An Empirical Study Based on Consumer’s Apparel Purchase Behavior during COVID

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Authors’ contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

COVID-19, caused by a novel coronavirus named SARS-CoV-2 was reported in December 2019, which equitably brought the entire world to a standstill, affecting the market, consumer demand, purchase decisions, and the global supply chain. A critical situation pushes human behavior in different directions, and COVID 19 is one such situation that is not normal. To control the spread of disease, all the countries, including India, imposed the lockdown, resulting in market stagnation, economic instabilities, and changes in consumers’ purchasing patterns related to various products. The present study investigates the consumers’ behavioral intentions amid COVID-19 in the context of apparel. The present study attempts to identify the clothing preferences of consumers during the pandemic by exploring the factors playing a crucial role while buying clothing during the COVID pandemic, by examining the links between consumer buying behavior of apparel during normal times and in crisis by elaborate literature as well as consumer survey. The research helped understand consumers’ clothing type preferences as well as their sources of information on the latest fashion trends during Covid. The researcher also explored other factors that play a crucial role in buying clothing during COVID. The results revealed that online shopping had a positive influence during the pandemic, with social media being the most significant influencer for the latest

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fashion trends. During the lockdown, "work from home" leads to the comfort factor playing a substantial role while purchasing apparel. Consumer sentiments were also explored in the study, and it was found that consumers visit less to malls and prefer online purchases due to contactless shopping. They enjoy online shopping because of its ease and convenience.

Keywords: Covid-19; consumer buying behavior; online shopping; purchase decision; social media.

1. INTRODUCTION

In late December 2019, a pneumonia outbreak of unknown etiology took place in Wuhan, Hubei province, China, and spread quickly nationwide. Chinese Centre for Disease Control and Prevention (CCDC) identified a novel betacoronavirus called 2019-nCoV, now officially known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) [1], that is responsible for the pandemic. This was the third zoonotic coronavirus breakout in the first two decades of the 21st century that allowed human-to-human transmission and raised global health concerns. The pandemic escalated exponentially at the beginning of 2020, which might only be the tip of the iceberg due to delayed case reporting and deficiency in testing kits [2].

The Covid-19 pandemic has changed the way we work, shop, and communicate with people more than any other disruption (including technological ones) in the recent past. As more people start working from home, they are sticking to basics, stepping outside only to buy essentials, and are constantly worried about the risks of getting infected in crowded places like malls and supermarkets [3-5].

The coronavirus crisis has left a mark across all industries. Fashion, with its non-essential product lines, has been especially hard hit, and, unfortunately, many will not be able to repair the damage and recover [6-8]. This is part of a new reality within the fashion industry. There will be winners and losers. Some companies in the industry are better positioned to cope due to their stronger foundations, while many are at risk of disappearing. The winners will consist of enterprises that can respond to the current challenges while capturing the necessary trends [9,10]. As economies open slowly, those who survive will be the ones who realize that the fashion industry will have a new normal and adapt their strategies accordingly.

The post-pandemic consumer will be different. While it is no surprise that more shopping will be online, consumers will also have different expectations from their shopping experiences. For instance, people will be buying more casual and comfortable clothing, as remote work assumes a more significant role for many employees. Merchandising and supply chains will need an adjustment (Ledesma, 2020).

In the longer run, the COVID-19 recovery will likely result in a more permanent shift in consumers’ attitudes and shopping behavior, especially in urban areas, with increased usage of home and personal hygiene products and an accelerated shift to digital purchases [11]. In the backdrop of the above discussion, this study was conducted to identify the clothing preferences of consumers during the pandemic, and researchers have explored the factors responsible/playing a crucial role while buying clothing during the COVID pandemic. The researcher also tried to find out consumers’ emotions while purchasing during the pandemic.

