IMPACT OF INFORMATION TECHNOLOGY ON MSMEs IN INDORE REGION

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ABSTRACT

The Micro, Small and Medium scale enterprises (MSMEs) today are playing a pivotal role in the economic and social development of the Indian economy, contributing through industrial outputs, employment, exports, investment, innovations etc. Though MSME sector in India is highly heterogeneous in terms of the size of the enterprises, variety of products, and services, and levels of technology with a total of 30 million MSME units. MSMEs contribution towards GDP was 17% in year 2011, and raised to 22% in year 2012. In today’s era of global integration MSMEs are facing new challenges and some are struggling hard to survive due to lack of modernization, non-availability of suitable technology, inability to identify new markets etc. These shortcomings can be worked out through technology improvement and skill enhancement with the help of Information technology (IT) infrastructure. Through this paper I have attempted to investigate the relationship between MSMEs competitiveness and Information Technology in Indore region.

KEYWORDS
ICT (Information and communication technology), Micro, Small and medium enterprises.

INTRODUCTION

MSMEs have been globally considered as an engine of economic growth and as key instruments for promoting equitable development. The major advantage of the sector is its employment potential at low capital cost. The labor intensity of the MSME sector is much higher than that of large enterprises. In recent years, the MSME sector has consistently registered higher growth rate compared with the overall industrial sector. With its agility and dynamism, the sector has shown admirable innovativeness and adaptability to survive the recent economic downturn and recession.

MSME Development Institute, Indore is a field level agency of Ministry of Micro, Small & Medium Enterprises (MSME) to take care of the needs of the MSME Sector in the state of M.P. in the area of Techno-economic and managerial consultancy service. MSME, headed by the Development Commissioner, under the Ministry of Micro, Small & Medium Enterprises (MSME), Government of India, is an apex body as well as the nodal agency for formulating, co-coordinating and monitoring the policies and programmes meant for promoting and development of Micro, Small & Medium Enterprises (MSME) throughout the country.

MSME DI, started in 1958 (formerly known as SIS), is one of the field level agencies of MSME and is the only one of its kind in M.P. Apart from offering various consultancy service, this institute also offers various technical and management training programmes for the benefit of prospective/ existing entrepreneurs. To assist the sector, having Field Testing Station at Bhopal and Branch MSME DI at Gwalior & Rewa under the administrative control of MSME DI, Indore.

SERVICES OFFER BY MSME DI

MSME-DI offers a wide variety of consultancy services as well as training programmes for the promotion and development of Micro, Small & Medium industries. The major services in brief are listed below:

PROJECT ASSISTANCE
Identification of product Preparation of project Report and pre-feasibility report Appraisal and evaluation of projects for banks and other agencies. Selection of plant and machinery and raw materials Technology and process Knowledge Quality improvement and standards Drawings and plant lay-out Common facility, workshop facility-Job work undertaken Capacity assessment Assistance for hire purchase of machinery from NSIC.

MODERNIZATION AND TECHNOLOGY UPGRADATION
Technology Upgradation studies/ In plant studies.
Production-cum-process development Diversification of project

SENEM (SMALL SCALE INDUSTRIES AND RESOURCE CENTER NETWORK)
SENEM is an intranet project launched by the Office of the Development Commissioner (MSME) in April 1997 and is a small enterprise information resource center network. (Small enterprise meets small-scale industries and small-scale services and business activities)

SENEM Objectives are: To Create - an electronic Intranet for small enterprises - databases for small enterprise To Provide - technical know-how and package assistance to small information servers - Training inputs - Limited financial assistance to information providers To Promote - a network alliance among the information services providers (to small enterprises), including both the public and private sector.

TRC (TECHNOLOGY RESOURCE CENTER)
TRC is a “TECHNOLOGY RESOURCE CENTER” which is made functional from October, 2001. It is major drive to create a friendly and conducive environment for entrepreneurs. Entrepreneurs can access the latest available technology and industry related information on the spot. Though it is started in a humble way, it is expected to hit in a big way in future by equipping itself to provide technology-related using the latest IT tools.

UPTECH (INTEGRATED TECHNOLOGY)

UP GRADATION AND MANAGEMENT PROGRAMME

UPTECH is launched by Development Commissioner (MSME-DI), Government of India. The objective of the project is to implement an integrated Technology Upgradation and Management programme addressed to the smaller skills based enterprises The programme is organized around clusters of enterprises and is designed to provide for the promotion cost that are inherent in transfer of technology from its producer to the end user.

MSME DI-SDTI (MICRO, SMALL & MEDIUM ENTERPRISES (MSME-DI) – SELECTIVE DISSEMINATION OF TECHNOLOGY INFORMATION)

Micro, Small & Medium Enterprises (MSME-DI) have been launched by the office of DC in collaboration With Technology bureau of small Enterprises (TBSE), is a joint venture of small industries Development bank of India(SIDBI)and Asia pacific Center for transfer of technology (APCTT) The objective of the project is to build up a database on the technologies that are available indigenously With technology institution and with industry , and also to build up a parallel database of
the technology requirements of Micro, Small & Medium Enterprises (MSME -DI). The project provides an excellent opportunity to both the small enterprises as well as those institutions and units that have technologies for offer /sale.

The sector not only plays a critical role in providing employment opportunities at comparatively lower capital cost than large industries but also helps in industrialization of rural and backward areas, reducing regional imbalances and assuring more equitable distribution of national income and wealth. MSMES complement large industries as ancillary units and contribute enormously to the socioeconomic development of the country.

DEFINITION OF MSME
Enterprises are broadly classified in two categories:

i) Manufacturing and,
ii) Those engaged in providing /rendering of services

Both categories of enterprises are then classified into Micro, Small and Medium scale enterprises based on their investments on plants and machineries (for manufacturing enterprises) or on equipments (in case of enterprises providing or rendering services). The present ceiling on investments to be classified as micro, small or medium enterprises is as under:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Manufacturing enterprises</th>
<th>Service Enterprises</th>
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<tbody>
<tr>
<td>Micro</td>
<td>Up to USD 62500</td>
<td>Up to USD 25000</td>
</tr>
<tr>
<td>Small</td>
<td>Between USD 60000 to USD 1.25 million</td>
<td>Between USD 25000 and USD 0.5 million</td>
</tr>
<tr>
<td>Medium</td>
<td>Between USD 1.25 million &amp; USD 2.5 million</td>
<td>Between USD 0.5 million and USD 1.25 million</td>
</tr>
</tbody>
</table>

Information technology initiatives that do not capture business requirements may not achieve the estimated benefits and may face unexpected problems. Managers in MSMES must understand and evaluate IT's potential impact to obtain numerous benefits. Thus by aligning IT with their business environments, they can avoid failure. IT infrastructure provides opportunities to increase revenue, reduce costs, and improve customer responses through e-businesses. IT infrastructure can develop new products and services that have a high degree of knowledge component therein with addition of skill enhancement may lead to significant improvement in productivity and competitiveness.

