



The Rise of Digital Payment in India

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The Rise of Digital Payment in India

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Abstract

M-commerce provides the opportunity for businesses to come up with innovative ways through which they can deliver value to customers in the current competitive environment. In developing countries such as India, even though m-commerce is a nascent concept, statistics show the potential of significant growth in the future. This article examines the concept of E-commerce and Mobile-commerce in India including growth of M-commerce, internet penetration, the rise of digital payment, issues, prospects, and challenges facing in India.

Keywords: M-commerce, E-commerce, digital payment, internet penetration

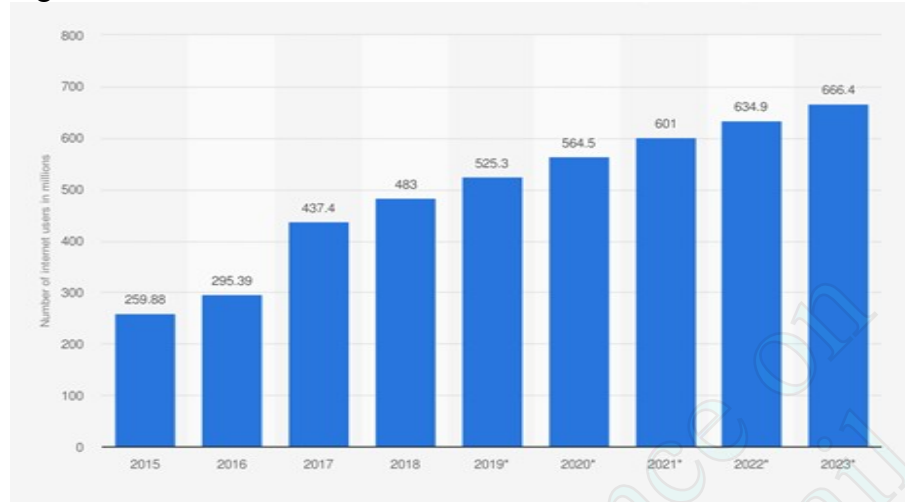
Introduction

Today, the world is characterized by technological disruptions that shape the actions of humans; technology has become integrated into every aspect of people. Among the most notable technological advancements in the 21st century are the internet and mobile phones that have revolutionized how people interact. The introduction of the internet ushered in electronic platforms (e-commerce) where the business is conducted using computers and laptops. The pervasive use of mobile devices underpins the growth of mobile commerce or m-commerce, which is the form of e-commerce involving the utilization of portable devices to conduct business transactions (Gupta, Dhawan & Gupta, 2018). M-commerce, therefore, facilitates wireless trading and interactions between retailers and consumers.

M-commerce covers a wide array of services, which signals an increasing acceptance in developed and developing countries alike. According to Lamptey (2018). The proliferation of m-commerce is mainly based on the ubiquity of smartphones with sophisticated computing capabilities than the average mobile phones, and access to high-speed mobile internet (Zhang, Chen & Lee, 2013). Some of the services available in mobile commerce include online purchases, digital payment services, mobile banking, promotions, customer support services, relationship building activities, and mobile advertising, among others.

In India, the growth of e-commerce is principally driven by internet access and affordability of smartphones. As of 2017, the e-commerce industry accounted for approximately \$39 billion, with projections indicating a growing rate of 51 percent per year to hit \$120 billion by 2020, and \$200 billion by the year 2026 (IBEF, 2019). With the proliferation of the internet user base from approximately 605 million by the end of 2018 to 829 million by 2021, projections point toward the growth of “the internet economy from \$125 billion in 2017 to \$250 billion by 2020.” Additionally, PWC (2018) projects the growth of internet connectivity to over 634.9 million by 2022, a significant increase from 437.4 million users in 2017.

Figure1 Number of Indian internet users 2015-2023



Source: Statista Digital Market Outlook, 2019

Despite strides in e-commerce, statistics show that m-commerce has the potential for massive growth. India's wireless connection is the resulting big thing per results from 2016 surveys indicating that 94 percent of smartphone users in the country can connect to the internet, with 56 percent of the users connecting to internet services daily (Naware, 2016). This broader coverage increases the potential for the growth of m-commerce. As the second largest mobile network after China, the 2016 survey by the research firm Zinnov found that the value of m-commerce in India was \$2 billion in 2014 and the value is anticipated to upsurge to \$19 billion by close of 2019 (Srinivas, 2016; Tang & Ann, 2015). Further, statistics show that the portion of m-commerce in the total e-commerce retail sales has been increasing from a low of 58.5 percent in 2015, and it is expected to account for 80 percent in 2020 (Statista, 2019a).