2. LITERATURE REVIEW

2.1 Impact of COVID 19 on the Apparel Sector

The Indian textiles sector has been one of the worst-hit sectors due to the COVID-19 crisis. The Indian textile sector is besotted with issues such as lack of technology up-gradation, inefficient infrastructure, fragmented industry structure, sluggish demand in major export markets like the USA and the EU due to the vestigial impact of the Global Financial Crisis and rising competition from countries such as Vietnam, Bangladesh, China and Turkey in areas such as apparels, cotton fabric and carpets [12-15]. All these factors only sought to provide a weak foundation to the sector when it came to weathering the storm of COVID-19 that further complicated the overall impact on this already beleaguered sector.

Perhaps one of the significant immediate effects of COVID-19 on the Indian textiles industry has been the slump in sales due to widespread mandatory salesrooms closures. The most
proximate impact of this crisis has been on the overall sales of textiles and clothing with sellers and potential customers following strict social distancing norms. Arguments are being made as to the efficacy of online retail in such times [16-18]. However, during such crises, with ‘non-essential’ goods and services debarred from being transacted through online retail, the option of online trades may not seem to be that viable an alternative that could salvage the sector from its crisis of plunging sales [19].

As consumers will maintain lockdown and social distancing, it is likely that the requirement of apparels will change in pandemic as compared to normal times in terms of type of clothing preferences, frequency of purchase and overall purchases. Based on the preceding discussion, it is hypothesized that:

Hypothesis 1: Covid-19 have a significant impact on the apparel sector.

2.2 Factor Influential in Consumers’ Purchasing Behaviour

Globalization, increasing competition, and short product life cycles in fashion retailing have affected consumer behavior. The factors that make consumers purchase particular products in clothing, a field that nowadays has taken on multiple personal and social aspects that go beyond simple needs, are many and various and are influenced by diverse variables. When consumers make decisions about what clothing to buy, they are influenced to a significant degree by individual, psychological and social factors along with the information they have been given by fashion, branding, and marketing activities. In addition, other factors such as price, brand, quality, aesthetic value, and usage characteristics present themselves as influencing qualities. The importance and degree of priority these values hold for people constitute the differences in clothing purchasing behavior. To survive in the highly competitive fashion industry, consumer behavior is vital for manufacturers and retailers to develop and leverage core marketing capabilities.

According to Kholiya et al., [20] there was no relationship between age and gender with frequency of purchasing apparel. However, the psychological and financial limitations also occurred as major factors for the decrease in purchasing apparel during Covid-19. In past studies, another factor influential in consumers' purchasing behavior is the socio-cultural factor, which includes family, group, social class, peers, and cultural makeup. It can be easily observed in everyday life that the culture and values encompassing all the factors giving direction to individuals' thoughts, behavior, and attitudes do affect consumers' awareness of fashion and brand names and that similarly, individuals from different social classes possess different opinions concerning fashion and brand name products in their clothing purchasing behavior [21].

According to Li and Zhang [22], there have been in-depth studies on online shopping attitudes and behavior in recent years where most of them have attempted to identify factors influencing or contributing to online shopping attitudes and behavior. These researchers highlighted the factors influencing online shopping such as convenience, time-saving, ease of use, nature of products, competitive price, and trust in online shopping. However, little factors have been investigated impacting purchase of apparels during pandemic or not so normal times. Therefore, the following hypothesis is proposed:

Hypothesis 2: Socio-cultural factors and social media have a significant impact on the consumer’s apparel buying behaviour during COVID-19

2.3 Impact of COVID 19 on the Online Purchase Decision of Apparel

The advancements in the internet have generated a new section of customers in the form of online consumers, who now play a pivotal role in the e-commerce world, and it is constantly growing, especially in terms of the online clothing industry. The online clothing businesses have seen a considerable rise in recent times, with a high and increasing demand. The internet has created a revolutionary impact in everyday communications and transactions. It is considered the fastest-growing mode used to shop. Online shopping is a fast and efficient way for consumers to purchase products and services. The internet also allows consumers to access an unlimited range of products and services from companies worldwide, and it has reduced the time and effort consumers spend on shopping [23,24].

