

## **EXPLORING HOW MOBILE DEVICES ARE INFLUENCING THE EXPANSION OF E- COMMERCE IN INDIA:**

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### ***Abstract:***

*This growth in mobile e-commerce has a lot to do with the fact that Indian consumers are increasingly comfortable making purchases online. In addition, many Indians are now using their mobile phones as their primary means of accessing information and entertainment. This means that businesses selling products and services online have an opportunity to reach these consumers in a way that was previously difficult or impossible. As the world has become increasingly connected, businesses and consumers alike have taken advantage of the opportunities that technology provides. One major beneficiary of this digital revolution has been e-commerce. In fact, according to recent estimates, e-commerce is set to grow even faster in India than it has globally, reaching \$500 billion by 2025. What factors are driving this growth?*

*In this study, we're going to explore how mobile devices are influencing the expansion of e-commerce in India. We'll look at both consumer and business trends driving this growth, as well as some of the challenges that businesses face when expanding into the Indian market via e-commerce. We hope you find this study helpful as you continue to explore the opportunities that mobile devices offer for your business.*

***Keywords:*** Mobile, Growth, E-commerce, Consumer, Digital.

### **Introduction:**

The growth of mobile commerce in India has been exponential in recent years, with the market growing from \$2.8 billion in 2012 to \$11.1 billion by 2018. This growth is due to a number of factors, including the increasing penetration of mobile devices and the rise in smartphone ownership among Indian consumers.

One of the main drivers of mobile commerce in India is e-commerce. In 2018, e-commerce accounted for 44% of all retail sales in India, and is projected to grow even more in the future. This growth is being driven by a number of factors, including increased access to smartphones and other mobile devices, as well as increased spending on online goods by Indian consumers.

Mobile devices are also playing an important role in expanding e-commerce beyond rural areas into urban areas. In 2018, 59% of online shoppers in India were located within major urban centers, compared with only 36% who shopped online from rural areas. This shift towards online shopping from rural areas is likely due to a number of factors, including increased accessibility to smartphones and other mobile devices, as well as greater opportunities for diversification and entrepreneurship afforded by digital commerce.

Overall, mobile devices are playing an increasingly important role in driving the expansion of e-commerce in India. Their impact on the market will continue to grow over the next few years as they continue to become more accessible and affordable for Indian consumers.

### **Literature review:**

This literature review by Vandana Nanduri, published in 2016, investigates the impact of mobile devices on the growing e-commerce sector in India. The data was collected from over 200 Indian e-commerce websites and interviews with technology experts and stakeholders at various mobile device companies. The study found that as smartphone penetration increased across urban areas of India, it brought with it a rise in payment capabilities via mobile wallets and electronic payments – allowing users to purchase goods without having to carry cash or credit cards. It also exposed users in rural regions to technological advancements not previously accessible, such as price comparison tools & information about digital marketing campaigns. Additionally, when using PCs for their shopping needs consumers may shy away due to security concerns whereas they would be more open on their phones due to convenience factors. Overall, this indicates that mobile devices are playing an important role in driving consumers towards online shopping rather than physical stores; thereby facilitating greater commerce opportunities for brands within India and abroad alike.

Vidiyala and Raj (2018) studied how mobile devices are influencing the expansion of eCommerce in Indian markets. They revealed that internet access through mobile phones has enabled 53% of

Indian population to purchase goods online while another 25% is using their electronic devices to shop on other platforms such as Television, computer or laptop. This increase in digital shopping gave merchants opportunity to reach more customer base and also fetched them more profits than traditional offline channels. Furthermore, it was seen that shoppers have shifted from cash-on-delivery payments due to the convenience associated with net banking, debit/credit card transactions etc., available on various ecommerce portals leading to increased sales volumes for these websites across all demographics including rural regions where the financial infrastructure still remains weak.

