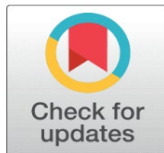
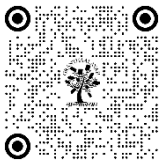


# IMPACT OF DIGITAL LITERACY AND MOBILE ACCESSIBILITY ON ONLINE SHOPPING BEHAVIOUR FOR CONSUMER GOODS IN GREATER NOIDA

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DOI

[10.29121/shodhkosh.v5.i6.2024.6117](https://doi.org/10.29121/shodhkosh.v5.i6.2024.6117)

**Funding:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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## ABSTRACT

This study examines how consumers in Greater Noida, an Indian city that is expanding quickly, behave when they shop online in relation to digital literacy and mobile accessibility. Understanding the elements that affect online buying decisions has become more crucial as e-commerce and smartphone use have grown. The study looks at how customers' frequency of online purchases, product preferences, and platform usage are influenced by their access to mobile technology and digital competence, which is the capacity to utilize digital tools efficiently. A systematic questionnaire was used to gather data from 180 respondents, and the findings show a substantial positive relationship between increased online purchasing engagement and higher levels of digital competence. Similarly, more varied and frequent online purchases are greatly influenced by improved mobile accessibility. To encourage inclusive and fair access to digital commerce, the results highlight the necessity of focused digital education programs and enhanced mobile infrastructure. In order to close the digital divide and improve consumer involvement across all segments, the study ends with recommendations for digital platforms and legislators.

**Keywords:** Digital Literacy, Mobile Accessibility, Online Shopping Behaviour, Consumer Goods, Digital Divide, Smartphone Usage, Consumer Engagement, Digital Economy

## 1. INTRODUCTION

The way customers engage with markets has changed dramatically in the digital age, with online shopping being a popular way to buy products and services. Rapid urbanization, rising smartphone usage, and better internet connectivity have all contributed to the rise of e-commerce in India, particularly in emerging cities like Greater Noida. However, two important factors—digital literacy and mobile accessibility—have a significant impact on how much online shopping is done by certain population categories.

The capacity to properly access, comprehend, and use digital technologies is known as digital literacy. It includes abilities like using e-payment systems, surfing websites, managing smartphones, and comprehending digital security. Conversely, mobile accessibility includes having physical access to cellphones, dependable internet access, the ability to use mobile apps, and user-friendly interfaces. These elements work together to influence consumer motivation, convenience, and confidence when engaging in the digital marketplace.

The diversified population of Greater Noida, which includes migrant workers, working professionals, and students, all of whom have varied levels of exposure to digital tools, makes it an interesting case study. Due to a lack of digital skills

or inadequate mobile access, some consumers actively research product possibilities, compare costs, and use sophisticated apps to finish purchases, while others are hesitant or rely on others.

The purpose of this study is to investigate how Greater Noida residents' online purchasing habits are influenced by their level of digital literacy and mobile accessibility. It looks for usage trends, the frequency of online purchases, and the product categories impacted by these variables. The research's conclusions will advance knowledge of the digital gap in developing cities and provide suggestions for encouraging more inclusive online shopping habits.

## 2. LITERATURE REVIEW

- **Lubis (2018)** investigated consumer preferences for online purchasing with an emphasis on application-related problems and demographic characteristics. The study, which was published in the *Academy of Strategic Management Journal*, showed that the frequency and kind of online purchases were highly influenced by age, gender, and income levels. Furthermore, it was determined that security features and application usability had a significant impact on client choices.
- **Floh, Koller, and Zauner (2013)** investigated how online reviews affect consumers' purchasing decisions. According to their research, which was published in the *Journal of Marketing Management*, reviews' valence intensity—whether they were overwhelmingly favorable or negative—had an uneven impact on how consumers made decisions. While negative evaluations showed a disproportionately stronger deterrent effect, positive ones tended to moderately strengthen buy intentions, suggesting a cognitive bias in online shopping behavior.
- **Budiharseno (2017)** used the Gmarket platform to carry out a qualitative study on foreign students in Busan. The study, which was published in *Arthatama: Journal of Business Management and Accounting*, found that user interface ease, language compatibility, and cultural background were important determinants of online purchasing behavior. The results underlined how crucial it is to tailor e-commerce platforms to particular user demographics in order to increase trust and engagement.
- **Burton (2009)** investigated cross-cultural marketing and added to the theoretical knowledge of consumer behavior. His research made clear how important it is for marketers to modify their approaches for audiences with varying cultural backgrounds, particularly in the digital sphere. He maintained that local customs, values, and communication styles have an impact on internet shopping behaviors, which cannot be broadly described.
- **Lay-Yee, Kok-Siew, and Yin-Fah (2013)** carried out a thorough investigation to determine the elements influencing Malaysian Generation Y's smartphone purchase decisions. Their research, which was published in the *International Journal of Asian Social Science*, highlighted how important factors influenced young customers' decisions to buy, including operating system, screen size, battery life, brand reputation, and price. Furthermore, it was discovered that social factors like celebrity endorsements and peer recommendations have a big impact on consumers' purchasing decisions. According to the survey, Generation Y, being digital natives, had a high degree of technical consciousness and favored smartphones that complemented their social identities and way of life. Having a smartphone gave them easy access to e-commerce sites, so this practice indirectly affected their online buying habits.
- **Lee and Lee (2007)** examined the critical success characteristics for m-commerce, or mobile commerce. Their study, which was published in the *Journal of Shopping Center Research*, emphasized a number of strategic and technical components that are critical to the success of mobile-based shopping platforms. The most important ones were application design, network speed, tailored services, transaction security, and ease of use. The researchers contended that businesses must guarantee a seamless, user-friendly, and reliable experience for m-commerce to succeed. Their results showed that mobile accessibility affected customer loyalty and trust toward online platforms in addition to increasing convenience. Essentially, mobile commerce was a distinct field that needed its own design and customer engagement tactics rather than merely being an extension of e-commerce.
- **Anaza (2014)** investigated how customer citizenship activities in online buying situations are influenced by personality traits. This study, which was published in *Psychology and Marketing*, examined the ways in which characteristics such as conscientiousness, extraversion, agreeableness, and openness to new experiences affected consumer engagement in ways other than simple purchases. Positive word-of-mouth, helpful behavior toward other customers, and constructive comments to merchants were all more common among consumers