E-commerce and M-commerce

Mobile commerce encompasses a wide array of wireless methods used to complete transactions over the internet. Gupta, Dhawam & Gupta (2018) define m-commerce as the "retail marketing via mobile devices, allowing retailers and consumers to trade and interact on wireless networks." Therefore, mobile commerce includes mobile banking, purchasing of goods and services, mobile ticketing, and mobile coupons, among others (Thakur & Srivastava, 2013; Zhang, Chen & Lee, 2013). Lamptey (2018) contends that m-commerce entails any activity with economic value, whether intended or not, conducted wirelessly via mobile devices. Unlike e-commerce, m-commerce added the aspect of flexibility and removed time and place constraints from the interaction between consumers and traders.

Because of the link with e-commerce, in some pieces of literature, m-commerce is considered as branch e-commerce (Srinivas, 2016; Zhang, Chen & Lee, 2013). However, the two have been distinguished based on the nature of devices, communication methods, rules, and standards used (Lamptey, 2018). According to Mishra (2015), the environment of operation in mobile commerce differs from e-commerce owing to "the individual characteristics and constraints of mobile terminals and wireless networks and the context, situations, and circumstances in which individuals use their hand-held terminals." Lamptey (2018) holds that consumers find value in the absence of restrictions on the time and place of use, which make m-commerce a distinct channel.

In developed countries, m-commerce has taken roots; however, in low and medium-income

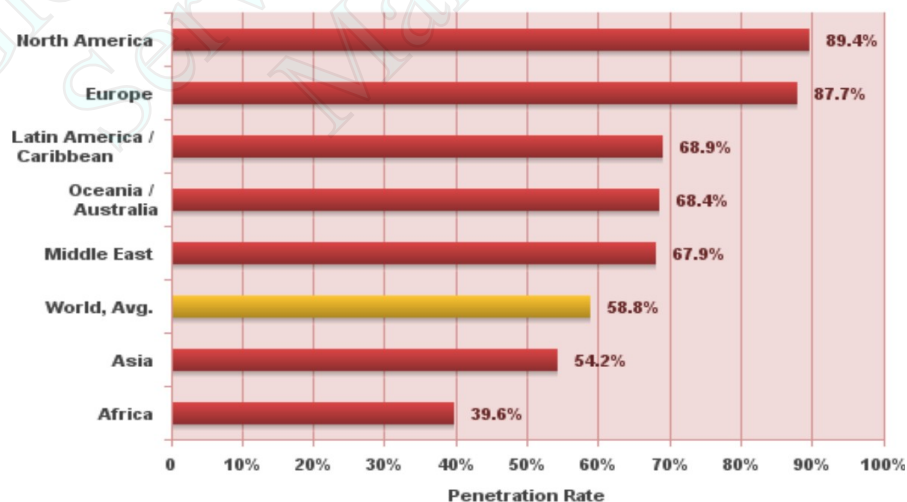
countries, such as India, it is a nascent idea. The proliferation of m-commerce in low-income countries has been attributed to the upsurge in internet connectivity and the affordability of smartphones (Srinivas, 2016; Naware, 2016; Singh & Islam, 2015). Globally, estimates show that over five billion people use mobile phones for communication, with a majority being in low and medium-income countries, signaling the potential of m-commerce per effort in increasing penetration by different actors (Lamprey, 2018). Companies are increasingly using e-commerce and m-commerce to do business with other firms as well as to transact with their customers.

Demographic characteristics are critical role in determining the uptake of wireless trade terminals. The adoption rates of m-commerce are uneven, with evidence pointing toward influence from individual perceptions about the applications (Lamprey, 2018). Concerns about the confidentiality and safety of information provided by consumers remain to be the leading drawback limiting its acceptance (Zhang, Chen & Lee, 2013; Singh & Islam, 2015; Naware, 2016). Nevertheless, Singh & Islam (2015) account that an upward trend is expected owing to the potential in the industry.