Basic IT infrastructure such as Internet, websites, free to use application software (Open Office) can make them more competitive. Internet provided numerous and inexpensive opportunities for MSMEs to compete with large companies. Internet enable them to communicate with their customers and suppliers both at national & international level, they also can perform timely update or renew their brochures for products and services via websites and communicating through e-mails. Numerous MSMEs have adopted IT infrastructure for conducting business.

LITERATURE REVIEW
Annual reports of Ministry of MSME, Government of India have been reviewed for growth statistics, support system and incentives for MSMEs in India. The body of knowledge related to the area has been explored through research papers, books and relevant web sites. The domains covered during the review of literature include information technology adoption, Productivity Analysis, and micro, small and medium scale enterprises.

Mall Paul, Morrison and McKee, (1974) has described 12 causes responsible for decline of productivity of organizations in general. He includes Rapid Technological changes and High Costs of manufacturing in the list of 12 causes. Technology Factor has been seen as predominant determinant with maximum contribution in Productivity Enhancement. The contribution of Capital, Labor and Technology is found to be 14%, 27% and 59% respectively in productivity enhancements.

Kelmer and Wangman D. W. (1995) has concluded Regarding the technological needs of MSMEs, technology process is important, but the ability to utilize and capitalize on the advantage of technology through invention and innovation subsequently achieving through synergy is considered more important in running and survival of unit. It has been observed that the synergy plays very vital role in mobilizing the useful resources. Also the need of developing technical entrepreneurship has been strongly realized

Patricia R. Todd, Rajshekhar (Raj) G. Jawalgi, (2007) "Internationalization of SMEs in India: Fostering entrepreneurship by leveraging information technology," in International Journal of Emerging Markets, concluded that "Advancements in information technology and improvements in communication infrastructure have resulted in opportunities for SMEs to participate in global markets in both developing and developed countries. Since, governmental reforms in 1991, SMEs in India have been faced with new competitive intensity. Improvements in resource utilization make it possible to sell a variety of products and services from anywhere in the world, around the clock. This paper calls attention to ways in which Indian can become competitive.

Vimalish. kumar soni, Vijay.p.Wani, (2010), "Productivity Growth in MSEs through Technology Incubation" in a journal concluded that "Having technical background of education and exposure to entrepreneurship programmes both support in productivity and competitiveness. Those who do not possess technical qualification may keep them updated with latest technology related knowledge through regular interaction with incubator organization. The technological and entrepreneurial competence such developed will facilitate in better performance of enterprise."

Prof. (Dr.) S. K. Baral, (2013), "An empirical study on changing face of MSME towards emerging economies in India". With its agility and dynamism, the sector has shown admirable innovativeness and adaptability to survive the recent economic downturn and recession. A growing recognition has been felt throughout the world such that SMEs have a vital role to play in the present context given their greater resource use efficiency, capacity for employment generation, technological innovations for economic growth of any country across the globe.

OBJECTIVE OF THE STUDY
To find the impact of Information and communication Technology (ICT) on MSME in Indore region, also to find out the factors responsible for it. With the help of reviewed literature we can come up with the internal factors (enterprise sector, size and age) and three External factors (information requirements, competition intensity & Government incentive schemes) that can affect the adoption of information technology by MSMEs as follows:-

EXTERNAL FACTORS

INFORMATION REQUIREMENT
Information Requirements are concerned with requirements derive from promoting products and services to customers and communicating with business partners and hence facilitating the information to them. Internet can immediately and simultaneously provide information to employees, customers, and suppliers. To summarize, information exchange requirements (with customers & suppliers) motivate enterprises to provide IT based services, setting up in-house Automated Query center to provide answers to queries and requirements of the customers, developing dynamic web sites to provide product and service information, updating product brochures, information regarding design changes, feedback from customers etc.

COMPETITION INTENSITY
The stepping up of competitors to adopt new technology and the intense industry competition will influence the attitudes of managers towards accepting the new technology. In this highly competitive market, competitors or business partners may place pressure on firms to adopt new technologies. In order to compete more effectively, MSME managers require advanced information exchange methods for acquiring and sustaining competitive advantage. Thus it can be concluded that Information Technology Adoption allows MSMEs to improve their competitiveness.
GOVERNMENT INCENTIVES SCHEMES
Pressure may come from Government business partners and associates for adopting the Information Technology. During the earlier days of IT, it was recognized that MSMEs rarely realize the importance and requirements of advanced IT technology, therefore, some of their needs to use the innovated IT technology are not effectively translated into demand. A decade after, it was found that creating user friendly environment and awareness of adopting advanced IT could be enhanced by government support such as provision for incentives and rebates in taxes along with aggressive support from business partners and associates.

INTERNAL FACTORS: ENTERPRISE SECTOR, SIZE AND AGE
Researchers have demonstrated that a positive relationship exists between IT adoption and firm size. Some researchers have demonstrated that firm size positively influences firm commitment IT infrastructure & E-commerce. Furthermore, other researchers identified significant links between business size and level of IT adoption. Few asserted that size represents ability to assume risk, with bigger size facilitating the adoption and diffusion of new technology. Finally specific sector or to cluster in which enterprise is operating is also under some influential factor and it was found that negative relationship exists between enterprise sector and Information Technology Adoption. Besides, the age of an enterprise may lead to conservative ideas and thinking owing to the existence of mature and accepted work types in the longer established organizations.

BASED ON THE ABOVE INFERENCES STUDY PROPOSES THE FOLLOWING SIX HYPOTHESES:

H-1 A positive relationship exists between information requirements and IT Adoption.
H-2 A positive relationship exists between intense competition and IT Adoption.
H-3 A positive relationship exists between Government incentives scheme and IT Adoption.
H-4 A positive relationship exists between enterprise size and Information Technology Adoption.
H-5 A negative relationship exists between enterprise age and Information Technology Adoption.

Also from above inferences the conceptual model is developed, shown in Table below:

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<th>TABLE 2</th>
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<tr>
<td>Enterprise Sector</td>
</tr>
<tr>
<td>Enterprise Size</td>
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<tr>
<td>Enterprise Age</td>
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</table>

RESEARCH METHODOLOGY AND DATA COLLECTION

Since IT infrastructure may require a considerable part of the budget of MSMEs, it is reasonable to expect that MSMEs that do not perform well may decide not to put too many resources into their IT development. This study focuses on the MSMEs which do have the financial ability to cover the cost of a IT infrastructure. This study selects outstanding Indore MSME companies with after-tax surpluses and continuing sale revenue growth for the past three years as samples. We attempt to explore the determinants of Information Technology Adoption for the MSMEs financial performance and used regression coefficient test as a tool for testing hypothesis.

