

Tech Based Solutions to Empower Indian MSMEs

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ABSTRACT - Micro, Small and Medium Enterprises (MSMEs) in India play a vital role in generating employment openings at lower capital cost, reducing indigenous imbalances and promoting industrialisation in pastoral areas. nearly all sectors in India including MSMEs are witnessing significant metamorphosis owing to digital enterprise brought about by new- age technologies. It targets micro and remote sectors' development and fosters poverty eradication on the social front. For India's profitable growth, the sector generates huge foreign investments and contributes around 30% to the GDP. By making a huge part of India's exports, MSMEs help in bridging the trade deficiency as well. The competitiveness of MSMEs is essential for supporting inclusive profitable growth and development of a country. In a globalized frugality, MSMEs face challenges in penetrating requests, backing, and technology. Some of the perks of tech-based solutions that can help MSME to grow are artificial intelligence, machine learning, augmented reality, IoT, Data Analytics, etc.

Keywords: Digital Enterprise, artificial intelligence, machine learning, augmented reality, IoT, Data Analytics.

INTRODUCTION:

Micro, Small and Medium Enterprises (MSMEs) in India play a vital part in generating job openings at lower capital costs and making a considerable donation to GDP of the Indian economy. Every sector in India majorly MSMEs are witnessing the transformation retaining to digital platforms by introducing new- age technologies analogous as artificial intelligence, data analytics, financial and accounting intelligence. New- age technologies are also prodding new business models in MSMEs analogous as the following Breggo — provides real- time perceptivity from a establishment's financial data; LendenClub — connects lenders and vindicated borrowers through its platforms; and Meesho enables small businesses to sell products online through social media channels. nearly of these technologies are designed to help MSMEs automate and induce intelligence from their quotidian operations or connect with stakeholders (analogous as financial institutions, buyers or suppliers) to help them increase productivity and introduce further. roughly, there are 63 million MSMEs in India. Grounded on the 73rd National Sample Survey (NSS) conducted between the financial year 2015 and 2016- reported that the MSME sector has generated 11.10 crore job openings across the country with a 22% jobs contribution in India.

LITERATURE REVIEW:

Sharon Buteau (2021) brings out digital technology's part to foster India's MSMEs ecosystem. The author has also cited challenges and openings in the implementation of digital technology for MSMEs in India.

Pachouri,A., and S. Sharma(2016) studied present and current state of invention in small and medium size enterprises(SMEs) in India. The authors examined barriers SMEs in India face in the invention process similar as public policy, funding constraints, and deficit of professed and R&D pool and weak relation between institutions and the enterprises. Authors suggested measures to mitigate issues impeding invention process for SMEs in India.

Vidit Mohan (2019) studied major challenges and walls faced by Indian MSMEs over the relinquishment of internet marketing and e-commerce of their businesses and made suggestions to policy makers to integrate their business with the ultramodern business practices.

K. C. Chakrabarty (2012) in his speech reported in RBI Monthly Bulletin on Empowering MSMEs for fiscal Addition and Growth – part of Banks and Industry Associations mentioned following SMEs problems viz. Absence of acceptable and timely banking finance, limited capital and knowledge, non-availability of suitable technology, low product capacity, ineffective marketing strategy, identification of new requests, constraints on modernisation and expansion, non-availability of largely professed labour at affordable cost, follow up with colourful government agencies to resolve problems etc. Global recession, affectation and deprecation of rupee were cited as external factors impacting MSMEs performance. Important measures taken by Government and RBI were also stressed

Vipinkumar (2020) stressed Government support in promoting MSMEs governance with policy measures under the banners of digital India, make in India, Atmanirbharbharat etc. The author brings out significance of technology relinquishment and immersion for MSMEs. The crucial issues and challenges faced by MSMEs are also stressed.

Classification of MSME:

In agreement with the provision of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 the Micro, Small and Medium Enterprises (MSME) are classified as below:

1. **a micro enterprise**, where the investment in factory and machinery or equipment doesn't exceed one crore rupees and development doesn't exceed five crore rupees
2. **a small enterprise**, where the investment in factory and machinery or equipment doesn't exceed ten crore rupees and development doesn't exceed fifty crore rupees; and
3. **a medium enterprise**, where the investment in factory and machinery or equipment t doesn't exceed fifty crore rupees and development doesn't exceed two hundred and fifty crore rupees.

The new bracket has come into effect from 1st July, 2020. The before criteria of bracket of MSMEs under MSMED Act, 2006 were grounded on investment in factory and machinery or equipment. It was different for manufacturing and service units. It was also veritably low in terms of financial limits. Since also, the frugality has experienced significant changes. A modification in MSME criteria of bracket was announced under Aatma Nirbhar Bharat package on 13th May, 2020. This has been done in order to be realistic with time and to establish an objective system of bracket and to give ease of doing business.

| Activity | Estimated Number of Enterprises (in lakh) | | | Share (%) |
|----------------|---|---------------|---------------|------------|
| | Rural | Urban | Total | |
| Manufacturing | 114.14 | 82.50 | 196.65 | 31 |
| Electricity* | 0.03 | 0.01 | 0.03 | 0 |
| Trade | 108.71 | 121.64 | 230.35 | 36 |
| Other Services | 102.00 | 104.85 | 206.85 | 33 |
| All | 324.88 | 309.00 | 633.88 | 100 |

