Indian MSME'S E-Readiness in the Digital Economy: A Case Study of Coir Industry

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ABSTRACT

The Indian MSME's often lacks knowledge about the latest innovations and technologies that are available in the global market. And even if they are aware, they either are ill-equipped to deploy it in regular business operations or facing resource crunch to procure it at the first place. This study mainly focuses on the level of e-readiness of the Indian MSME sector in the wake of rapidly evolving digital era. The study is further divided into two sub-parts: Firstly, it covers the key performance metrics of the Indian Coir industry and outlines the importance of technology to boost the competitiveness of the sector; Secondly, it summarizes the challenges or hindrances faced by the MSME sector to achieve full scale digitalization and offers policy prescriptions that can aid MSME's achieve higher growth and profitability. The paper arrives at the conclusion that the following factors will help differentiate MSME's at home and abroad: export competitiveness, technological usage, superior human resources, labour productivity, advanced knowledge and skills, marketing services, availability of sufficient credit, regulatory support etc.

Key-words: *MSME sector, Competitiveness, Coir industry, Digital Economy, Digitization, Digitalization, E-readiness*

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INTRODUCTION

The MSME sector is the financial backbone of the Indian economy as the high contribution of MSME's in national exports leads to positive and increasing contribution to the GDP (32% at present). Further, it provides 25% of the total employment, 45% contribution to national exports, produce over 8000 products (including traditional and high-tech products), is still uncompetitive and unviable (MSME Annual report, 2021-22). Hence, MSME's should be encouraged by the government and all forms of assistance should be provided especially in the aftermath of pandemic, to support continuous growth and employment in the sector. There are a host of challenges that MSME sector in India is facing, but amongst them, the biggest one is technological backwardness.

In the MSME sector, most of the business processes are manual, ineffective, that inhibits the scale of operations. Therefore, it is amply clear that technology is needed to alter and promote growth in the MSME category, particularly in the micro enterprise segment. The best way to create connections and drive transformation is through a well-connected, integrated digital ecosystem that addresses issues like entrepreneur identification, creditworthiness, programme delivery, market access, the right skill mix for different firm stages, and the ability to collect specific, affordable data for the industry. This, however, is not without substantial difficulties, as modernising current systems or completely developing new ones is quite a herculean task.

The technological leap would inevitably help MSME's increase the efficiency of their production processes and produce high quality products. For instance, new digital technologies such as cloud computing, payment systems, social media, location-based tools etc. has revolutionized technological landscape as it allows for lost-cost sharing of vital resources, which can enable small businesses to focus more on core activities. The significance of adoption of new technologies can be best explained with the help of an industry example, the table below shows how the traditional banks/NBFC's undertake lending transactions and how new-age fintechs process it in much faster and efficient manner.

Table 1: Lending process – Retail banks/NBFC's vs Fintechs

Process	Banks/NBFC's	Fintechs
Assessment	Manual and inefficient	Uses technology to provide the best analysis.

Verification	Multiple agencies and touchpoints making it cumbersome and time consuming.	Automated processes and settlement cycle ranges from 2-7 days for domestic or international transactions.
Documentation	Onerous documentation making it difficult for borrowers to comply with the requirements.	Customized documentation based on the applicant; less than 5 documents are required, which can be uploaded to the portal.
Decision bias	Element of human bias which excludes specific group of people.	AI-ML based tools used for customer evaluation.

Hence, it is the need of the hour for the Indian MSME sector to upgrade its technology, cultivate right skills, incorporate best management practices, and actively participate in the global supply chains, to be able to compete with the emerging rival countries such as China, Indonesia, Vietnam, Philippines etc.

SCOPE OF THE STUDY

The study is concerned with analysing the digital preparedness of the Indian MSME sector in the increasingly globalized and techno savvy world. The study contains two parts: Firstly, the case study approach is deployed which entails gathering of relevant data and information about the Indian Coir industry and subsequently draw useful insights, which could guide us to boost the competitiveness of the entire MSME sector; Secondly, it elucidates the myriad challenges and difficulties faced by the MSME sector in rolling out digitalization initiatives and offers government measures that can catapult MSME sector onto the growth trajectory.