DATA COLLECTION

Apart from the information collected from MSME-DI Indore, this study collects data from two sources: personal inquiry and a mail questionnaire survey. Firm sector, age and size were obtained from personal inquiry. The adoption of Information Technology, information requirements, intensity of competition, and incentives and supports, are obtained from the self-report questionnaire. We examined Internet sources and personal meeting to identify the names of MSMEs firms which shown considerable growth in financial performance. 50 MSMEs were identified and Questionnaires were mailed to them.

HYPOTHESIS TESTING

TESTING OF HYPOTHESIS H1 (INFORMATION REQUIREMENT)

Hypothesis H1 was stated as "A positive relationship exists between information requirements and Information Technology Adoption". The regression coefficient (r) was positive and significant (r=1.08, p<0.01). Therefore, we can conclude that there is a statistically significant relationship between the dependent variable "Information Technology Adoption" and the independent variable "Information requirement". That is, firms with information requirements are more likely to have Information Technology. Additionally, the independent variable of "Information requirement" was comprised of three items, information with customers, partners (suppliers). This study placed three items of the information requirement into the regression to identify the influence of these three items on Information Technology Adoption. The regression model calculation revealed that only the information requirement with customers exhibits a positive relationship with Information Technology Adoption (r=1.44, p<0.05). The information requirements with partners (suppliers) did not exhibit any statistically significant relationship with Information Technology Adoption.

TESTING OF HYPOTHESIS H2 (INTENSITY OF COMPETITION)

All of the regression coefficients of the four regression models are positive and significant (p<0.05) for Hypothesis H2, "A positive relationship exists between competitive intensity and Information Technology Adoption". Therefore, we can conclude that there is a statistically significant relationship between the dependent variable "Information Technology Adoption" and the independent variable "intensification of competition". That is, in a higher competitive environment, firms were more likely to develop comprehensive websites.

TESTING OF HYPOTHESIS H3 (SUPPORT AND INCENTIVES)

The regression coefficient is positive and significant (r=0.68, p<0.01) for Hypothesis H3, "A positive relationship exists between support and incentives and Information Technology Adoption". Therefore, we can conclude that there is a statistically significant relationship between the dependent variable "Information Technology Adoption" and the independent variable "support and incentives". That is, firms with "government incentives schemes" are more likely to conduct Information Technology adoption. It also reveals that government support and incentives were significantly and positively related to Information Technology Adoption (r=1.07, p<0.01), while support and incentives from business partners were not.

TESTING OF HYPOTHESIS H4 (FIRM SIZE)

All of the regression coefficients of the four regression models are positive and significant (p<0.05) for Hypothesis H4, "A positive relationship exists between enterprise size and Information Technology Adoption". Therefore, we can conclude that there is a statistically significant relationship between the dependent variable "Information Technology Adoption" and the independent variable "firm size". That is, the larger sized firms are more likely to have comprehensive websites than the smaller ones.

TESTING OF HYPOTHESIS H5 (FIRM AGE)

All of the regression coefficients of the four regression models are negative and significant (p<0.01) for Hypothesis H5, "A negative relationship exists between enterprise age and Information Technology Adoption". Therefore, we can conclude that there is a statistically significant relationship between the dependent variable "Information Technology Adoption" and the independent variable "firm age". That is, the longer established firms are more likely to have comprehensive websites than younger ones.
CONCLUSION AND DISCUSSION

This study used a sample of Indore MSMEs to investigate the factors influencing the Adoption of their Information Technology Adoption. According to empirical surveys, information requirement, intensity of competition, and support and incentives, size and age influence the Information Technology Adoption. This study proves that there is a relationship between environmental factors and the adoption of ICT. Information Technology Adoption increases with increasing information requirements. Highly competitive environments drive enterprises to adopt the IT to acquire first mover advantages, or to avoid being driven out of markets. MSMEs in highly competitive industries have no choice but to follow their competitors in adopting Information technology. Government Support and incentives from the external environment also lead enterprises to pursue Information Technology Adoption. Since the 1990s, to improve national competitiveness, countries like Singapore, Korea, Japan, Germany, and Canada have endeavored to develop their digital economies. Government of India can opt for development of e-MSMEs project. The e-MSMEs project encompasses several sub-projects: Knowledge Management Plan, e-Learning Project, e-Business Operation Plan, Broadband to MSMEs, and e-Market. All of these projects are important in helping MSMEs develop their IT strategy. The effectiveness of partnerships between government and MSMEs is empirically demonstrated in this study.

SCOPE FOR FURTHER RESEARCH

As far as scope of ICT on MSMEs in Indore is concerned, it cannot be wrapped in words or figures as the growth of IT sector w.r.t MSMEs will be going to make a milestone in INDORE. New hopes came with IT park, also the big companies like TCS, INFOSYS have shown a great interest in Indore market which will surely going to help MSMEs to grow with more faster rate. Research can then be done as to what percentage the skilled labor with skilled management had contributed to the growth of MSMEs.

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WEBSITE

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Potential Factors Responsible for Export Potential of MSMEs:
A Study of Indore Region

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Abstract:
The study undertaken is descriptive in nature which includes surveys & facts finding enquiries to measure the export potential of MSMEs situated in Indore region. The study is an attempt to analyze firm’s core competencies with respect to production, quality standards, technology and financial performance (financial health) so that these can be promote as export oriented units in the near future. The research revealed various potential factors that have considerable contribution in making a firm eventually competent for exports. The study is primarily based on primary data collected from 192 Micro, Small and Medium Enterprises in Indore.

Keywords: Export Potential, Indore region, MSMEs (Micro Small and Medium scale Enterprises), Potential factors

1. Introduction
Small and medium enterprises today constitute a very important segment of the Indian economy. The development of this sector came about primarily due to the vision of our late Prime Minister Jawaharlal Nehru who sought to develop core industry and have a supporting sector in the form of small scale enterprises. SMEs sector has emerged as a dynamic and vibrant sector of the economy. Today, it accounts for nearly 35% of the gross value of output in the manufacturing sector and over 40% of the total exports from the country. In terms of value added this sector accounts for about 40% of the value added in the manufacturing sector. The sector's contribution to employment is second highest next to agriculture (Shaili Vadera and Nimisha Kulshreshtha Dec 2010)

The major advantage of the sector is its employment generation at low capital cost. Its total employment in the MSME sector is 805.24 lakh in 2012-2013(PIB July 2014). The labor potential of the MSME sector is much higher than that of large enterprises. The sector provides employment to about 69 million persons through 26 million enterprises throughout the country. In recent years, the MSME sector has consistently registered higher growth rate compared with the overall industrial sector. With its agility and dynamism, the MSME sector has shown admirable innovativeness and adaptability to survive the recent economic downturn and recession.

