ROLE OF INTERNET REVOLUTION AND COVID-19 IN THE DIGITAL TRANSFORMATION OF INDIAN MSMES: A REVIEW ANALYSIS

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ABSTRACT

The Internet is acquiring an essential space in today's modern life. It has influenced our day-to-day activities by providing essential information, connectivity through online platforms, and filling the gap between institutions and individuals. While the COVID-19 pandemic had a significant negative impact on the Micro, Small, and Medium Enterprises (MSMEs) sector, the adoption of digital platforms proved to be a lifeline for many start-ups and small businesses. Many MSMEs in India have adopted digital technologies in the production and distribution of goods, leaving behind their traditional methods of marketing and management. In this background, the paper aimed at identifying major factors that are responsible for digital transformation of MSMEs in India. After reviewing the relevant literature for the study, it has been found that Internet and mobile revolution, and the outbreak of COVID-19 pandemic are the two major factors responsible for digital transformation of MSMEs in India. The paper concludes that there is rapid growth in use and consumption of digital platforms and internet in India and it is providing essential economic environment for digital transformation of Indian MSMEs.

Keywords: MSMEs, Digital Transformation, COVID-19 Pandemic, India.

JEL Classification: L53, L86, O14

INTRODUCTION

Digital transformation of enterprises is altering the way of conducting business with the use of new internet-based technologies, using data base for analysing and predicting future possibilities Parida et al. (2019). Digitalization of an industry refers to a change in the use of internet-based technologies from production to marketing Ulas (2019). These technologies are helping enterprises in every step of production such as taking loans, managing their accounts online, connecting to banks, and providing multiple modes of payment. Today, digitalization is not only limited to the private sector but government and institutions are also promoting digital culture to provide better services to their citizens. Over the last decade, the progress in digital technologies and communications has not only changed the formal market structure but also the behavior and consumption patterns of individual consumers Wymbs (2011), Gasanov, Zubarev, & Krasota, 2020). Modern technologies have strengthened the supply chains with multiple layers of marketing strategies such as online booking of orders, supply of essential to luxury goods, and door-step delivery Jiang & Stylos (2021). Moreover, the introduction of 4G internet band connectivity and the growing use of multimedia mobile phones is not only limited to interpersonal communication but also altered the whole scenario of marketing. Many startups and new businesses are taking shape by using multiple Information and Communication Technologies (ICT) and taking the e-commerce industry to new heights. Digitalization is inevitable for the

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growth and efficiency of an industry, particularly for small industries and startups of both developing and developed countries.

Digitalization has transformed not only the big firms of India but also the smaller ones. In India, the small industries are referred as micro, small and medium enterprises (MSMEs). It covers major share of Indian economy and industrial sector. Currently, India has approximately 7 million MSMEs registered in the Udyam portal (Udyam Portal, 2022). Despite the fact that internet facilities and mobile connectivity rapidly growing in India, the adoption of digital technologies was an enormous challenge for the MSMEs. Small industries in India were reluctant to adopt information and communication technologies and were mainly reliant on traditional ways of production and marketing due to several reasons such as lack of digital skill and talent, high implementation and running cost, small size of the firm, and high hardware and software cost etc. Agrawal et al. (2019). The rate of adoption of digital technology was very low in India before COVID-19 pandemic.

The outbreak of COVID-19 pandemic has changed the entire scenario. Nationwide lockdown has jeopardized India's micro, small and medium enterprises. During COVID-19 pandemic, the whole market was closed except the market for essential commodities. Transport restrictions have disrupted the entire supply chain. In such a situation, the online marketing was the only option left for both entrepreneurs and customers in India. Hence, most of the industries including large, small, micro and medium enterprises adopted and switched to the digital technology to save their businesses during tough time of COVID-19 pandemic.

In this backdrop, the paper aimed at identifying major factors that are responsible for digital transformation of MSMEs in India. To achieve this objective, a Narrative Literature Review method was used and a descriptive bibliographic review was carried out to find an approach used by most important studies and research that describe the use of digital technology by Indian industries in general and MSMEs in particular. The problems of the paper were searched in the database such as Web of Science, Scopus, and Google Scholar. The relevant statistical data for the study was collected from the Ministries of Government of India websites such as Ministry of Electronics and Information Technology (2022) National Payment Corporation of India, MSME annual reports (2013) and other authentic sources. Following the scientific research process for this review paper, the peer-reviewed documents published in indexed journals were considered. A total of 54 related to digitalization of MSMEs, published from 2010 to 2022, were analyzed. After reviewing the relevant literature for the study, it has been found that Internet and mobile revolution, and the outbreak of COVID-19 pandemic are the two major factors responsible for digital transformation of MSMEs in India Chawla et al. (2020).