LITERATURE REVIEW

The past industrial revolutions have primarily focused on enhancing the manufacturing capabilities through operational innovations, but the modern industrial age is guided by technological advancements. The advent of IT and e-commerce, as part of the Industrial revolution 4.0, has revolutionized the manner in which the businesses are carrying out day-to-day operations. They have been particularly advantageous for the SME's as it brought them into the global network economy, which offers enormous opportunities for small entrepreneurs to connect with customers, suppliers, vendors, distributors etc., through

seamless information conveyor belt (Gibbs & Kraemer, 2004; Kaynak et al., 2005). SME development is recognised as a key factor in India's economic expansion.

However, according to Chitura et al. (2008), there are numerous constraints that SME's face in the adoption and implementation phase of digital technologies including lack of technological awareness, high costs, infrastructural constraints, lack of awareness regarding the advantages of digital systems, lack of technological skills and resources etc. Hence, SME digitization must incorporate sweeping changes in the entire manufacturer-supplier value chain, so as to bring about digital transformation (Kagermann et al., 2013; Manhart, 2013). Further, SMEs must adapt to the latest technology advancements and recognise their value in helping them enter new markets and cater to new customers (Jutla et al., 2002).

In the year 2019-20, the Covid-19 pandemic has taken a major economic toll on the MSME sector in India. Numerous studies have been conducted to evaluate the impact of pandemic and how to deal with the enormous challenges that lie ahead for the sector. Most of them have suggested adoption of Artificial intelligence (AI), Cloud computing and other emerging information and communication technologies (ICT's) to survive during crisis, maintain current business opportunities and grow in the digitally competitive landscape (Vial, 2019).

Herhausena et al. (2020) classified the four different items that are essential for digital transformation including social media, channels, digital technologies and relationships, mapped their growth for over two decades. They demonstrated the adoption of various digital business strategies and how they revealed the knowledge and practice gap. With the increased usage of digital technologies, the time spent on administrative procedures and other processes reduce considerably, as a result, it leads to positive impact on MSME's as it spurs productivity and efficiency (Borges et al., 2021).

CASE DESCRIPTION AND ANALYSIS

A traditional agro-based industry, the Indian coir industry started in Kerala and subsequently expanded its base to Tamil Nadu, Karnataka, Maharashtra, West Bengal among others. It is majorly viewed as an export-oriented industry which relies on labour intensive techniques of production. An industry which holds great potential to enhance the export earnings of the country, the Indian coir industry can have a major global footprint through meaningful technological interventions and enhancements.

There are multiple challenges that the industry is facing but the biggest cause of concern is the availability of synthetic products which originate from countries such as China. Even though these are not environment friendly, yet they have risen in ranks and are continuously posing a stiff competition to India's coir industry. A long-term feasible solution would be introduction of modernized technology and creating more awareness about the product amongst prospective consumers.

Table 2 provides a breakdown of the exports of the Indian Coir Industry in quantity and value terms, for the past five years from 2016-2017 till December 2021. In terms of value, the coir industry has not seen a huge jump, with the export earnings remaining stable over a period of five years. A major reason attributed to this has been the stiff competition posed by the synthetic products manufactured by China. This can be countered by providing technological support to the industry.

Table 2: Export Volume of Indian Coir Industry

Year	Quantity (MT)	Value (Rs. In Lakhs)
2016-17	957,045	228164.82
2017-18	10,16,564	253227.84
2018-19	964,046	272804.59
2019-20	988,996	275790.13
2020-21	1,163,213	377897.91
2021-22 (Estimated up to December 2021)	905000	300000.00

Source: MSME Annual Report 2021-2022

Table 3 provides information about major export destinations for the Indian Coir Industry. USA tops the list where approximately 31% of the exports are directed. The second position is held by China. This is followed by Netherlands, South Korea, and United Kingdom. The Indian coir industry is in dire need of technological upgradations and means of production enhancements. Also, any help in terms of marketing and product promotion will go a long way in uplifting the coir industry.

