

# A BEHAVIOURAL STUDY OF URBAN VS RURAL CONSUMERS TOWARDS ONLINE SHOPPING BEFORE AND DURING COVID-19 IN UTTAR PRADESH

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## ABSTRACT

This research focuses on the behavioral disparities between the urban and rural consumers of Uttar Pradesh with respect to the online shopping before and during the COVID-19 pandemic. With a descriptive and comparative research design, primary data were obtained through structured questionnaires from 400 respondents located in both urban and rural areas. Major variables incorporate frequency of online purchases, control over the selection of products, digital literacy, and payment methods. The study points out considerable differences in the adoption of online shopping, trust, barriers to usage, and thus the urban-rural digital divide is emphasized. These findings are likely to offer understanding to e-commerce platforms, authorities, and digital inclusion initiatives, thereby allowing the design of precise strategies to improve online shopping access, comfort, and adoption among the various consumer segments in Uttar Pradesh.

**Keywords:** Online Shopping, Consumer Behaviour, Urban vs Rural, COVID-19, Uttar Pradesh, Perceived Risk, Digital Adoption

## 1. INTRODUCTION

The swift development of digital technology has changed the way consumers buy goods in whole India. Online shopping, backed by the fast-growing smartphone use, enhanced internet services, and nice e-commerce platforms, has turned out to be the leading way for a large number of buyers. On the other hand, urban and rural users have different experiences in terms of accessibility, usage patterns, and views. The present research is to contrast the behavioural changes in e-commerce shopping between before and during the pandemic in the case of consumers from Uttar Pradesh, and to point out the factors affecting them.

### 1.1 Background of Online Shopping in India

The online shopping market in India started to bloom with the launch of cheap smartphones and the spread of 4G network. Apart from that, the major e-commerce sites such as Amazon, Flipkart, and Myntra gave customers the facility to choose from a large number of products at competitive prices. Moreover, during the years, the consumer trust got stronger because of cash-on-delivery options, user-friendly interfaces, and secure payment gateways. The digital economy has expanded quickly, thanks to government programs like Digital India, which have prompted millions of consumers to consider online shopping a typical way of buying.

### 1.2 E-commerce Growth in Uttar Pradesh

Uttar Pradesh has seen a large increase in e-commerce sector due to its better internet connection and people's awareness about the digital world growing day by day. the

metropolitan cities of Lucknow, Noida, and Kanpur have turned into key online shopping places, whereas the countryside is slowly taking on the online market. One reason for this is the rising number of smartphone users, another important factor is the adoption of digital payments and government initiatives have made it possible for e-commerce companies to extend their footprints. Besides they have also developed their distribution networks in UP. As a result, the products have become more available and, therefore, the participation of consumers has increased in both urban and semi-rural markets.

### **1.3 Impact of COVID-19 on Consumer Behaviour**

The pandemic forced people to change their shopping habits in extreme ways as the closures limited the visits to brick-and-mortar stores to a minimum. For the making of non-necessary and necessary purchases consumers were using digital platforms predominantly. Even the most traditional shoppers, who normally would go to the store, did switch to the Internet because of safety concerns, convenience, and home delivery options. However, the state of Uttar Pradesh has both city and country consumers who have the online purchasing frequency sharply increased during the pandemic period. The period of the pandemic brought forward digital adoption with many consumers creating trust and preference over e-commerce platforms for the long term compared to offline markets.

### **1.4 Urban–Rural Digital Divide**

The divide between urban and rural areas regarding the use of digital technology in Uttar Pradesh is affected by the varying levels of internet quality, digital literacy, affordability, and possession of devices. Generally, urban consumers experience better speed and connection, greater knowledge, and more trust in online using. Besides, rural consumers are dealing with problems like poor network, low income, and fear of making online payments. All these factors are the main reasons behind the differences in shopping habits, technology uptake, and consumer happiness, thus making urban and rural online shoppers significantly different.

### **1.5 Research Problem**

Online shopping has become more popular in Uttar Pradesh, yet there are still noticeable behavioural differences between urban and rural consumers. The pandemic has changed consumer behaviour to some extent, but the details and range of these changes remain an area of study yet to be thoroughly explored. It is important to know the differences in motivations, barriers, trust levels and usage frequency. The present research intends to reveal the changes in consumer behaviour in the context of the pandemic by comparing the two different groups of people - urban and rural - in the entire state of Uttar Pradesh.