LITERATURE REVIEW

Concept of MSMEs

Small industries in India are commonly referred to as Micro, Small and Medium Enterprises (MSMEs). Due to their diversity in nature, MSMEs are essential to the development of dynamic economies like India. The MSMEs sector accounts for 60-70% of employment, 40% of total production, and 30% of total GDP MSME Annual Report (2013). The MSMEs sector creates many job opportunities with little investment and has higher labor intensity as compared to large enterprises Horváth & Szabó (2019). The MSME Act, 2006, divided MSMEs into two categories, namely, manufacturing enterprises and service enterprises. Manufacturing enterprises are those enterprises that are engaged in the production of goods, whereas service enterprises are those enterprises that are engaged in providing different kinds of services. The government of India has changed the classification of MSMEs with effect from June 1, 2020. According to the new

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classification (Gazette of India, 2020), MSMEs have been categorized according to investment and turnover. For micro enterprises, investment in plant and machinery is limited to 10 million and turnover up to 50 million; for small enterprises, investment in plant and machinery is limited to 100 million and turnover up to 500 million rupees; and for medium enterprises, investment in plant and machinery is limited to 500 million and turnover up to 2.5 billion rupees. The micro, small and medium enterprise sector in India is the largest employment-generating sector after agriculture. It has been observed that the number of MSMEs increased from 6.787 million units in 1990-91 to 42.8 million units in 2010-11 (MSME Annual Report, 2013-14). A total of 5,767,734 MSMEs were registered on the Udyam Registration platform till November 2021. The number of registered micro-enterprises was 5,441,220 (94.34%), followed by small businesses at 293,555 (5.09%) and medium-sized businesses at 32,959 (0.57%). The new online system of MSME/Udyam Registration (with effect from July 01, 2020) launched by the Union MSME Ministry has successfully registered more than 7.3 million MSMEs until January 2022 (Udyam Portal, 2022).

Significance of Digital Technologies For Enterprises

The emergence of digital technology, i.e., the combination of information, communication, connection, compilation, and connectivity through technology, affects the intensity of industries Bharadwaj et al. (2013). Organizations (small or large) are using digital information through various modes such as analytics, social media, and mobility, entrepreneurship resource planning (ERP), e-commerce techniques, and e-marketing techniques. These organizations are using digital information to change customer relationships, internal processes, and organizational behavior. Digitalization has the potential to improve every aspect of work in society and the economy, allowing for more sustainable development and enabling new approaches to companies and customers. The adoption and use of digital technologies has helped organizations achieve growth by becoming more efficient, effective, innovative, and globally competitive Jones et al. (2014); Tarute and Gatautis, 2014).

Digital Technology for Marketing and Management

Digital transformation is restructuring economies, institutions, and society at its very core by utilizing digital opportunities (Rchinger et al., 2018). Over the past decade, digital technology has gained significant attention, particularly in the context of management and marketing process of industries and businesses Cha et al. (2015); Morakanyane et al. (2017); Rachinger et al. (2018); Galindo-Martn et al., 2019; Warner & Wager (2019). Initially, companies were only using digital technologies for the application of internal management information systems Boersma & Kingma (2005), and digital transformation was limited to a firm's ability to gain efficiency and optimize business processes by effectively using technologies for the assessment and allocation of resources Besson & Rowe (2012). But nowadays, new digital technologies such as big data, artificial intelligence, and 4.0 machines are transforming the way of doing business Rothberg & Erickson (2017). Many industries are now collecting information about the market with the help of digital technologies to enhance the management and marketing processes accordingly Cenamor et al. (2019).

