Unlocking Potential of SME's: Adoption of Digital Transformation for Sustainability and Value Creation

Prof.Dr.CHANDRA

MOHAN

Sharda University

Abstract: SMEs, comprising a significant portion of the Indian economy, face unique challenges in adopting digital technologies. The study aims to bridge the literature gap by systematically measuring SMEs' performance in the context of digitalization. It explores the current state of SMEs, their contributions to employment and GDP, and the challenges hindering their digital transformation efforts. The paper also examines the advantages of digitalization in value creation and sustainability, emphasizing its potential to optimize operations, enhance supply chain management, and contribute to social sustainability. Furthermore, the research proposes a managerial model tailored to the needs of SMEs for effective digitalization. The findings aim to guide policymakers, business owners, and stakeholders in fostering a conducive environment for SMEs to thrive in the digital era.

Keywords: SMEs, Digital Transformation, Sustainability, Economic Growth, Industry 4.0

Introduction: SMEs play a vital role in economic growth and development, innovation through digital transformation which allows for sustainability, competitiveness and customization in products and services. Over 28 million people are employed by Small Scale Industries (SSI), one of the key sectors of the Indian economy, which accounts for about 7% of the country's GDP. The current production value of the Indian SME sector is close to Rs 8,16,000 crore. It produces more than 8,000 different goods, ranging from simple items to complex ones. The domestic and international markets are the focus of the SSI industry. The SSIs sector, which accounts for roughly 70% of employment and significantly increases GDP, is acknowledged as the economic engine. Approximately, 99.7% of all businesses worldwide are small and medium-sized organisations, with the remaining 0.3% being large- scale businesses.

While it is essential to develop tools to systematically measure the performance of SMEs in various aspects of the digital transformation to ensure their survival and competitive edge, this topic is still under-explored in the existing literature. Digital transformation efforts are usually integrated into the core business strategy of large enterprises. On the other hand, small and medium-sized enterprises (SMEs) often face difficulties in adopting Industry 4.0 paradigms. SMEs do not have the human or financial resources to analyse the potential and risks of Industry 4.0. To address this issue, the chapter focussed on the development of smart manufacturing concepts, logistics solutions, and managerial models tailored to the needs of SMEs.

SME's and Digital Transformation: Gartner defines digitalization as "the use of digital technologies to change a business model and provides new revenue and value-producing opportunities; it is the process of moving to a digital business".

India is in the midst of a digital revolution. Expanding internet access, growing smartphone usage, and rising digital media consumption will have a profound impact on the future of Indian economy over the next few years. This has been aided by affordable devices and network access cost. Shifting trends from the way urban populace accesses information to how farmers grow and sell their crops, internet has changed the way Indian economy

functions. Digitalization has brought a paradigm shift to the traditional ways of manufacturing, handling, storing and transporting things. Advent of internet has led to businesses' migration online and faster and wider creation of wealth and assets.

Advantages of Digitalization in Value Creation & Sustainability: DX empowers MSMEs to coordinated maintainable hones into their operations, cultivating asset proficiency and minimizing their environmental impression in the following ways:

