested having monthly budgets that exceeded 10000 INR.

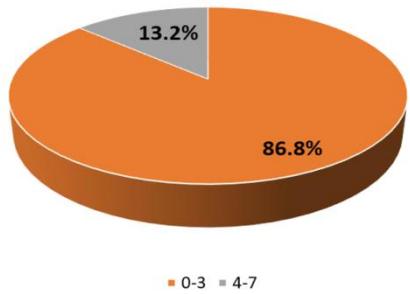
Figure 2: Monthly expenses on apparel during COVID



A similar kind of noticeable change in consumers' attitudes, behaviours, and expectations has also been conveyed by research agency Kantar (2020), who carried out a survey with 18+ years of consumers, covering a sample of 11,000 households, 19 cities, and 15 states across India. They reported that consumers conveyed severe concern about the pandemic and observed that disruption (45% of respondents) bothers them more than health concerns (31%). The survey also reported significantly reduced spending across physical and online shopping formats, thus learning to live with less.

Considering the psychological and financial limitations during a pandemic, it turned out from Figure 3 that 86.8% of respondents surveyed had hardly brought clothing items (0-3) during the COVID time. A very few respondents (13.2%) mentioned bringing 4-7 clothing items during the pandemic. The results indicate that the COVID-19 pandemic has caused a slight shift in the paradigm of what we consider to be essentials, as every consumer prefers hygiene products over apparels and other accessories that have shifted to discretionary.

Figure 3: Clothing items purchased in a month



Lantos (2015) also confirms that consumer behavior is greatly affected by the environmental conditions surrounding them, both inside the home or within the entire country. The exceptional circumstances changed the consumption pattern towards necessities more than luxuries (Campbell and Frei, 2010). Accenture (2020) also reported that during this COVID-19 outbreak, a rise in consumer concern has led to a change in priorities of consumers centered around the most basic needs. This means that the *H1: COVID-19 pandemic have a significant impact on the consumer's buying behaviour* and *H2: Cultural and personal factors have a significant impact on the consumer's buying behaviour* thus, both the hypothesis (H1 and H2) can be accepted based on the results.

Influence of Age and Gender on Purchase Behaviour

The researchers also explored the differences in buying patterns of clothing items across various age groups (Generations) and gender, presented in Table 2.

When Table 2 is examined, it can be seen that around 45.4% of the Generation Y respondents (26-45 years) bought 0-3 clothing items per month during the pandemic, which is highest among other age groups. This was followed by Generation Z consumers comprising of (24.4%) who were the second next actively involved in purchasing apparel. Very few respondents from all the generations purchased 4-7 clothing items during COVID times in a month, which indicates that everyone preferred spending less on clothing items irrespective of their age. This might be because, during COVID times, people are more interested in essential goods like groceries and personal care items compared to fashion products. In a few studies conducted during the pandemic, it was quoted that consumers were more focussed on purchasing essential items to survive during the lockdown and fashion just becomes an after-thought or no thought

during a crisis. (McIntosh, 2020). Kantar (2020) also surveyed 18+ years of consumers from 15 states across India reported that 26% of the consumers (highest) purchased OTC (over the counter) pharmaceutical products online, followed by 24% food and beverages, whereas only 20% brought clothing & accessories.

Table 2: Influence of Age and Gender on Purchase Behaviour of Clothing Items

Age	Clothing Items Purchased per Month (Frequency)				n= 196	
	0-3		4-7			
	F	%	F	%		
Baby Boomers (1946 – 1964)	3	1.5	0	0	Pearson Chi-Square df: 9 p- 0.496	
Gen X (1965 – 1976)	30	15.3	2	1.0		
Gen Y (1977 – 1995)	89	45.4	18	9.1		
Gen Z (1995 – 2010)	48	24.4	6	3.1		
Gender	0-3		4-7		Statistical Analysis	
	F	%	F	%		
	Male	48	24.4	8	4.0	Pearson Chi-Square df: 3 p- 0.798
Female	122	62.2	18	9.1		

Looking into the Chi-square test results (Table 2) with 9 degree of freedom, it has been observed that the p-value is 0.496. Since a P-value is more than the conventionally accepted significance level of 0.05 (i.e., $p < 0.05$) we can conclude that there is no significant relationship between age and frequency of buying clothing items per month. A similar kind of trend was observed in terms of buying clothing items per month across both the genders as presented in Table 2. It was found that both males and females preferred buying 0-3 clothing items per month during the COVID as it was not on their priority list due to the non-essential nature of apparel.