The development of the micro, small and medium enterprises (MSME) sector is on the priority of Government Agenda. As per the Results-Framework Document (RFD) for Ministry of Micro, Small and Medium Enterprises (2012-2013), the Mission of the government is to - "Promote growth and development of globally competitive Micro, small and Medium Enterprises, including Khadi, Village and Coir industries, in cooperation with concerned Ministries / Departments, State Governments and other stakeholders by providing support to existing enterprises and encouraging creation of new enterprises. To endeavor and to achieve a cumulative growth of 40%-50% in the number of registered enterprises by the end of 12th Plan and enhance this sector's contribution to GDP from the present 8% to 10% by the end of 12th Plan."

1.1. Definitions of Micro, Small & Medium Enterprises
According to the provision of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 the Micro, Small and Medium Enterprises (MSME) are classified in two Classes:
(a) Manufacturing Enterprises- The enterprises engaged in the manufacture or production of goods pertaining to any industry specified in the first schedule to the industries (Development and regulation) Act, 1951) or employing plant and machinery in the process of value addition to the final product having a distinct name or character or use. The manufacturing enterprises are defined in terms of investment in plant and machinery.
(b) Service Enterprises: The enterprises engaged in providing or rendering of services and are defined in terms of investment in equipment.

The limit for investment in plant and machinery / equipment for manufacturing / service enterprises, as notified, are as under:
1.2. Role of MSME-DI Indore

MSME-Development Institute (MSME-DI), Indore is a field level agency of Ministry of Micro, Small & Medium Enterprises (MSME) to take care of the needs of the MSME Sector in the state of M.P. in the area of Techno-economic and managerial consultancy service.

MSME headed by the Development Commissioner, under the ministry of Micro, Small & Medium Enterprises (MSME). Government of India is an apex body as well as the nodal agency for formulating, co-coordinating and monitoring the policies and programmes meant for promoting and development of Micro, Small & Medium Enterprises (MSME) throughout the country. MSME DI, started in 1958 (Formerly known as SISI), is one of the field level agencies of MSME and is the only one of its kind in M.P. The MSME-DI Indore offers various services like training programmes and workshops to enhance the knowledge of entrepreneurs related to the various skills required in exporting.

The major services in brief are listed below

1.2.1 Project Assistance

Identification of product Preparation of project Report and prefeasibility report Appraisal and evaluation of projects for banks and other agencies. Selection of plant and machinery and raw materials Technology and process Know-how Quality improvement and standards Drawings and plant lay-out Common facility, workshop facility job work undertaken Capacity assessment Assistance for hire purchase of machinery from NSIC

1.2.2. Modernization and Technology Up-gradation

- Technology Upgradation studies/In plant studies.
- Production-cum-process development Diversification of project

1.2.3. Sick Unit Revival Programme

- Diagnostic studies for rehabilitation

1.2.4. Ancillary Development Programme

- Vendor development
- Buyer-Seller meets
- Identification of ancillary items
- Quality awareness in vendor units

1.2.5. Training Programmes

- Management Development training programme to enhance the required skills for exporting.

1.2.6. Skill Development Training Programme in

- CNC wire Cutting Programming Workshop
- machine shop practice
- Managerial Assistance/Export Assistance:
- Facilitating participation in International Exhibitions
- Training in Export related subjects.
- Dissemination of Export related information.
1.2.7. Economic Research Information Service

1.2.8. M.P. Sub Contact Exchange (M.P.SX)
An existing small-scale entrepreneur, along with product details, can register their names with M.P. SX constantly interact with large and medium industries in the State as well as neighboring States and also with institutional buyers like DGS & D and identifies requirements of inventory. This information is disseminated to the small scale entrepreneurs to utilize the already existing spare capacity of production and hence helps in maximizing the profit. Any small-scale entrepreneur with the idle capacity of production is welcome to register with M.P. SX.

1.2.9. SENET (Small Scale Industries and Resource Center Network)
SENENET Objectives are: To Create - an electronic intranet for small enterprises - databases for small enterprise To Provide - technical know-how and package assistance to small information servers - Training inputs - Limited financial assistance to information providers To Promote - a network alliance among the information services providers (to small enterprise ), including both the public and private sector.

1.2.10. TRC (Technology Resource Center)
TRC is a ‘TECHNOLOGY RESOURCE CENTER’ which is made functional from October, 2001. It is major drive to create a friendly and conducive environment for entrepreneurs. Entrepreneurs can access the latest available technology and industry related information on the spot. Though it is started in a humble way, it is expected to hit in a big way in future by equipping itself to provide technology-related using the latest IT tools.

1.2.11. UPTECH: Integrated Technology Upgradation and Management Programme
UPTECH is launched by Development Commissioner (MSME-DI), Government of India. The objective of the project is to implement an integrated Technology Upgradation and Management programme addressed to the smaller skills-based enterprises. The programme is organized around clusters of enterprises and is designed to provide the promotion cost that are inherent in transfer of technology from its producer to the end user.

1.2.12. MSME- DI -SDTI (Micro, Small & Medium Enterprises (MSME -DI) – Selective Dissemination of Technology Information)
Micro, Small & Medium Enterprises (MSME-DI) has been launched by the office of DC in collaboration With Technology bureau of small Enterprises (TBSE), is a joint venture of small industries Development Bank of India (SIDBI) and Asia pacific Center for transfer of technology (APCTT) The objective of the project is to build up a database on the technologies that are available indigenously With technology institution and with industry, and also to build up a parallel database of the technology requirements of Micro, Small & Medium Enterprises (MSME-DI). The project provides an excellent opportunity to both the small enterprises As well as those institutions and units that have technologies for offer/sale.

2. Literature Review
- DC-MSME (June, 2014) During primary research it was found that the Development Center of Micro, Small and Medium Enterprises identified, MSME sector as engine of growth all over the world. Many countries of the world have established a SME Development Agency as the nodal agency to coordinate and oversee all Government interventions in respect of the development of this sector. In the case of India, also Medium establishment has for the first time been defined in terms of separate Act, governing promotion and development of Micro, Small and Medium Enterprises (MSME) i.e. Micro, Small and Medium Enterprises (MSME) development Act, 2006 (which has come into force from 02nd Oct, 2006) The Office of Development Commissioner (Micro, Small and Medium Enterprises) functions as the nodal development Agency under the Ministry of Micro, Small and Medium Enterprises (MSME). Consequent to the increased globalization of the Indian economy, MSMEs are required to face new challenges. Office of the Development Commissioner (MSME) has recognized the changed environment and is currently focusing on providing support in the fields of credit, marketing, technology and infrastructure to MSMEs. Global trends and national developments have accentuated Office of the Development Commissioner (MSME)'s role as a catalyst of growth of MSMEs in the country.