- By leveraging innovations like information analytics, the Web of Things (IoT), and cloud computing, MSMEs can optimize vitality utilization, minimize waste, and make educated choices that bolster maintainable fabricating forms. The appropriation of these advances upgrades operational effectiveness and cost-effectiveness for MSMEs.
- DX enables MSMEs to lock in maintainable supply chain administration. By utilizing blockchain innovation, companies can upgrade straightforwardness and traceability over the supply chain, guaranteeing moral sourcing, reasonable exchange hones, and mindful generation. This level of straightforwardness builds believes among partners and fulfils the developing shopper request for economical items and administrations.
- In expansion to natural contemplations, DX empowers MSMEs to prioritize social maintainability. Through computerized stages and e-commerce, these endeavours can reach broader markets, interface with socially cognizant customers, and communicate their supportability activities viably. Locks in in advanced promoting and narrating permits MSMEs to grandstand their commitment to social obligation, reasonable labour hones, and community engagement, making a positive brand picture and pulling in faithful clients.
- Coordination advanced innovations moreover encourages the improvement of inventive arrangements to societal challenges. MSMEs can use counterfeit insights and information analytics to distinguish social needs, make maintainable items or administrations, and contribute to the well-being of communities. For occurrence, by utilizing AI-driven prescient upkeep, MSMEs can optimize hardware utilization, minimize downtime, and expand the life expectancy of their resources, decreasing the require for resource-intensive substitutions.
- Proprietors and senior supervisors of MSMEs frequently require more data to start a feasible DX. Existing assets and writing centre on immense enterprises or give common rules which will not address MSMEs' special challenges. This need of custom-made data helps in utilising the resources properly.
- The need of direction, clears out proprietors and senior supervisors hooking with questions around innovation selection, adjusting maintainability objectives with commerce goals, and overseeing money related imperatives. They require help evaluate their current computerized capabilities, distinguish ranges for enhancement, and cultivate a culture of development inside their organizations. This need of clarity ruins their capacity and at the same time explore the complexities of DX and supportability. Moreover, MSMEs may be ignorant of the potential assets and back accessibility through outside organizations and collaborations. Computer program and innovations have controlled these companies from creating such capabilities within the past.
- IT-driven savvy fabricating devices/ procedures such as Computerized Coordinates Generation Arranging, Shop Floor Control, Supply Chain Arrangements, Cloud-based ERP might make SMEs more competitive within the current environment. Agreeing to Tech Mahindra, modern computerized advances can decrease operational costs by 20 – 30% through moved forward capital and labor utilization.

Digital innovations are being sparked by digital technologies, and they have the potential to upend entire businesses and alter the environment in which they function (Skog, Wimelius, & Sandberg, 2018). Organisations must undergo a digital transformation and modify their structures, practises, attitudes, and beliefs in order to address this threat or seize the opportunity that comes with digital disruption (Skog, Wimelius& Sandberg, 2018). The organization's competencies are at the centre of this digital revolution. Dynamic capabilities are arguably the most significant capability in digital transformation (Warner &Wäger, 2019; Vial, 2019; Muhic & Bengtsson, 2019).

E-commerce stages extended geological boundaries, lock in in progressing client encounter and give bolster for superior supply chain arrangements. This permits companies to offer 24X7 and increment their client base quickly with constrained or unimportant increment in operational fetched.

Offline SME's: Offline SMEs are now recognizing missed development openings due to need of online nearness. Appropriation of advanced innovation apparatuses and integration of one's deals stage on a computerized channel is vital to outlive in today's fast-growing worldwide competitive advertise. Businesses with an insensible approach towards online nearness or drowsiness to adopt digital channels may have to confront critical challenges to outlive within the show data-driven environment. Misfortunes confronted by an organization can be numerous:

- Offline SMEs may ought to confront vital impediments in consumer-centric divisions such as retail, tourism or send out.
- Overlooking innovation will make businesses lose the competitive advantage.
- Need of organized databases of client and deals records to optimize promoting and deals endeavours.

Concurring to a report by Google: "Connected Little Commerce: Opening India's Advanced Potential", SMEs moving from being offline to progressed advanced engagement program may create an income development of up to 27%. Around two-third of Indian SMEs that are not carefully locked in are confronting an income decrease of around 8%. SMBs with computerized engagement exceed expectations in terms of higher income development, way better job creators, diversified client portions, both residential & international and have way better levels of worker work fulfilment as compared to their offline partners. Agreeing to the report, Indian clients are progressively seeking out for data almost businesses online and there's an enormous data gap for nearby businesses on the Web. Out of the 51 million SMEs in India, less than 5% to 6% have a web nearness. In an exertion to diminish this crevice, Google India points to induce 20 million SMEs online by 2017 by employing a basic mobile-based app called Google My Commerce.

Challenges in the way of Transformation: Most recent innovation can help undertakings decrease taken a toll & time taken to improve and offer modern items and administrations. This makes a difference as SMEs separate from peers, optimize costs and compete on a worldwide level with other corporate monsters. SMEs in India confront different battles on account of getting to and utilizing the most recent mechanical progressions. Whereas information, and stores proceed to obstruct execution of innovation, nonattendance of a biological system that empowers innovation exchange and interaction with specialists may be a basic reason of constrained selection. The main challenges are listed below:

- A huge number of SMEs are still uninformed of the benefits advertised by tech-enabled administrations like e-commerce and social organizing stages. More information about new innovations and scepticism anticipates an undertaking from locked in computerized activities. Working with a workforce which needs presentation to IT items & administrations and failure to get the mechanical complexity are among the key variables which hinder the selection of computerized activities. Later government activities such as Computerized India, which centre on bringing SMEs online will increment mindfulness within the segment.
- As per report by the Universal Fund Enterprise (IFC), the full financing request hole is enormous at `2.93 trillion in 2016 in India's SME division. SMEs in India are confronting noteworthy challenges of destitute foundation and lacking fund. Issues such as need of capital, inaccessibility of credit collaterals are a major obstruction and may drive proprietors to look for fund from unorganized sources whose intrigued rates are higher than banks'. In this way, unused innovative environment that will include extra capital speculations may take a back situate. With rising competition among innovation companies and development of tech new companies, the fetched of profiting tech-enabled administrations such as websites, social organizing stages or ecommerce stages have decreased altogether.
- Destitute foundation raises the fear of information security. Information security is characterized as the assurance of information from unauthorized get to, i.e., alteration, devastation, or revelation to others without authorization. The greatest security issues emerge from malware and cyber-attacks.Impact of Digitalization Need of usage of exacting cyber-crime laws and information robbery standards in India are making SMEs doubtful almost selection of computerized innovations. Information robbery a cyber-attack may lead to trade and notoriety misfortune, which may have long term impacts for the organization. This moderates the selection of computerized activities. Develop markets such as USA or Europe take after exacting information security laws and have superior mechanical capabilities. Indian SMEs discover it troublesome to follow to such standards & benchmarks and compete at worldwide level coming about in misfortune of trade.
- Companies' improvements are obliged by inadequately administrative aptitudes and specialized ability. Better-managed firms tend to be bigger, are likely to outlive longer and be more beneficial. Conventional SMEs which have been able to construct solid commerce relations through offline implies are not slanted to spend cash and time on advanced stages. Representatives usual to utilizing "professional judgment", that are regularly subjective and one-sided are unwilling to innovation improved subjective decision-making. To assist these ventures, Service of Small and Medium Undertakings has set up little commerce booths, incubators, hubs, clusters, trade affiliations and back centres, just like the country-wide organize of Improvement Establishing. These might offer assistance bringing little trade together to use abilities, guarantee assets are user-friendly and offer assistance reply to IT questions all through the development cycle of the businesses.
- According to Capterra India's "Digitalisation of Indian SMEs survey," the transition in the SME sector is fueled by the altering dynamics of the new digital economy, the enormous influence of technology, and the growing influence of SaaS on enterprises." As per the SME Digitalization Survey conducted on 500 SME owners, about 79.7% of those surveyed were aware of the importance of ICT adoption and its contribution to increased productivity and efficiency in business. The poll found a direct correlation between productivity and the use of digital technologies. For instance, SMEs that used e-business and social media initiatives saw productivity rise to only

about 27% and 26%, respectively, compared to SMEs that incorporated data management services to store, organise, store, and display data of business operations, sales, and customer information.

- Approximately 89% of the respondents believed that the prospect of operations for Small and Medium-sized Enterprises has increased thanks to digital transformation. The main result of the digital revolution has been the opening of various previously untradeable services, which has aided offline enterprises in expanding their online product alternatives.
- At least 90% said that consumers expected high-quality "digital" accessibility, practicality, and personalisation in all of their commercial operations in today's thriving economy. Customers under the age group of 35 prefer digital to other traditional ways when researching and making purchases online. As a result, SMEs must be prepared to service "digital natives" and undergo digital transformation, which has become urgent.
- Social media is the key marketing tool for SMEs. The dominant social media platforms, such as Facebook, Instagram, and Google, have aided companies in marketing. A market study analysis by Statista claims that 51% of small businesses rely on social media to expand their brands and that 65% of SMEs find social media advertising to be effective.

Key Findings:

Tech SMEs is diverse, global and growing:

- Contribute 7-9% to the technology industry, having grown from 4-6% share pre pandemic.
- Approximately 60-70% are BPO SMEs, followed by IT services at 20-25%, and software products and SaaS SMEs at 10-15%.
- Aproximately79% SMEs continue to offer traditional IT services.
- US contributes more than 50% of revenues of the tech SMEs.
- In India, tech SMEs are spread across established and growing hubs of tech talent and innovation.

