

## **IMPACT OF COVID-19 ON ONLINE PURCHASE INTENTION AND RISK PERCEPTION AMONG CONSUMERS IN UTTAR PRADESH**

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### **ABSTRACT**

The consumer behavior change due to COVID-19 was huge, as the pandemic made people switching to online shopping very quickly while at the same time increasing the perception of risk. In this research, we are going to see how much COVID-19 affected online purchase intention and risk perception among the people of Uttar Pradesh, both urban and rural. A descriptive and analytical research design was applied, and data from 400 to 600 respondents were collected through a structuring questionnaire which was further augmented by secondary data sources. One of the most important discoveries might be that the low-risk perception is accompanying the higher purchase intention while the increased concerns closing the door for consumers to shop online because of fear of online fraud, delivery delays, and product quality issues. The study also indicates the variations in digital skills and payment options between the regions. The results would be very useful not only for the e-commerce businesses but also for the policymakers and the consumers suggesting to them how they can build up their trust, improve security, and propagate online shopping habits that are backed by the knowledge which in turn will make the digital marketplace in Uttar Pradesh more resilient and growing.

**Keywords:** COVID-19, Online Purchase Intention, Risk Perception, Consumer Behaviour, Uttar Pradesh, E-commerce Adoption, Digital Shopping

### **1. INTRODUCTION**

The COVID-19 pandemic had a noteworthy impact on the online purchase intention and risk perception of consumers in Uttar Pradesh and thus, it transformed the whole perspective of the customers regarding digital shopping platforms. The quick adoption of e-commerce during the lockdowns led to a complete migration of consumers from traditional retail to online buying in both India and specifically, Uttar Pradesh, due to safety and convenience factors. This entire scenario, the consumers' reliance on digital platforms for both essentials and non-essentials, has put online purchase intention in the spotlight, but at the same time, the risk perception was also heightened. Consumers perceived various risks related to online shopping such as financial risks concerning online payments, product risks which included quality uncertainties, delivery risks arising from delays or contactless processes, and privacy risks related to sharing personal information. All these aspects together affected the consumers' behavior by creating and influencing their trust, satisfaction, and even willingness to shop online. Thus, the pandemic not only sped up the process of digital adoption but also highlighted the requirement of secure, trustworthy, and transparent online shopping places to maintain consumer confidence in Uttar Pradesh.

## 1.1 Research Gap

The effect of COVID-19 on the intention to buy online and the perception of risk among consumers in Uttar Pradesh has pointed out a distinct research gap because the studies done so far have mainly considered national or metropolitan trends and have not taken into account the various socio-economic and cultural differences within the state. The pandemic led to a major and fast digital transformation of the market, yet there have been very few studies trying to find out what factors like safety, financial risk, product quality uncertainty, and trust in online platforms affect the consumers of the semi-urban and rural districts of Uttar Pradesh. Besides, there has been lack of studies which compare pre- and post-pandemic behavioral shifts and this could be a reason for the change in people's intentions towards e-commerce. The gap indicates the necessity to conduct a comprehensive study that will unravel the localized consumer concerns, the changing digital behavior, and the region-specific factors affecting the online purchase decision.

## 1.2 Statement of the Problem

The pandemic of COVID-19 caused a major change in the way the consumers in Uttar Pradesh behaved, leading to the formation of a complicated question concerning online purchase intention and perceived risks. All the consumers that were used to shopping in physical stores were forced to resort to online shopping due to safety concerns and lockdowns, but on the other hand, the problems associated with online shopping such as fear of product contamination, mistrust in digital payments, delivery delays, and cybersecurity threats lowered their willingness to buy online. The consumers were facing uncertainty about the product quality, return policies, and data privacy security, which all together resulted in making them have higher risk perception. Furthermore, the consumers needed essential goods urgently, they had limited access to physical stores, and they got used to digital technology quickly which all factors led to the rapid adoption of e-commerce platforms. This contradictory change portrays the main issue clearly: it is the understanding of how the pandemic-triggered risks and necessities have affected the consumers' online purchase intention.

## 1.3 Research Objectives

1. Investigating the shifts in consumers' online purchasing intention in Uttar Pradesh before and during the COVID-19 pandemic.
2. Studying the effect of COVID-19 on different kinds of online shopping perceived risks or the like.
3. Establishing the connection between risk perception and consumer purchase intention during the pandemic period.