Table 2 also indicates that the p-value is 0.798, higher than the conventionally accepted significance level of 0.05 (i.e., $p > 0.05$). Thus, it can be concluded that there is a statistically insignificant relationship between gender

and the frequency of buying clothing items per month. The results showed that during COVID there was a crucial shift in consumer buying behaviour among both genders as the major focus was on health and hygiene products, healthy organic foods, medical needs, fitness, mediclaim, education, and financial investments. As per McKinsey Survey Data (2020), in times like these, our need for the necessities of life takes precedence, indicating few significant shifts in customer behaviour.

For instance, markets are experiencing a shifting of consumers' priorities as they deprioritize buying nice-to-have items and curtailing consumption except for groceries and at-home entertainment. This means that the *H2: Social, cultural and personal factors have a significant impact on the consumer's buying behaviour* can be accepted.

Table 3: Results of Confirmatory Factor Analysis

Factor/Items	Indicator loading	Convergent validity		Reliability		Discriminant validity		VIF*
		CR*	AVE*	Cronbach α	Rho	FL Criterion*	HTMT*	
<i>Buying behaviour during the pandemic</i>		0.84	0.56	0.84	0.84	0.75		
Statement 1*	0.81							1.87
Statement 2**	0.69							1.91
Statement 3***	0.76							1.79
Statement 4****	0.73							1.88
<i>Online shopping</i>		0.87	0.62	0.87	0.88	0.79	0.41	
Statement 1 [#]	0.69							2.24
Statement 2 ^{##}	0.64							2.42
Statement 3 ^{##}	0.88							2.18
Statement 4 ^{###}	0.90							2.17

* Compared to before the outbreak, now I am more likely to plan my online shopping
 ** Compared to before the outbreak, now I am less open to try new or different clothing products
 *** Compared to before the outbreak, now I go less often to the mall to buy these products
 **** Compared to before the outbreak, now I buy these products in less volume

I have started to use the services of online shopping to a greater extent
 ## I prefer to buy products using online shopping websites over offline modes
 ### I feel that online shopping is easy and convenient
 #### I prefer to buy online as it provides me better product options and deals

*CR=Composite reliability, AVE= Average variance extracted, FL= Fornell-larcker criteria, HTMT= Heterotrait-Monotrait ratio, VIF= variance inflation factor.

Measurement model assessment

The measurement model was evaluated by means of confirmatory factor analysis (CFA) using Smart PLS 3.0 (Figure 4). The model fit indices were within an acceptable range (SRMR= 0.063 and NFI= 0.843). Cronbach's alpha for each construct is 0.84 and 0.87 respectively (Table 3), exceeding the recommended level of 0.70 (Hair et al., 1998), indicating reliability for each construct. Convergent validity was tested, determining whether all items loaded on the construct were above 0.65, i.e. within the acceptable range. Composite reliability for each construct was 0.84 and 0.87, above the accepted criteria of 0.70, and the average variance extracted (AVE) for each construct was 0.56 and 0.62, above the accepted criteria of 0.50 (Fornell &

Larcker 1981). F² determine the effect size, the effect size for the study was the medium effect, since f² is 0.21 (i.e. between 0.15-0.30). The condition for assuming the absence of multicollinearity is met as variance inflation factor (VIF) is below the threshold of 3 (Hair et al 2019). Discriminant validity was tested among the construct was cross-loading, Fornell-Lecker criteria, and HTMT. Cross loading was within the accepted criteria, FL criteria state that AVE>MSE which was also the case in our study. The HTMT was 0.41, much within the accepted range of <0.7. The result of the measurement model evaluation indicates that employing internal and external subjective norms provides the best model fit. All the convergent and discriminant validity criteria were satisfactory for testing the hypothesis.