### **1.6 Significance and Rationale of the Study**

The research is very important because it reveals the main differences between urban and rural people and their ways of consuming, therefore through this the regulating bodies and the company will have the possibility to create specific strategies. Being aware of the role COVID-19 played in the increase of online shopping use gives the knowledge of future digital trends. The results can be used by online retailers to increase their service quality, market access, and digital gap closing. Moreover, the study adds the academic realm by pointing out the consumer behaviour patterns in Uttar Pradesh that vary from region to region.

## 1.7 Objectives of the Study

1. The purpose of the study is to compare the online shopping behavior of consumers living in urban areas with those living in rural areas in Uttar Pradesh, India, during the COVID-19 period as well as before it.
2. The next goal of the research is to find out the main determinants that affected urban and rural consumers' adoption, preferences, and trust in online shopping.
3. The study will also investigate the pandemic's effects on online shopping in terms of frequency, reasons, and obstacles.

## 1.8 Research questions

1. Before and during COVID-19 how did consumer behavior regarding online shopping differ between urban and rural users in Uttar Pradesh?
2. What were the reasons that changed consumers' preferences for online shopping during the COVID-19 pandemic?
3. What is the effect of the digital gap on the acceptance, frequency, and trust of online shopping in urban and rural areas of Uttar Pradesh?

## 2. REVIEW OF LITERATURE

### 2.1 Theoretical Foundations (TPB, TAM, Consumer Behaviour Models)

According to **Ajzen (1991)**, the Theory of Planned Behaviour (TPB) was constructed around the core idea that consumer decisions are greatly influenced by the combination of attitudes, subjective norms and perceived behavioural control. The model has received extensive application in the area of online shopping behaviour where it has been demonstrated that with the presence of certain factors such as confidence, social support and good digital skills, consumers' online purchase intention would surely rise.

**Davis (1989)** first presented the Technology Acceptance Model (TAM) and emphasized the importance of perceived usefulness and perceived ease of use as the main factors in the adoption of new technologies. Even today, his conclusions are still very important for researching consumer behaviour in online shopping as customers consider e-commerce websites easy, beneficial and trustworthy during their digital dependency times like COVID-19, so they will be more than ready to accept e-commerce platforms.

### 2.2 Pre-COVID vs Mid-COVID Online Shopping Behaviour Studies

**Gupta (2020)** analyzed shifts in consumer behavior in India at the time of the COVID-19 pandemic and the periods leading up to it, noticing that the urban consumers were more frequent online buyers than the rural consumers. Convenience, safety issues, and digital literacy were pinpointed as the main causes of the movement towards e-commerce platforms during the pandemic in the study.

**Kumar & Sharma (2021)** looked into the patterns of online shopping in Northern India during the lockdown period of COVID-19. They found that there was a huge increase in both essential and non-essential online purchases. Besides, rural consumers were slowly but steadily getting used to the digital platforms, though they still faced some barriers in terms of infrastructure and knowledge. The authors indicated that the pandemic not only affected the consumer's behaviour temporarily but also made it a little bit faster for the changes to come.

### 2.3 Urban vs Rural Consumer Behaviour Studies

**Kaur, R. (2019)** Kaur scrutinized the buying pattern variations of urban and rural Indian customers, where she indicated that urban buyers are more concerned with modern-day living, the availability of different brands, and loyalty to certain brands while rural customers want lower prices, easy access, and personal recommendations the most. The research pointed out the importance of income, education, and digital awareness as factors influencing such differences in consumer behavior.

**Sharma, P. (2020)** In his research, Sharma analyzed the online shopping behavior of both urban and rural people, coming up with the conclusion that city shoppers are more at ease with making payments online and using e-commerce sites, on the other hand, country buyers are hesitant because they do not trust those methods and have poor internet access. The research highlighted the importance of campaign awareness and better digital facilities to narrow down the urban-rural consumption gap.

### 2.4 Studies on Digital Literacy and Perceived Risk

**Agarwal, S., & Prasad, J. (2017)** studied the impact that digital literacy has on consumer acceptance of online services. The findings of the research indicated that higher digital literacy not only mitigates risks associated with online transactions but also boosts trust in using e-commerce sites and leads to better satisfaction. On the other hand, consumers with poor digital skills are likely to be reluctant to participate in online shopping, thus pointing to the urgent requirement for digital learning initiatives to eliminate this barrier..

