

TECHNOLOGY UPGRADATION SCHEMES AND SERVICES AVAILABLE TO MSMEs IN INDIA: AN OVERVIEW

Abstract

The Micro, Small and Medium Enterprise (MSME) sector plays an important role in Indian as well as global economy. In India, it can be the backbone for the existing as well as the future high-growth businesses. The objective of this chapter is to provide brief information about the digital upgradation initiatives and services of the Government that helps to empower and strengthen the MSMEs. It includes details on the scheme, the type of support, who is eligible to apply, and how to apply for each scheme's aid. The research is predicated on secondary input.

Keywords: MSMEs, Digital Upgradation Schemes, Empowerment, India.

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I. INTRODUCTION

India is recognized as one of the world's fastest-growing economies (Dixit and Ghosh, 2013), and the Micro, Small, and Medium Enterprises (MSME) sector plays a pivotal role in this economic growth. This sector significantly contributes to employment generation, exports, the equitable distribution of income and wealth, balanced regional development, and provides support to large enterprises. With its effective, efficient, flexible, and innovative entrepreneurial spirit (Dey, 2014; Charantimath, 2016; Chary and Rao, 2016), the MSME sector plays a crucial role in driving economic development. MSMEs are considered highly effective vehicles for promoting inclusive growth, stimulating local demand and consumption, and addressing global economic challenges (Chakrabarty, 2011). Consequently, they play a vital role in fostering sustainable growth and facilitating socio-economic transformation within the country.

The Micro, Small, and Medium Enterprises (MSME) sector in India comprises a diverse range of enterprises with varying characteristics (Dey, 2014). These enterprises are involved in trade, manufacturing, services, and agri-business, continually expanding their presence across different sectors of the economy to offer a wide array of products and services catering to both domestic and global markets (MSME Annual Report, 2019-20). Examples of products produced include machinery and equipment, fabricated metal products, electrical equipment, food products, paper goods, textiles, electronic items, maintenance, and servicing, among others. Notably, the labor intensity within this sector surpasses that of larger enterprises (Syal, 2015). The MSME sector plays a vital supportive role to larger industries and makes a substantial contribution to the country's socio-economic development. In India, it is estimated that MSMEs account for nearly 90 percent of industrial units (Kumar and Sharma, 2009) and generate the second-highest level of employment after the agricultural sector (RBI Expert Committee Report on MSMEs, 2019). According to the Annual Report of MSMEs 2020-21, India's MSME sector comprises 633.88 lakh enterprises, providing a critical source of livelihood to nearly 11.10 million people and contributing 28.77% of the country's GDP. Moreover, as per the Confederation of Indian Industry (CII) Report 2017, it constitutes 45 percent of the total manufacturing output and 40 percent of Indian exports. Given its significant role, the MSME sector is widely recognized as the cornerstone of the modern Indian economy.

Small-scale industrial entities were registered with the District Industries Center (DICs) prior to the MSMED Act of 2006. MSMEs used to submit Entrepreneurship Memorandums (EM-I) at DICs by launching an enterprise prior to the MSMED Act of 2006. The entrepreneurs used to file Entrepreneurship Memorandum (EM-II) after starting production. Between 2007 and 2015, 21,96,902 EM-II filings were made (RBI Report of the Expert Committee on MSMEs, 2019).

To promote MSME registration, the Ministry of MSME introduced a straightforward one-page registration form known as the 'Udyog Aadhaar Memorandum' on September 18, 2015. Entrepreneurs operating in the MSME sector are required to complete this form online, leading to the allocation of a unique Udyog Aadhaar number. The Ministry describes this as a concise one-page registration document that employs a self-declaration format, enabling MSMEs to confirm their existence, provide bank account details, furnish the promoter's Aadhaar information, and supply other essential details. This registration process is

conducted online and is entirely free of charge, as stated on the Ministry of MSMEs website. As of January 15, 2020, a total of 84.82 lakh MSMEs had already registered on the Udyog Aadhar portal (MSME Annual Report, 2019-20).

On July 1st 2020, the ministry has launched a new portal called Udyam Registration. It aids in the facilitation of the MSME registration procedure in accordance with the revised definition of MSME. The registration process is fully digitalized, paperless and free of charge. Its primary goal is to facilitate business transactions and reduce transaction time and costs for entrepreneurs.