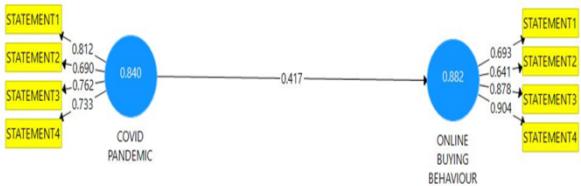


Figure 4: Construct model

Addo et al., (2020) also reported that increased online presence due to restrictions during COVID-19 has resulted in increased online shopping and subsequently e-loyalty. With the eruption of COVID-19, this shift in buyer behavior has dramatically accelerated, prompting businesses to reach even their most loyal brick-and-mortar consumers in the digital space. This massive challenge is unprecedented and has forced organizations to formulate novel solutions to adapt to the new normal (Carnevale and Hatak 2020). The importance of e-commerce has thus increased since it has provided the only means for consumers to satisfy their consumption needs. Based on these results *H3: Covid-19 have a significant impact on the online buying behaviour* can be accepted.

5. DISCUSSION AND CONCLUSION

The effects of COVID 19 have changed the perspectives of the consumer buying decisions on large scale. The study is centered on determining the impact of COVID on buying behaviour for apparels as well as the extent of online shopping executed during pandemic. It is believed from the results of the study that COVID had a significant impact on online purchasing behaviour of consumers. Due to pandemic lockdown and social distancing people preferred to shop apparels through online mode. Although their frequency of buying apparels during pandemic shows downward trend. The previous studies conducted in India suggested that variety of collection available in showrooms is essential for buying and promotional activities that could attract purchases to actual stores which is found missing during COVID-19 times. Results also suggested that there was no relationship of age and gender with frequency of purchasing apparels.

The psychological and financial limitations also occurred as major factors for the decrease in purchasing apparels. It can be concluded that purchasing

behaviour of the consumers is rapidly changing especially during ongoing pandemic and every business has its own perspective to flourish during difficult or normal times. In case of apparels, the government restrictions of travel and lockdown has a major impact on the consumer buying patterns of apparels as no-one wants to buy clothes to sit at home in as quoted by Next's chief executive Simon Wolfson (McIntosh, 2020). It can be stated that consumers' purchasing behaviour will not be same like prepandemic and businesses need to change in accordance. Because the COVID-19 situation has been changing rapidly, consumer sentiments also have been fluctuating in response to the situation. Assessing consumer response at a single point of time cannot capture the dynamic changes of buying behaviour of consumers for a longer period so there is need to evaluate the longitudinal changes in the influence of the pandemic that will help to understand the full scope of the impact over time.

6. LIMITATIONS AND FUTURE RESEARCH

Like any other study, the current study has limitations and raises suggestions for future research. The sample and context of the study were related to India, although the other countries are also affected by virus. Therefore, the results cannot be generalized, and thus, it would be interesting to find the consumer buying behaviour in those countries. The study was conducted during the lockdown after the declaration of COVID-19 as a global pandemic. It would be meaningful to investigate post-COVID-19 consumer behaviors and compare the findings with pre-COVID behavior. The respondents for the investigation were mainly females (76%), so a deeper understanding of differences in consumer buying behaviour with the context of gender is still missing. Future studies may focus on comparing customers' perceptions and behavioural intentions regarding online shopping to provide more targeted implications for the apparel industry.

Conflict of interest statement

Authors declare that they do not have any conflict of interest.