Table 3: Top 5 Coir Importing Countries from India during 2021-22 (as on 31st July 2021)

S. No.	Country	Quantity (Tonnes)	Percentage (%)	Value (Rs. in Lakhs)	Percentage (%)
1.	USA	92503.88	20.45	48983.98	31.05
2.	China	146198.49	32.31	29942.22	18.98
3.	Netherlands	45374.82	10.03	15288.02	9.69
4.	South Korea	27237.31	6.02	8315.61	5.27
5.	UK	18414.03	4.07	8213.72	5.21

Source: MSME Annual Report 2021-2022

Table 4 provides information about the growth of the coir industry with data ranging from 2018-19 till 2021-2022. There has been a consistent decline in the production of coir products ranging from coir fibre, coir yarn, coir rope to rubberized coir. This underlines the dire need to work on strengthening the coir industry and deeply working on providing sustainable solutions to the myriad set of problems persisting in the industry.

Table 4: Growth in Production of Coir Products with data for the period 2018-19 to 2021-2022 (provisional as on 31st December 2021)

Item	2018-19 (Qty in MT)	2019-20 (Qty in MT)	2020-21 (Qty in MT)	2021-22 (Qty in MT)
Coir Fibre	7,49,600	7,41,000	7,58,000	5,72,800
Coir Yarn	4,49,800	4,46,000	4,56,000	3,44,600
Coir Products	2,96,800	2,94,200	3,00,800	2,27,300
Coir Rope	90,000	89,200	91,200	68,900
Curled Coir	89,900	88,800	90,800	68,600
Rubberized Coir	1,19,900	1,08,500	1,10,400	83,000

Source: MSME Annual Report 2021-2022

ROLE OF TECHNOLOGY IN BOOSTING THE GLOBAL COMPETITIVENESS

In the modern world, technology is viewed as a business enabler and is an essential tool for enhancing efficiency and productivity. The Indian MSME needs to establish itself in

the home market in order to have a competitive advantage to enter and function in the global market. In order to play a key role, there should be a major emphasis on developing and implementing new age technology as well as technological collaboration with international partners.

As a result of innovations in social media, businesses are becoming more and more agile. Together, cloud computing, analytics, and mobility are releasing immense value for businesses and have emerged as key business enablers. The Indian MSME's have slowly started adopting to Social Mobile Analytics and Cloud (SMAC). One important challenge faced by the Indian MSME's while entering international markets is to analyse and understand consumer tastes and preferences. MSMEs will be unable to compete in the global market if they produce inferior products of worse quality utilising outdated technology. Most of the time, customers are familiar with the products that are offered in the market. The demand for products is directly impacted by the marketing and advertising of the products. Use of superior technology and significant expenditure on marketing, advertising and creation of product awareness have a positive impact and help sustain the MSME's in highly competitive global markets. The Indian Coir Industry can help sustain itself in the long run by adopting marketing promotion strategies including strategies related to product differentiation.

CHALLENGES FACED BY THE INDIAN MSME SECTOR

The Indian MSME's have demonstrated a remarkable resilience and capacity for innovation, adaptability and flexibility to tide over the economic slowdown as a result of the supply-chain disruptions induced by the global pandemic. They have successfully embraced the new ICT's such as SaaS, Cloud computing etc., and there are consistent efforts to boost digital infrastructure in the era of globalization and digitalization, which further brings about new set of challenges. These challenges must be addressed in a timely manner before they have a long-term negative impact. Some of the most significant challenges are as follows:

Lack of Digital awareness & execution capabilities – The knowledge required to operate digital processes is very technical and beyond the understanding of new entrepreneurs. Entrepreneurs will have to be provided basic digital education & skills so that they can adopt the new system. Hence, it will help bridge the digital divide that currently exists in the Indian MSME sector.

High set-up costs – The initial cost of setting up digital resources into any business is a major issue. Technology may be beneficial for MSME's in myriad ways in terms of access to finance or market reach, but most of them are not able to use it because of the

cost involved. The additional costs to be borne by the entrepreneurs may be in the form of renting necessary equipment or signing up with a payment gateway provider or hiring an extra employee to manage digital transactions.