Digital Mode of Interaction Between Organizations and Consumers

Modern firms are intensively using cross-boundary digital technologies (Li et al., 2018), which are aimed at transforming the way organizations create value. These digital technologies

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are changing the methods of interaction between organizations and consumers Yadav & Pavlou (2014). In particular, the new technologies have been providing improved and easy methods of communication with the consumer, enabling the producers to understand the specific needs of the customer and offer and facilitate the individual's requirements. Barnes et al. (2012). Digitalization modifies the entire structure of business models (BM) Osterwalder & Pigneur (2010); Saebi et al. (2017); Volberda et al. (2017), specifically the value proposition and customer relationships Arnold et al. (2016); Bouwman et al. (2018).

Advertisement Through Social Media Platforms

The increasing consumption of the internet and use of internet-based marketing analysis, increasing use of social media platforms, and the 'mobile revolution' have helped the digitalization of customer value creation Rachinger et al. (2018). New apps, services, platforms, and data have become a crowded play-ground for all kinds of companies that want to tap emerging opportunities Zott & Amit (2017). Due to the changing pattern of consumer behavior and its role in consumer relationships and marketing, digital technologies attract sufficient attention from companies.

Challenges for Msmes In Adaptation of Digital Technologies

The need for and potential gains from digital transformation have been realized even before COVID-19 hit the world. But there were many challenges before small industries adopted digital transformation. It has been indicated that small businesses have to face more barriers compared to multinational firms in the process of adoption of digital transformations (Horvath et al., 2019). The digital transformation of business involves taking the risk of leaving old business strategies behind, and usually, entrepreneurs were not ready to take such risks while there was no urgency to do so Ivanov et al. (2018). Agrawal et al. (2019) examined the major barriers to MSMEs' adoption of digital transformation through an extensive review of prior pandemic conditions. They found that "*no need of urgency, lack of skills and knowledge required for technology adoption, small size of businesses, lack of funds, and high implementation and running costs*" are the major factors responsible for not adopting digital technologies by MSMEs. Chowdhury (2011) and Mukherjee (2018) observed that India is a hub for a total of 63 million registered and unregistered MSMEs, of which most of the enterprises are micro-enterprises. These enterprises are run mostly by one or two individuals. Hence, the primary challenge for these enterprises in technology adoption is a lack of funds. It is noteworthy that in the initial phase of lockdown, many of the microbusiness owners shut down their operations, citing lack of funds in the very initial stage of the lockdown (The Hindu, June 2020).

Negative Impact of COVID-19 Pandemic on MSMEs and other Enterprises

In India, many studies have been carried out to assess the situation of MSMEs in India. The result they found is rather depressing. Rathore & Khanna (2021) have surveyed primary firms in India to ascertain the level of sectoral distress during the peak of nationwide lockdown in May 2020. They found that the production is falling from an average of 75 percent of capacity to just 13 percent; firms retain 44 percent of their workforce on an average while 69 percent of the firms reported inability to survive more than three months. The president of IAMA (Industrial Area Management authority), Sanjeev Sachdeva stated that merely 15 to 20 percent factory setups are in operation and only 5 or 6 workers are working in the factories which were earlier employing 40 workers Mishra (2020). Similarly, Sahoo & Ashwani (2020) have presented four different

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scenarios and suggested that in normal circumstances, MSME's would have grown to 6.74 percent. However, due to the impact of covid-19 pandemic this sector is likely to grow with 3.14 percent growth rate and which can go further low to 1.70 percent in a pessimistic scenario. To estimate the loss in MSME's they have used the available data of MSME's and its share in GVA. According to Tankha (2020), factors like the closure of mandis and wholesale markets, transport restrictions, disruptions in supply chain and lack of procurement during the nationwide lockdown has jeopardized India's 6.33 crore micro, small and medium enterprises. According to a survey conducted by Dun and Bradstreet over 82 percent of more than 250 small businesses in India said they had a negative impact of Covid-19. Therefore, during the pandemic time, switching to digital technology became the matter of survival for MSMEs in India Galindo-Martín et al. (2019).

Generalization of the Main Statements

Since last decade, Indian economy is rapidly shifting in the direction of digitalization. The mobile and internet revolutions have dynamically changed consumer preferences and ultimately the modes of business operations in India. Nevertheless, there are some sectors in India such as MSMEs which had not fully embraced digital technology. With the advent of internet and mobile revolution, some of the small industries partially shifted to online platforms while majority of them continued their reliance on traditional ways of marketing and management. However, when COVID-19 outbreak led to shut down of all industries in India, maximum MSMEs and stat-ups has adopted digital platforms. Hence, this paper is based on a major premise that (i) mobile and internet revolution and (ii) COVID-19 pandemic are the two major factors which are responsible for digitalization of MSMEs and other enterprises in India. To substantiate the above claim, the two major statements have been formulated on the basis of the reviewed literature Udyam registration portal (2022).