## 1.4 Research questions

1. COVID-19 had a big impact on consumers' intention to buy products online in Uttar Pradesh.
2. Among the different kinds of risks (financial, product, privacy, or delivery-related), which ones had the biggest impact on consumers' online shopping behavior during the pandemic?
3. To what extent does perceived risk act as a moderator on the relationship between COVID-19-induced changes in behavior and online purchase intention?

## 1.5 Scope and Limitations

The research focusing on the influence of COVID-19 on online purchase intention and risk perception among consumers in Uttar Pradesh sheds light on the changes that the pandemic has brought to the digital marketplace, particularly with respect to consumer behavior. It clarifies the role health concerns, lockdowns, and social distancing measures played in the adoption of online shopping; to what extent they affected the purchase intentions; and how they made consumers more aware of possible risks such as fraud, delivery delays, and poor quality products. The scope of the study encompasses people from various demographic groups in both urban and rural settings of Uttar Pradesh which gives a better understanding of the differences in digital literacy, payment methods, and risk perception across the regions. Nonetheless, the study encounters limitations in terms of having a restricted timeline, using self-reported data as the only source of information, and possibly not being applicable to populations outside the state or during post-pandemic times.

## 2. REVIEW OF LITERATURE

### 2.1 Online Consumer Behaviour Theories

**Ajzen, I. (1991)** pointed out the Theory of Planned Behaviour (TPB) as a strong structure to forecast individuals' intentions and actions. The consumer behavior model has been applied to predict the main factors influencing consumers' intentions to buy online across different situations and risk scenarios mainly driven by positive or negative attitudes, social influences, and personal control. The model has been instrumental in unveiling the psychological factors that cause people to go online and the decision-making process in scenarios like the COVID-19 pandemic.

**Davis, F. D. (1989)** made the Technology Acceptance Model (TAM) concept, demonstrating that perceived usefulness and perceived ease of use are the main factors deciding whether to adopt a technology or not. TAM has been widely used in the field of online shopping to examine the acceptance and utilization of e-commerce platforms by consumers. According to research, the higher the perceived ease of use and usefulness the more positive the online purchase intention and consumer satisfaction.

### 2.2 Studies on Online Purchase Intention Pre- and During COVID

**Koch, Julia, Frommeyer, and Schewe (2020)** conducted a study on the factors that motivated online shopping during the COVID-19 pandemic and concluded that hedonic motivation was the most significant indicator of purchase intentions, which was then followed by utilitarian and normative motives.

**Roy, Priyabrata & Datta, Dhananjay (2023)** performed a thorough examination of literature related to consumer buying behavior before, during, and after COVID 19, and they pointed out that factors like convenience, risk perception, and switching the channel (from offline to online) had an impact on the trend of online purchase intention.

### 2.3 Studies Related to Perceived Risk and Trust

**Gefen (2000)** investigated the trust factor in internet transactions and pointed out that the consumers' acceptance of e-commerce is mainly affected by their view of the seller's trustworthiness and honesty. The research found that trust perception being high makes risk perception low and thus makes the purchase and customer retention in e-commerce more likely and easier.

**Jarvenpaa, Tractinsky, & Saarinen (1999)** have investigated the purchasing behavior of consumers in the internet shopping environment and proved the premise that perceived risk is

a factor slowing down the purchasing process negatively. The study also demonstrated that trust is the mediating variable in that the increase in trust regarding the security of the website, quality of the product, and credibility of the vendor may reduce the negative impact of perceived risk on consumer engagement.

#### **2.4 Literature Related to Regional Studies (India / Uttar Pradesh)**

**Gupta (2020)** conducted a study on the transformation of consumer purchase pattern in Uttar Pradesh during the COVID-19 lockdown, which not only reported a notable rise in online shopping but also pointed the other way around for non-essential products. The research had it that besides the product quality and delivery times, the whole risk perception played a major role in consumers' acceptance of online platforms, with urban consumers showing higher digital literacy and thus trust in e-commerce sites than their rural counterparts.

**Sharma & Singh (2021)** looked into the e-commerce adoption trends in the northern part of India, with a focus on Uttar Pradesh, and suggested that demographic factors like age, income, and education played a crucial role. The study revealed that consumers with better digital skills were more likely to see lower risks and have stronger purchase intentions, whereas the lack of digital literacy in rural areas continued to act as an obstacle to online shopping.