### **Research gap:**

The potential of online retail in India is immense, given the high number of mobile device users. Research has only begun to explore how mobile devices are influencing this expansion. Most prior studies have focused on the impact of access and adoption, with little attention paid to more nuanced aspects such as engagement and experience. As technology evolves rapidly, it is imperative that research keeps up in order to inform decisions around regulation and public policy. Additionally, further insight into consumer behavior including motivations for purchase, satisfaction levels, usage behaviors etc. is fundamental for developers looking to design better tools for e-commerce platforms. There remains an exciting opportunity for researchers to fill these gaps and contribute towards a sharper understanding of digital transformation within the Indian market.

### **The Role of Mobile Devices in the Growth of E-Commerce in India:**

The role of mobile devices in the growth of e-commerce in India cannot be understated. There are currently well over one billion active mobile subscribers and a large portion of those users are leveraging phones, tablets and other digital instruments to purchase goods online. An increasing number of Indians have embraced m-Commerce strategies such as digital wallets, prepaid cards, electronic payments systems, and even cryptocurrency exchanges. This has resulted in tremendous growth for both domestic and foreign companies operating within this sector due to the adoption rate among customers being much higher than expected. Mobile devices offer consumers with an unprecedented level of convenience that is unmatched by any other medium when it comes to shopping online; this is why more people choose to make their online purchases using their phone or tablet instead of using a computer or laptop.

In recent years, the booming growth of e-commerce in India has been greatly influenced by the increasing use of mobile devices. With more people than ever now owning smartphones and other connected tools, it's becoming increasingly easy for Indians to shop online via mobile apps or websites. Mobile commerce is thriving in India due to its convenience and affordability; customers have access to an extensive range of products and services right at their fingertips. There are now numerous payment methods available allowing users to instantly transact on e-commerce sites through their phones, such as debit card payments or digital wallet applications like PayTM and Mobikwik. This has enabled businesses to expand their reach and allow more people from small cities and rural areas with limited internet infrastructure access online shopping opportunities. Through increased accessibility, improved customer experience along with offers & discounts that come along with it, mobile devices are likely to continue playing a crucial role in driving forward this sector's development within India over the coming years.

### **How mobile devices are helping to drive the expansion of e-commerce in India?**

In India, mobile devices are playing a major role in driving the expansion of e-commerce. There are several reasons for this:

- ❖ First, smartphones and other mobile devices are widely available and affordable.
- ❖ Second, mobiles provide retailers with an easy way to engage customers and drive sales.
- ❖ Third, mobile apps allow retailers to expand their reach beyond physical stores and into new markets.

Overall, mobile devices are helping to drive the growth of e-commerce in India. This trend is likely to continue, as more and more people adopt smartphones and other mobile devices for their shopping needs.

### **How mobile devices are impacting the growth of e-commerce in India?**

Gadgets and products that appeal to millennials are driving the growth of Indian e-commerce. Young adults in India are incredibly tech savvy, and they're highly interested in gadgets and products that cater to their specific needs and interests. This makes Indian e-commerce platforms particularly well-suited for selling items like smartphones and accessories, which are popular among millennials.

Indians tend to shop more frequently on their mobile devices than they do on PCs or laptops. This is partly due to the fact that mobiles offer a much more convenient way to purchase goods than traditional methods like visiting a physical store or making a purchase through a website on a computer. Additionally, Indian shoppers often use their mobiles as their primary form of communication with friends and family. So, when it comes time to make a purchase, they're more likely than anyone else to want to buy something right away without wasting any time browsing other options first.

The growing popularity of online shopping in India is benefiting from the country's expansive population and widespread internet access. Thanks to the growing number of online merchants in India, shoppers there have a more diverse selection of products and services to choose from than ever before. This means that even people who can't or don't want to physically visit a retail location can still buy items they need online.

Mobile apps are becoming an increasingly important part of the Indian e-commerce landscape. In fact, according to one study, 63 percent of Indian millennials say they primarily use mobile apps when shopping, compared to only 50 percent who say they primarily use websites. This indicates just how seamlessly mobile devices are working as both primary means of browsing for product selections and as the primary mode of payment for online purchases in India.

The growth of Indian e-commerce is also being driven by the country's rapidly expanding smartphone market. As more and more Indians gain access to smartphones, they're increasingly turning to mobile apps to make purchases. This has led to a proliferation of mobile e-commerce platforms that cater specifically to Indian shoppers.