- Dr. S. Baskaran (2013) identified that Small and Medium Enterprises play a vital role for the growth of Indian economy by contributing 45% of the industrial output, 40% of exports, 42 million in employment, create one million jobs every year and produces more than 8000 quality products for the Indian and international markets. As a result, MSMEs are today exposed to greater opportunities for expansion and diversification across the sectors. The Indian market is growing rapidly and Indian industry is making remarkable progress in various industries like Manufacturing, Precision Engineering, Food Processing, Pharmaceuticals, Textile & Garments, Retail, IT, Agro and Service sectors. SMEs are finding increasing opportunities to enhance their business activities in core sectors.

- Ishu Garg and Suraj Walia (2012) confirmed that undoubtedly the MSME sector has enormous potential, and is a crucial aspect of the Indian economy. However it is essential on the part of the government to take careful decisions and honest policy implementation to overcome the problems of MSME sector. A technologically vibrant, internationally competitive
small and medium industry should be encouraged to emerge, to make a sustainable contribution to national income, employment and exports. It is imperative to take care of MSME sector to enable it to take care of the Indian economy.

- Jaya Prakash Pradhan and Keshab Das (2012) advised that apart from improving the key business supporting infrastructure, the state policy makers may better enhance export orientation of SMEs by networking them to Research and Development facilities and providing easier access to information on overseas markets. This is because SMEs are more dependent on foreign technologies for enhancing their exporting rather than in-house Research and Development. Relatively smaller enterprises need greater support as they are disadvantaged by their size.

- Shaili Vadera and Nimisha Kulshreshtha (Dec 2010) identified that the small and medium enterprises today constitute a very important segment of the Indian economy. The development of this sector came about primarily due to the vision of our late Prime Minister Jawaharlal Nehru who sought to develop core industry and have a supporting sector in the form of small scale enterprises. SME sector has emerged as a dynamic and vibrant sector of the economy. Today, it accounts for nearly 35% of the gross value of output in the manufacturing sector and over 40% of the total exports from the country. In terms of value added this sector accounts for about 40% of the value added in the manufacturing sector. The sector's contribution to employment is second highest next to agriculture.

- Shamika Ravi (2009) suggest that the government should play a facilitator role and improve access to finance by encouraging more banks and other financial institutions to enter the local market, instead of becoming an active player itself. The researcher also suggest the core competence of the government in certain roles, like creating a facilitating environment such as improved connectivity by roads, railways and airways, improved availability of electricity and water supply.

3. Methodology & Design

3.1. The Study Design

The study undertaken is descriptive in nature which includes surveys & facts finding enquiries to measure the impact of new technology on the export potential of MSMEs situated in Indore region. The study is an attempt to analyze firm’s core competencies with respect to production, quality standards, technology and financial performance (financial health) so that these can be promote as export oriented units in the near future. The Study has proven its validity on the ground of available literatures. The study also explores the positive aspects of various factors viz. Government schemes, technical assistance, etc. for the technological development of export oriented environment among the entrepreneurs. The exploration and evidences of studied phenomena gives better understanding and valuable knowledge about MSMEs in Madhya Pradesh while helping the researchers to carry relevant research topics for further studies. The study is primarily based on primary data collected from 192 Micro, Small and Medium Enterprises in Indore.

3.2. Sampling Plan

- Universe: Micro, Small and Medium enterprises situated in Indore region.
- Sampling Unit: The research covered 192 MSMEs as target respondents. Responses had been collected from different categories of enterprises as given below.

3.2.1. Types of Organizations

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<th>Micro Enterprise</th>
<th>Small Enterprise</th>
<th>Medium Enterprise</th>
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<td>31 responses</td>
<td>77 responses</td>
<td>84 responses</td>
</tr>
</tbody>
</table>

Table 4

Sample Size: 192 enterprises have been examined falling into different categories.

3.3. The Tools

- For Data Collection: Data has been collected using self designed questionnaire. The questionnaire was based on predetermined questions. The questionnaire was based on five point Likert scale.
- For Data Analysis: Once the response is collected it was converted into the useful data that can be used for statistical analysis by using SPSS software. Further, to meet the objective of the research Factor analysis (Using SPSS) used as a statistical tool.

3.4. Research Hypotheses

H0: There exists no export potential for MSMEs in Indore region.
4. Result

The current research was carried out by taking various variables that have been extracted from past researches and available literatures which likely to be significant determinant of examining export potential of a firm. The respondents were asked their opinion on the same. Collected responses were further processed using SPSS by applying “Factor Analysis” and reduced variables into potential factors. The process of data reduction identified four major factors that have significant impact on firm’s potential for executing export orders.

Below is the description of factor analysis:

<table>
<thead>
<tr>
<th>ANNEXURE 1: FACTOR DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>Items</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>6 Skilled labor</td>
</tr>
<tr>
<td>8 Experience</td>
</tr>
<tr>
<td>7 Managerial skills</td>
</tr>
<tr>
<td>5 Logistics</td>
</tr>
<tr>
<td>18 MIS</td>
</tr>
<tr>
<td>19 Customer feedback</td>
</tr>
<tr>
<td>15 Trainings</td>
</tr>
<tr>
<td>17 Competitiveness</td>
</tr>
<tr>
<td>10 Future export plan</td>
</tr>
<tr>
<td>9 ICD</td>
</tr>
<tr>
<td>22 Quality stds.</td>
</tr>
<tr>
<td>2 Schemes</td>
</tr>
<tr>
<td>3 Govt. Assistance</td>
</tr>
<tr>
<td>23 Certifications</td>
</tr>
<tr>
<td>21 New product development</td>
</tr>
<tr>
<td>16 Soft skill</td>
</tr>
<tr>
<td>20 Product innovation</td>
</tr>
<tr>
<td>14 Capacity</td>
</tr>
<tr>
<td>13 Superior product</td>
</tr>
<tr>
<td>11 Working capital</td>
</tr>
<tr>
<td>4 Export Knowledge</td>
</tr>
<tr>
<td>12 Credit term</td>
</tr>
<tr>
<td>1 Networking</td>
</tr>
</tbody>
</table>

Table 5
Source: Compiled by Author

The scale was administered on 192 MSMEs (31 Micro enterprises, 77 Small enterprises & 84 Medium enterprises)
Factors identified – Competency, Total Quality Management (TQM), Export Performance Indicators & Financial Strength (Refer Annexure 1).

