

# IPR Policies in the Fashion Industry and Consumer Behavior during COVID-19

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## Abstract

Intellectual Property Rights (IPR) and design innovation in the fast fashion industry are increasingly influencing consumer behavior. IPR is a critical issue which, if not widely implemented, can severely impact the industry, humanity, and environment. Retailers have become more conscious about balancing the need for catering to consumer preferences for branded products while protecting business data confidentiality. The aftermath of disruption in the fashion business caused by COVID-19 in early 2020 has changed consumer behavior, dictated by economic considerations and aesthetic preferences manifested through increased adaptability to and use of online sites and technologies. This article examines the impact of the pandemic and worldwide lockdowns on consumer sentiment and preferences for specific trends, and fragility of the fast fashion business model. Primary data is collected from 31 Indian fashion firms and analyzed with Partial Least Squares (PLS) regression technique to determine the impact on the research hypothesis. Understanding the consumer mindset towards fashion products in terms of IPR related policies and opinions of the company are very important for a fast fashion brand. These point to the imperative of IPR that highly depends on consumer behavior which is measured by three key dimensions namely consumer economic shift, consumer preference shift and consumer lifestyle shift. The findings of this current study indicates that managers of fast fashion brands understand diverse production parameters such as varying sales orders, return rate, shelf-life order time, purchase-to-procure, right time for product launch, product acceptance rate and number of return customers, if they understand the impact of consumer preference based behavioral aspects along with the need for IPR. Conclusions are based on the implications of these findings that can enable the fast fashion industry to thrive in the post-pandemic period.

**Keywords:** Intellectual Property Rights, consumer behavior, consumer economic shift, consumer preference shift, consumer lifestyle shift, fast fashion industry, COVID-19 impact

## Introduction

In 2020, the International Labor Organization (ILO) reported that the Asia-Pacific garment industry had collapsed during the COVID-19 pandemic due to diminishing consumer demand, government lockdown measures and disruptions to raw material imports (ILO, 2020). Of all the consumer goods and services, the travel and tourism industry followed by the fashion and luxury sectors have been the most negatively impacted by COVID-19 (Martinez-Pardo, et al., 2020). The debilitating effects of the pandemic impacted the fast fashion industry which was among the early casualties due to the delocalized supply chain of raw materials and outsourcing of manufacturing. Stringent lockdown norms leading to factory shut-downs impacted millions of workers and enterprises in most garment supply chains with an observed 'ripple effect' across several dimensions. This disruption caused a vicious cycle wherein manufacturers across the world no longer received new orders, and nor could they fulfill their current commitments leading to cancellation of completed and near-complete orders that resulted in a sharp decline in retail sales. For example, within a month of widespread lockdowns across North America, Bangladesh as the second-largest exporter of clothing in the world with 6.4 percent of the global share, cancelled orders worth USD 3.17 billion by April 2020 (Majumdar, Shaw and Sinha, 2020). The market value of the Indian domestic textiles and the apparel industry estimated at USD 106 billion in 2019-20, fell to USD 75 billion in 2020-21 (Wazir Advisors, 2021; The Textile Magazine, 2021).

The swift pace of the garment business from design ideation, production, distribution, and sales typifies fast fashion (Li, 2012). The incessant movement of fast fashion necessitates the endless search for the next 'new' leading to an incessant stream of brainstorming on creativity and trends, sampling, and even appropriation and borrowed inspiration, which calls for discussions on intellectual property laws (Cox and Jenkins, 2005). Intellectual property (IP) as defined by World Intellectual Property Organization refers to 'creations of the mind, such as inventions; IP is protected in law by, for example, patents, copyright and trademarks, which enable people to earn recognition or financial benefit from what they invent or create' (WIPO, n.d.). By striking a balance between the interests of innovators and wider consumer interests, the IP system aims to foster an environment in which creativity and innovation can flourish. The National IPR Policy approved by the Government of India in 2016, is a vision document that encapsulates key issues related to Intellectual Property Rights (IPR) on a single platform. Taking all linkages into account, this policy aims to create and leverage synergies among all forms of IP, concerned statutes and agencies.