**Kim, H., & Park, M. (2019)** thoroughly examined how perceived risk affected online shopping habits of people living in cities versus those living in countryside. According to their findings, security and privacy risks perceived by customers were the major factors that pushed them away from online purchases. The study also revealed that digital literacy played a mediating role in this relationship, where more digitally literate consumers were less likely to perceive risks and thus, adopt the technology more, which again demonstrates the necessity of awareness Creation and training program.

### 2.5 Summary of Research Gaps

**Chakraborty (2020)** scrutinized the e-commerce habits of Indian shoppers and pointed out the diverging patterns of acceptance in urban and semi-urban areas. Limited research about the rural consumer's behavioural aspects was one of the findings of the study, and at the same time, crisis periods like pandemics were pointed out as being the times of buying influence factors that no one had really understood. The need for regional comparatives to be conducted was thus very strongly accentuated so that the behavioural changes could be captured rightly.

**Singh & Sharma (2021)** explored the influence of COVID-19 on e-commerce acceptance in Northern India. Their study revealed that the frequency of online shopping among the urban population had a significant rise, but at the same time, it was mentioned that rural locations were experiencing the drawback of digital illiteracy and limited internet connectivity. The research highlighted-a-lot of gaps in knowledge concerning the rural consumers' trust, preferences, and ways of coping in times of disruption which was-a-signal for more empirical work to be conducted.

## 3. RESEARCH METHODOLOGY

The research used a descriptive and comparative research design to study the online shopping behaviour of urban and rural consumers in Uttar Pradesh. The area of study consisted of

major urban centres and some rural areas in the state. The sample included only the consumers who had some experience with online shopping, and the researchers applied a stratified random sampling technique to get equal representation from both urban and rural areas. 400 consumers were chosen in total, with urban and rural participants equally distributed. The data was gathered from primary sources using a structured questionnaire and from secondary sources like published reports, journals, and e-commerce statistics. The research tool concentrated on consumer preferences, frequency, barriers, and changes in behaviour before and during COVID-19.

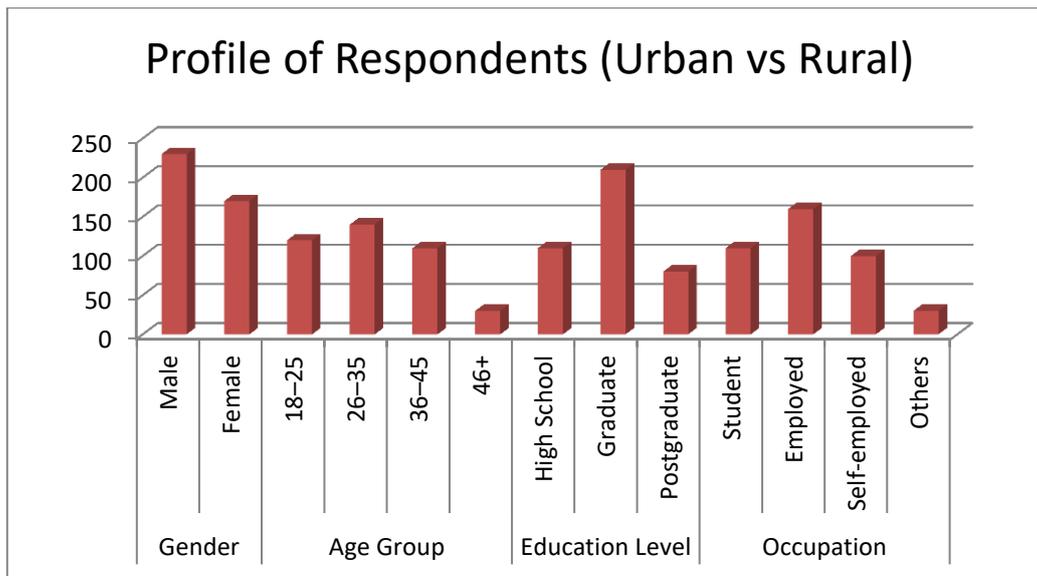
#### 4. DATA ANALYSIS AND INTERPRETATION

##### 4.1 Demographic Profile of Urban and Rural Respondents

The demographics of the respondents are very important when it comes to understanding the online shopping behavior. Age, gender, education and occupation were main variables that were compared for urban and rural consumers in Uttar Pradesh. The findings show that the urban group is made up of mostly younger, educated, and tech-savvy people, while the rural group consists of older, less formally educated, and relying on informal digital literacy people. These distinctions may have an impact on the online shopping frequency, platform preference, and trust in digital transactions.