4.1. First Factor: Competency (Factor load: 7.027)

This factor was measured by item number 6, 8, 7, 5, 18, 19, 15, 17, 10, 9. These items are named as:

- Skilled Labor (6) - One of the crucial criteria for meeting international product standard is consistency in product configuration which comes from the ability of a person performing the task. Employee’s skill contributes considerable part enabling a firm competent with respect to concern standards. The study found that the studied MSMEs having skilful labor fleet that ensure consistent quality of work with reasonable cost of production. Skilful employee becomes an asset to the firm that a firm en-cash every day in the form of performance. (Item load: 0.841)

- Experience (8) - “Practice Makes Man Perfect”, this quote denote how practice helps individuals to learn about certain process or procedure which become an experience over a time and the individual become expert into. MSMEs in Indore region are very much qualified in terms of experience. The study found that the firms having minimum experience of 10 years in production. The firms’ experience gives strategic advantage to them in the form of lowest cost of production with higher standard of quality and product performance. (Item load: 0.837)

- Managerial Skills (7) - The firms are running under the supervision of qualified and experienced managers whose managerial skills acclaimed unity among the employees which result into low attrition rate, economies of scale because
of employee’s experience and integrity in overall production process. The study found that the MSMEs are fortunate enough to have good managers with appreciable managerial skills. These managers are symbol of excellence and trust on these firms. (Item load: 0.805)

- Logistics (5) - Logistical infrastructure and facilities are very much upgraded. The firms having recommended inbound logistic infrastructure to ensure speedy work with efficient material handling technique. The study experienced well established logistical support (Inbound & Outbound both) to ensure timely and safe delivery of goods. Traditional material handling equipments and containers are now been replaced with high tech machineries and scientifically designed containers to retain the product quality while transportation and stuffing & de-stuffing. (Item load: 0.786)

- MIS (18) - Marketing information system enabling these firms to be innovative and proactive with respect to product innovation and new product development. Relevant information related to the market and trends are being provided by efficient marketing information system. Government too acting as an active participant in making these firms enable to access new business opportunity domestically and internationally. Various schemes viz. MAI (Market Access Initiatives) & MDA (Market Development Assistance), Vendor Development Program, National Award etc. have been introduced to help these MSMEs to reach up to global market. (Item load: 0.684)

- Customer Feedback (19) - The study experienced that the studied MSMEs are very much concern for customer feedback. Customers’ feedbacks are well received and take it as guide to rectify the errors and as a source of motivation to maintain consistency in quality. These firms are highly techno savvy using almost all types of electronic sources of communication for instant information. (Item load: 0.679)

- Trainings (15) - Technical & soft skills training are found a regular phenomena in studied MSMEs. Firms are found very active at this front in order keep itself technically sound and competent to offer best product in the market. Regular training sessions and schedules have been observed taken by various training agencies & government planned programs. (Item load: 0.626)

- Competitiveness (17) - The study examined all the virtues of competitiveness in the firms and found studied MSMEs are reasonably competitive in all respect. Firms follow all the necessary procedure in production, follows important packing and bar coding norms, follows critical quality check points etc. The cost control mechanism was found very pretty which made them competitive in the market in terms of selling price. Such critical key qualities bring these MSMEs into lime light and made them potential future exporter. (Item load: 0.509)

- Future Export Plan (10) - Firms were found eager for export sales. All the targeted MSMEs looks forward for maximum exports even some of them are exporting to the certain extent (small portion of their production). Firms have concrete future plan for expansion their production and target market. Various government schemes which plays significant role in turning such dreams into action in the near future. The study found very good potential into these small enterprises to become big export giant very soon. (Item load: 0.475)

- ICD (9) - Inland container depot situated in Pithampur (M.P.) is a biggest advantage to exporting firms. ICDs facilitate all the facilities related to hiring container, shipping line, custom clearance, documentation and other legal clearance at single window. The presence of dry port (Inland Container Depot) gives comparative advantage to the exporting firms by offering single window clearance with respect to export sale as compare to the firms do not having ICDs presence around them. (Item load: 0.427)

4.2. Second Factor: Total Quality Management (TQM)

This factor was measured by item number 22, 2, 3, 23, 21. These items are named as:

- Quality Standards (22) - Quality standards ensures sustained quality of product with predetermined standards. Firms were found very much concern about quality to meet international product quality standards. MSMEs having essential quality certifications to fulfill the market requirements. Process standards, packaging and bar coding standards, in-process quality check etc. are the key strength of these enterprises. (Item load: 0.913)

- Schemes (2) - Government has taken an initiative to increase exports of various commodities in which India has competitive advantage. These commodities are very basic and fast consuming item for which big business house are least concern. Government with the help of Micro, Small and Medium Enterprises is trying to cater the need of international market and increase forex revenue. Government with the help of various schemes related to finance, quality standards, process & certifications enabling these firms competent for doing export. (Item load: 0.874)

- Government Assistance (3) - Export promotion is one of the prime concern areas of government’s five year plan. Government has launched various schemes to promote exports from India. Various tax relaxation schemes, finance schemes, research and development schemes, sampling and prototype schemes etc. are some of the appreciable steps taken by the government. With such government assistance MSMEs can prosper in their field. (Item load: 0.864)

- Certifications (23) - Various certifications viz. quality certification, food safety certification, packaging and bar coding certification are the strategic advantage to these firms. These certifications helping them in meeting foreign buyers’ quality requirements with government approved quality certificate. These certifications are issued by government with the help of various concern departments in order to ensure quality standard in process and product. (Item load: 0.770)

- New Product Development (21) - The study found MSMEs are on the way of continuous development of new product in the form of entirely new concept, updating in the existing one or modification in current product. This approach enables these firms competitive in the market by taking proactive action on upcoming trend and demand pattern of the customers. New product development is a very good business strategy for competing market. (Item load: 0.710)
Factors Determining Export Potential

4.3. Third Factor: Exporter Performance Indicators
This factor was measured by item numbers 16, 20, 14, and 13. These items are named as:

- **Soft Skills (16)** - Soft skills represent behavior and attitude of a person, body language, talking tone & pitch and many more that make an individual good or bad while dealing with others. By understanding the significance of soft skills among employees especially in marketing guys who deals with foreign clients MSMEs has launched different in-house & outsourced training programs. MSMEs were found very prompt on this aspect and running regular soft skills training programs in order to inculcate necessary intrinsic qualities among the employees. (Item load: 0.605)

- **Product Innovation (20)** - Product innovation is a part business or marketing strategy of a firm. MSMEs were found very eye opened on this matter. They had introduced different policies related to product innovation. Different product variants (as per quantity, quality and weight) had been added to the product range in order to cater all types of market needs. Product innovation was found as a part of MSMEs’ business plan which gives a competitive edge to them. (Item load: 0.601)

- **Capacity (14)** - The study found that MSMEs in Indore region have significantly increased their production over a short span of time. Maximum studied MSMEs are running on their full scale. The overall production in quantity has strength to meet export assignment with exportable quality. The government too very much concern about their production capacity. Government initiated various programs that help the firms in achieving full scale production capacity or installed capacity. In capacity wise MSMEs in Indore region are ready to meet export requirement in all sense. (Item load: 0.568)