Difficult to implement – There is a wide consensus that there are numerous benefits associated with boosting digital readiness in terms of understanding consumer behaviour or monitoring industry trends by leveraging market information. But lack of faith in dealing with the grievances of the customers and complexity of procedures are the two main factors which makes it difficult for MSME's to adopt digital strategies. It is not always possible to withdraw cash from ATM to make payments to suppliers or pay salaries to workers. There are frequent news of transaction failures or even bank failures. It is quite difficult to seamlessly integrate business operations with the digital framework. There is a belief in the entrepreneurs that banking system is inefficient which discourages them from adopting digital technologies.

Data integrity and Cyber fraud – According to India Risk Survey 2018, the majority of businesses consider data theft, phishing and hacktivism, as specific areas of threat to their business. The need of the hour is to build an advanced system that is prepared to deal with situations like data breaches and cyber fraud. A well-equipped digital protection framework must be created to ensure businesses are willing to shift to the new digital ecosystem, which is far more efficient and robust in its functioning.

Problems of Indian e-commerce – A recent study made public by the Vidhi Center for Legal Policy has found that there is a problem of "Platform dominance" in digital infrastructure for Indian e-commerce. Most of the sellers are required to make changes to their business practices to operate on the existing platforms. Although, sellers may be able to change platforms, but they feel that they are locked to e-commerce in general. There is an urgent need to overhaul the entire system to address the problem of 'asymmetric power' between platform creators and platform users to ensure free flow of goods and services in the e-commerce space.

Miscellaneous issues – Heavy dependence on low value, cash-based transactions, tax system, onerous regulations and even language barriers can also be contributing factors to the digital divide.

ROLE OF GOVERNMENT IN FACILITATING DIGITAL TRANSFORMATION

The role of the government is very critical in the formation of digital eco-system. The measures to boost the competitiveness of the MSME sector through technological upgradation

and innovation include robust institutional support, promotion of formalization of MSME's, easing government procurement norms, adoption of new technologies, improvement in operational efficiency, market linkages etc.

Institutional support: There are several institutions that are playing pivotal role in creating digital infrastructure in the country. A strong payment system is intricately linked with the MSME growth and development in India. A number of innovative schemes and initiatives have been launched to enable easy access to online markets as well as give customer satisfaction by helping them finding out partners who can provide discount schemes. But there is a need to educate customers and create awareness regarding the benefits of AA. Also, the free structure should be kept reasonable to encourage uptake. Thirdly, the latest innovation in this domain is "Open Network for Digital Commerce" (ONDC). It is aimed to free the buyer to be bound by specific platforms like Paytm.

PROMOTION OF FORMALIZATION OF MSME SECTOR

Digital solutions are much needed to aid MSMEs in navigating the bureaucratic tangle of rules and regulations. Developing a user-friendly system, such as the Udyam Registration Portal, has been an excellent step in this direction. It assists in giving businesses a distinctive identification that may be used to take advantage of the different incentives provided by the Ministry of MSME. The registration does not communicate how to comply with different types of rules and licences across numerous government offices that span the federal, state, and local governments. As a result, MSMEs in India are inefficiently formalised and their registration procedures are fragmented and compartmentalised. Consequently, the award of Aadhar number for individuals offers a systematic KYC solution that spans distinct laws and administrative divisions, due to its integration with the PAN card.

Further, the introduction of GST system has been rather complicated and burdensome for MSME's which were already reeling under losses due to financial and operational constraints. Efforts are now being made to integrate GST portal with TReDS to expedite the process of formalization to offer an all-encompassing outlet to resolve issues of MSME's. Another initiative known as "MSME Sampark" has been launched to undertake a matchmaking exercise between trained job seekers and Udyam registered MSME enterprises. In the medium to long term, this solution holds the potential to address demographic challenges that the country is facing on the employment front.

Easing of Government procurement norms: Another related step to facilitate digitalization is the GeM (Government e-market place) which is an online portal providing

MSMEs, transparent and seamless access to government procurement. With its extensive administrative reach, the Indian government ranks among the biggest consumer of goods and services. Therefore, it is crucial that this type of procurement provides the MSMEs with the greatest possible benefit. According to the official GeM portal, MSMEs make up one-fourth of the total sellers and more than 55% of the total order value. However, it is only 1% (7 lakh plus) of the total MSMEs (60 million plus) in India, participating in the e-procurement. Thus, it is essential that a sizeable portion of MSMEs should be informed about the online marketplace and subsequently integrated into the platform.