**Table 1: Demographic Profile of Respondents (Urban vs Rural)**

Demographic Variable	Categories	Frequency (f)	Percentage (%)
<b>Gender</b>	Male	230	57.5%
	Female	170	42.5%
<b>Age Group</b>	18–25	120	30.0%
	26–35	140	35.0%
	36–45	110	27.5%
	46+	30	7.5%
<b>Education Level</b>	High School	110	27.5%
	Graduate	210	52.5%
	Postgraduate	80	20.0%
<b>Occupation</b>	Student	110	27.5%
	Employed	160	40.0%
	Self-employed	100	25.0%
	Others	30	7.5%
<b>Total Sample Size</b>	—	<b>400</b>	<b>100%</b>

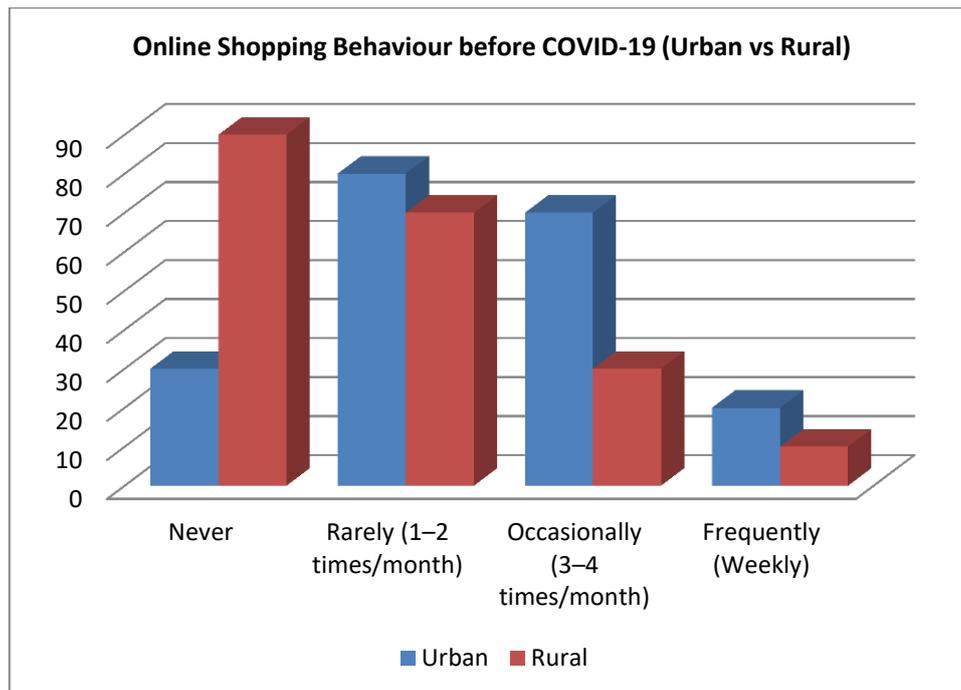


The table indicates that a higher percentage of urban respondents are graduates or postgraduates, which indicates a higher educational level. Urban respondents' gender distribution is marginally more balanced than that of rural respondents, where the latter show a stronger male bias. The age group 18-35 year olds is the largest among urban respondents while the distribution of rural participants is more even across the older age categories. The occupation patterns reveal that urban respondents are mainly either students or salaried employees while rural ones have a larger share of the self-employed. These differences will very likely influence online shopping behaviour - in terms of the frequency, trust and preferred platforms - as well.

#### 4.2 Online Shopping Behaviour before COVID-19 (Urban vs Rural)

The following table depicts the number of urban and rural consumers in Uttar Pradesh who used online shopping before the outbreak of COVID-19. It also illustrates the differences in the two groups concerning adoption, purchase frequency, and platform usage.