All organizations recognize the imperative of protecting and regulating new developments by guaranteeing the maker and company against the unauthorized appropriation of the innovative aspects of new products. The fast fashion industry is no exception as the protection of original designs, materials, manufacturing processes, standard operating procedures, supply chain, and profitability are paramount. As in the case of other intellectual and creative domains, the fashion industry develops new product ranges in each season using innovative techniques and specialized technologies. Each design represents an intangible asset of the brand which is as valuable as its physical assets. It therefore becomes necessary to safeguard the original design through IP protection. Among the range of IP tools, the protection of new or original designs each season is most relevant to the fashion industry. Often these designs are not usually registered because of short product life cycles, which may not justify the considerable time and financial cost incurred. A robust IPR-based protection policy safeguards the stakeholders including owners, suppliers and designers.

Before the onset of COVID-19, the fast fashion industry had shorter product lifecycles. During the first wave of the pandemic, nationwide lockdowns and economic slowdown led to acute financial crunch, high retrenchment, and excessive inventory build-up resulting in the shut-down of several firms. The challenge of retaining its market share required the fast fashion industry to consider and initiate a major paradigm shift in its business strategies. Dependency on the speed of business gave way to the need for understanding the trajectory of the consumers' mindset and purchasing behavior. Consumers being less prone to buying fast fashion at this critical time, caused fashion firms to review their usual decisions of investing in new technology, hiring new personnel, and continuing with fast cycles of new range developments. Catalyzed by increasing penetration of the internet enabled the fashion industry to reach out to consumers, leading to online retail witnessing a strong growth surge. This was attributed to changes in consumer preferences that guide consumer behavior wherein their emotions, attitudes and preferences affect their purchasing decisions. Consumer behavior is defined as the study of individuals, groups, organizations and all related activities associated with the purchase, use and disposal of goods and services (Clootrack, n.d.). Deeper understanding of the altered consumer behavior becomes critical as does the need for developing robust IPR protection policies.

The current size of the fashion business in USA alone is estimated at USD 400 billion (Raustiala and Sprigman, 2008; Li, 2012) and a USD 2.4 trillion industry that employs

approximately 60 million people globally (United Nations Alliance for Sustainable Fashion, 2020). It becomes important to study the impact of the decisions and actions of the fashion industry on the other factors in fashion. Due to COVID-19, the global fashion and textile industry incurred losses estimated at USD 500 billion attributed to the unsustainability of market demand, fabric wastage and inadequate recycling (ibid.). Fast fashion, a major component of the global fashion business was reportedly valued at 36 billion USD in 2019 (Sabanoglu, 2020). The size of the fast fashion industry is based on global connections between producers and consumers. The pandemic has altered the landscape of fashion consumers across the world in terms of their demographics, lifestyle and consumption patterns. Sustainability has become a critical issue that requires a vision that can evoke brand loyalty and trust among the consumers, and supported by a comprehensive IPR policy.

## **Literature Review**

A literature review of the key aspects of IPR policies related to the fast fashion industry in the pre- and post pandemic period is undertaken for this purpose. It becomes important to analyze the impact of the decisions and actions of the fashion industry on the other actors in fashion.

### ***Key aspects of IPR protection***

#### *Counter the ease of copying*

The incremental growth rate of the fast fashion business and the financial implications of this continued growth are instrumental in the interest and involvement of companies from across continents in this business. Fast fashion has been the most sought-after business model as it is considered as an enabler of profit generation for large corporate organizations to small brands (Cox and Jenkins, 2005). Fashion firms cater to the mass market where low-cost merchandise is sold at cheap prices. A wider supplier base to process higher volume of production in minimum time holds the possibility of data leaks (Monseau, 2011). The success of fast fashion brands is often associated with design piracy, a phenomenon that has become a major issue in this era of automation, autonomy and advancement. Design piracy refers to an ever-increasing practice of enterprises that try to profit from the creations of others by producing copies of original designs under a different label (Yanisky-Ravid and Monroy, 2020). The intense competition of maintaining a hold on the market compels the fashion industry to start production based on designs copied from original sources which are often geographically distant. In the digital era, technology to instantly transfer digital

data as well as 3D printing has compounded the problems associated with copying (Tokatli, 2008). There are high benefits for the fashion industry from investing in more robust IPR protection through technology transfer to prevent rapid copying particularly by developing countries.

#### *High technology and IPR*

IPR can solve the problem of design piracy by means of technology with features of encryption and concealed coding of operations. Technology intervention can help locate and identify designers, manufacturers and suppliers through a unique identifier code. This is achievable through quick response codes, IP hashing and radio-frequency identification (RFID) chips attached to each product. Technology can help in monitoring the manufacturing process of each production real time. Consumer preferences can guide the trajectory of the fashion product by challenging and facilitating the stages of making, from fiber, fabric, production via distribution channels to retail outlets. Advanced technology capabilities provide IP protection extending to implications for the distribution of and access to IP. Technology safeguards have authentication patterns and security layers based on anonymous encrypted legal code which protect IPR by ensuring that original design prototypes cannot be legally sold to unauthorized parties. This enables IPR curb problems of third-party authentication, market cannibalization, and counterfeiting in the fashion industry (Yanisky-Ravid and Monroy, 2020).