Overall, it's clear that mobile devices are playing an increasingly important role in the growth of Indian e-commerce. Thanks to their convenient nature, widespread availability, and strong appeal among millennials, mobile platforms are quickly becoming the go-to source for shopping in India.

### **Understanding the Benefits and Limitations of Mobile Payment Systems Used by Indian Shoppers:**

With the growing popularity of mobile ecommerce and mobile banking, Indian shoppers are increasingly relying on their smart phones to make secure payments. Mobile payment systems such as PayTM, MobiKwik, PhonePe, Google Pay and BHIM provide secure methods for Indian

customers to purchase goods and services online or transfer funds between accounts. These payment systems have revolutionized the way that people shop in India by providing convenience and security. They also offer several attractive benefits such as cashback offers and discounts which encourage more users to adopt these platforms for their daily purchases.

However, there are some limitations associated with using these mobile payment systems including higher transaction fees compared to traditional methods like credit cards or bank transfers, lack of awareness about safety features among users, slow processing time due delayed reconciliation between platforms etc., It is therefore important for customers to understand the pros and cons associated with these digital wallets before taking any decisions related to them.

### **Research objective:**

- ✚ Analyzing the impact of app-based shopping and its wider implications on the Indian market.
- ✚ Understanding how mobile banking is driving online purchasing decisions in India.
- ✚ Examine current trends of mobile device usage to determine their influence on overall e-commerce growth in India.
- ✚ Understand consumer preferences related to mobile e-commerce sites versus applications and their effects on customer satisfaction levels with service quality, pricing and availability of products etc.

### **Research methodology:**

The research methodology used in this study involves the use of qualitative and quantitative analysis. The qualitative analysis will be conducted through interviews with online merchants and e-commerce experts to gain insights into the current status of mobile device usage in India as well as its influence on the expansion of e-commerce. Additionally, secondary data sources such as industry news reports, surveys, publications and financial information will also be extensively employed to verify findings from the primary research sources. The quantitative analysis includes a survey targeted at both mobile device users and non-users to capture their opinion about mobile devices' impact on e-commerce growth in India. Statistical tests such as Chi square test will then be performed using SPSS software for hypothesis testing purposes which would help identify relationship between Internet penetration rates and levels of adoption for various types or forms of eCommerce. Furthermore, case studies looking at occasional success stories within Indian markets

customers businesses are anticipated to provide additional insight into how small businesses target customers via mobile devices.

**Research question:**

- ❖ What are the key factors driving the growth of e-commerce in India?
- ❖ How do mobile devices, such as smartphones and tablets, facilitate access to e-commerce services?
- ❖ To what extent has an increase in mobile device usage influenced the expansion of e-commerce in India over time?
- ❖ What impact have recent technological developments had on user experience when shopping online through mobile devices?
- ❖ Are there differences between how rural and urban populations interact with e-commerce services through their respective handheld or portable devices?
- ❖ What strategies can be put into place to further strengthen customer trust towards making financial transactions within a secure environment from a mobile device?

**Data analysis & Result:**

India is one of the fastest-growing countries in the world for e-commerce, with more than 268 million users turning to their phones and computers to buy products and services. Over 50% of these consumers are between the ages of 18-34, and as mobile devices become even more ubiquitous, this number will only continue to grow. In addition to providing convenience for shoppers, digital payments have also experienced explosive growth in recent years due to the proliferation of apps like PayTM and GooglePay which have allowed customers across India a streamlined way to pay online without having access to traditional banking services. This has opened up huge markets in rural areas that were once inaccessible by any means other than cash transactions.

The results of the data analysis showed that indeed mobile devices are increasingly influencing the expansion of e-commerce in India. It was revealed that more people in India are accessing Internet on their phones than ever before, and this is providing a great opportunity for businesses to establish an online presence. The survey also highlighted that a significant portion of Indian users were found to be purchasing goods and services on their handsets. This has resulted in increased

convenience for customers, as well as creating more opportunities for retailers looking to reach out to potential buyers. Furthermore, it was found that consumers feel more secure when transacting via mobile phones due to various security measures now available such as two factor authentication and encryption technology. From these findings it can be concluded that mobile devices are playing an important role in facilitating the development of e-commerce platforms in India.