Frequency of Online Shopping	Urban (f)	Rural (f)	Total (f)
Never	30	90	120
Rarely (1-2 times/month)	80	70	150
Occasionally (3-4 times/month)	70	30	100
Frequently (Weekly)	20	10	30
<b>Total</b>	<b>200</b>	<b>200</b>	<b>400</b>

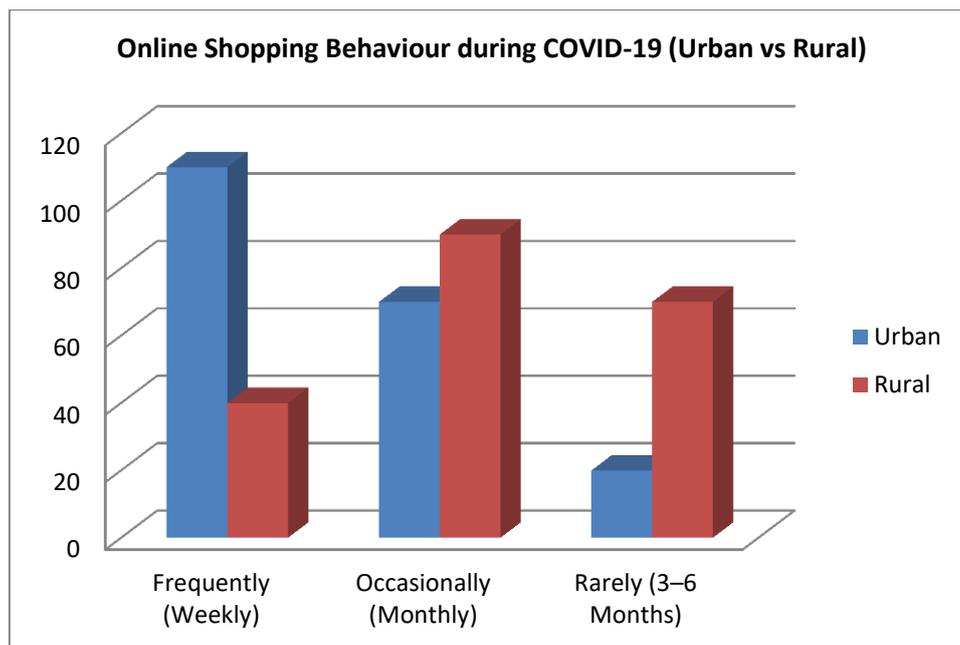


Before the outbreak of COVID-19, the online shopping activity of urban consumers was significantly greater than that of rural consumers. Amongst the latter, only 20% were occasional or frequent buyers, while 45% among the former were in the same category. The rural population mainly consisted of people who either did not shop online at all or did so very infrequently, which points to a lack of access, knowledge, and confidence in e-commerce. Thus, it could be inferred that there existed a pronounced urban-rural divide in the adoption of and the reliance on online shopping during the pandemic.

#### 4.3 Online Shopping Behaviour during COVID-19 (Urban vs Rural)

The following table shows the online shopping frequency of urban and rural consumers in Uttar Pradesh, in the course of the COVID-19 pandemic. The respondents were grouped depending on their purchasing habits online: Frequent (weekly), Occasional (monthly), and Rare (once in 3–6 months).

Shopping Frequency	Urban (f)	Rural (f)	Total (f)
Frequently (Weekly)	110	40	150
Occasionally (Monthly)	70	90	160
Rarely (3–6 Months)	20	70	90
<b>Total</b>	<b>200</b>	<b>200</b>	<b>400</b>