Digitalization of Industrial Sector with the Growth of Internet Usage in India

The introduction of multimedia mobile phones and 4G internet band connectivity has brought a revolution in India. Now it is not only related to interpersonal communication but also used widely in the marketing arena. Many startups and new businesses are taking shape by using ICT and taking the e-commerce industry to its new heights. With the increasing internet usage and connectivity, both entrepreneurs and consumers are relying more on online platforms for selling and buying products. The following sections illustrate the statistics of increasing mobile connectivity and internet usage in India.

Mobile Connectivity in India

Table reveals that as of January 2022, India has more than 1.14 billion wireless mobile connections TRAI (2022), whereas there are 24.21 million wireline connections. And most people are using mobile phones to access the internet. The number of smart phone users in India is almost equal to that of internet users. The use of smartphones has been significantly increased after the launch of the 4G network in 2017. This leads to sharp competition among the network service providers in the telecom industry. This competition in the mobile and telecom industries is advantageous for consumers as they become beneficiaries of many offers which are not only appealing but also very cheap and affordable, regardless of a consumer's income level or socio-economic status Table 1.

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Table 1
NUMBER OF MOBILE/TELEPHONE SUBSCRIBERS AND INTERNET USERS IN INDIA (TILL JANUARY 2022)

Population	Wireless (in Million)	Wireline (in Million)	Total (in Million)
Total telephone subscribers	1145.24	24.21	1169.46
Urban telephone subscribers	627.12	22.26	649.38
Rural telephone subscribers	518.13	1.95	520.08
Broadband subscribers	756.78	26.65	783.43

Source: Highlights of Telecom Subscription Data as on 31st January, 2022

Internet Users in India

In January 2022, 4.95 billion people all over the world were using the Internet, which constitutes around 62 percent of the world's population. The figures are increasing, with a 4% increase in the last year. Compared to these numbers, in India, 47% of the population is using the Internet, which accounted for 650 million people. In the last decade, this number has been growing at more than a 10% annual decadal growth rate. These figures point to a sizable potential market for not only internet services but also associated industries like entertainment and software. The surge in internet usage is not only limited to cities but also to rural areas, indicating that internet access is expanding across India.

COVID-19 Pandemic as a Catalytic Factor in the Digitalization of MSMEs Sector

Covid-19 pandemic has severely affected the Small and Medium Enterprises throughout the world economies and created an employment crisis. Factors like the closure of wholesale markets, transport restrictions, disruptions in supply chain and lack of procurement during the nationwide lockdown has jeopardized India's 63.3 million micro, small and medium enterprises. During that period, online platform was the only medium for both entrepreneurs and customers to sale and purchase of the commodities. COVID-19 has become a catalytic factor in the digitalisation of not only large industries but also MSMEs. Micro, small and medium industries which have not yet fully adopted digital techniques had no choice but to shift on digital platforms. The following sections illustrate the statistics of the growth of digital payments and e-commerce, the Indian government policies to expedite the process of digital transformation of industrial and business sector and, and the digital transformation of MSMEs due to the outbreak of COVID-19 pandemic Li et al. (2018).

The Growth of Digital Payments in India

The data from the Ministry of Electronics and IT suggests that there is significant growth in digital payments in India. During the fiscal year (FY) 2021–2022, it increased by 33% years on year (YoY) Tarutė & Gatautis (2014). From Figure, it can be seen that a total of 86.83 billion digital transactions were made in the years of 2021–22, whereas 55.54 billion transactions were recorded in FY 2020–21. During the period of 2017–18 to 2021–22, total digital transactions have seen a significant increase, whereas transactions through debit cards are stagnant (MoEIT, 2022) Figure 1.