#### **2.5 Summary of Gaps Identified**

**Ahmad, S. (2020)** focused on the determinants of e-commerce behavior during the pandemic and indicated that regional differences, namely between urban and rural, have an effect on consumers' risk perception and, consequently, the adoption of e-commerce. His research found out that most studies had concentrated on big cities while smaller towns and rural areas had been neglected in behavioral studies.

**Kumar, R. (2021)** examined the influence of consumer trust and perceived risks on online transactions made during the pandemic, pointing to the demographic differences, such as income, age, and digital literacy, as the main area where further research is needed. The study indicated that these factors are very important in determining the consumers' intention to purchase, but are still under-researched in Indian states like Uttar Pradesh.

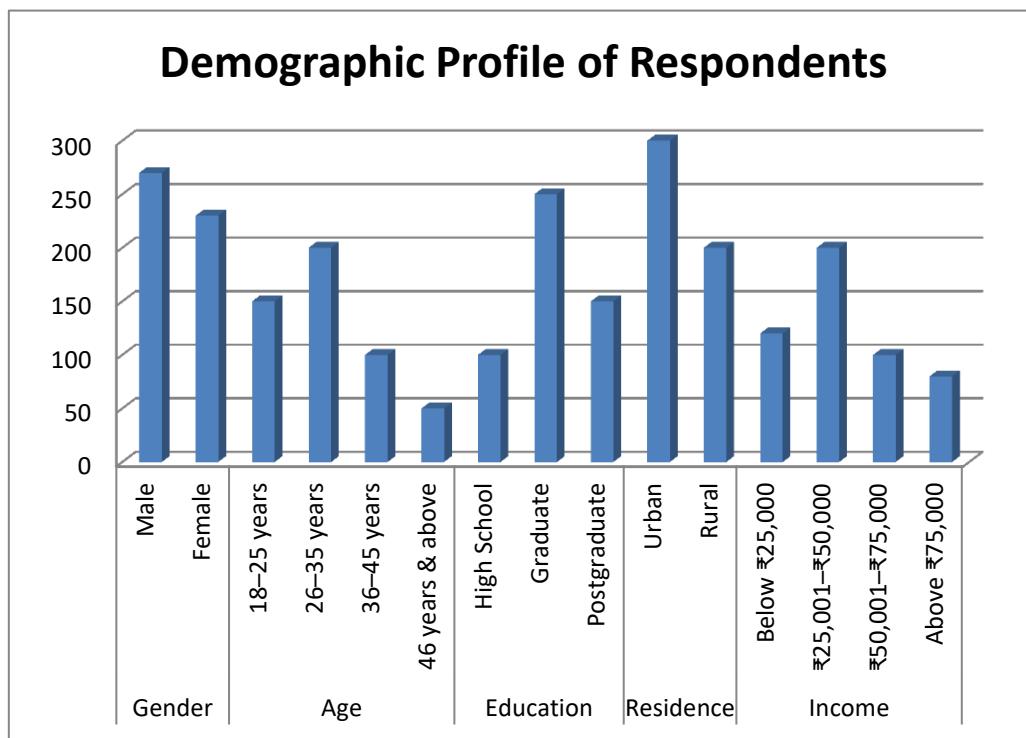
### **3. RESEARCH METHODOLOGY**

The study on online purchase intention and risk perception among consumers in Uttar Pradesh adopts a descriptive and analytical research design in its research methodology to observe and analyse systematically the consumer behaviour patterns during the COVID-19 pandemic. The study area is Uttar Pradesh, which consists of both urban and rural perspectives, thus providing a regional understanding that is comprehensive. The population comprised of people living in the area who are open to and actively online shopping, with 400 to 600 respondents suggested as the sample size to rule out any doubts regarding the statistical reliability. A stratified or purposive sampling technique is used whereby different demographic segments are represented, such as for age, income, and education level, thus ensuring equal representation. First-hand data is collected through structured questionnaires from primary sources and supplemented with secondary sources like scholarly articles, reports, and government publications. The research instrument in the form of a structured questionnaire is aimed at collecting detailed information on purchase intentions, risk perception, digital literacy, and payment preferences, thus making it possible to conduct both rigorous quantitative and qualitative analysis of consumer behaviour.