#### *Challenges of fast fashion and IPR protection*

IPR can support the fashion industry through countermeasures to control attempts to copy and control content in the social media. It helps to control false claims by legitimate parallel imports and authorized vendors of secondhand goods. It also supports fashion brands to license their design catalogue as e-books from being downloaded by any unauthorized agency. Thus, IPR policy can help in tracking genuine items throughout their lifecycle and provide assurance to the clients that they are buying genuine fashion products and more so, from an authorized platform (United Nations Alliance for Sustainable Fashion, 2020; Li, Frederick and Gereffi, 2019; Sheff, 2018; Cohen, 2012; Tokatli, 2008).

### **Consumer behavior**

#### *Impact of COVID-19 on consumer preferences*

As an extension of the Theory of Reasoned Action (TRA), the Theory of Planned Behavior (TPB) developed by Icek Ajzen in 1991, is based on the premise that individuals

make logical, reasoned decisions to engage in specific behavior by evaluating the information available to them. In this theory, Ajzen proposes that individuals control their socially relevant behavior wherein one driver of this behavior is their intention to engage it. TPB facilitates the recognition of indicators of consumer behavior guided by psychological, social, cultural, economic, and personal factors. It follows that applying the principles of TPB to the fashion industry helps marketers to understand consumer behavior and purchasing mindset and finally to reframe company policies including IPR policies. Therefore, any change in consumer behavior can be broadly categorized under consumer economic changes, consumer preference changes and consumer lifestyle changes. In this article, it is proposed that any change in the consumer mindset on paradigm shift on IPR or simply, excellence or new changing patterns/processes in the post pandemic period, will be also influenced by the previous three factors as consumer economic changes, consumer preference changes and consumer lifestyle changes. The postulation and background of these three factors underscore their relevance for fashion in the post pandemic period. Based on these aspects, the proposed research/empirical testing model is formulated to derive results and draw conclusions.

#### *Consumer economic shift*

Consumer Economic Shift (CES) is the shift or change in preference of consumers during the purchase of consumer goods that may include a wide range of retail products. CES depends on the consumer's purchasing power, brand loyalty, discretion shopping and consumer economic recovery (Amed, et al., 2021). CES highly depends on the economic capability or wallet size of the consumer during the purchase. It may vary significantly under different economic conditions such as levels of consumer spending on optional purchases such as luxury fashion, high-end real estate, luxury vacations, automobiles and electronics. COVID-19 has resulted in many people being laid off, compulsion of accepting pay-cuts. The demand for fast fashion has reduced due to lower purchasing power of the consumer. According to the US Bureau of Labor Statistics, in April 2020 national unemployment was 14.8 percent, the highest in history since data collection started in 1948. At the end of 2020, the national unemployment rate fell to 6.7 percent in December, but remains almost twice as high as it was before the pandemic (Falk, et al., 2021). In India, unemployment rate in urban areas rose to 20.9 percent during the April-June quarter of 2020, as compared to the unemployment rate of 8.9 percent in the same quarter in the previous year (Kumar and Srivastava, 2021). This reinforces CES as a very vital factor to determine

the consumer behavior and formulating higher excellence in IPR policies. Based on this, the following hypothesis is proposed:

**H1:** Consumer economic shift have a positive impact on excellence in IPR after COVID-19.

#### *Consumer preference shift*

Consumer Preference Shift (CPS) is a model by which the shift or change in consumer preferences for the bundles of goods available in the market is measured and ranked in terms of the levels of satisfaction that the consumer obtains from their consumption. Consumer preferences are indicated in multiple convenience-based dimensions such as health, environmental and ethical purchases, and analysis of their relevant pros and cons in the consumer's mind. There is an increasing consumer awareness for environmental and social concerns in the fast fashion business model. The McKinsey & Company and Business of Fashion Status Report states that the pandemic has increased consumer awareness of social injustices in the supply chains (Amed, et al., 2021). In a survey of more than 3,000 people across eight countries by Boston Consulting Group, 70 percent of the respondents claimed to be more aware of human activities threatening the climate and environment which, in turn, is a threat for humans (Kachaner, et al., 2021). Increased environmental awareness is reflected in consumer purchasing decisions. According to a study by Accenture (2020), 61 percent consumers made purchasing choices that were greener, more sustainable or more ethical, while 89 percent stated that they would be likely to continue with such purchasing decisions after the pandemic. Consumer preference shift depends on their health consciousness, environmental consciousness and ethical purchases (Amed, et al., 2021). Hence, CPS is a crucial factor to decide the consumer behavior and formulating higher excellence in IPR policies. Based on this, the following hypothesis is proposed:

**H2:** Consumer preference shift have a positive impact on excellence in IPR after COVID-19.

#### *Consumer lifestyle shift*

Consumer Lifestyle Shift (CLS) is the shift or available choices related to the lifestyle of a person that involves their consumption pattern, behavior in the marketplace, practices, habits, conventional ways of doing things, allocation of income, and reasoned

actions. It reflects an individual's attitudes, values, interests, and views towards society. Historically, global crises have been instrumental in accelerating social changes (Reeves, et al., 2021). Lockdown restrictions led to the acceleration in online shopping. Accenture recorded an increase of 169 percent in e-commerce purchases from new or low-traffic consumers since the pandemic began (Accenture, 2020). Another reason for the rise in e-commerce may have been due to changes in store shopping as for hygiene reasons, as customers were barred from trying clothing items before buying. This was the main attraction for physical purchases and restrictions on online shopping. According to the McKinsey Global Fashion Index, digital power is a key trait among the top 20 fashion companies with the highest economic performance and highest profits during the pandemic. Online fashion trading itself recorded a price increase of 76 percent from December 2019 to October 2020. Consumer lifestyle shift highly depends on the consumer's consumption patterns, safety decisions, e-commerce experiences, shopping frequency, and internet use (Amed, et al., 2021). It is evident that CLS is an essential factor to govern the consumer behavior and formulating higher excellence in IPR policies. Based on this, the following hypothesis is proposed:

**H3:** Consumer lifestyle shift have a positive impact on excellence in IPR after COVID-19.

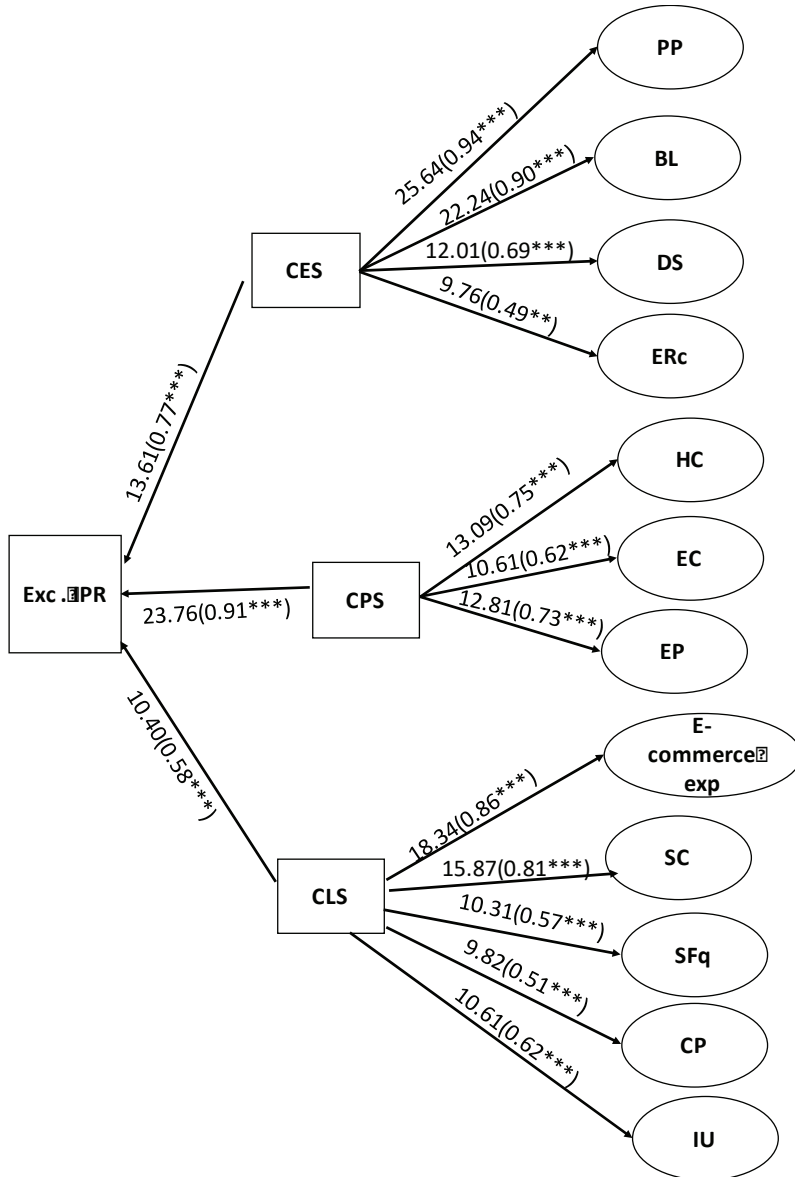
### **Proposed Integrated Business Model of IPR and Consumer Preference**