*Non-captive electricity generation and transmission
Source: MSME Annual Report 2020-21

Contribution of Tech-based Platforms in the MSME Growth Trajectory

Government intervention in the MSME geography is generally limited to dealing with the financial issues of MSMEs. And, this is precisely why the new- age start- ups have stepped in. Arising tech-based platforms are now helping MSMEs upmarket and integrate their functional capabilities. utmost tech- grounded platforms specialise in colourful disciplines, helping them feed to colourful angles of MSME operations similar as planning force chain & logistics, channelising workflow among interlinked departments and covering product quality.

Numerous start-ups and technology enterprises focused on furnishing new- age technology results similar as furnishing data perceptivity, artificial intelligence, Augmented Reality (AR), and the Internet of effects (IoT) — are now helping MSMEs harness the full eventuality of tech deployment in their operations. further than 50 MSMEs in India are in pastoral areas and it's imperative for tech results to meet their living conditions despite challenges similar as limited internet reach, and lack of acceptable capital, technology and invention.

Major challenges of MSME:

There are challenges hindering the growth of MSMEs — poor structure, low productivity, lack of invention, financially profitable issues, access to finance for small enterprises, lack of working demesne, and lack of operation and specialized skill. Close to 99% of enterprises remain micro in their life cycle and are agonized with a lack of effectiveness and low productivity.

In India, the SMEs in the bus sector have seen good growth. This has handed a good ecosystem for bus ancillaries to thrive, and we've to replicate this model in other sectors similar as aerospace, health care, IT tackle, telecom and so on.

Tech Based Solutions to increase MSME Competitiveness

The competitiveness of MSMEs is essential for supporting inclusive profitable growth and development of a country. In a globalized frugality, MSMEs face challenges in penetrating requests, backing, and technology. Then are some of the gratuities of tech- grounded results that can help MSME to grow:

1. **Artificial Intelligence**- The AI programme can help in performance evaluation and teaches clerks how to speak more like smart business people. SMEs can gauge up their client engagement and experience via automated converse platforms, freeing up staff for other pivotal customer engagements.
2. **Machine literacy**- Machine literacy is helping youthful and growing enterprises with prophetic analytics. Also, machine literacy can sieve through huge data gobbets and uses its prophetic algorithms prop business decision- timber.
3. **Augmented Reality**- AR helps the MSMEs to increase their deals and helps the marketing platoon to promote the products. AR technology helps humans in depicting objects that are more real. This will be more useful for MSME companies that are engaged in armature, construction, art, wearables business and further. This will lead the companies to work more optimally and minimize crimes thanks to a more realistic definition.
4. **Internet of things**- IoT can help to automate and streamline tedious, repetitious tasks similar as delegation, scheduling, reporting, and more can be taken care of by IoT bias or results. IoT offers smart metering and lighting results that can help to save on serviceability by streamlining energy consumption and allowing remote monitoring. SMEs can also manage the idle time for office equipment and machines, automatically turning them off when not in use indeed from a distance just with the help of an app. This helps the MSMEs to achieve smart savings and go for a greener earth.
5. **Data Analytics**- It helps the MSME to produce a Data centric approach to business. Data analytics give perceptivity that illustrate a complete business overview, barring the need to make opinions grounded only on guesswork and what others do, allowing companies to act according to their businesses and guests' needs.
6. **Information Technology**- Information Technology plays an essential part in raising the profitability of associations. It also gives rise to competitiveness among the Small and Medium Enterprises (SMEs) making them suppose about the exploration and development along with the vacuity of the rearmost technology. IT is a medium, which enables SMEs to respond to guests' complaints and conditions efficiently by enabling information to be transmitted through colourful mediums including emails, telephonic, and social media channels.

TECH BASED FINANCIAL SOLUTIONS:

1. **LendenClub** – innovated in 2015, LenDenClub is a peer- to- peer platform that connects lenders and indicated borrowers. It facilitates small- ticket loans through its platform Instamoney to MSMEs that have limited fiscal support from banks. So far, the company has serviced 2 million guests and expended >Rs. 10 billion (US\$132.8 thousand).
2. **Brego** – Established in 2019, Mumbai- grounded Brego is helping MSMEs get real- time perceptivity from their financial data through a mobile- grounded SaaS operation. The app provides easy access (via mobile phones and indeed web cybersurfers) to crucial financial parameters similar as deals, receivables, profit & loss and cash inflow to stakeholders, furnishing visibility of their financial operations. The app also enables business possessors to partake real- time reports with platoon members, guests and merchandisers through WhatsApp or dispatch.
3. **PayNearBy** – Launched in April 2016, PayNearBy provides a variety of financial and non-financial digital services to original retailers. The establishment presently serves 15 lakh retailers and plans to expand this base to 5 million stores across Tier I & II metropolises and pastoral municipalities in the near future. Retailers can mileage colorful installations similar as cash deposit & pullout, plutocrat transfer, savings, insurance, trip, digital payments and government benefits. multitudinous other players similar as MSwipe, RazorpayX, RXIL, Algo360, Cashinvoice and Happy Loans are empowering the MSME sector with their fintech immolations.