The COVID-19 crisis has forced consumers to change their shopping habits rapidly, pushing
many to either increase their online spending or try shopping online for the first time. Although e-commerce has steadily been on the rise for many years, this is the first time we have seen such a sudden and widespread shift from shopping at brick-and-mortar stores to shopping online, especially in the case of apparels. The outbreak has made e-commerce a far more central part of consumers’ shopping habits than previously. Although most respondents had already made some purchases online, the crisis pushed them to boost their online shopping, encouraging a significant number of them to turn to e-commerce for the first time.

In the past studies, consumers’ perceptions of online shopping have been broadly researched by various researchers and scholars with a wide range of methods to compare consumer behavior in online shopping to that of traditional offline shopping behavior [25]. There is need to explore the consumer’s sentiments or experience in online purchases when there is no option for offline shopping of apparels. Thus, the present study implies the likeliness of consumer’s online shopping behaviour. Based on this, we propose the following hypothesis:

**Hypothesis 3:** COVID-19 crisis have a significant impact on the consumer’s online apparel decision.

### 3. RESEARCH METHODOLOGY

A convenience sampling method was adopted, and accordingly, primary data was collected by surveying people from different zones of the country. Primary data was collected from Indian working employees during the summer of 2021. A structured non-disguised questionnaire was prepared as a Google Form. The link of this prepared Google Form was shared with the working employees as respondents.

The questionnaire consisted of three sections. In the first section, the respondents asked questions related to demographic attributes like age, gender, income, etc. The second section of the questionnaire consisted of questions about clothing preferences during the pandemic, sources of information about the latest fashion trends during covid, and factors playing a crucial role in purchasing apparel during crises or pandemic times. The third part of the questionnaire was framed to get the respondents’ emotions regarding their purchase of apparel during the pandemic. This was measured by using 5 points Likert scale anchored with (1) Strongly Disagree to (5) Strongly Agree.

A preliminary test of the survey instrument was performed to help ensure content validity and removal of ambiguous questions. Feedback on the survey draft from individuals with specialized knowledge in the field of textiles and apparel was obtained. Fifteen individuals responded to the initial survey draft. The results of preliminary testing showed that in general the survey questions and scale was comprehensible, with few exceptions. The ambiguous, difficult questions were removed to enhance the clarity of the reasons, and to minimize confusion. After incorporating suggested changes, an online survey link was sent out to participants. The data of 10% of the study sample was collected and inspected for inconsistencies. Since no issues were found during pilot testing, the survey was finalized.

Out of 200 responses received, 196 were found fit for the analysis. Among the total respondents surveyed, 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 the south, central, and northeast zones (Table 1).

Finally, statistical remedies after data collection were also undertaken to compile the data.

### 4. RESULTS AND DISCUSSION

#### 4.1 Sample Characteristics

The demographic profile depicts that of 196 respondents, 71.4% female and 28.6% male, who participated in the study (Fig. 1). Of the respondents, 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 ways.
The data presented in Table 1 revealed that most of the respondents were graduates (40.3%) and an almost similar number of respondents had Master's degrees (41.8%). Only 15.3% of the respondents were doctorate (Ph.D.), and significantly fewer were diploma holders, i.e., 2.6%. The consumer's income is one of the detrimental factors in consumer purchase behavior. 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 between 30,000-60,000 rupees.

**Fig. 1. Gender of the respondents**

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

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

Out of a total of 196 working people, the majority i.e. 52.7% (Fig. 2) reported that they purchased casual wear clothes during the pandemic. Formal wear clothing purchases were made by 11.1% followed by shoes (9.7%), athleisure, and accessories (8.4% each). The results indicate that during lockdown, due to the closure of companies, schools, etc., the “work from home” culture inclined people’s choice toward comfortable casual clothes. Orendorff [26] on the other hand in his study reported that the activewear sector experienced a spike in sales during shutdown, an increase caused by the need for comfortable clothes to work and workout in from home. Thus, it implies that during COVID, the apparel sector is being affected showing high demand in specific type of clothing and reduction in demand of other types of apparel wear.

This means that the H1: Covid-19 have a significant impact on the apparel sector can be accepted based on the results.