As per the Ministry of MSME website, there were a total of 81,82,539 registrations done till April 19, 2022 under Udyam Registration portal. The majority of registered enterprises were micro enterprises, accounting for 77,90,190 (95.21%) of total registration. Small businesses accounted for 3,56,279 (4.35% of total registrations) and Only 36,070 entrepreneurs registered in the medium category (0.44%). Therefore, it can be said that the sector contributes to inclusive growth by empowering the lives of the country's most vulnerable and marginalised people. Technology upgradation is an initiative that encourages entrepreneurs to adapt to, modern technology to enhance their competitiveness in the global market. The government has offer various technology upgradation schemes for MSMEs to upgrade their businesses and grow, especially by adopting new technologies. The main aim of this paper is to review the technology upgradation schemes and services available to MSMEs.

II. LITERATURE REVIEW

Beley and Bhatarkar (2013) In their paper titled 'The Role of Information Technology in Small and Medium-Sized Businesses,' the authors explored the influence of emerging technologies on Small and Medium-Sized Businesses (SMBs) in India. The study emphasized that the global economy is presently undergoing a significant transformation, in which Information Technology (IT) plays a pivotal role. The functioning of modern businesses is heavily reliant on information technology, which exerts a substantial impact on the operations of small and medium-sized enterprises (SMBs). The Ministry of MSME actively promotes and fosters the development of MSMEs through the implementation of various initiatives encompassing credit facilities, infrastructure enhancement, technology modernization, marketing support, entrepreneurial and skill development, among others. The study also highlighted some of the principal schemes, such as the Credit Guarantee Scheme, Credit Linked Capital Subsidy Scheme, Performance and Credit Rating Scheme, Cluster Development Programme, National Manufacturing Competitiveness Programme, and Prime Minister's Employment Generation Programme. It concluded by underscoring that small businesses led by leaders who comprehend the advantages of IT adoption are well-positioned to leverage technology to enhance organizational efficiency and effectiveness. It is essential to note that the study relied exclusively on secondary data.

Chekwa and Daniel (2014) In their paper titled 'Digital Technology: Transforming Lifestyles and Business Practices,' the authors embarked on a study to comprehend the impact of digital technology on both lifestyle and business operations. They highlighted that the 'Digital Revolution' has brought about significant changes in lifestyles and work routines worldwide. Internet technology has accelerated management practices and transformed

communication methods. The study's findings revealed that 45% of respondents acknowledged that internet technology has led to an increase in work volume, while 37% believed it has enhanced business productivity. Moreover, the results indicated that a larger number of people prefer using cell phones over the internet for conducting business. In conclusion, the article emphasized that the digital environment has introduced novel approaches for managing both work and lifestyle, facilitating engagement with the ongoing digital revolution.

Kumari (2014) in her paper entitled 'Technology Upgradation: Boon or bane for MSMEs in India' opined that Technology has become inevitable for the growth of all enterprises irrespective of being micro, small, medium or large especially with the advent of globalization. A detailed empirical analysis carried out for all the industry groups of MSMEs. Government of India has taken several measures for making enterprises more competitive by developing technology dynamism. These measures have been in the form of facilitating capacity building and empowerment of enterprises through technology upgradation, modernization and integrated infrastructure facilities. The analysis revealed that the technology upgradation through acquisition of advanced technologies has been a boon for MSMEs in India.

Jain and Verma (2016) This paper focused on digital media methods for small-scale business advertising marketplaces, titled "A Study of Social Media Marketing Strategies Used by MSMEs: Special Reference of Banswara District." Using judgment testing, data was acquired from fifty micro, small, and medium-sized businesses. According to the study, networking cooperation influences brand trust and mark mindfulness, which in turn influence client acquisition and retention. The study also discovered that the most popular social media platform among Banswara city (Rajasthan state) residents is Facebook, with 93% of users using WhatsApp. It also discovered a strong positive correlation between transactions and the amount of time spent on online networking sites.