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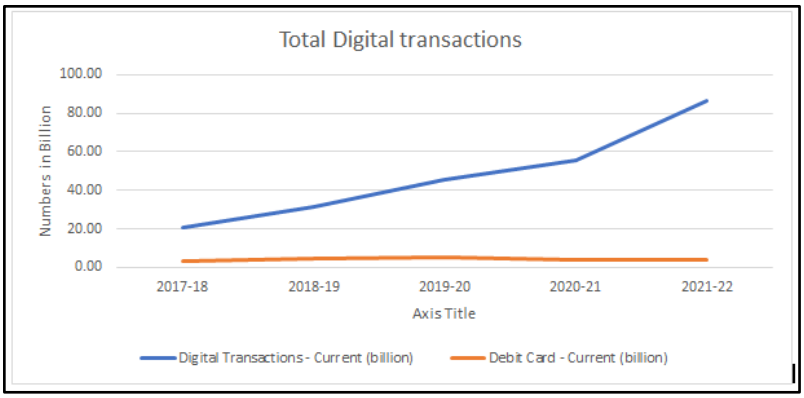

Source: Ministry of Electronics and Information Technology, Government of India

FIGURE 1
TOTAL DIGITAL TRANSACTION GROWTH IN INDIA (AS ON MARCH 2022)

It can be seen from Figure 1 that the total volume of Unified Payment Interface (UPI) transactions has doubled in a year. In February 2022, UPI transactions worth INR 8.26 trillion were made, while in February 2021, UPI transactions worth INR 4.25 trillion were made (NPIC, 2022) Figure 2.

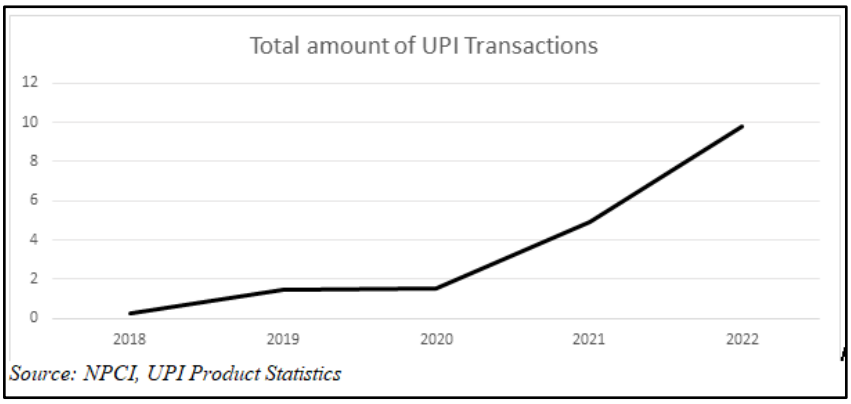

FIGURE 2
GROWTH OF UPI TRANSACTION IN INDIA (VALUES IN TRILLION, INR)

Use of the internet and mobile connectivity are the pillars of the digital economy. The growing use of the internet and mobile technologies is undoubtedly the driving force behind the shifting of consumers from the physical and formal structures of markets to online markets. The swift change in the use of mobile and online payment services in India is indicative that consumers are quick in the adoption of digital technology. Furthermore, the rapid growth of digital payments over recent years suggests that consumers are showing their trust in digital technologies. Thus, this mobile-internet connectivity and growing e-marketing are opening new opportunities for micro and small businesses Ministry of Micro, Small & Medium Enterprises, Government of India (2020).

Growth of E-Commerce Sector in India

In 2015, online sales contributed only 1.040 trillion INR. At the same time, the Indian retail sector is valued at INR 39 trillion, according to the report by the Confederation of Indian Industry,