Internet Penetration

Globally, internet penetration is on the rise, even though the distribution is uneven. By September 2019, approximately 4.9 billion people globally were active internet users, representing roughly 57 percent internet penetration. China, India, and the U.S rank the topmost in the number of internet users, while Africa and the Middle East report a lower number of users (Clement, 2019). At the global penetration rate of 57.3 percent. Northern America and Europe record the highest penetration rates exceeding 95 percent. The majority of internet users globally access the internet through smartphones. According to Bahia & Suardi (2019), “the mobile industry connects over 3.5 billion people, representing 47 percent of the world population.” Over 300 million people had access to mobile internet in 2018 for the first time; the majority of internet users exclusively use mobile as the means for accessing the internet, especially in low and middle-income economies.

Figure2 World Penetration Rates by Mid-Year 2019



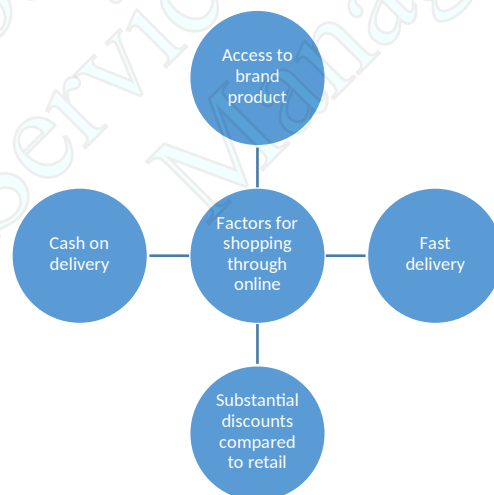
Source: Internet World Stats, 2019

India hosts the second-largest size of internet consumers globally after China, owing to its journey toward a digital India. Estimates from the *Internet and Mobile Association of India* that as of 2015, there were 354 million people in India with access to the internet, with 213 million accessing the internet through mobile internet, a surge from 48 million mobile users in 2012 and 190 million in 2014 (Natanson, 2015; Singh & Islam, 2015). In July 2016, the total consumers of internet in the country was projected to be over 374 million, representing over 29.5 percent of the population and ranking second after China (CIA, 2019). As of September 2019, 525 million people were active internet users, representing a penetration rate of 38 percent (Mandavia, 2019). According to Clement (2019), by 2021, India is likely to host approximately 601 million people with access to the internet. The population provides an opportunity for growth because a significant size of the rural population is not connected to the internet.

The Rise of Digital Payments

The digital payments market encompasses all cashless payment methods. Globally, the market is exhibiting an increasing trend due to globalization, demand for a cashless economy, and increasing internet penetration. Statistics show that in 2019, digital payments amounted to over \$4 trillion, with an annual growth rate of 12.8 percent to reach over \$6 trillion by 2023 (Statista, 2019b). Another survey projects the digital market at \$10 trillion by the year 2026 with a compound annual growth rate of 14.3 percent (Reports and Data, 2019). In the digital market, m-commerce has exhibited a 33.8 percent year-on-year increase since 2016, reaching \$1.8 trillion in 2018 with forecasts of \$2.3 trillion, \$2.9 trillion, and \$3.5 trillion in 2019, 2020, and 2021 respectively (Oberlo, 2019). As the number of smartphones and internet coverage increases, they signal exponential growth in the share of m-commerce in digital payments markets.