Traditional tech SMEs deliver on transformation and cloud demand:

- Majority revenue of traditional services SMEs comes from legacy ADM, SI, managed services.
- Nearly 10% of the revenue of traditional SMEs is from digital.
- SMEs have grown through enterprise partnerships with hyperscalers and systems integrators.
- Majority clients are SMBs and tech SMEs from regions spread globally.

Digital Tech SMEs have grown four fold:

- Between FY 20 and FY 23, digital SMEs have seen 4X growth, most in the midst of the pandemic.
- Digital SMEs report 1.5 X faster growth and margins

- Digital SMEs focus on cloud, product engineering services, analytics/ AI/ML, IOT and Edge based solutions, and low code no code platforms.
- Digital talent is a growing share of the overall talent of tech SMEs.

Doubling of digital to drive 2X Tech SMEs revenue by FY30

- SMEs face challenges in the current dynamic macro-economic environment and shift towards digital demand.
- More focus on enterprise client, GTM strategy, and talent development will prove crucial.
- By FY 30, when the tech sector aims to be a $500 Bn sector, MSMEs are expected to double revenues.
- This target can be achieved by growing the share of digital SMEs by 2-2.5%.

Digital Tools: Some methods that helped in expanding the growth of SMEs include:

- To get the desired results and increase earnings for SMEs, campaigns in the CPC (Cost per Click) or PPC (Pay per Click) modes can be used.
- Aided SMEs in their global hunt for flexible market potential, which would have a direct impact on their sales and increase their earnings.
- The most economical way to reach the intended audience is thought to be through digital marketing.
- SMEs can also have direct contact with industry specialists who stay up to date on any current developments or updates. They can guarantee the best ROI (Return on Investment) by doing this.
- SMEs are given the freedom to make the essential decisions thanks to the implementation of efficient DM strategies.

Smart Manufacturing Concepts:

SSMEs that are naturally adaptable and agile stand to gain a great deal from adopting and putting into practise data collecting architecture. Smart Manufacturing System (SMS) to assist manufacturing companies in better anticipating demand, balancing output, and enhancing efficiency and productivity, SMS describes the concept of a predictive tool, decision-making, and susceptibility to omnipresent information from big data settings. The stages of linked (computerization and connection), transparent (visibility and transparency), and intelligent (predictive capacity and adaptability) are typically encountered in the transition from conventional manufacturing to smart manufacturing. Big data is essential to SMS since it is used for asset utilisation, problem diagnosis, effective planning and control, and risk assessment in industrial operations.

Digitalization of Logistics: If your customers have a positive shopping experience, they'll spend more and remain loyal. SMEs face challenges meeting client requests and improving the customer experience in the on-demand world of the digital era. Do you know that customers' experiences influence their choice of products? According to a global PWC study, 73% of all consumers surveyed cite client experience as a crucial consideration when making purchases.

Prompt and perfect delivery becomes essential because it has the power to create or break the client experience and, consequently, the company. Here, digitalized smart logistics may help small businesses operate more efficiently while also increasing client satisfaction and income.

Approximately, 47% of SMEs anticipate an increase in shipping expenses in 2020. To improve the customer experience, these SMEs are looking for new ways to integrate supply chain and logistics strategies into their operations. SMEs intend to use new technologies in their everyday operations and may accelerate their growth by boarding the digital train, or risk falling behind the competition, as digital solutions and customer experience converge as global trade trends move towards digitalization.

Recognising that most small business owners are busy people who must concentrate on operating a business makes it necessary to understand that logistics and shipping processes can be complicated and tiresome for them. To overcome paperwork and compliance obligations, they seek professional assistance. An experienced logistics partner can benefit SMEs and their clients in this situation.

Robotics, sensors, and IoT integration along with technological advancements will enable us transport large goods and small packages more efficiently. AI can already direct trucks based on the state of the roads; autonomous vehicles can unload, stack, and reload containers faster; and blockchain shipping solutions can shorten transit times and speed up payments when it comes to real-time tracking of goods.

Consider using technology to enhance your company's operations. Keep your clients at the centre of your business, adopt digital technologies, and you'll be able to take advantage of global opportunities.