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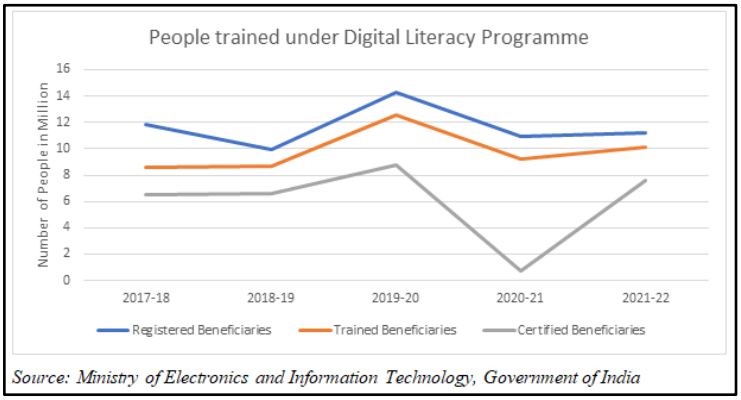
"*E-commerce in India*" CII (2016). The report then suggested that the market is expected to be worth 3.575 trillion rupees in fiscal year 2018 and INR 14.3 trillion by 2025. According to the data from the website of Statista, mobile devices accounted for 58.5% of total e-commerce sales in India in 2015, which has been significantly increased to nearly 80.0% in 2020 Statista (2022). In 2020, India had an online shopper base of 140 million, third only to China and the United States of America IBEF (2022). In 2022, the Indian e-commerce market is expected to reach INR 5.75 trillion, with an annual increase of 21.5 percent. The Indian online grocery market is expected to grow at a 57% CAGR to INR 2.07 trillion in 2027, up from INR 304.15 billion in 2021 IBEF (2022). NASSCOM, (2022) reports that, despite COVID-19 challenges, the e-commerce market in India is still growing at a 5% annual rate, with sales of INR 4.01 trillion in 2021.

Indian Government Initiatives Towards Digital Transformation

Since the last decade, the Indian government has been making sincere efforts to promote digital culture among businesses and small industries. This includes various programmes such as Digital India, Start-up India, Skill India, and the Innovation Fund. The government is encouraging MSMEs to sell their products on e-commerce sites, especially through the Government e-Marketplace (GeM). This e-commerce website is owned and operated by the Government of India, from where the Ministries and Public Sector Undertakings (PSUs) source their procurement. The E-Marketplace (GeM) portal had processed 7.96 million orders worth INR 1.523 trillion from 3.06 million registered sellers and service providers to 55,433 buyers by November, 2021 (GeM, 2022). Indian MSMEs working on this GeM portal are rapidly adopting digital payments. On this portal, more than 72% of payments are done through the digital mode, whereas only 28% of payments are done through cash transactions. On the other hand, under the Digital India mission, the Government of India launched a digital literacy scheme named DISHA launched in 2014, since digital literacy is an essential element of the digital economy. The mission aimed to realize the idea of inclusive growth by providing essential training and education to at least one person in every family in rural areas. The scheme further aims to boost the digital economy by providing a better ecosystem. From Figure, it can be seen that under the digital literacy mission, more than 49.2 million people have been trained and 36.5 million people have been certified by the government since 2022 Figure 3.



Source: Ministry of Electronics and Information Technology, Government of India

FIGURE 3
DIGITAL LITERACY

Digital Transformation of MSMEs due to the Outbreak of COVID-19 Pandemic

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Recently, some studies have been conducted to assess the digital transformation of MSMEs during the COVID-19 pandemic. In a survey of small and medium enterprises, conducted by Dun and Bradstreet, 82% of businesses have completed the required digital transformation of their enterprises, which enables them to 52.5% cost reduction and raise their competitiveness in the market Google India Report (2015). The survey, conducted by CRISIL (2020), suggests that adoption of digital channels has increased from 29% to 47% in November, 2020. A survey by Bains and Company (2020), conducted to assess the women entrepreneurs' response to COVID-19 found that 35% of female-owned businesses shifted to digital sales and delivery channels during COVID-19 pandemic. Concomitantly, Ahmad, & Sur (2021), discovered a significant influence of COVID-19 on the digital transformation of MSMEs through interviews with 247 small business owners. According to the study's findings, the COVID-19 pandemic has compelled companies and customers alike to utilize digital channels in order to meet their demands. Moreover, Kumar et al. (2022) in their study related to the growth in use of digital channels by Indian MSME's found that ICT use in the industry has remained steady both during and after the COVID-19 epidemic. Additionally, the results indicate that different adoption of ICT factors influences the perceived benefits of organizational performance of Indian MSMEs. Again, Ahmed & Sur (2021a), based on the survey of 148 Indian rural MSMEs on the use of digital banking services during the period of the COVID-19 pandemic, claimed that the COVID-19 has a favourable impact on small business owners' attitudes towards digital banking systems (DBS) working in rural areas. Hence, it is widely accepted that COVID-19 is a catalytic factor in the digitalisation of MSMEs in India Ahmed & Sur (2021b).