## 4. DATA ANALYSIS & INTERPRETATION

### 4.1 Demographic Profile of Respondents

Demographic Variable	Category	Frequency (n=500)	Percentage (%)
Gender	Male	270	54
	Female	230	46
Age	18–25 years	150	30
	26–35 years	200	40
	36–45 years	100	20
	46 years & above	50	10
Education	High School	100	20
	Graduate	250	50
	Postgraduate	150	30
Residence	Urban	300	60
	Rural	200	40
Income	Below ₹25,000	120	24
	₹25,001–₹50,000	200	40
	₹50,001–₹75,000	100	20
	Above ₹75,000	80	16

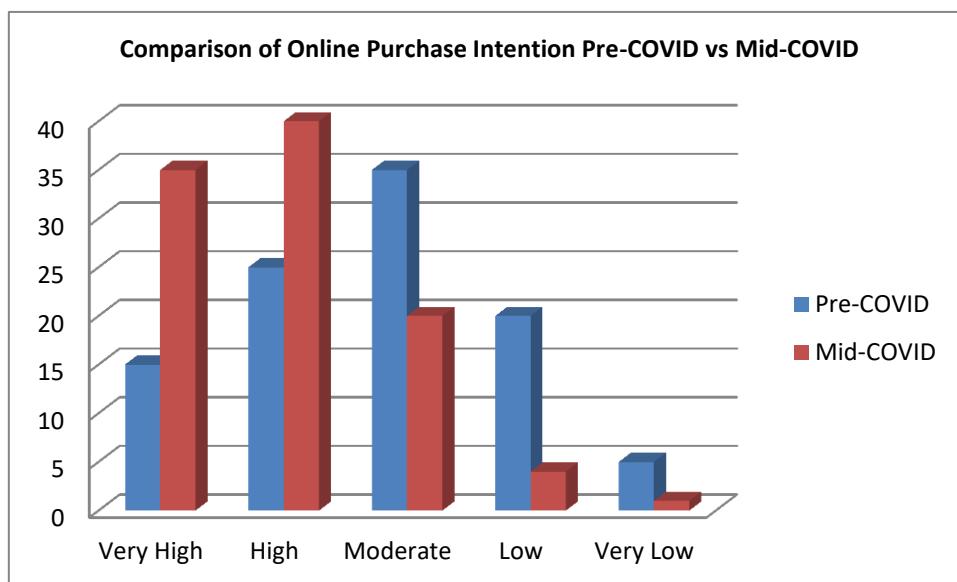


The survey sample includes 500 individuals, where the male (54%) population is slightly larger than female (46%). Age-wise, the largest group of participants (40%) is from the range of 26-35 years, the second largest group (30%) is from the age range of 18-25 years, thus pointing to young adults as the greatest online shoppers. Half of the respondents are graduates (50%) and this is the reason for the presence of a fairly literate population that is accustomed to digital platforms. 60% of the sample comprise urban residents, which indicates that there is more internet access and online shopping activities in cities. The distribution of income indicates that 64% of the sample earn up to ₹50,000 per month thus, the middle-income groups are the main consumers in the online marketplace.

#### 4.2 Pre-COVID vs Mid-COVID Purchase Intention Comparison

**Table 4.2: Comparison of Online Purchase Intention Pre-COVID vs Mid-COVID (N = 500)**

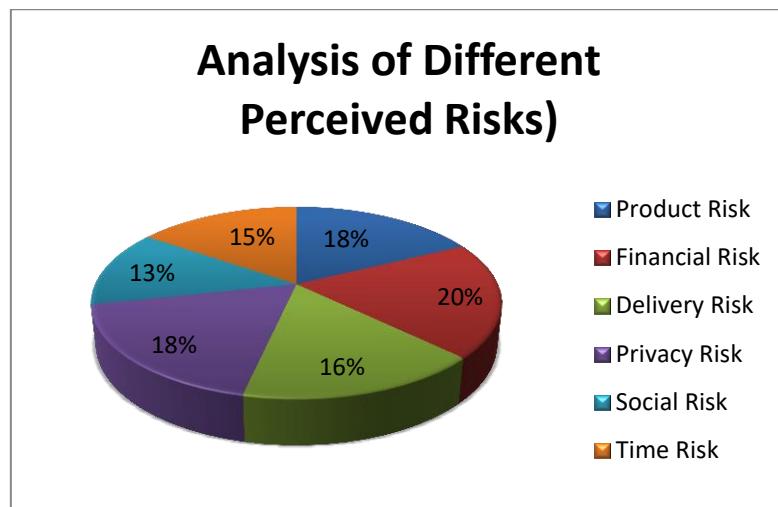
Purchase Intention Level	Pre-COVID (%)	Mid-COVID (%)
Very High	15	35
High	25	40
Moderate	35	20
Low	20	4
Very Low	5	1



The table reveals the pandemic's strong impact on consumers' intention to buy online in Uttar Pradesh. There was an increase from 40% to 75% during the same period (mid-COVID), which indicates the trend to shop online more due to fear of contracting the virus and being restricted in mobility. At the same time, those who had "Moderate," "Low," and "Very Low" purchase intention were reducing their numbers rather considerably, thus the inclination to shop online among the hesitant consumers was growing. The current scenario reveals that the pandemic has significantly sped up the process of digital adoption while at the same time exposed the issue of risk perceptions and digital literacy as crucial ones if the e-commerce sector is to keep long-term consumer engagement.