Managerial Model for Digitalization of SME: Researchers have tried to understand how managers' digital literacy (MDL) influences business outcomes like creativity and performance as digitalization spreads around the globe (Tortora et al., 2021; Usai et al., 2021). MDL is more than just a manager's aptitude for using technology. In contrast, it calls for a complex combination of social, emotional, and cognitive abilities that managers need in order to be effective in the digital environment (Mohammadyari& Singh, 2015). These abilities broadly include the capacity to locate and access new knowledge using digital tools and technology (Baber et al., 2022; Cetindamar et al., 2021).

MDL has been identified as an interestingly important talent for people to have in order to transform their organisations and achieve outstanding performance (Garzoni et al., 2020). The Internet of Things (IoT), big data, artificial intelligence (AI), robotics, cloud computing, additive manufacturing, augmented and virtual reality, as well as many other related digital innovations have seen increased use as a result of the fourth industrial revolution (i.e., Industry 4.0) (Cui et al., 2021; Nambisan, 2017). Organisational procedures and business models are being drastically altered by the spread of these digital technologies (Garzoni et al., 2020; Rodgers et al., 2021; Urbinati et al., 2020). It is crucial for managers to embrace the digital revolution in order to innovate given the quick and extreme change that digital technologies have caused.

As a result, both researchers and practitioners are very interested in the topic of digital transformation (Garzoni et al., 2020; Li et al., 2001).The use of digital technologies has been noticeably delayed among SMEs due to the fact that managers of these companies frequently lack the knowledge and experience to adopt cutting-edge technologies

(Adomako et al., 2021). According to the theory, digitally enabled organisations make better use of a variety of technologies to advance their business transformation initiatives. For instance, they can enhance communication, collaboration, and the coordination of business operations (Hughes et al., 2020; Rodgers et al., 2020). Digital literacy skills are a must for a SME in order for it to be digitally enabled (Deloitte Access Economics, 2016).

Way Forward: For small and medium businesses in India, digital transformation has been a major area of attention over the years. The digitalization of small and medium-sized firms might, given their growth potential, boost India's GDP by $158 to $216 billion by 2024 and significantly aid in the nation's post-COVID-19 economic recovery.

However, SMBs that have more advanced digital capabilities gain twice as much in terms of revenue and productivity as those that take a passive approach to digitalization. A new breed of digital SMEs has emerged in recent months, laying the stage for the development of other microbusinesses.

References:

Bharadwaj, A., El Sawy, O.A., Pavlou, P. A., & Venkatraman, N. (2013). Digital Business Strategy: Toward a Next Generation of Insights. MIS Quarterly, 37(2), 471-482. https://doi.org/10.25300/MISQ/2013/37:2.3

Deloitte (2018). Digital maturity pivot model. https://www2.deloitte.com/us/en/insights/focus/digitalmaturity/digital-maturity-pivot-model.html

El Sawy, O.A., & Pereira, F. (2013). Business modelling in the dynamic digital space: An ecosystem approach. Heidelberg: Springer

Lee, R.P., & Chen, Q. (2009). The immediate impact of new product introductions on stock price: the role of firm resources and size. Journal of Product Innovation Management, 26(1), 97-107.

Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). Digital Innovation Management: Reinventing innovation management research in a digital world. MIS Quarterly, 41(1), 223-238.

Simpson, J.A., & Weiner, E. S. C. (1989). The Oxford English dictionary (2nd ed.). Oxford University Press.

Singh, A., & Hess, T. (2020). How chief digital officers promote the digital transformation of their companies. In: Strategic Information Management (pp. 202-220). Routledge.

Singh, J., & Singh, H. (2015). Continuous Improvement Philosophy. Benchmarking: An International Journal, 22 (1), 75-119.

Warner, K.S.R., &Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. Long Range Planning, 52(3), 326-349. https://doi.org/10.1016/j.lrp.2018.12.001

Yoo, Y., Henfridsson, O., & Lyytinen, K. (2010). Research commentary - the new organizing logic of digital innovation: an agenda for information systems research. Information Systems Research, 21(4), 724-735.

Zhou, J., Liu, C., Xing, X., & Li, J. (2021). How can digital technology-related acquisitions affect a firm's innovation performance? International Journal of Technology Management, 87(2/3/4). https://doi.org/10.1504/IJTM.2021.120931