



THE IMPACT OF TECHNOLOGY ON MSME SECTOR IN INDIA

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ABSTRACT

Small and medium enterprises make a significant contribution to the economy of any country. micro, small and medium Enterprises (MSME) play an important role in economic development in both developing countries and developed countries. MSME sector have a very important role to play in increasing employment opportunities and increasing income in developing countries. Improvement in quality and upgradation of technology are two important parameters which have been discovered in the present days are necessary for this paper focusing on the impact of technology and ICT on the MSME sector in India. The paper throws light upon various technology upgradation schemes specially made for the MSME sector. It also attempts to address the bottlenecks of small and medium enterprises and technology. The researcher attempts to analyze the contribution of technology to increase production in the MSME sector. This paper is based on the basis of a comprehensive review of the literature on the impact of technology on the MSME sector. The review tries to find out whether technology has had a positive or negative impact on the MSME sector but is still not being fully utilized in building the MSME sector.

KEYWORD:- Technology, MSME, upgradation,

INTRODUCTION

MSME sector are considered to be catalysts for new innovation and generate employment, and these are an important contributor to general economic performance. Micro, Small and Medium Enterprises have grown in India in a big way since independence. MSME sector are an important part of a economy in developing countries and there are play a vital role in driving innovation, growth and prosperity. This sector is the primary school of entrepreneurship and is recognized as the main engine of growth. Micro, Small and Medium Enterprises have played a significant role in the economic development of both countries developed countries and developing countries. MSME sector has a significant contribution in increasing employment opportunities and increasing income in developing countries. This is very important in increasing employment opportunities in line with the efforts made by the government to reduce unemployment. Another strategic contribution of MSME sector is to enhance income, where MSME sector play a vital role in the efforts of the government to fight poverty. The MSME sector accounts for about 32% of our country's exports and about 45% of India's total manufacturing output. MSME sector has an important contribution in the expansion of industries and generating employment opportunities. The main advantage of that sector is that it generates large scale employment opportunities at lower capital cost. The terms SSI and MSME sector have been used substitute for till 2005, but from the year 2006, the MSME Act was enacted to define the sector and give more clarity. At present, MSME sector are present in all sectors (manufacturing, trading and services) in India, So that the country's economic growth can be excellent. One of the main achievements of the MSME sector over time has been their role in harnessing available domestic resources to provide quality products and services, these companies have shown presence in key regions of India as well as in major export markets.

Improvement in quality and upgradation of technology are two important factors that have emerged in recent years. These are very important factors enhancing the competitiveness of the MSME sector. Large industries have surplus funds which gives them access to global markets and also enough knowledge to access this information helps them to make sound strategies to upgrade the technology and (SSI) sector of the 60s and 70s does; The MSME sector has made great strides in scale of technology and business activity in recent years. In recent years, the MSME sector has performed well in comparison to the overall industrial sector. With its accountability, adaptability and innovative approaches, the quality of this sector is improving tremendously over the years. Whereas, MSME sector lack funds and have limited access to basic information. They consider the present attempt



more important than the future. They try to reduce capital expenditure to reduce costs. The Indian MSME sector is being made a bit passive when it comes to latest technology and knowledge of global markets. Energy cost is a very important factor in the overall cost for any manufacturing process. Thus, it is clear that, if one needs to reduce the production cost and want to remain competitive in the market, they need to focus on the right use of energy. The government of India enacted an energy conservation act in the year 2001 which is a major step in the direction of conservation of vital energy resources. The act seeks to harness energy conservation and its judicious use to every sector of the economy. Large industries are major consumers of energy and the Act has made it mandatory for large companies to report consumption limits to conserve energy in their annual reports. So far no such mandate is being followed by the MSME sector in India. By limiting energy use, companies not only lower their overall cost structure, but also contribute to reducing global warming. It has also been found that about 90% of energy consumption comes from fossil fuels. The burning of fossil fuels produces a large amount of greenhouse gases, which add to global warming.

REVIEW OF LITERATURE

Davish & Olson (1985) The author finds that the adoption of information technology is very essential for the use of hardware and software applications to aid efficient operations, management and decision making in business. The definition was simple and very easy to understand. This definition is applicable in all walks of life, not only in the business world, not only in the MSME sector.

Raghavendra & Subrahmanyam (2006) The authors make an exploration in their article, which uses quantitative measurement, validation and analytical tools to measure technical capability, and the relationship between technical capability and various technical learning systems.