DISCUSSION

Based on the evidence that emerged from the review and analysis of information and data obtained from different research papers and articles, and websites of Indian government ministries, it is widely recognized that Internet and mobile connectivity and COVID-19 pandemic are the two major factors responsible for digitalization of MSMEs in India. Many studies have suggested that technology and innovation assist industries in their growth and production. With the growing rate of mobile and internet connectivity in India (as shown in Table), the rate of adoption of digital technology among industries and enterprises are also growing. Technology is not only helping industries in production but also providing facilities to build supply chains for marketing. With the use of the internet and its facilities, various online marketing platforms and others, micro and small businesses can take their products directly to the consumer. But unfortunately, very few micro-level enterprises are using these platforms. However, many studies have suggested that COVID-19 is a catalytic factor that has accelerated the pace of adoption of digital technologies among MSMEs Ministry of Micro Small and Medium Enterprises (2021).

Offline SMEs have been facing untapped development potential. To compete in today's fast-growing local and global markets, one must embrace digital technology and combine one's sales platform with a digital channel. In today's data-driven market, businesses that have a naive attitude toward online presence or are slow to utilise digital channels may face significant setbacks. Offline SMEs face strategic disadvantage in consumer-centric businesses like retail, tourism, and export due to lack of technological advancement. According to a Google report (2015) titled "*Connected Small Businesses: Unlocking India's Digital Potential*", those small businesses that have shifted from an offline business model to online digital platforms can expect a 27 % increase in revenue. The income of almost two-thirds of Indian SMEs that are not digitally engaged has decreased by 8%. Small and medium businesses with significant digital engagement have higher revenue growth, better job creation, broader client segments (both domestic and international), and have higher employee work satisfaction when compared to their offline

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counterparts.

However, the internet penetration levels are taking longer than usual due to a lack of technical knowledge among entrepreneurs and a large section of consumers as well. Regional disparity, education, knowledge, and interest regarding digital technology are among the major barriers or challenges for MSMEs. There are significant differences between Indian cities and rural areas when comparing access to the internet and its uses. Digital literacy is low in Indian villages, and there are significant differences in knowledge and consumption of internet services among men, women, and the elderly in rural areas. However, the result of the study indicates that during COVID-19, the technology adoption rate is much higher and the financial transaction methods of the MSMEs have changed. It is illustrated in the Figure and that digital and UPI payment number have increased sharply as compared to the pre- COVID-19 era. Moreover, the e-commerce industry in India also developed by leaps and bounds after outbreak of the pandemic. The survey conducted by Dun and Bradstreet pointed out that around 82 percent out of surveyed small Businesses have digitized their daily operations during the pandemic which helped them in Reduction in Cost (54 percent) and enhancing competitiveness (51 percent). The survey conducted by Crisil, also suggests that adoption of digital channels has increased from 29 percent to 47 percent in November 2020. Although the Indian government has been pushing for digitizing India's business and industrial sector for a long time but efforts have gained momentum since the outbreak of COVID-19. GoI launched various programmes to increase digital literacy of people which reached to its peak during 2019-2020 (as shown in figure). However, more efforts still need to be made by both the government and small and medium enterprises. Many MSMEs in India are still lagging behind on the path of digitalization.

CONCLUSION

In summary, it has been indicated that two major factors- internet and mobile connectivity, and COVID-19 are the main reason behind increasing rate of adoption of digital technology among MSMEs in India. These factors are pushing MSMEs to adopt digital technologies to work efficiently in the highly competitive market. According to the existing literature, effective benefits of digitalization in production, marketing, distribution, and process attracts MSMEs to embrace more digital transformation. Nevertheless, the adoption rate of digitalization among MSMEs was very low as compared to the developed countries. However, when the COVID-19 pandemic negatively affected Indian industries and businesses, many small and medium enterprises were left with no option but to shift to the online platform. Now, the modern business outlook is changing in India, many start-ups and small businesses are moving ahead due to the use of digital technologies despite having very limited resources. The advent of mobile and internet facilities and the outbreak of COVID-19 have led to a rapid expansion in the e-commerce industry, increased usage of mobile banking and digital payment services, accelerated government efforts, and helped in the growth of digital literacy in India. All these efforts are responsible for the digital transformation of MSMEs in India.

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