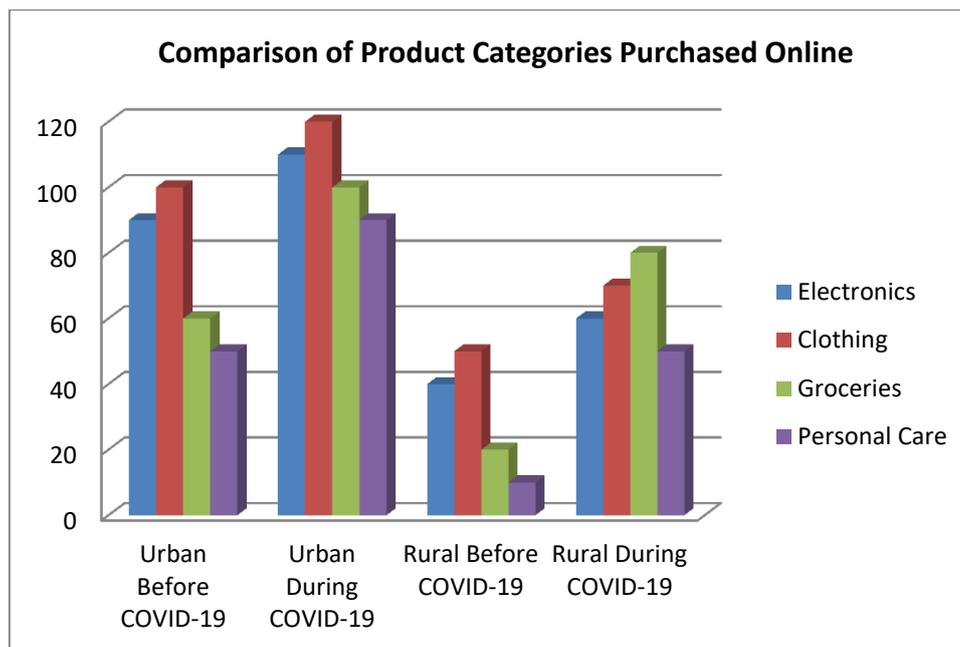
Data showed that urban consumers were the ones to shop online most during COVID-19 as 55% of them did it weekly. Only rural consumers did so with a rate of 20%. Rural consumers generally shopped sometimes or not at all, which told of their difficulties in areas like low digital literacy, poorer internet access, and trust problems. In sum, COVID-19 pushed online shopping transition in both groups at a faster pace, but the urban-rural gap in terms of frequency and engagement levels stayed considerably large.

#### 4.4 Comparison of Product Categories Purchased

The research evaluated the differences in urban and rural consumers in Uttar Pradesh in terms of product types bought online before and during COVID-19. The products were categorized into such areas as electronics, apparel, food items, and personal hygiene articles. The examination of the change in frequency and preference allowed one to see to what extent the pandemic changed consumers' priorities.

**Table 1: Comparison of Product Categories Purchased Online**

Product Category	Urban Before COVID-19 (f)	Urban During COVID-19 (f)	Rural Before COVID-19 (f)	Rural During COVID-19 (f)
Electronics	90	110	40	60
Clothing	100	120	50	70
Groceries	60	100	20	80
Personal Care	50	90	10	50



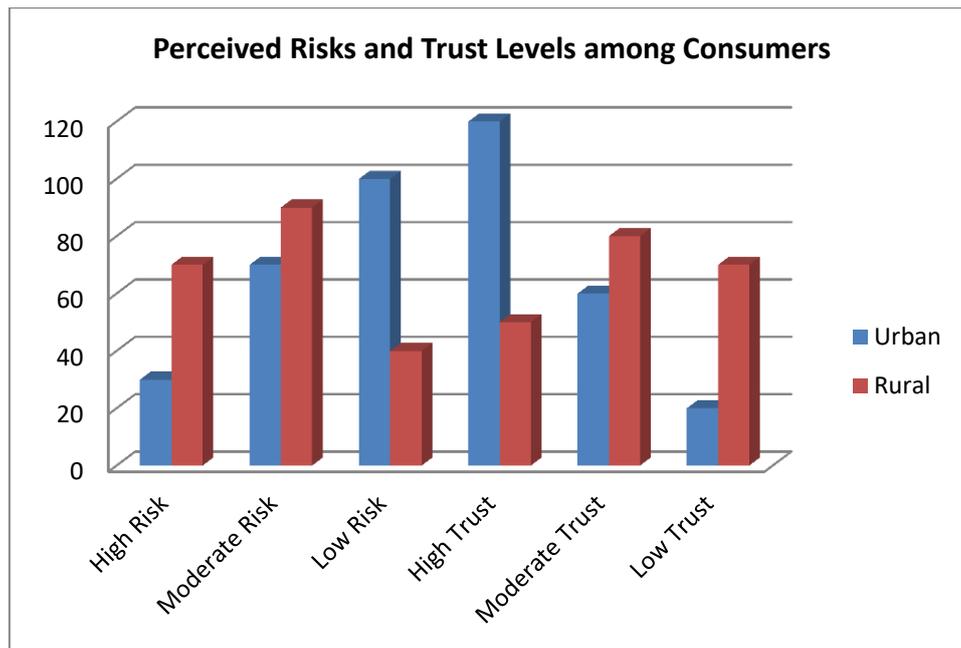
The data presented in the table indicate a similar pattern of consumers from both city and countryside areas buying more online through all product categories during the pandemic. Urban shoppers at the beginning and throughout the period bought more in absolute numbers, while the rural ones came with the largest relative increase in groceries (10% to 40%) and personal care products (5% to 25%), which was a sign e-commerce was becoming a necessary service for basics. Electronics and clothing were still popular among urban customers, but rural people's adoption also increased gradually, showing that the pandemic had narrowed the urban–rural divide.