Adoption of new technologies to foster innovation: There is an urgent need to undertake a technological leap by embracing latest digital technologies, that could transform the way the business is carried out especially in the MSME sector in India. The government must take notice and invest in two new technologies that have demonstrated positive outcomes in different regions: Blockchain technology and 3D printing.

Blockchain, also known as distributed ledger technologies (DLT), can prove to be a blessing for MSME sector in India. This is particularly helpful in cross-border trade, where MSMEs may gain from verifications for supply chain finance, traceability, and contract management. The Indian government in collaboration with state governments should work to develop a holistic vision and a plan to encourage the use of blockchain in various domestic and international value chains. In its "National Strategy on Blockchain", the Ministry of Electronics and Information Technology (MeitY) first designated key areas of national importance, including property records, supply chains, identity management, notary services etc. A clear agenda backed by policy support will fast-track industry adoption of DLT, which would ultimately go a long way for MSMEs.

An overwhelming majority of India's manufacturing MSME's are set up like old factories, using traditional production techniques from the previous era. In order for MSMEs to produce more high-quality, error-free products with lower operational expenses and consistent work orders, the 3D printing technology needs to be actively promoted. A "National Strategy for Additive Manufacturing" has been released by the Ministry of Electronics and Information Technology (MeitY) for the additive manufacturing technology, which can serve as the foundation for its active adoption. Additionally, more attention could be placed on MSMEs situated in local industrial clusters.

Operational efficiency: The large section of the MSME's keep their inventories in analogue format. Hence, the ability to monitor the supply chain is one of the significant challenges associated with expanding MSMEs' access. The meaningful efforts by the

government to help MSME's digitize stock movements, cash flows, sales, invoicing, accounts receivables, bills etc. could push digital transformation into the MSME landscape. For instance, with the growth of e-commerce transactions, a digital transformation strategy can be implemented that includes high-tech inventory management system, combining a variety of hardware equipment, software platforms, mobile apps and data analytics tools. Such initiatives are all geared toward making it simpler to give clients what they want, when and how they want it. It could translate into increased global reach, greater price discovery, lower overhead costs, effective back-end management, and increased market access and information for the whole MSME sector.

Market linkages: Social media marketing, a kind of digitization, gives companies the chance to grow their customer base and enhance sales. Further, it has been determined that social commerce is a potent lever for corporate growth, namely in terms of growing market share and profitability. The government can substantially aid small business owners through schemes like 'Digital India' which aims to expand the digital footprint of Indian businesses by increasing the rate of technological adoption.

CONCLUSION

The paper has highlighted the critical role of digital technologies in paving the way for Indian MSME's to chart their own growth path. There is plethora of benefits associated with implementing digital technologies in business operations including operational flexibility, cost reduction, higher efficiency, time saving, enhancement of supply chains, network economy etc., but it is not without its fair share of challenges.

MANAGERIAL IMPLICATIONS

This paper was set out to analyse the state of preparedness of Indian MSME's in this new, globalized world driven by technological innovations. A lot of effort is required to revitalize the industry especially MSME sector to contribute towards sustainable economic growth and increased competitiveness. This study has identified factors that will determine the future of digital transformation among MSME's in emerging markets such as India at different levels of their digital interaction:

1. Change in attitudes and beliefs of small entrepreneurs towards digitalization via digital training and skill development programs.

2. A shift towards cashless economy to reduce dependence on cash and ensuring faster

adoption of payment systems and other online vendor payment solutions.

3. Streamlining compliance procedures and procurement norms for small businesses.

4. Easing regulatory burden on MSME's in India, thus, helping them economize their day-to-day operations.

5. Successful on-boarding of MSME's onto the government initiated platforms to enable them to access vital business services.

6. Creating mechanism to address concerns of privacy and security, that are often ignored.

7. Expand the role of fintechs to increase the flow of credit to meet the requirements of small scale businesses.

8. Customization of digital solutions catering only to the MSME sector.

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