Venkatesh and Kumari (2018) in their paper entitled '*India's Digital Transformation: Driving MSME Growth*' stated that MSMEs have a lot of opportunities in digital transformation and it is one of the key drivers for the growth of the MSMEs in India. Google Advantage, Google My Business, Google Search, Google+, Maps etc. were initiatives helpful to Indian Small Businesses to get online services. The study based on the secondary sources of data. The study suggested that the overall development could be realized through supporting and improving elements, including literacy, infrastructure, regulatory surroundings etc.

Gade (2018) in his work "MSMEs Role in Economic Growth-A Study on India's Perspective" made an effort to look at the areas that needed to be strengthened for the MSMEs sector to keep contributing to India's development. India, according to the author, has a large reservoir of technical expertise and a sophisticated intellectual infrastructure, but the nation still lags behind in terms of creating and implementing innovative technologies in the MSME sector. Utilizing the newest technologies and removing bottlenecks in the infrastructure can lead to this improvement. According to the report, the MSME sector need a strong information system in order to support and provide various users with infrastructure.

Mishra (2019) in the article entitled '*Study on Impact of Digital Transformation on MSME Growth Prospects in India*' attempted the study to know the impact of digital transformation on the growth of MSME sector. According to him, adoption of digital technology enabled platforms are important measures to face the challenges faced by the sector. Technology enabled platforms like Digital MSME Scheme, MSME Samadhan, MSME Sambandh schemes have given a big boost to Indian MSMEs in terms of business efficiency as well as in contribution of country's economy.

Jayeola and et.al (2022), in the piece "Do Small and Medium Enterprises (SMEs) Need Government Financial Support to Implement Cloud ERP Successfully for Improved Performance? examined how government funding affected the success of cloud ERP implementations and how these factors affected SMEs' financial results. The study used the least squares structural equation modeling method and took into account 204 Malaysian manufacturing SMEs. Government funding therefore positively affects the success of cloud ERP deployment, which enhances financial performance. Therefore, policymakers and practitioners should create plans for better cloud ERP adoption, raise awareness to improve financial assistance, and remove any obstacles that stand in the way of GFS access.

III. NEED OF THE STUDY

Over the last decade, digital technology has become key role in day-to-day operations of Micro, Small and Medium Enterprises. The Government has provided massive support in strengthening MSMEs through Make in India, Digital India, Skill India, and Vocal for Local. Technology upgradation is one kind of initiative that encourages MSMEs to adopt cutting-edge technologies in order to increase their competitiveness in the global market. The main goal of technology upgradation scheme is to promote and assist MSMEs in lowering production costs, improving service quality, making business easier and remaining competitive in domestic and global markets. In this regard, the study provides detailed information about the initiatives and services of the government and it also contains the schemes, the nature of the assistance, who can apply and how to apply for assistance under each scheme.

IV. PROBLEM OF THE STATEMENT

Despite of its growth and good prospects, some of the units have become sick and many have been subject to certain constraints. The major constraints are lack of efficient management, lack of access to working capital, shortage of skilled manpower, lack of digital literacy, lack of market access, technological backwardness, late payment of dues, regulatory issues, lack of adaptability to changing trends, lack of access to international market and inadequate infrastructures. Hence, rapidly evolving technologies provide a plethora of opportunities to boost the growth of MSMEs. Adoption of technology upgradation schemes and services can help to solve a variety of problems in the MSME sector. In this regard, the current study is necessary to study the schemes and services available to MSME sector.

V. DISCUSSION AND ANALYSIS

Initiatives Implemented by the Ministry of Micro, Small and Medium Enterprises (Government of India):

1. Udyam Registration: On July 1, 2020, the Government of India introduced a novel system aimed at streamlining the registration of Micro, Small, and Medium Enterprises (MSMEs) known as the Udyam Registration portal. Any individual intending to establish a micro, small, or medium-sized enterprise can complete the registration process online through this portal. This registration procedure is entirely digital and paperless. Upon successful registration, an online certificate is issued, equipped with a QR code for easy access to the portal's web page and information regarding the enterprise. Importantly, there is no requirement for registration renewal. It's worth noting that the registration process is entirely free of charge. As of December 2022, based on Udyam registration data, there are a total of 1,29,37,631 MSMEs operating in India.