who exhibited high levels of these characteristics. In order to build community and loyalty, the study emphasized the significance of individual variations in influencing online shopping experiences and recommended that retailers target customers based on psychographics as well as demographics.

- **Osama and Ahmed (2013)** examined the elements influencing Egyptian customers' propensity to accept internet purchases. According to their research, which was published in The Journal of American Academy of Business, the primary factors driving the adoption of e-commerce include perceived utility, convenience of use, internet trust, online transaction security, and cultural orientation. Although perceived risk and trust were prominent themes, the authors also pointed out that low digital literacy and a lack of digital infrastructure continued to be significant obstacles in the area. Their results supported those of previous international studies, showing that customer perception and confidence in digital systems are just as important for effective adoption as platforms' technical preparedness.
- **Chan and Huang (2016)** investigated consumer trust in online shopping platforms in Taiwan. Their study in The Journal of International Management Studies found that website credibility, transaction security, and brand familiarity played pivotal roles in building consumer trust. Trust, in turn, was directly correlated with repeat purchase behaviour and platform loyalty.

### 3. INFLUENCE OF DIGITAL LITERACY ON ONLINE SHOPPING BEHAVIOUR

The term "digital literacy" describes a person's capacity to use digital technology to efficiently and critically access, assess, and produce information. This includes the ability to use search engines, compare prices across platforms, assess the reliability of sellers, use payment gateways, and comprehend digital privacy and security in the context of online buying.

Digital literacy is a key factor in determining online buying behavior in Greater Noida, a fast-urbanizing area with a varied consumer base. Higher digitally literate consumers are more likely to be proactive and self-assured while utilizing digital wallets, e-commerce platforms, discount codes, and product ratings prior to making purchases.

On the other hand, people with low levels of digital literacy frequently show hesitancy or skepticism while making purchases online. They might limit themselves to well-known platforms like WhatsApp or local seller applications, or they might rely significantly on others (friends or relatives) to make purchases.

This divergence results in different patterns of shopping frequency, preferred product categories, and platform choices based on digital competence.

**Table 1** Relationship Between Digital Literacy Level and Online Shopping Frequency

| Digital Literacy Level | Online Shopping Frequency      | Number of Respondents | Percentage (%) |
|------------------------|--------------------------------|-----------------------|----------------|
| High                   | Frequently (4+ times/month)    | 54                    | 30.0%          |
| Moderate               | Occasionally (1–3 times/month) | 72                    | 40.0%          |
| Low                    | Rarely (less than once/month)  | 36                    | 20.0%          |
| Very Low/None          | Never                          | 18                    | 10.0%          |
| <b>Total</b>           |                                | <b>180</b>            | <b>100.0%</b>  |

The data unequivocally shows a strong positive relationship between Greater Noida consumers' frequency of online shopping and their level of digital literacy. 30% of the sample consists of respondents who are highly digitally literate and who purchase online four or more times a month, indicating their comfort level and knowledge with digital platforms. The largest group (40%) is classified as moderately literate and makes occasional purchases (one to three times per month), indicating a respectable degree of comfort with online shopping but possibly limited by awareness or depth of digital skills. Conversely, 20% of respondents had low digital literacy and rarely shop, most likely as a result of confusion, a lack of confidence in their computer skills, or a fear of online fraud. Lastly, there is a notable digital exclusion, as 10% of respondents with very poor or no digital literacy said they had never shopped online. In order to close this gap and promote wider involvement in the online marketplace, these findings highlight the necessity of advancing digital education and inclusion policies.