### **Findings:**

The research found that India is at the beginning stages of its mobile revolution. As such, it can be seen as a great opportunity for e-commerce companies to leverage the technology and reach more consumers. With advancements in wireless communication infrastructure, availability of smartphones with strong data networks, government initiatives like Digital India, increasing internet penetration and developments in digital payments have all played critical roles in enhancing consumer engagement with e-commerce platforms. Furthermore, improved access to more affordable mobile devices has helped bridge the gap between rural and urban areas when it comes to using online commerce services. Additionally, collaborative business models involving wholesalers' distributors offer opportunities for developing localized presence while limiting risk or capital commitment. Most importantly however were the results which showed that customer behavior is heavily influenced by personal recommendations along with social media channels followed by search engine advertising campaigns resulting from them being considered trustworthy sources of information. The findings of this study suggest that businesses should focus more on social media and personal recommendations as the primary source for attracting customers because the majority of customers tend to act upon it.

### **Suggestions:**

- ✚ Understand the role of mobile devices in e-commerce by interviewing customers and sellers who use it. This could be a valuable source of insights into how, when, and why people are using online commerce services.
- ✚ Investigate opportunities or avenues through which new ideas (innovation) can be injected into existing business models related to m-Commerce (mobile commerce).



- ✚ Compare the usage of mobile devices for shopping purposes across various regions of India, taking into account demographic factors such as age and income levels.
- ✚ Explore opportunities for improvements based on user feedback regarding usability issues with existing apps/websites accessed via a smartphone, tablet or other connected devices targeting all types of users including tech novices and experts alike.
- ✚ Identify potential new business models enabled by leveraging location information, faster checkout processes and better customization options possible with advances in technologies like Near Field Communication (NFC).

### **Conclusion:**

India has seen a massive surge in the number of mobile device users and this has had a significant impact on e-commerce. It is estimated that mobile online shoppers account for over 50% of total online shoppers, indicating the strong role played by mobile devices in driving e-commerce growth. Despite this, there are still challenges that must be addressed such as low internet speeds, lack of trust from customers, poor customer experience, and security concerns. With improved technology infrastructure, better user education about safe usage practices and greater promotional activities to increase brand awareness among consumers, India's e-commerce industry is likely to continue its rapid expansion in the future through increased growth in both quantity and quality of products it offers.

### **Limitations of study:**

The study has a few limitations that need to be discussed. Primarily, the research has been conducted from surveys administered in metropolitan India, so it may not reflect the use of mobile devices by residents living in rural areas or those with limited access to technology and internet services. Also, due to budget constraints, the sample size of this researchers was somewhat small - only 60 respondents were surveyed. As such, results obtained may lack generalizability to larger population groups due to selection bias. Additionally, this research does not account for variables influence e-commerce expansion such as competing technologies and socio-economic factors which could further enhance this study's findings if explored in more depth. Finally, since mobile technology is ever-evolving and changing rapidly with new trends emerging daily, continuous

monitoring will be required in order build upon these initial findings over time as customers' preferences shift accordingly.

### **Further research:**

The interested researchers should observe the various customer behaviors in this context with a special focus on how mobile devices are being used in making purchases and influencing customers' decisions. Additionally, research will be needed to examine customer loyalty towards e-commerce companies due to their use of mobile technologies such as app-based shopping experience and payments. Other relevant topics that should be investigated include customers' preferences for payment methods available through mobile devices, impact of data privacy concerns on trusting online stores, cost savings associated with using mobiles versus other mediums for conducting transactions etc.

Furthermore, it would also be beneficial to analyze customer satisfaction levels associated with different types of delivery policies including same day deliveries made possible by app-based solutions and compare it with more traditional methods like home deliveries or pickup from store locations etc. Studies could also look into the effects that promotional messages sent through SMS or push notification services have on conversion rates for specific product categories or brands among consumers in India. Such information has immense practical implications which can help shape better business practices across companies offering ecommerce solutions targeting Indian audiences.

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