The following are the basic features of Udyam Registration:

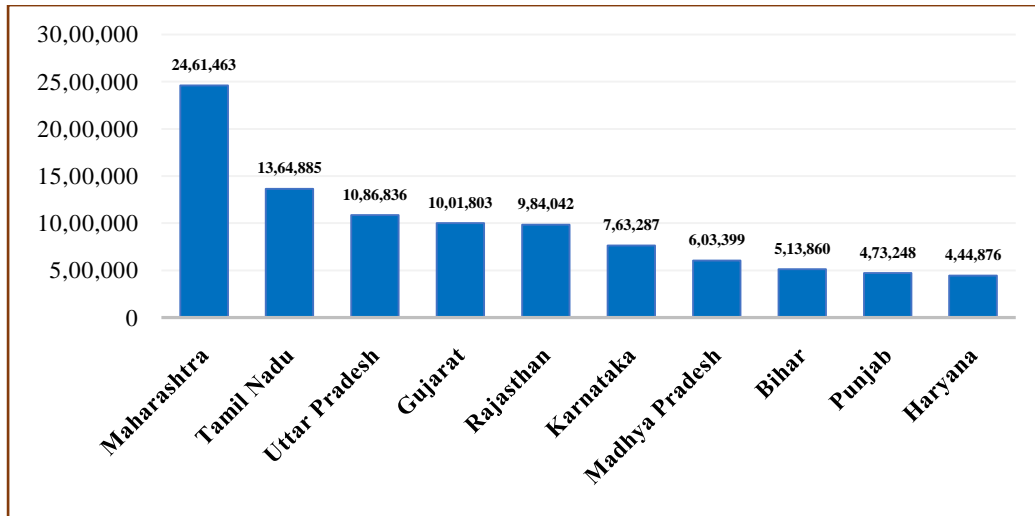
- Self-declaration is the basis of the online, paperless registration process.
- The registration process is completely free of charge.
- No documents are required for registration in Udyam; only an Aadhaar number is sufficient.
- No business is allowed to submit more than one Udyam Registration. However, a single registration may be used to specify or add any number of activities, such as manufacturing, services, or both.

The following table and figure exhibit the State-wise Top 10 Udyam registrations in India:

Table 1: State-Wise Top 10 Udyam Registration

1	Maharashtra	24,61,463
2	Tamil Nadu	13,64,885
3	Uttar Pradesh	10,86,836
4	Gujarat	10,01,803
5	Rajasthan	9,84,042
6	Karnataka	7,63,287
7	Madhya Pradesh	6,03,399
8	Bihar	5,13,860
9	Punjab	4,73,248
10	Haryana	4,44,876

Source: Udyam Registration Portal as on 29 December, 2022.



Source: Udyam Registration Portal as on 29 December, 2022.

Figure 1: State-Wise Top 10 Udyam Registrations

Top 10 state-wise registration of MSMEs is shown in the table 1. It may be observed that, Maharashtra secured first position in the registering on Udyam portal, followed by Tamil Nadu, Uttar Pradesh, Gujarat, Rajasthan and others.

CHAMPIONS Portal (Creation and Harmonious Application of Modern Processes for Increasing the Output and National Strength): On June 1st, 2020, the Ministry of MSME launched this platform to support and promote Micro, Small and Medium Enterprises (MSMEs) in the country. It is a technology-driven centralized control room, grievance management system and information platform. This platform provides a one-stop shop for MSMEs. As the name suggests, its goal is to create and apply modern processes in a coordinated manner in order to increase output and national strength. This aims to make the smaller units as big by helping and handholding them in resolving their problems and grievances. The Ministry also assists MSMEs in manufacturing products such as sensors, motors, computer displays and other animation technologies. They are not only assisting in manufacturing but also encouraging MSMEs to do so.

The following are the basic objectives of the CHAMPIONS:

- To help the MSMEs in the complex situation in terms of finance, raw materials, labour etc.
- To help the MSMEs to capture new opportunities in manufacturing and service sector.
- To identify the bright MSMEs who can become national and international champions (Ministry of MSME, CHAMPIONS portal).
- **MSME Samadhan Portal:** On October 30, 2017, the Office of DC (MSME) introduced a platform where Micro and Small Enterprises (MSEs) can directly submit online applications regarding delayed payments from Central Ministries, Departments, and State governments. This platform operates as an online grievance monitoring system, referred to as e-Samadhan, which meticulously tracks and oversees grievances and suggestions within the ministry. The portal is designed to expedite payments to MSEs, thereby ensuring improved cash flow and financial

stability. State governments are required to establish Micro and Small Enterprise Facilitation Councils (MSEFC) to address disputes arising from delayed payments. In accordance with Section 16 of the MSMED Act, 2006, it stipulates that "the buyer is obligated to pay compound interest with monthly rests to the supplier at three times the bank rate notified by the Reserve Bank of India in case they fail to make payments to the supplier for goods or services supplied within 45 days of acceptance" (MSME Samadhan portal). Micro or Small Enterprises holding a valid Udyam registration can use this portal to file their grievances. According to the portal's data, as of December 29, 2022, there are a total of 59,469 MSEs in India.

- **MSME Sampark Portal:** In recent days, identifying the right person for the right job with an appropriate experience and skills has become a major challenge for small businesses and entrepreneurs. MSME Sampark is a digital platform where job seekers can search for jobs and recruiters can connect. It was launched on June 27th, 2018 to help skilled youth to find suitable employment opportunities. On the other hand, job seekers have difficulty in matching their skills to the position, required experience, monetary expectation, location and industry verticals. The ministry has launched this portal to bridge the gap between recruiters and job seekers (Ministry of MSME, Sampark portal). According to MSME Insider Magazine data (October 2022), there are 908 trainees and 13 recruiters registered under this portal, out of that 363 jobs are offered through this portal.

2. **Government e-Market Place (GeM):** On August 9, 2016, the Government e-Marketplace (GeM) platform was introduced with the goal of enhancing public procurement's efficiency, speed, and openness. It is a dynamic, self-sustaining, and user-friendly platform created to revolutionize how government ministries and departments, public sector enterprises, and other related organizations can acquire products and services. It is an entirely cashless, paperless, and system-driven online marketplace that makes it possible to purchase everyday goods and services with little to no human involvement. Approximately 80,000 sellers have published approximately 6.18 lakh items with rates through this portal (GeM portal as on 29th December, 2022). According to New Industrial Policy 2020-25, it is mandatory to procure annually 20 per cent from MSEs by Central Government Ministries, Departments and PSUs.

The following are the benefits of GeM portal for buyers and the Sellers (Ministry of MSME, GeM portal as on 29th December, 2022):

For Buyers:

- It helps to buy goods and services via online.
- It helps to search and compare the goods.
- It is transparent and ease buying system.
- Continuous vendor rating system is available.
- User-friendly dashboard for buying and monitoring supplies and payments.
- Easy return policy is also available.

For Sellers:

- One stop solution for bids or auction of products and services.
- One stop solution for marketing with minimal efforts.

- Direct access to all Government departments with consistent and uniform procedure.
- New product suggestion facility is available.
- Dynamic pricing system.
- Seller friendly dashboard for selling and monitoring of supplies and payments.

3. Digital MSME Scheme: The 'Digital MSME' initiative, launched by the Ministry of MSME, aims to enable MSMEs through digital means and motivate them to integrate ICT tools and apps into their operational procedures. In addition, the program seeks to encourage digital marketing in the industry, boost literacy, build e-platforms, raise awareness, and offer training. This cloud computing service is starting to show promise as a more affordable and practical option than the internal IT infrastructure that MSMEs construct. There is no need for physical documentation for this online process. To profit from this scheme, only MSME with a valid Udyog Aadhar number will be eligible.

The following are the objectives of Digital MSME Scheme:

- To support MSMEs in adopting cloud computing services in their business processes and production.
- To improve the quality of commodities and services.
- To increase the productivity, cost-effectiveness and revenue of the enterprise through this platform.
- To reduce the cost of infrastructure, software programs and delivery time cycle.
- To help MSMEs in connecting with Technology Centers for better government support and updates.

4. MSME Data Bank: It is a comprehensive database of Indian MSMEs. It is established by the Government to help procurement agencies to purchase from MSMEs under Public Procurement Policy of the Government and to assist the policy makers. According to MSME Development Rule 2009, all kinds of MSMEs in India (those having Udyam registration number) are necessary to furnish information through online relating to their businesses. It includes all information about joint ventures, technology transfers and the import and export of machinery in the business. It allows for the restructuring and monitoring the schemes, as well as pass the benefits directly to MSMEs. It is online process to update the information about their products and services, which can be accessed by government departments to do procurement under public procurement policy of Government of India (MSME Annual Report, 2020-21). Hence, MSMEs registered under databank will be eligible to become suppliers to Government organisations and entities. According to the MSME Annual Report 2019-20, more than 1.6 lakh units have registered in this data bank as of January 31, 2020.