#### 4. ROLE OF MOBILE ACCESSIBILITY IN SHAPING CONSUMER ONLINE PURCHASE PATTERNS

The growth of e-commerce has been significantly fueled by mobile accessibility, especially in urban and semi-urban areas like Greater Noida. It includes a number of elements, such as smartphone ownership, internet connectivity quality, data plan affordability, mobile app usability, and the presence of regional language support in apps.

When it comes to online consumer products shopping, smartphone accessibility dictates how frequently and easily customers can engage with e-commerce platforms. Customers are more likely to browse products, compare prices, make purchases, and track delivery from the convenience of their mobile devices if they have dependable cellphones and strong internet access.

- Mobile accessibility produces diverse categories of buyers in Greater Noida, which is home to a mix of tech-savvy youth, working professionals, and homes with insufficient digital infrastructure:
- Highly connected users often use advanced apps like Amazon, Flipkart, or Meesho daily for everything from groceries to electronics.
- Moderately connected users rely on mobile phones mainly during promotional events or festive seasons.
- Low access users may face issues such as slow loading times, app crashes, or lack of space on devices, which discourages regular usage.

Beyond just purchasing, mobile accessibility also influences the entire consumer journey—from product discovery (via ads, social media, etc.) to post-purchase reviews. Features like mobile wallets, one-click checkout, voice search, and vernacular interfaces further enhance accessibility for a broader audience.

##### 4.1. KEY IMPACTS OF MOBILE ACCESSIBILITY

- **Ease of Use:** Simple mobile UI/UX allows even less literate users to shop with confidence.
- **Convenience:** Anywhere-anytime access reduces dependency on physical stores.
- **Speed of Decision-Making:** Real-time price comparisons and reviews accelerate purchase behaviour.
- **Engagement:** Push notifications, flash sales, and app-exclusive offers increase frequency of visits.

**Table 2 Mobile Accessibility and Types of Consumer Goods Purchased Online**

| Mobile Accessibility Level                    | Frequently Purchased Goods Categories           | Number of Respondents | Percentage (%) |
|-----------------------------------------------|-------------------------------------------------|-----------------------|----------------|
| High (Smartphone + Fast Internet + E-wallets) | Electronics, Groceries, Clothing, Personal Care | 60                    | 33.3%          |
| Moderate (Basic Smartphone + Stable Internet) | Clothing, Accessories, Packaged Food            | 72                    | 40.0%          |
| Low (Old Device + Slow/No Internet)           | Basic Household Items (when needed)             | 30                    | 16.7%          |
| Very Low (Shared Device or No Access)         | Rarely purchase or depend on others             | 18                    | 10.0%          |
| <b>Total</b>                                  |                                                 | <b>180</b>            | <b>100.0%</b>  |

The table shows a direct correlation between the range of consumer items bought online and mobile accessibility levels. A high degree of engagement and trust in digital commerce is demonstrated by the 33.3% of respondents who have smartphones, fast internet, and access to digital wallets. These respondents regularly buy a wide variety of goods, such as electronics, groceries, apparel, and personal care products. The 40% of people in the moderate access group, who use simple smartphones with reliable internet, mostly buy clothes, accessories, and packaged foods. Their selective usage is determined by the capabilities of their devices and the accessibility of their apps. Those with limited access (16.7%), who use outdated technology and have inadequate or no internet, tend to buy only essentials for the home, frequently only when necessary. Last but not least, those with very little or no access (10%), who either share devices or do not have any at all, hardly ever shop online and mostly rely on others to make digital purchases. The necessity for better mobile infrastructure and digital inclusion to increase consumer engagement in the online economy is highlighted

by this pattern, which shows how mobile accessibility has a substantial impact on not only the frequency of buying but also the kind and variety of goods bought.

## 5. CONCLUSION

The study unequivocally shows that mobile accessibility and digital literacy are important factors in determining Greater Noida consumers' online purchasing habits. Higher levels of digital literacy among consumers lead to more frequent and varied online purchases because they feel more comfortable assessing products, navigating e-commerce platforms, and completing secure transactions. In a similar vein, those who are more mobile accessible—that is, who own smartphones, have dependable internet, and are accustomed to using mobile apps—also have a tendency to shop more frequently and for a bigger variety of goods. On the other hand, customers who lack digital skills or have inadequate mobile access are limited to making sporadic purchases or becoming dependent on others when it comes to online buying. These results emphasize how crucial it is to advance mobile infrastructure and digital education in order to encourage equitable participation in the digital economy. Targeted efforts like localized app interfaces, reasonably priced smartphones, and digital training programs can close the gap and enable a larger segment of the public to take advantage of the ease and diversity of online shopping.

## CONFLICT OF INTERESTS

None.

## ACKNOWLEDGMENTS

None.

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