REFERENCES

- [1] Accenture. (2020). How COVID-19 will permanently change consumer behaviour. https://www.accenture.com/_acnmedia/PDF-123/AccentureCOVID19-Pulse-Survey-Research-PoV.pdf
- [2] Addo, P. C., Jiaming, F., Kulbo, N. B., & Liangqiang, L. (2020). COVID-19: Fear appeal favoring purchase behaviour towards personal protective equipment. *The Service Industries Journal*, 40(7-8), 471–490.
- [3] Ali, B. J. (2020). Impact of COVID-19 on consumer buying behavior toward online shopping in Iraq. *Economic Studies Journal*, 18(42), 267–280. Retrieved from <https://www.asjp.cerist.dz/en/article/134070>
- [4] Ang, S. H., Leong, S. M., & Kotler, P. (2000). The Asian Apocalypse: Crisis Marketing for Consumers and Businesses. *Long Range Planning*, 33(1), 97-119.
- [5] Anner, M. (2020). Abandoned? The impact of Covid-19 on workers and businesses at the bottom of global garment supply chains. Penn State Centre for Global Workers' Rights. https://www.researchgate.net/publication/340460592_Abandoned_The_Impact_of_Covid-19_on_Workers_and_Businesses_at_the_Bottom_of_Global_Garment_Supply_Chains
- [6] Anthony, A. A., & Joseph, M. T. (2014). The Indian Textile Industry: Some observations in SMEs in Indian Textiles. Palgrave Macmillan.
- [7] Apparel Consumption (2021). Trends in India. Retrieved from <http://wazir.in/pdf/Apparel%20Consumption%20Trends%20In%20India.pdf>
- [8] Bock, B.; & Duncan, J. (2020). Rural-Urban Relations in Times of COVID-19 | Rural Sociology Wageningen University. Retrieved from <https://ruralsociologywageningen.nl/2020/04/20/rural-urban-relations-in-times-of-covid-19/>
- [9] Boston Consulting Group (BCG). (2021). Retail Resurgence in India. Retrieved from <https://web-assets.bcg.com/4d/fe/415839064c4b94a0a1364ce1a4c4/bcg-rai-report-retail-resurgence-in-india.pdf>
- [10] Bourlakis, M., Papagiannidis, S., & Fox, H. (2008). E-Consumer Behaviour: Past, Present and Future Trajectories of an Evolving Retail Revolution.. *IJEBR*. 4. 64-76.
- [11] Butu, A., Brumă, I.S., Tanasă, L., Rodino, S., Vasiliu, C.D., Dobos, S., & Butu. M. (2020). The Impact of COVID-19 Crisis upon the Consumer Buying Behavior of Fresh Vegetables Directly from Local Producers. Case Study: The Quarantined Area of Suceava County, Romania. *International Journal of Environmental Research and Public Health..* 17(15), 5485. <https://doi.org/10.3390/ijerph17155485>. Retrieved from https://www.researchgate.net/publication/343290753_The_Impact_of_COVID-19_Crisis_upon_the_Consumer_Buying_Behavior_of_Fresh_Vegetables_Directly_from_Local_Producers_Case_Study_The_Quarantined_Area_of_Suceava_County_Romania
- [12] Cachon, G.P.; & Swinney, R. (2011). The Value of Fast Fashion: Quick Response, Enhanced Design, and Strategic Consumer Behavior. *Management Science*, 57, 778–795