- **MyMSME:** This is a web-based app that helps in tracking online applications under the ministry's various schemes. Entrepreneurs can also track their applications via mobile. The main goal of this portal is to use a digital platform to access the scheme's benefits. This service is available to all MSMEs with an Udyam registration.
- **ZED Certification Scheme:** To provide financial assistance to MSMEs, the Ministry of MSME has implemented the Zero Defect and Zero Effect (ZED) certification scheme. The certification scheme is provided for producing high-quality manufacturing products with a low environmental impact. Its aim is to motivate

MSMEs to produce high-quality products using cutting-edge technology. After ZED assessment, MSMEs can reduce waste, increase productivity, expand their market and develop new products and processes. According to the New Industrial Policy, 2020-25, MSMEs will receive 50 per cent to 80 per cent subsidies to achieve ZED certification. All MSMEs with an Udyam registration will be eligible to participate in MSME ZED certification scheme.

The following are the main objectives of the scheme:

- To encourage the MSMEs to adopt the quality tools and technology to manufacture quality products.
 - To develop an ecosystem for zero defect manufacturing process.
 - To encourage manufacturers to produce products that have a low environmental impact.
 - To support the Make in India campaign.
- **Design Expertise to Manufacturing MSME Sector:** The scheme pertains to raising awareness about design and implementing design projects. Design awareness is promoted through seminars and workshops that address design-related topics specifically tailored for MSMEs. Design projects are instrumental in fostering the development of fresh design strategies and related products by employing design interventions and consultancy services. The primary objective of the scheme is to unite the Indian manufacturing sector with design expertise on a single platform. It offers expert guidance and cost-effective solutions for problem-solving, new product development, continuous improvement, and value addition to both existing and new products. MSMEs can access financial assistance for engaging design consultants in design interventions, with the Government of India contributing 75% for Micro enterprises and 60% for Small and Medium Enterprises, for projects ranging from Rs. 15 lakhs to Rs. 40 lakhs. Participation in this scheme is open to all MSMEs with Udyam registration (Ministry of MSME).

5. Lean Manufacturing Competitiveness Scheme: Through effective management systems, effective staff management, better space use, scientific inventory management, enhanced process flows, and other means, MSMEs will be helped by the program to lower manufacturing costs. Through a variety of uses, the initiative seeks to increase MSMEs' industrial competitiveness. According to the New Industrial Policy 2020–25, the cost of employing a lean manufacturing consultant will be reimbursed up to 80% (maximum LMC charges INR 36 lakhs). The Ministry of MSME lists the following as the different lean manufacturing techniques:

- Waste minimization
- Improving Productivity
- Implementing innovative practises to boost overall competitiveness
- Inculcating good management system
- Imbibing a culture of continuousimprovement.

Support for Entrepreneurial and Managerial Development of MSMEs through Incubators: The scheme offers initial funding to promote innovative business concepts related to new technology, processes, products, procedures, and various other aspects. The primary aim is to stimulate the growth of knowledge-based innovative ventures and encourage the adoption of cutting-edge technologies in manufacturing MSMEs through incubators. Incubators can encompass Technical Colleges, University Colleges, Other Professional Colleges or Institutes, Research and Development Institutes, NGOs engaged in relevant activities, DICs, DC (MSME), or any other organization under central or state government, and they are eligible to apply to become a host institute. These incubators play a crucial role in assisting entrepreneurs in expanding their businesses. The funding provided may range from Rs. 4 lakhs to 8 lakhs for each incubator, with an overall cap of Rs. 62.5 lakhs for each business incubator (Ministry of MSME e-book). MSMEs registered with Udyam have the opportunity to submit applications to a registered host institute for the development and nurturing of their innovative ideas.