It is crucial to maintain the popularity of fashion among consumers and retailers, even during the pandemic. The proposed integrated model of IPR and consumer preference (Figure 1) needs to be implemented across all fast fashion retailers.

#### ***Data collection and research methods***

In this exploratory study on IPR and consumer behavior, the identified respondents were top managerial personnel from 31 fashion and garment industries who were requested to fill an online questionnaire on Google Forms. The sample questionnaire on Consumer economic shift (CES), Consumer preference shift (CPS) and Consumer lifestyle shift (CLS) required responses on a five-point Likert scale. Non-probability based purposive sampling has been used to increase the valid response rate. The questionnaire includes questions on issues pertaining to IPR issues after the pandemic. The city wise/zone wise proportion of responses is shown in Table 1. The data has been analyzed by SPSS 20.0 software for explanatory factor analysis (EFA) and Smart PLS software 3.0 for confirmatory factor analysis (CFA) by structural equation modeling (SEM) technique for final hypothesis results (Table 2-6).





**Figure 1:** Conceptual research model on IPR applications in fashion and the partial least square (PLS) results

**Dimension list** - Exc. IPR: Excellence in IPR after COVID-19, CES: Consumer economic shift, PP: Purchasing power, BR: Brand loyalty, DS: Discretion shopping, ERc: Economic recovery, CPS: Consumer preference shift, HC: Heath consciousness, EC: Environmental consciousness, EP: Ethical purchase, CLS: Consumer lifestyle shift, E-commerce exp: E-commerce experience, SC: Safety choices, SFq: Shopping frequency, CP: Consumption pattern, IU: Internet usage

**Table 1:** Demographic profile data for the respondents (31 responses/firms)

Variables (IPR & CP)	Total responses	First-wave frequency	second/third-wave frequency	Chi-square test
				X <sup>2</sup> = 4.55
1	3	1	2	df=5
2	2	1	1	p=0.473
3	2	1	1	
4	10	6	4	
5	6	2	4	
6	8	1	7	
Sum:	31	12	19	
Firm size				
1-50	2	1	1	X <sup>2</sup> = 2.43
51-100	5	4	1	df=4
101-250	10	4	6	p=0.656
500-1000	6	3	3	
>1000	8	5	3	
Sum:	31			
Job title				
CEO/president	3	2	1	X <sup>2</sup> = 4.37
Vice president	4	3	1	df=4
Manager	13	4	9	p=0.358
Director	7	4	3	
Others	4	3	1	
	31			
Code		1	Mens garment makers	
(IPR & CP: IPR and consumer preferences)		2	Womens garment makers	
		3	Kids garment makers	
		4	Unisex garment makers	
		5	Lingerie makers	
		6	High-couture makers	

**Table 2:** Assessment of discriminant validity for IPR and consumer preference (CP) applications

Construct	Inter-construct correlations			
	AVE	CES	CPS	CLS
CES	0.679	0.824		
CPS	0.704	0.612	0.839	
CLS	0.747	0.686	0.661	0.864

(Inter-construct correlations: for ensuring the discriminant validity, i.e. formulated construct or dimension is totally different from each other, so there is no multicollinearity in the final regression PLS results)

**Table 3:** Confirmatory factor analysis (CFA) for IPR and CP applications

Items	R <sup>2</sup> coefficient	AVE	Reliability
CES	0.77(13.61)	0.65	0.79
CPS	0.91(23.76)	0.76	0.82
CLS	0.58(10.40)	0.81	0.87

(R<sup>2</sup> coefficient: Standard root mean square value for partial least square (PLS) results, Reliability: Composite reliability for the constructs or dimensions)