Provides a useful tool for the examining those relationships. The authors find that the 'technological effort' undertaken by firms to acquire and assimilate technology is considered important, external technological and Variables such as information channels, multilateral horizontal and vertical cooperation and formal technical education were significant in the regression. The article found that firm size emerged as a significant variable in the regression by technology and also made a significant difference in the explanatory power of the equations. Non-small firms fared better with very strong inter-firm relationships with firms/agencies both within and outside the cluster. the language of the article was simple.

Ravi (2009) in this study the authors found that there is a need for entrepreneurship development within the micro, small and medium enterprises (MSME) sector in India. He gave a retrospective overview of the sector in India and mentioned some of the recent trends that highlight the growth and importance of the sector with respect to the Indian economy. Their study reveals that specific policies targeted towards the MSME sector have had limited impact on the growth of the MSME sector. The authors also highlight that rather than specific policies designed for the MSME sector, general policies are effective for the MSME sector in India. General policies have had a very positive impact on the development of their results, with the authors suggesting that "perhaps instead of being an active player, the government should play the role of a facilitator and allow more banks and other financial institutions to enter the local market". should be encouraged to enter. The need to improve access to finance also suggested the core competence of the government in certain roles, for example creating an enabling environment such as better connectivity by road, railways and airways, improving electricity and the water supply. The language of the article was simple and easy.

Romijn (2010) in this study, the authors trace the major approaches to technology development on micro, small and medium enterprises in developing countries since 1970. They concluded that the earlier programs suffered from several weaknesses. Chief among these were the limited concept of technology and inadequate understanding of the role of micro, small and medium enterprises in overall industrial development. He also highlighted that, there was a lack of expertise during the implementation of the projects but gradually things have changed and there have been many advances on all these fronts in the last few years.

Das & Das (2012) in this article the author attempts to establish a relationship between MSME competitiveness and IT penetration. In this study, the author explores the adoption of information technology by the micro, small and medium enterprises (MSME sector) in North India. "The data was collected through personal inquiries and semi-structured questionnaire, followed by analysis of the responses of 36 successful MSME sector". According to empirical surveys, information need, intensity of competition, and support and encouragement, size and age affect information technology adoption. His studies have found that there is a correlation between environmental



factors and technology. With the increasing information needs, there has been a great increase in the adoption of information technology. Government support and incentives in the external environment also act as enterprises to adopt information technology. The highly competitive environment prompts enterprises to adopt IT in order to gain advantage or avoid being forced out of the market. The language of the article was simple and easy.

Beley & Bhatarkar (2013) The author's research has shown that technology has had a great impact on most industries. It has also affected the state of the economy. The use of technology in the manufacturing sector has completely changed the rules of business. The authors state that it is difficult to run modern businesses without access to information technology, which has a significant impact on the operations of micro, small and medium scale enterprises, making it essential for the survival and growth of economies in general. The author has pointed out that MSME is gaining attention in developed and developing countries as well as in countries in transition. It is generally accepted that the MSME sector plays an important role in the revival and development of the national economy in many countries and especially in the context of India. It recognizes and encourages the role of the MSME sector in promoting economic and social development, growth of the MSME sector and creation of employment opportunities.

Paramasivan (2013) In this study, the results by the authors showed that entrepreneurial orientation and absorptive capacity have an impact on technical operation and technological capability aspects of technology upgrade. Furthermore, different levels of technical competence are positively correlated with export intensity and export growth. The study suggested that innovation in processes and products plays an important role in the success of the MSME sector in international markets. Thus, it is clear from their study that the Micro, Small and Medium Enterprises need to gather technical knowledge from both internal and external sources and develop specific level of technologies to improve the performance in the Indian economy.

Bagale (2014) In the paper the author attempts to fill the gaps left by various previous studies from India. After completing the research, the author hopes that SMEs will enhance their capabilities to compete and become stable, the strategies suggested by the author will help SME e-commerce to sustain their growth. The authors state the implications of their paper for policy makers, ICT managers and MSME owners in the MSME sector.

OBJECTIVE

- Upgradation of technology and conveying the innovative schemes for MSME sector
- Identifying the Major Barriers to Technology Growth Among Indian MSME sector

RESEARCH METHODOLOGY

This study is mainly based on qualitative literature survey method. It includes an in-depth analysis of issues related to the MSME sector, impact of technology on the MSME sector and various technology upgradation schemes adopted for the MSME sector. This comprehensive review of literature has provided useful insights into the impact of technology on the MSME sector. The present study is based on secondary data collected exclusively from various research papers, Annual Report on MSME Sector published by Ministry of MSME and Reserve Bank of India (RBI) and various issues of Handbook of Statistics on Indian Economy.