- [13] Campbell, D. & Frei, F. (2010). Cost structure, customer profitability, and retention implications of self-service distribution channels: Evidence from customer behavior in an online banking channel. *Management Science*, 56(1), 4-24. <https://doi.org/10.1287/mnsc.1090.1066>
- [14] Carnevale, J. B., & Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of business research*, 116, 183–187. <https://doi.org/10.1016/j.jbusres.2020.05.037>
- [15] Cherry, J.D. (2004). The chronology of the 2002–2003 SARS mini pandemic. *Paediatr. Respir. Rev.* 5, 262–269.
- [16] Deloitte. (2020). Impact of COVID-19 on consumer business in India. <https://www2.deloitte.com/content/dam/Deloitte/in/Documents/consumer-business/in-consumer-impact-of-covid-19on-consumer-business-in-indianexp.pdf>
- [17] Di Gennaro, F.; Pizzol, D.; Marotta, C.; Antunes, M.; Racalbuto, V.; Veronese, N.; & Smith, L. (2020). Coronavirus Diseases (COVID-19) Current Status and Future Perspectives: A Narrative Review. *Int. J. Environ. Res. Public Health*, 17, 2690
- [18] Echchakoui, S. (2016). Relationship between sales force reputation and customer behavior: Role of experiential value added by sales force. *Journal of Retailing and Consumer Services*. 28. 54-66. <https://doi.org/10.1016/j.jretconser.2015.07.014>
- [19] Evans, J.R., & Mathur, A. (2005). The Value of Online Surveys. *Internet Research*, 15 (2), 195-219
- [20] Fibre2Fashion. (2020). COVID-19 adversely hits textile, apparel, fashion sectors. Retrieved from <https://www.fibre2fashion.com/news/textile-news/covid-19-adversely-hits-textile-apparel-fashion-sectors-265962-newsdetails.htm>
- [21] Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- [22] Gormsen, N.J., & Koijen, R.S.J. (2020). Coronavirus: Impact on Stock Prices and Growth Expectations. Retrieved from <https://papers.ssrn.com/abstract=3555917>
- [23] Grundey, D. (2009). Consumer behaviour and ecological agri-business: Some evidence from Europe. *Economics & Sociology*, 2(1a), 157–170
- [24] Gutierrez, A. (2020). Secretary-General Remarks on COVID-19: A call for Solidarity. Retrieved from <https://www.un.org/en/un-coronavirus-communications-team/above-all-human-crisis-calls-solidarity>
- [25] Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2019). *Multivariate Data Analysis*, 8th ed.; Cengage Learning EMEA: Andover, UK, 2019; ISBN 978-1-4737-5654-0.
- [26] Han, D., Duhachek, A., & Rucker, D. D. (2015). Distinct threats, common remedies: how consumers cope with psychological threat. *J. Consum. Psychol.* 25, 531–545. doi: 10.1016/j.jcps.2015.02.001
- [27] Hoyer, W. D., Macinnis, D. J., & Pieters, R. (2008). Consumer behaviour (4 ed.). Cengage Learning: Pittsburgh University
- [28] ILO. (2020). Covid-19 and the textiles, clothing, leather and foot-wear industries. https://www.ilo.org/sector/Resources/publications/WCMS_741344/lang--en/index.htm
- [29] ILO. (2020). Recommendations for garment manufacturers on how to address the COVID-19 pandemic. Retrieved from