4.3 Source of Information on Latest Fashion Trends

It was evident from Fig. 3 that approximately fifty percent of the respondents get to know about the latest fashion trends from social media, including messaging sites as well as online shopping sites. It has also been reported that due to pandemic lockdown and social distancing, people preferred to shop for apparel online (Kholliya et al., 2021). With the restrictions on movement and stay-at-home orders in place due to the COVID-19 pandemic, social media platforms have become an outlet for users to express their concerns, feelings, and opinions about the pandemic and share their new consumption practices [27]. Thus, people search more on social media and online sites for information. Only 15.8% of the respondents mentioned that they rely on their friends and observe random people to get information on the latest fashion trends. Surprisingly, a smaller number of respondents i.e. 6.9%, only got inspired by celebrities for the latest fashion trends. The reason may be that celebrity clothes are not designed according to the comfort zone of middle-class people. Based on above results the second hypothesis H2: Socio-cultural factors and social media have a significant impact on the consumer’s apparel buying behaviour during COVID-19 can be accepted.

4.4 Social Media and other Sources for Information on the Latest Fashion Trends

Social media has the most significant impact on the respondents regarding the latest fashion trends. The results further show that internet sites are the most popular social media, i.e. 42.9% rely on these sites for the latest fashion trends. In contrast, approximately eight percent of respondents’ information sources were from television shows and movies. Only 5.6% rely on music videos for fashion-related trends (Fig. 4). The respondent’s other sources of information apart from social media show that they are influenced by word of mouth communication (15.3%) followed by fashion magazines and fashion books (10.7%). Only 5.4% of respondents said that they get information about the latest trends from fashion shows. (Fig. 5). Ayman and Kaya in 2014 indicated that social/cultural factors highly influence men. However, females are affected by marketing communication efforts such as television, advertising, magazines, catalogs and celebrities, and by both personal selling and direct marketing. This justifies the results as in the current study the population of female respondents was more than the male i.e. 71.4% female against 28.6% male (Fig. 1).

4.5 Factors Playing a Crucial Role while Purchasing Apparels during COVID Times

Previous studies on clothing selection reported that clothing should be easy to maintain, light in weight, soft, and simple to put on and take off. The type of clothing needed will also depend on the geographic condition and heating condition of the home [28]. The respondents gave multiple responses for the various factors affecting apparel purchase. It is evident from Fig. 6 that comfort is the most crucial factor affecting the purchase of apparel during Covid times. The result is supported by Fig. 2 that people are more interested in buying casual wear clothes during the pandemic due to the “work from home” policy and comfort level of casual wear. Clothing consumption may also function as a buffer for consumers to deal with stressful external environments. For example, consumers
switching to comfort clothing styles might be due to the need to feel relaxed or less stressed [29]. Thus, comfort has given the highest percentage (20.3%) by the respondents, followed by the quality of clothes (17.8%) and price (16.6%). Approximately equal percent of the respondents consider discounted clothes (11.8%) and fabric type (11.6%) as an important factors in purchasing apparel during covid. The brand also plays a vital role in purchasing apparel. However, sustainability issues (6.2%) and product features (6.1%) are considered as least important factors for choosing apparel during pandemics. Smith, E. G. [30] in her thesis, used the most frequently tested variables in studies related to consumer purchase behavior towards apparel products to explore American consumer preferences for home textile products, namely, price, colour, style, brand name/designer, fibre content, availability of packaged sets, fabric type, thread count and retail channel. The most important purchase criteria were price followed by colour and style for bedding; and price and colour for bath products.
Fig. 4. Social media sources

Fig. 5. Other sources

Fig. 6. Factors affecting purchase of apparel during COVID
4.6 Consumer Concerns and Sentiments during COVID

The survey also tracked the consumer concern and sentiments during COVID-19 regarding the transformation in consumer behavior before and during COVID. The nature of the crisis and understanding the paradigm shift will play a great role in the success or failure of many manufacturing units, design houses, and other related units.