- **Building Awareness on Intellectual Property Rights (IPR):** The scheme is structured to raise awareness among MSMEs regarding Intellectual Property Rights (IPRs) while facilitating their technological advancement, enhancing competitiveness, and promoting the effective utilization of IPR tools. Its principal aim is to bolster understanding and appreciation of Intellectual Property Rights (IPRs) within the MSME sector, and to implement measures that safeguard the ideas and strategies created by this sector. The scheme encompasses a range of activities, including awareness programs, seminars, workshops, international collaborations, and the establishment of IP facilitation centers, as detailed in the IBEF Report. All MSMEs with Udyam registration are eligible to apply. As per the New Industrial Policy 2020-25, grants of up to INR 25,000 for domestic patents and up to INR 2 lakh for foreign patents are available.
- **Credit Linked Capital Subsidy for Technology Upgradation:** The Ministry of MSME introduced this scheme with a specific focus on technological advancement and upgrading. It offers a 15 percent capital subsidy, capped at Rs. 1 Crore, to support the modernization of production techniques within enterprises. The principal objective is to motivate MSMEs to embrace and enhance technology within their operations. As reported on the CLCSTU website, 14,155 MSEs in India registered under this scheme during the 2018-19 fiscal year. The current validity of this scheme has been extended until March 31, 2020. Micro and Small Enterprises (MSEs) holding valid Udyam registration are eligible to apply through Primary Lending Institutions (PLIs) to secure term loans. Additionally, special benefits are accessible to SC/ST and women entrepreneurs.
- **Digital Payments:** “The Ministry of MSME has undertaken numerous initiatives as part of the Digital India initiative to digitally enable the entire MSME ecosystem. All MSME departments have been digitally empowered and efforts taken to spread awareness about the advantages of digital payment methods such as BHIM, UPI and Bharat QR code” (MSME Annual Report, 2021-22).

The digital transactions of the ministry and its attached offices during the fiscal year 2021-22 are depicted below (as of December 2021):

Table 2: Total Digital Transaction of the Ministry and its Attached Offices

SI. No	Name of the Organisation	Total Number of Transactions	By Digital Means	Percentage
1.	KVIC	39,21,840	34,12,686	87.02
2.	NSIC	93,392	88,640	94.91
3.	DC Office	98,892	89,483	90.49
4.	COIR BOARD	19,002	17,805	93.70
5.	NIMSME	2,212	2,089	94.44
6.	MGIRI	659	659	100
	TOTAL	41,35,997	36,11,362	87.32

Source: MSME Annual Report, 2021-22

The above initiatives come under the category of ‘Technology Upgradation Schemes’ that is available to MSME sector. The beneficiaries of various technology upgradation schemes are shown in table 3.

Table: 3 List of Beneficiaries under Different Schemes

Sl. No	Technology Upgradation Schemes for MSMEs	In India (No. of beneficiaries)
1.	ZED Certification Scheme	Registered MSMEs: 23,275 ZED Certified: 437
2.	Design Expertise to Manufacturing MSME Sector	No. of MSMEs benefitted: 557
3.	Lean Manufacturing Competitiveness Scheme	No. of Clusters formed: 482 No. of MSMEs benefitted: 3363
4.	Support for Entrepreneurial and Managerial Development of MSMEs Through Incubators	No. of Host Institutions: 583 No. of Ideas: 1646
6.	Building Awareness on Intellectual property Rights	Total No. of patent: 65 Total No. of Trademark: 163 Total No. of Intellectual Property Facilitation Centres: 88

Source: Ministry of MSMEs, GOI as on September, 2021

Therefore, Governments’ have launched various technology upgradation schemes and services that assist MSMEs in improving and expanding their business operations by adopting new technologies. It helps to promote competitiveness amongst MSMEs by the way of wastage reduction through lean manufacturing, support for digital adoption, building awareness on Intellectual Property Rights (IPRs) etc. however, Government has to create more awareness on the registration of above schemes amongst MSMEs.

VI. CONCLUSION

The Indian government (GOI) has launched a number of programs and services to support the growth of the MSME industry. The government has given the MSME sector a number of chances. The promotion and uptake of technology in the MSME sector is the focus of these opportunities. In order to increase their competitiveness in both domestic and foreign markets, MSMEs can benefit from being empowered and motivated to integrate ICT tools and applications into their daily operations.

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