**Table 4:** Path coefficients (standardized) and their significance values for IPR and CP applications.

Hypothesis	Path description	R <sup>2</sup> (Loading)	t- statistics	Hypothesis status at 95% CL
H1	CES->IPR	0.77	13.61	Supported
H2	CPS->IPR	0.91	23.76	Supported
H3	CLS->IPR	0.58	10.40	Supported

(R<sup>2</sup>(Loading): Path value obtained in PLS, t-statistics: Student t-test value; where sample mean is known but population mean is unknown, Hypothesis status at 95% CL: t-statistics value at 95% confidence level)

**Table 5:** Model fit values for IPR and CP applications

Constructs	Fit index- SRMR	Q <sup>2</sup> -value	HTMT value	FLC criteria	f <sup>2</sup> -values (effect size)	Acceptability
CES	0.063	0.358	0.939	0.749	0.589	Yes
CPS	0.035	0.507	0.614	0.728	0.362	Yes
CLS	0.054	0.656	0.897	0.707	0.213	Yes

(Model close fit index- SRMR: Standard root mean square residual (accepted cut off value <0.08), HTMT value: Heterotrait-Monotrait ratio of correlations (accepted cut off value <0.9-1), FLC criteria: Fornell-Larcker criterion (accepted cut off value <0.9-1.0), f<sup>2</sup>-values (effect size) (accepted cut off value <0.8, Acceptability: construct overall acceptability or reliability and validity)

**Table 6:** Results of hypotheses analysis on IPR and CP application - Conceptual model.

Hypothesis	t-value	Hypothesis status (Accepted/Rejected)
H1: Consumer economic shift have a positive impact on Excellence in IPR after COVID-19.	13.61	H1: Accepted
H2: Consumer preference shift have a positive impact on Excellence in IPR after COVID-19.	23.76	H2: Accepted
H3: Consumer lifestyle shift have a positive impact on Excellence in IPR after COVID-19.	10.40	H3: Accepted

## Discussion

The overall findings have two-fold implications for this study.

### *Theoretical implications*

The global crisis of COVID-19 has put all the market sectors into a tailspin. The secondhand market is expected to grow to twice the size of the fast fashion market in the next five years (Ellen MacArthur Foundation, 2020). Therefore, it becomes very important for a fashion brand to formulate robust intellectual property rights with corresponding framework, profitability and business influences on the overall return of investment. It is also crucial to understand the factors that may affect business excellence through robustness of IPR policies. As the market is currently facing constraints due to

financial and value chain crisis, it becomes crucial to understand the interconnections among the dimensions of CES, CPS and CLS, to overcome turbulence and to increase business revenue. It is envisaged that this research model can help both fast fashion and luxury fashion segments to understand their respective consumer mindsets and preferences regarding IPR policies in the pre- and post COVID period.

### ***Managerial implications***

This study can enable professionals and managers in the fast fashion industry to control surplus expenses on IPR policy formulation and maintenance. Formulating relevant IPR policies based on consumer preferences is likely to help such firms and brands understand the psychology underpinning and overarching as well as subtle changes in consumer motivations and consumer behavior. Thus, managers can postulate consumer's buying models based on the current IPR-based consumer behavior model rather than the conventional need-based consumer behavior model. This is likely to offer significant support in coping with market turbulence like varying sales orders, return rate, shelf-life order time, purchase-to-procure, right time for product launch, takt time measurement, upcycling and downcycling rate, increasing product acceptance rate, and numbers of return customers. It is imperative for fashion brands to capitalize on their business strategies at an early stage to protect the confidentiality of personal and business data. This is likely to help in the recovery of financial and marketing conditions in the post COVID period. Apparel companies are experiencing an unprecedented drop in revenue due to the supply and demand disruption precipitated by the pandemic. Corporate citizenship and more product lines with stable product lifecycle (PLC) can be ensured by a robust product ethos or storyline preservation that will deter plagiarism and copyright infringement. This will ensure that intellectual and financial investment in research and development by the company for higher business outcomes. Several fashion firms are struggling to stay afloat and survive the pandemic crisis. By firmly adhering to their IPR policies, companies can substantially reduce their production cost and ensure customer satisfaction. The current integrated IPR and consumer preference model offers a potential solution for most fashion retailers and producers.

### **Future Research Direction**

This research model has not included other subtle aspects of consumer behavior aspects such as product variety, social groups and product risk as these are relevant to consumer behavior-based excellence in the IPR model. These new research directions

can help predict consumer mindset by including variables such as age, traits and opinions of individual customers as well as demographic segmentation, geographic segmentation and behavioral segmentation for further study.

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