#### 4.3 Analysis of Different Perceived Risks

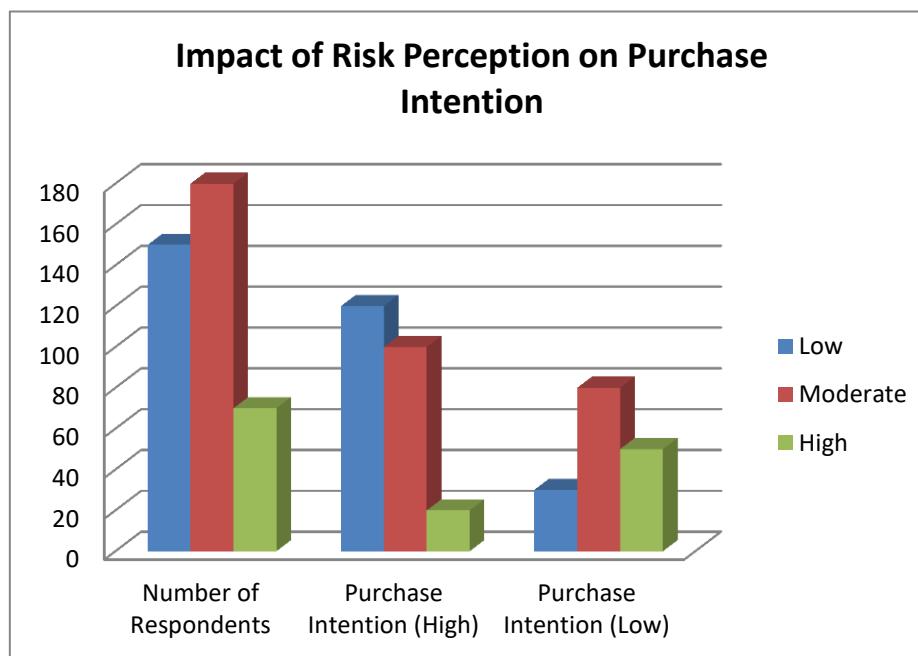
Perceived Risk Type	Mean Score (1–5)	Standard Deviation (SD)	Level of Concern
<b>Product Risk</b>	3.8	0.75	High
<b>Financial Risk</b>	4.2	0.65	Very High
<b>Delivery Risk</b>	3.5	0.80	Moderate–High
<b>Privacy Risk</b>	3.9	0.70	High
<b>Social Risk</b>	2.8	0.90	Moderate
<b>Time Risk</b>	3.3	0.85	Moderate–High



As per the table, financial risk is the primary concern of the consumers in Uttar Pradesh with a very high mean score of 4.2, meaning that they are very sensitive to losing money. The risks to the product and privacy also got high ratings, indicating that there are fears about product quality and data security. Delivery and time risks are seen as somewhat high, pointing to delays or lack of efficiency as major concerns. Social risk, which encompasses the perception of peers or the judgment of the society, is the least worrying risk. In general, the outcomes showed that financial security, product reliability, and privacy are the main criteria for the consumers when they choose to make online purchases, thus marking the areas where trustworthy and risk-free e-commerce providers can thrive.

#### 4.4 Impact of Risk Perception on Purchase Intention

Risk Perception Level	Number of Respondents	Purchase Intention (High)	Purchase Intention (Low)
Low	150	120	30
Moderate	180	100	80
High	70	20	50
<b>Total</b>	<b>400</b>	<b>240</b>	<b>160</b>



The data presented in the table reveals that consumers with low risk perception are much more likely to shop online as 80% of them express the intention of making a purchase. The consumers with moderate risk perception are acting tentatively, as 55% of them manifest a high purchase intention and 45% a low one, which is indicative of cautious engagement with e-commerce. On the other hand, the group of high-risk perception respondents considerably decreased their purchase intention to only 29% thus revealing that the main factors affecting this negative online shopping behavior are the concerns about fraud, product quality, or delivery issues. Therefore, the risk perception and purchase intention show a very distinct opposite relationship, which calls for the implementation of trust-building strategies by the online retailers.