The survey reported that approximately 45% of the respondents agreed that there is a disruption in their regular buying practices due to lockdown and social distancing. Their visits to the mall have reduced, and they visit malls less often when compared before the outbreak of the pandemic. (Fig. 7). However, one-fourth of the respondents, i.e., 25%, remained neutral when asked about the same. Kim and Im 2021 in their study investigated how contactless shopping grew as a protective action against COVID-19 and found that consumers showed a dramatically increased interest in contactless shopping in reaction to the COVID-19 pandemic.

A large number of the respondents (42%) also agreed that purchases of apparel during the pandemic had reduced drastically (Fig. 7). Mehta, et al., [31] in their report on ‘Market Dynamics During COVID-19: Indian Consumer Sentiments Analysis’ surveyed 1100 households across 15 cities and reported that during COVID consumer’s planned purchases were deferred, and new learning to live with less came into scenario. In general, spending is assumed to be down across all industries due to the restrictions of lockdown as spending became limited. Moreover, due to this pandemic, the consumers are restricted from spending more and in the coming months, consumers expect their household income to fall [32].

The respondents also opined about their sentiments while shopping. During the current COVID situation, nearly 38.8% of the respondents agreed that they enjoyed shopping online during the pandemic, whereas 33.3% respondents remained neutral on this aspect. This may be because online shopping attracts consumers in the same way as offline stores. Ha, et al., 2007 analyzed online Visual Merchandising features of 100 websites (US and Korean) selling apparel products. Their analysis revealed that many visual merchandising features and elements employed in offline stores were taken up online with some modifications. Another reason may be as reported by the 46.2% of the respondents stating that online shopping is easy and convenient (Fig. 7). Only 7.1% of the respondents disagreed with the statement. On the basis of these results hypothesis H3: COVID-19 crisis have a significant impact on the consumer’s online apparel decision can be accepted.

![Fig. 7. Impact of COVID on the apparel buying practices of the consumer](image-url)
5. LIMITATIONS

The study had some limitations typical of any research using an interpretive approach. The data collection was restricted to a relatively small sample of 196 respondents through convenience sampling, and the participants were working for the population. The researcher had tried to cover all zones of the country, but most answers were given by participants of India's north and west zones. The sample did not provide equal representation of all demographic segments of India, specifically concerning urban or rural areas. The working population in other country areas may have somewhat different fashion consumption experiences and behavior than the present participants. The online google questionnaire can create challenges for garnering honest and objective responses. Participants may answer questions in a light casual mode due to a lack of monitoring from the researcher's side in the online mode. Thus, more efforts were being put into interpreting the results. The study focussed on the apparel buying behavior of participants during pandemics, thus, negative experiences with shopping for apparel, such as disinterest in consuming a lot of clothing, or strong dissatisfaction with their body image during the pandemic, are likely to have somewhat different fashion consumption experiences or buying behavior.

6. CONCLUSION AND IMPLICATIONS

The study reviewed the studies on the impact of COVID-19 on the apparel sector, factors affecting the purchasing decisions towards the apparel, and online shopping of apparel due to covid. However, it is believed that the textile and apparel industry is one of the most hit by covid demarking consumer purchases into essential and non-essential goods. Apparel purchases during covid were influenced by the pandemic with limited buying volume in the case of apparel. However, potential customers opted for online shopping maintaining the physical distancing.

Consumers are more self-expressive than following fashion trends in purchasing apparel. They preferred more casual wear during the pandemic. Consumers search social media majorly for the latest fashion trends with online sites, one of the most popular social media. Communication always plays a significant role in dispersing information which is evident in this case also. The information about fashion trends after social media was transferred through “word of mouth”. The purchasing decision of consumers was influenced by comfort. Price is also an important factor playing a crucial role in purchase decisions. The nature of the crisis essentially shifted the channel of purchase of consumers from offline to online. However, consumers enjoy online shopping because of its ease and convenience.

The current study is considered stimulating for future research directions for academia and practitioners. It was found that designers, manufacturers, and sellers of textiles and apparel products, especially online websites, should be up to date with target consumer behavior, which is affected by several variables dependent on market and consumer. Further, we recommend
developing marketing strategies for surrounding contactless shopping modes with convenience and speed. The consumer behavior model may also be revised and modified to focus on purchase decisions during the crisis.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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