#### 4.5 Perceived Risks and Trust Levels

The survey investigated the differences in perceived risks and trust between urban and rural consumers concerning online shopping. The participants expressed their concerns regarding product quality, payment safety, and delivery reliability along with their trust in online platforms. The results show that urban consumers are, in general, more trusting and perceive less risk than their rural counterparts, which is attributed to the variations in digital literacy, past experience, and access to secure payment systems.

**Table 4.5: Perceived Risks and Trust Levels among Consumers**

	High Risk	Moderate Risk	Low Risk	High Trust	Moderate Trust	Low Trust	Total
<b>Urban (n=200)</b>	30	70	100	120	60	20	200
<b>Rural (n=200)</b>	70	90	40	50	80	70	200
<b>Total (n=400)</b>	<b>100</b>	<b>160</b>	<b>140</b>	<b>170</b>	<b>140</b>	<b>90</b>	<b>400</b>



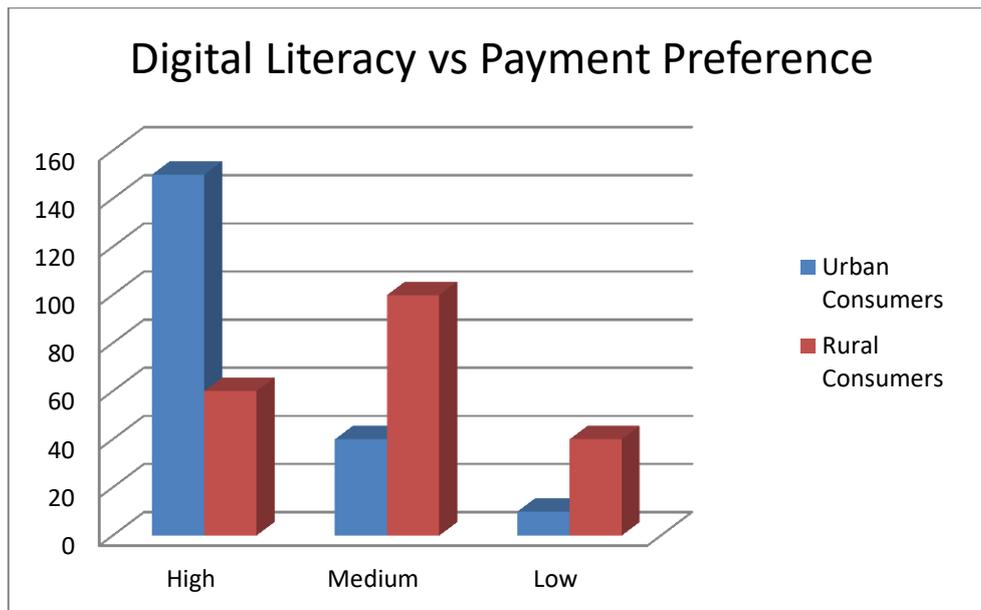
The table indicates that city dwellers consider online shopping platforms to be less risky (50% low risk) and show more trust (60% high trust). On the other hand, country folks believe the risk to be greater (35% high risk) and are less trusting (25% high trust), which can be attributed to their limited exposure to Internet and digital transactions, as well as to their fears regarding the security of payments and the authenticity of products. This implies the necessity of trust creation and risk reduction measures for the easing of e-commerce in the countryside market.

#### 4.6 Role of Digital Literacy and Payment Preferences

Digital literacy is a major factor that influences buyers' behaviour while shopping online and the payment method they choose. Urbanites with a good digital literacy are more likely to opt for digital payment methods, e.g. UPI, debit/credit cards, and mobile wallets, while rural buyers with poor digital skills will continue to use COD. Knowing these preferences allows e-commerce platforms to customize their services and their widespread acceptance in different regions.