## 5. FINDINGS

The study's results show that the COVID-19 pandemic had a major impact on people's intentions to buy products online, therefore, there was a considerable move towards the use of credit cards as a payment method, since customers wanted to avoid going to shops through the contactless shopping. On the other hand, the perception of risk went up and down at the same time; while the fear of online fraud and the doubts about product quality got stronger, the reliability of delivery service and the security of payment options had an effect of reducing the fear somewhat. A close look at the e-commerce platforms shows that they ranked high for convenience, home delivery, and payment method flexibility but were not so good at customer service responsiveness and handling post-sale complaints. There was a clear demographic divide, as urban consumers were more tech-savvy and were quicker in their online shopping adoption than their rural counterparts who preferred to be more careful. Also, the younger and better-off groups were the ones with the strongest purchase intentions. All in all, the research gives a picture of the consumers in Uttar Pradesh, pointing out the differences in digital adoption, payment preferences, and risk tolerance across the region, calling for the necessity of customized strategies that can build consumer trust and engagement in the online marketplaces throughout the state.

## 6. DISCUSSION

The report of the research brings out several main points regarding the change in the consumer behavior in UP due to the COVID-19 pandemic. A comparison with former studies establishes concurrence with the world-famous research that health issues and quarantine measures were the main factors in the dramatic growth of online shopping, the fact that digital literacy and payment preferences differ regionally has not been fully documented yet. Theoretical standpoint of the study gives a strong support to the risk consumer decision-making models by showing the perceived threat as a major factor in purchase intention and indicating the mediating role of trust and familiarity with the e-commerce platform. The work opened up new avenues in the understanding of consumer mentality during the pandemic by showing increased anxiety, keeping of money, and selective involvement with online sellers. Besides, the review reveals changes in the consumers' behavior such as the growing preference for no-contact payment methods, trust in particular websites, and the demand of safety guarantees as a factor influencing consumers' choices. Marketers and the government could use these trends to their advantage by considering the risks and encouraging the public to adopt the new technology.

## 7. CONCLUSION

The COVID-19 pandemic has a great impact on the consumer behaviors in Uttar Pradesh and it has pushed considerably the changeover from the usual shopping in stores to online platforms and this also led to the digital adoption that took place in urban and rural areas as

well. Apart from some of the reasons like fear of getting infected, lockdown, and convenience, the consumers also turned to e-commerce due to the increased acceptability and usage of digital payments and mobile apps. In fact, risk perception is still a major determinant of purchase decisions as the consumers are still worried about product authenticity, transaction security, and delivery times. It is indicated by the study that the consumers who experience risk at a low level have the greatest purchase intent while the consumers with a high-risk perception can turn digital adoption away, especially in the case of the less digitally literate groups. This research, therefore, provides the basis for online retailers to strengthen the trust factors by employing secure payment gateways, clear return policies, and reliable delivery systems in order to keep the consumers attracted to and participating in the fast-changing digital market and eventually to change the behavior and build consumer confidence in using online transactions over the long run.

## 8. SUGGESTIONS / RECOMMENDATIONS

In order to facilitate online shopping experiences and less risky perceptions, a series of actions come forth for the various stakeholders. The e-commerce businesses should primarily consider it their duty to protect the consumer and boost his/her inclination to buy the product by taking measures such as enhancing the security of their computer systems, supplying honest information about the products, making the delivery reliable, and having return policies that are easy for the consumer to use. The government and regulatory bodies, on the other hand, are expected to take legal action against e-commerce companies that do not comply with the rules and regulations, grant consumers their rights in the market, and carry out educational campaigns for the public about online fraud prevention with a special focus on the less digitally literate populations. The really good consumers are those who, instead of taking everything for granted, put the sellers through a test by checking their reputation and payment methods and reading feedback before they decide to buy the product. Such behavior would make the sellers' tasks of getting rid of the perceived risks very easy. As a matter of fact, there is a need for future research to investigate the changing online consumer behavior in a post-pandemic world, the disparities in consumer behavior within states such as Uttar Pradesh, and how new technologies like digital wallets and AI-based recommendation systems are affecting the consumers' intention to purchase. All together these activities could produce an online shopping ecosystem that is safer, better informed, and at the same time stronger against challenges.

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