Technology Upgradation and Innovative Schemes for MSME sector

(i) Scheme for Communication Technology (ICT) and Information Exchange in MSME sector: The objective of the scheme is to draft Zoom Clusters and motivate them to innovate tools and partnerships for their production and business permit, National And to improve its competitiveness in the international market. The major direct developmental outcomes from the scheme would be:-

- 1) A large number of MSME sector (around “4,900”) across the country will be associated with the scheme.
- 2) Any intervention will improve the grievance of MSME sector resulting in growth of MSME sector and involvement of domestic and international youth.

(ii) Technology phenomenon: In general, MSME sector does not have access to technology related know-how, consultancy support/service, lack of skilled and trained manpower, lack of awareness in MSME sector due to which their access to technology is not easy. The cost of production and product, lack of subordinates with good management skills, and frequently changing business trends necessitate technology. For technology contracts DIC provides capital subsidy and other forms of assistance to strengthen the MSME sector.

(iii) Lean Manufacturing Scheme: This scheme is basically to reduce the "waste" of manufacturing in the industry. Through LAN, MSME sector can substantially reduce losses, increase productivity, improve quality, expand their markets and become competitive and profitable. Manufacturing System This scheme has been launched under Public Private Partnership (PPP) mode. The pilot phase of Lean Manufacturing Competitiveness



Scheme (LMCS) was launched on 08.07.2009 with 100 mini clusters. From 2007-2008 to 2017-2018, 3732 MSE Beneficiaries have been added to this scheme.

(iv) Design Clinic Scheme: This scheme was mainly brought to bring the MSME sector and design experts on a common platform. Expert advice is taken in the design. Their problems are solved. This has resulted in continuous improvement of existing products. This scheme was mainly started in the year 2010. It has two parts 1) Design Awareness 2) Design Project.

Design Awareness: It consists of Seminar and Workshop Design Seminar. In this one-day seminar, different types of design and its use are explained. Clusters are visited in design workshops. Training is given on cleaning the design.

Design Project: - Through the design project, innovative products and services related to design are developed. Through the Student Design Project, the students of the final year of graduation and post graduation of the institute recognized by the Central Government are included in the MSME project. Design project funding provides 60% of the project cost to students, consultants/designers, consultants through government grants.

Barriers to technology development among Indian MSME SECTOR

(i) Capital: Capital is the main constraint. The benefits of micro and small business technology adoption, return on investment are not yet concretely determined.

(ii) Lack of Awareness: There is a lack of awareness about technology plans. Government and other institutional schemes are benefitting small businesses, but there is a lack of awareness about the existing resources. Moreover, there is little or no awareness about these schemes among small businesses.

(iii) Unskilled Manpower: There is a shortage of skilled manpower in the field of technology. Very few people are willing to associate with the MSME sector in every aspect of using information technology. Preparing IT professionals to work with Micro, Small and Medium Enterprises is quite complex.

(iv) Constraint of Privacy and Security: Privacy is a major issue wherein privacy of data hinders the use of technology in the MSME sector. Most entrepreneurs believe that the use of IT services carries the risk of leaking some of its confidential information such as financials, list of suppliers, consultants and informants.

(v) Lack of infrastructure: Most of the MSME units either lack or have poor infrastructure to support IT services, even though they facilitate the manufacturing process. Inadequate infrastructure has become one of the biggest constraints in the use of information technology services.

CONCLUSION

Information technology affects the amount, competitiveness, incentives, size and timing of information. The competitive environment drives the adoption of ICT to avoid product drop out and reap the benefits offered. The government supports MSME sector externally and also supports them to adopt information technology. At present, MSME has more importance in India. MSME sector find it difficult to access adequate information due to lack of funds. They limit their capital expenditure to working costs. Compared to the global markets, Indian MSME sector are less active. He is lagging behind in the global competition.

Small and medium enterprises play an important role in production, export and employment generation, due to which they contribute significantly to the economic structure of India. Most of the MSME sector is still fundamentally backward due to lack of technology and funds. To remove the backwardness of MSME, it is necessary to connect them with technology, for that they should be provided with a proper environment so that they can play their role in global competition. There is a need to understand the current need of MSME so that it can develop continuously. MSME currently needs modern technology with communication, cooperation, support, human ability.

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