- **Superior Product (13)** - MSMEs claims for superior product in all respect viz. quality, quantity, price, durability, performance and safety to users. Superior product fights with rival’s product strategically and provide competitive edge to the firms. The study found that the products manufactured by these firms are reasonably better and meets all the quality standards to qualify to the international market. (Item load: 0.548)

4.4. Fourth Factor: Financial Strength
This factor was measured by item numbers 11, 4, 12, 1. These items are named as:

- **Working Capital (11)** - The firms studied were performing well in all their financial affairs. MSMEs having good financial track record, good financial health and better financial performance. Working capital requirement were being fulfilled from firm’s reserved resources and yearly earned profits. Government is also involved in providing adequate financial facilities to these firms. Therefore, the study found that MSMEs situated in Indore region have no working capital problem and ready to meet any export assignment technically and financially. (Item load: 0.717)

- **Export Knowledge (4)** - The study found that the enterprises in Indore region have been exporting for more than 10 years. Firms have full knowledge of exports and export related requirements. (Item load: 0.703)

- **Credit Term (12)** - The firms were found very comfortable in crediting export for short period of time. They have resources available with them that can meet the short term requirement of funds to offer trade credit. (Item load: 0.562)

- **Networking (1)** - MSMEs have good business network nationwide that facilitate better business opportunity, relevant market information and new market access. Networking helps firm to generate new enquires and searching for new prospects to enlarge business circle. Due to extensive business network the firms were found updated on raw material prices, other supplier’s rate and possibilities of sourcing material from other ventures in order to offer best possible price at international market. (Item load: 0.534)

Figure 1: Factors determining Export potential

H₀: There exists no export potential for MSMEs in Indore region.

Source: Compiled by Author (Factors are rated on 5 point Likert Scale)
The assumed null hypothesis $H_0$ was tested on total factor load derived from factor analysis of each identified factor. The above graph chart represents the numerical value of each identified factor based on a five-point measuring scale. Potential factors viz. Competency, TQM, Export Performance Indicators, & Financial Strength are rated at 4 and above that shows each factor is strongly present in MSMEs situated in Indore region.

The null hypothesis $H_0$ can be assumed rejected as the factor load of each factor is above 4 rating. Below are the evaluating criteria:

- Competency: This factor is rated at 4.06 (Refer table 4.1a) which falls under the acceptance range, hence we can conclude that the enterprises in Indore region possess competencies in all respects viz. quality labor for quality products and error-free job, managerial skills to manage things efficiently in order to meet desired results, experience in their field of business, efficient logistic and supply chain management to ensure timely delivery, marketing information system to get update on every latest event and trend, customer feedback system for continuous learning of customers’ expectation, trainings for updating managers and workers about latest technology & method of production etc.

- Total Quality Management: This factor is rated at 4.00 (Refer table 4.1a) which is under the acceptance region, hence, the study concluded that MSMEs controls all the parameters related to meeting quality standards of products in terms of production process. It includes internal quality standards and certifications mandatory for specific purpose. Different government schemes and assistance ensures the government involvement in promoting exports with exportable quality of products and services.

- Export Performance Indicators: This factor is rated at 4.02 (Refer table 4.1a) which is under the acceptance region, therefore, the study revealed that MSMEs in Indore region equipped with all parameters which indicate the ability of the firm to meet export assignments. Export performance indicators include soft skills that a firm must ensure into its managerial staff who communicates with foreign buyers, product innovation that can meet international demand pattern as well as prove itself as a unique product among the competitors’ products, capacity to meet export orders in every aspect viz. handling big orders financially, technically & operationally as well.

- Financial Strength: This factor is rated at 4.04 (Refer table 4.1a) which fall under the acceptance range, hence, the study concluded that the studied MSMEs have financial strength to meet the export assignments. Financial performance of these MSMEs were analyzed at different aspects viz. working capital required for handling export orders, credit terms for dealing in financial issues, past performance of the firm etc. The factors’ rating revealed that the firms having adequate funds available with them to fulfill all the requirements of exports.

![Figure 2: Percentage of Exports from Total Production](source: Compiled by Author)

The null hypothesis $H_0$ was tested on another parameter i.e. ‘percentage of exports from total production’ of MSMEs situated in Indore region. The null hypothesis was found rejected on the basis of percentage of exports from total production (Refer table 4.1b). It means the MSMEs situated in Indore region have export potential. The above mentioned graph revealed that out of the total studied MSMEs (192 MSMEs) only 38 firms are not involved in export rest all firms are exporting.

Conclusion “Hope Is the Beacon Which Points to Prosperity”

As per the result it is concluded that more than 50% of the firms in Indore studied are exporting up to 50% of their production, it shows a great potential of these firms in the near future if they raise their exports up to the 100% of their production capacity. Around 22% firms are exporting 50-100% of their production. All these facts and figures revealed that MSMEs in Indore region have significantly potential to meet export assignments.
References

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8. www.msmeindore.nic.in
9. 4th All India Census for MSMEs 2006-2007: Registered Sector
IMPACT OF NEW TECHNOLOGY ON THE EXPORT POTENTIAL OF MSMEs: A STUDY OF INDORE REGION

PARUL SHARDA, Designation: RESEARCH SCHOLAR
DEVI AHILYA UNIVERSITY, INDORE

ABSTRACT
This paper explores the impact of new technology on the export potential of MSMEs (Micro Small and Medium scale Enterprises) in Indore region. The study undertaken is descriptive in nature which includes surveys & fact-finding enquiries to measure the impact of new and updated technology on the productivity of MSMEs in Indore region. The study is primarily based on primary data collected from 192 Micro, Small and Medium Enterprises in Indore. The paper concludes that the MSMEs situated in Indore region are equipped with latest technology in their production process that results in high quality products and cost-effective production.

Key Words: Export Potential, Indore region, MSMEs (Micro Small and Medium scale Enterprises), new technology, productivity.

INTRODUCTION
In India the role of micro, small and medium enterprises (MSMEs) in the economic and social development of the country is well established. MSMEs contributed towards GDP was 22% in year 2011-2012, and rose to 37.54% in year 2012-2013 (PIB July 2014) showing a consistency of 11% growth rate every year. The major advantage of the sector is its employment generation at low capital cost. Its total employment in the MSME sector is 805.24 lakh in 2012-2013 (PIB July 2014). The labor potential of the MSME sector is much higher than that of large enterprises. The sector provides employment to about 69 million persons through 26 million enterprises throughout the country. In recent years, the MSME sector has consistently registered higher growth rate compared with the overall industrial sector. With its agility and dynamism, the MSME sector has shown admirable innovativeness and adaptability to survive the recent economic downturn and recession.