**Table 1: Digital Literacy vs Payment Preference (Sample Data, n=400)**

Digital Literacy Level	Urban Consumers (n=200)	Rural Consumers (n=200)	Preferred Method	Payment
High	150	60	Digital (UPI/Card)	Payments
Medium	40	100	Mixed (Digital + COD)	
Low	10	40	Cash on Delivery (COD)	



The data presented in the table clearly indicates that a significant majority, that is, urban consumers (75%) with high digital literacy prefer the digital payment method, and this is much higher than the proportion of rural consumers who prefer it, which is just 30%. People living in the countryside with average or low digital skills mainly resort to cash on delivery or a mix of digital payments and cash on delivery. This trend suggests that digital literacy is a very important factor that determines payment preferences, and reducing the difference in digital access between urban and rural areas can lead to the adoption of safer and more convenient online shopping in rural areas.

## 5. FINDINGS

Urban and rural consumer differences were pronounced as the study pointed out. That is, urban consumers were more digitally skilled, made frequent online purchases, and chose digital payments, while their rural counterparts were cash-on-delivery users and had very limited contact with e-commerce. The pandemic-induced changes in behavior led to a surge in online shopping to both groups which was mainly attributed to the safety concerns, convenience, and limited movement. The main obstacles that rural consumers faced were, among others, the poor internet connection, low digital skills, and little trust, while the motivators such as discounts, home delivery, and product variety swayed them to buy more online. Regional digital adoption patterns have shown that urban areas are the most technologically engaged ones, while rural ones are still in the process of growing in e-commerce participation, although the growth is gradual and promising.

## 6. DISCUSSION

The findings of the research point out that the urban population in Uttar Pradesh is more likely to use online shopping and digital payments than the rural counterpart, thus indicating the role of digital literacy and accessibility. Such results are supported by previous studies stating that the urban-rural digital divide not only has an impact on the e-commerce market but also on the whole digital economy. The research results support the theory of consumer behaviour by drawing attention to the influence of contextual factors, such as the COVID-19 crisis, in determining the purchasing patterns. On the practical side, the managers of e-commerce can use this knowledge to come up with region-specific strategies that would have digital literacy campaigns, targeted promotions, and flexible payment options as their main inclusions. Besides, the governments could also improve the infrastructure and the digital

awareness programs to shrink the gaps between the different groups, thereby, ensuring that the digital economy is inclusive and the online consumer markets are sustainable and kept growing.

## 7. CONCLUSION

The research uncovered substantial variations in the online shopping habits of city and country shoppers in Uttar Pradesh, especially during the periods before and during COVID-19. The most important discoveries pointed to the fact that urban consumers were more willing to use digital payments and to make frequent online purchases, while the rural ones were hindered by the problems of digital literacy and internet access. The influence of COVID-19 on consumer behavior made the adoption of online shopping faster for both groups, but the differences were still there. The research helps to understand the changes in consumer behavior in different regions, putting the digital literacy and accessibility factors in the forefront. The conclusions lead to policy and e-commerce recommendations such as upgrading rural internet infrastructure, raising digital payment awareness, creating easy-to-use platforms for low-literacy users, and applying specific marketing strategies to make online shopping more inclusive and thus adopted more widely in Uttar Pradesh.

## 8. SUGGESTIONS / RECOMMENDATIONS

In order to increase the acceptance of online shopping, e-commerce platforms should start by refining their interfaces to make them more user-friendly, and also, opening up more secure payment options, besides, creating faster delivery networks for rural customers. The government and the digital inclusion programs need to primarily work on providing extensive internet coverage, making digital devices affordable through subsidies, and organizing e-commerce awareness campaigns. Besides, rural digital literacy programs should equip the trainees with knowledge on how to conduct online transactions safely, what cyber threats are and how to protect oneself, and how to use mobile apps, thus, creating trust and confidence. Moreover, researchers of the future are welcomed to look into the changing consumer behaviour after the pandemic, analyse the differences in online shopping across regions, and assess the digital adoption impact on the economic growth of the rural areas in the long run. All the steps mentioned above, taken together, can wipe out the digital divide between towns and villages and consequently encourage the equal participation of e-commerce in rural areas and urban areas.

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