- https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/briefingnote/wcms_741642.pdf
- [30] Jacob, U. (2021). Casual chic: WFH fashion in the times of the pandemic. Retrieved from <https://yourstory.com/weekender/fashion-pandemic-loungewear-bermuda-shortspyjamas/amp>
- [31] Javorcik, B. (2020). Global supply chains will not be the same in the post-COVID-19 world. In R. Baldwin & S. Evenett (Eds.), Covid-19 and trade policy: Why turning inward won't work (Chap. 8, pp. 111–116). CEPR Press.
- [32] Kabir, S.M.S. (2016) Methods of Data Collection. Basic Guidelines for Research: An Introductory Approach for All Disciplines. First Edition, Chapter 9, Book Zone Publication, Chittagong-4203, Bangladesh
- [33] Kantar. (2020). COVID-19 Barometer India Research-Understanding Consumer Sentiments and Implications for Brands Sentiments and Implications for Brands. Retrieved from <https://www.kantar.com/campaigns/covid-19-barometer>
- [34] Kar, M. (2010). Consumer behaviour over the last 25 years. Oxrim Research Themes. 2010, 46-53
- [35] Koch, J., Frommeyer, B., & Schewe, G. (2020). Online Shopping Motives during the COVID-19 Pandemic—Lessons from the Crisis. Sustainability 2020, 12, 10247; doi:10.3390/su122410247. Retrieved from https://www.researchgate.net/publication/347459018_Online_Shopping_Motives_during_the_COVID-19_Pandemic-Lessons_from_the_Crisis
- [36] Kotler, P. & Keller, K. (2011). Marketing Management (14th edition), London: Pearson Education
- [37] Kotler, P., & Armstrong, G. (2018). Principles of Marketing (17th edition). Harlow: Pearson Education
- [38] KPMG (2020). Potential impact of COVID-19 on the Indian economy. Retrieved from <https://home.kpmg/content/dam/kpmg/in/pdf/2020/04/potential-impact-ofcovid-19-on-the-indian-economy.pdf>
- [39] Lantos, G. P. (2015). Consumer behavior in action: Real-life applications for marketing managers. Routledge. Pages 648
- [40] Li, H.Y., Cao, H., Leung, D.Y.P., & Mak, Y.W. (2020). The Psychological Impacts of a COVID-19 Outbreak on College Students in China: A Longitudinal Study. Int. J. Environ. Res. Public Health, 17, 3933.
- [41] Majumdar, A., Shaw, M., & Sinha, S. K. (2020). COVID-19 debunks the myth of socially sustainable supply chain: A case of the clothing industry in South Asian countries. Sustainable Production and Consumption. <https://doi.org/10.1016/j.spc.2020.07.001>
- [42] McIntosh, S. (2020) Coronavirus: Why the fashion industry faces an 'existential crisis'. Retrieved from <https://www.bbc.com/news/entertainment-arts-52394504>
- [43] McKinsey. (2020). McKinsey Survey Data Second Week of Lockdown: Indian Consumer Sentiment During the Coronavirus Crisis' 2020. Retrieved from <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/survey-indian-consumer-sentiment-during-the-coronavirus-crisis>
- [44] McKinsey. (2020). Global surveys of consumer sentiment during the coronavirus crisis. Retrieved from <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/global-surveys-of-consumer-sentiment-during-the-coronavirus-crisis>
- [45] Narula, R. (2020). Policy opportunities and challenges from the COVID-19 pandemic for economies with large informal sectors. Journal of International Business Policy. 3, 302-310. <https://doi.org/10.1057/s42214-020-00059-5>
- [46] Sanad A. R. (2016). Consumer Attitude and Purchase Decision towards Textiles and Apparel Products. World Journal of Textile Engineering and Technology. 2, 16-30. Retrieved from https://www.researchgate.net/publication/308916782_Consumer_Attitude_and_Purchase_Decision_towards_Textiles_and_Apparel_Products
- [47] Sheth, J. (2020). Impact of Covid-19 on consumer behavior: Will the old habits return or die? J. Bus. Res. 2020, 117, 280–283.
- [48] Solomon, R.M. (2017). Consumer Behaviour: Buying, Having and Being, Global Edition, 12th Edition, Pearson publications
- [49] Tokatli, N. (2008). Global sourcing: Insights from the global clothing industry—The case of Zara, a fast fashion retailer. J. Econ. Geogr. 8, 21–38.
- [50] UN Environment Programme. (2020). Putting the Brakes on Fast Fashion. Retrieved from <https://www.unenvironment.org/news-and-stories/story/putting-brakes-fast-fashion>
- [51] WHO. (2020). Influenza—Past Pandemics. Retrieved from <http://www.euro.who.int/en/health-topics/communicable-diseases/influenza/pandemic-influenza/past-pandemics>
- [52] Zuraj, M., Sparl, P., & Znidarsic, A. (2017) Analysis of Individual Aspects Influencing Non-purchasing in an Online Environment and Consumer Willingness to Purchase Custom-Made Apparel Milica ŽURAJ1, Petra SPARL2, Anja ŽNIDARŠIĆ