Figure 3 Factors for shopping through online



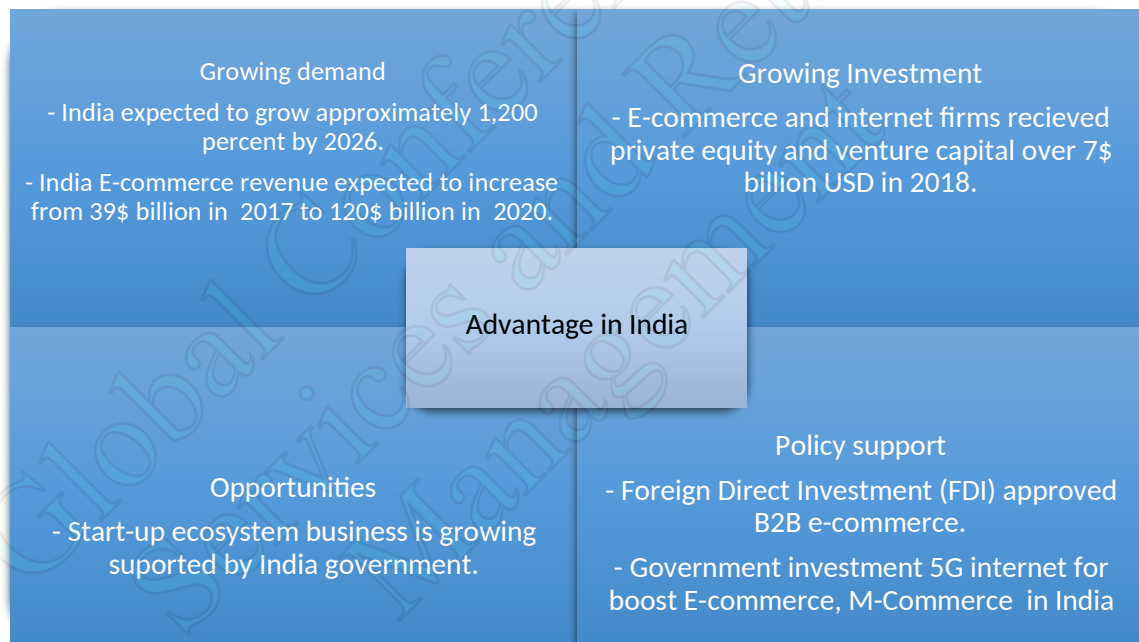
Source: Author's creation

In India, the economy remains mostly cash-based, even though numerous digital payment platforms exist. However, the digital payments segment has experienced significant growth,

especially after the demonetization of 1,000 and 500 Rupee notes in 2016 and other government incentives aimed at promoting the industry (Ligon, Malick, Sheth & Trachtman, 2019). In a report by *Google* and *Boston Consulting Group* estimated that “The digital payments industry in India is expected to hit \$500 billion by 2020, contributing 15 percent to the country's GDP” (Baruah, 2016). Makhija (2019) reports that the digital economy is likely to reach \$1 trillion by 2025.

Issues, Prospects, and Challenges

There is a general agreement that m-commerce has enhanced the potential for exponential growth in the digital payments market; however, various issues and challenges arise, which limits the growth. It is argued that m-commerce has exacerbated the consumer privacy concerns experienced in e-commerce, making consumers reluctant to trust the usage and sharing of personal information with merchants. Besides, the use of wireless networks allows the tracking of users, leaving a grey area in addressing security concerns (Zhang, Chen & Lee, 2013). Further, there is the risk of bypassing restrictions to gain access to consumer information, especially by marketing firms.



Even though internet connectivity has increased in India, a significant size of the population, especially in rural areas, remains disenfranchised. Similarly, the non-availability of high bandwidth renders the internet slow, which hampers reliance. Most people in India are not comfortable with the English language in which most applications are configured; thus, the language barrier affects the penetration (Singh & Islam, 2015). Additionally, the less graphic resolutions in smartphones compared to computers discourages any people from adopting m-commerce, while the lack of awareness among consumers limits uptake.

Despite these emerging issues and challenges in the industry, m-commerce has the potential of revolutionizing the digital payments segment in the near future. In the Indian context, significant drivers of m-commerce include the continued expansion of internet coverage, affordable cost of smartphones, and the government's determination to attain digital status.

Besides, the cost of the internet is affordable in the country, which has incentivized the uptake of mobile applications. For instance, in 2015, 9 billion apps were downloaded, representing a 79 percent increase from 2012 (Singh & Islam, 2015). In addition, vendors are making considerable investments in the development of mobile platforms, thereby expanding the traditional retail platforms.

Conclusion

Mobile commerce has the potential of revolutionizing the e-commerce industry because of its flexibility and ubiquity. Over the years, the increasing penetration of the internet and the affordable cost of mobile devices are playing a critical part in driving the exponential expansion of m-commerce. In India, statistics show increased uptake of m-commerce over the years, with projections indicating further growth in the coming years. Because of its population size, India is an important player in the digital payments market, coming only second after China in the size of m-commerce users. Even though issues and challenges, such as concerns over consumer privacy, low internet speed, little internet coverage, and language barriers hinder the penetration of m-commerce, efforts to expand internet connection, determination by government to attain digital status, and affordability of mobile devices guarantee future uptake.

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