TECH BASED OPERATIONAL SOLUTIONS:

1. **Meesho** – innovated in 2015 and headquartered in Bengaluru, Meesho enables small businesses and individualities to vend products online through social media channels similar as WhatsApp, Facebook and Instagram. In August 2020, Meesho also partnered with fintech start- up Klub to give backing results for MSMEs. Interestingly, Meesho recorded 750 growth in stoner base last time during its flagship gleeful trade event alone, with 60 demand driven by league 4 requests including remote locales in the country.
2. **Alignbooks** – Established in September 2016, Alignbooks is a pall- grounded account software designed to help MSMEs automate their invoicing system. So far, the establishment has serviced over 30,000 MSMEs in India and reused over 15 lakh checks for guests. Alignbooks has also released an offline interpretation of its software to feed to the population with limited internet in pastoral areas.
3. **Tradeindia** – Set up in 1996, with a charge to help SMEs go digital, Tradeindia is India's largest online B2B platform that connects buyers and suppliers. The company also provides payment protection plans (TI Pay), Collateral Free Loan (TI Lending) and Logistics (TI Logistics) and is the first company in the country to givee-commerce and results for reserving disciplines, SSL, Adword, SMO and FB Promotion to SMEs.

4. **Locus** – innovated in 2015, Locus uses machine literacy & personal algorithms to automate complex force chain opinions. In April 2020, the establishment launched a free tool ‘QuickStart’, which is a tone-serve lite interpretation of the product suite designed to help MSMEs ameliorate their force chain during the epidemic.
5. **Credlix** launched by Moglix is a backing platform that integrates digital force chain to give collateral-free working capital throughout the force chain. Along with enterprises, the platform also covers exporters. Its force chain platforms harbour around 700 enterprises and 15,000 SMEs. The platform enables the suppliers to request the buyers for early payments grounded on some abatements. The end is to keep working capital available to keep the force chain handling and a healthy cash conversion chain. also, the merchandisers and suppliers can also apply for credit and threat assessment, payment blessing, cash disbursement; everything on Credlix.
6. **Instamojo** is a fintech result that provides capital to financially empower Indian enterprises. Its main product, an online payment link, provides a result to the issue of digital payments. Instamojo also provides logistics (MojoXpress) and lending services (mojoCapital) to enterprises. The platform helped the small businesses during the peak of epidemic and lockdowns to bounce back with the help of tools similar as Priority KYC. Priority KYC helps small businesses to form their online store in twinkles.
7. **Tech and e-Commerce** platforms like Amazon and Flipkart are also leaving no stone unturned to help Indian MSMEs. While Flipkart launched Samarth Programme for bringing artisans, weavers and handicraft makers on their e-commerce platform, Amazon also launched “Digital Kendras” to spread awareness among MSMEs on the advantages of technology adoption and digitization. Flipkart and the Federation of Indian Chambers of Commerce & Industry (FICCI) organized several workshops for MSMEs.

BENEFITS OF TECH BASED SOLUTIONS FOR MSME

MSME sector is known for its multi-modal requirements, multi-channel distributions, and complicated supply chains. MSMEs in India uses tech-based solutions to foster the vision of digital India, tech solutions and new-age innovations can help MSMEs in:

1. Install consolidated operations across the supply chains
2. Plan and track their logistics and enable smooth flow
3. Enhancing operational capabilities, plan execution, and fostering collaborations
4. Cut production costs, better profit margins, and boost revenue growth

ESTABLISHMENT OF NEW TECHNOLOGY CENTRES / EXTENSION CENTRES

As per annual report of MSME 2022-23, to augment the network of 18 existing Technology Centres, and 15 new Technology Centre being established under World Bank assisted Technology Centre Systems Programme (TCSP), Government of India is implementing a scheme, "Establishment of New Technology Centres / Extension Centres", for establishing 20 Technology Centres (TCs) and 100 Extension Centres (ECs) at a cost of Rs 3500 Cr to enhance outreach of TCs/ECs of Ministry of Micro, Small and Medium Enterprises throughout the country.

These TCs ECs give colourful services like technology support, skilling, incubation and consultancy to MSMEs and skill campaigners leading to improvement in employability of the skill campaigners, competitiveness of MSMEs and creation of new MSMEs in the Country.

It is expected that the network of TCs/ECs so created will also contribute to strengthen industry- academia linkages in the Country as well as support innovation through the modern facilities, advance technologies like incubation/AR/VR/AI etc provided in these Centres

CONCLUSION

The role of technology-based solutions to increase MSME competitiveness and recently the MSME has honored its significance. It's apparent that the rise of digital tools and platforms is pivotal in perfecting productivity, lowering costs and expanding request reach for small businesses. still, there's a lack of understanding of how these results can be used to increase MSME competitiveness. In addition, associations that can help small and medium- sized businesses in realizing their full eventuality should be on the radar of these companies.

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