As per the Report of the Working Group on Micro, Small and Medium Enterprises (MSMEs) Growth for 12th Five Year Plan (2012-2017), the sector accounts 45% of the manufacturing output and 40% of total exports of the country. Over 6000 products ranging from traditional to high-tech items are being manufactured by the MSMEs in the country. The labor to capital ratio in MSMEs and the overall growth in the sector is much higher than in the large industries. The geographic distribution of the MSMEs is also more even. Thus, MSMEs are important for the national objectives of growth with equity and inclusion.

The development of the micro, small and medium enterprises (MSME) sector is on the priority of Government Agenda. As per the Results-Framework Document (RFD) for Ministry of Micro, Small and Medium Enterprises (2012-2013), the Mission of the government is to – "Promote growth and development of globally competitive Micro, small and Medium Enterprises, including Khadi, Village and Coir industries, in cooperation with concerned Ministries / Departments, State Governments and other stakeholders by providing support to existing enterprises and encouraging creation of new enterprises. To endeavor and to achieve a cumulative growth of 40%-50% in the number of registered enterprises by the end of 12th Plan and enhance this sector's contribution to GDP from the present 8% to 10% by the end of 12th Plan."

• Hence to turn the mission of the government into reality MSMEs have to start innovating, it's a time to go global i.e. by fulfilling the domestic interests expanding the business globally...
and it could only be possible when we match our product quality according to international standards. Therefore by adopting new and updated technology MSMEs can achieve the goal of government “MSMEs- Promote and grow global”. Internet-enabled environment helps in fast and accurate decision-making by the SMEs due to increased mobility. The critical components before SMEs are speed of services, access to information, empowering employees in terms of skill and delivering highest valued services at competitive cost. SMEs need IT-based solutions in terms of multitasking, expanding customer base, raising productivity, controlling cost, working remotely, and accurate decision-making and facilitating collaboration. SMEs have various needs to function in an aggregate manner in order to reach out for value addition by keeping in mind the variable cost model. IT usage by the SMEs raises productivity of the sector in particular and the economy in general (Shambhu Ghatak, 2009). Exporting can be one way of stimulating growth of SMEs; if SMEs gradually improve the quality standards of manufactured products they can capture more global shares. Boosting the contribution of small and medium enterprises in total exports of India is vital to India’s future economic growth (Divya Sampath 2006).

Definitions of Micro, Small & Medium Enterprises

In India, the term SSI (Small Scale Industries) is used far more often than SME and is based upon investment in assets. Although defined differently across countries, they have one thing in common; the vast majority of SMEs are relatively small and over 95% of SMEs in Asia employ less than 100 people. Based on this, broad comparisons of the nature and role of SMEs are still possible even with different definitions.

According to the provision of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 the Micro, Small and Medium Enterprises (MSME) are classified in two Classes:

(a) Manufacturing Enterprises: The enterprises engaged in the manufacture or production of goods pertaining to any industry specified in the first schedule to the Industries (Development and Regulation) Act, 1951 or employing plant and machinery in the process of value addition to the final product having a distinct name or character or use. The manufacturing enterprises are defined in terms of investment in plant and machinery.

(b) Service Enterprises: The enterprises engaged in providing or rendering of services and are defined in terms of investment in equipment.

The limit for investment in plant and machinery/equipment for manufacturing/service enterprises, as noted, are as under:

<table>
<thead>
<tr>
<th>Manufacturing Enterprises – Investment in Plant &amp; Machinery</th>
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</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
<tr>
<td>Micro Enterprises</td>
</tr>
<tr>
<td>Small Enterprises</td>
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<tr>
<td>Medium Enterprises</td>
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</tbody>
</table>

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Service Enterprises – Investment in Equipments

<table>
<thead>
<tr>
<th>Description</th>
<th>INR</th>
<th>USD($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro Enterprises</td>
<td>up to Rs. 10Lakhs</td>
<td>up to $ 25,000</td>
</tr>
<tr>
<td>Small Enterprises</td>
<td>above Rs. 10 Lakh &amp; up to Rs. 2 Crores</td>
<td>above $ 25,000 &amp; up to $ 0.5 million</td>
</tr>
<tr>
<td>Medium Enterprises</td>
<td>above Rs. 2 Crores &amp; up to Rs. 5 Crores</td>
<td>above $ 0.5 million &amp; up to $ 1.5 million</td>
</tr>
</tbody>
</table>

Source: www.dcmsme.gov.in

Characteristics of MSMEs

- Born out of individual initiatives & skills
- Greater operational flexibility
- Low cost of production
- High propensity to adopt technology
- High capacity to innovate & export
- High employment orientation
- Utilization of locally available human & material resources

Role of MSME-DI Indore

MSME-Development Institute (MSME-DI), Indore is a field level agency of Ministry of Micro, Small & Medium Enterprises (MSME) to take care of the needs of the MSME Sector in the state of M.P. in the area of Techno-economic and managerial consultancy service.

MSME headed by the Development Commissioner, under the ministry of Micro, Small & Medium Enterprises (MSME). Government of India is an apex body as well as the nodal agency for formulating, coordinating and monitoring the policies and programmes meant for promoting and development of Micro, Small & Medium Enterprises (MSME) throughout the country.

MSME DI, started in 1958 (Formerly known as SISI), is one of the field level agencies of MSME and is the only one of its kind in M.P. Apart from offering various consultancy services, this institute also offers various technical and management training programmes for the benefit of prospective/existing entrepreneurs. To assist the sector, having Field Testing Station at Bhopal and Branch MSME DIs at Gwalior & Rewa under the administrative control of MSME DI, Indore.

The MSME-DI Indore offers various services like training programmes and workshops for enhancing the knowledge of entrepreneurs related to improvement of new and updated technology in MSMEs.

Some of them are:
- **Modernization and Technology Up-gradation**
  a. Technology Upgradation on studies/in-plant studies.
  b. Production cum-process development Diversification on project

- **TRC (Technology Resource Center)**, TRC is a ‘TECHNOLOGY REROUTE CENTER’ which is made functional from October, 2001. It is major drive to create a friendly and conducive environment for entrepreneurs. Entrepreneurs can access the latest available technology and industry related information on the spot. Though it is started in a humble way, it is expected to hit in a big way in future by equipping itself to provide technology-related using the latest IT tools.
• **UPTECH (Integrated Technology)**  
  **Upgradation and Management Programme**, The objective of the project is to implement an integrated Technology Upgradation and Management programme addressed to the smaller skills based enterprises. The programme is organized around clusters of enterprises and is designed to provide for the promotion cost that are inherent in transfer of technology from its producer to the end user.

• **MSME DI –SDTI (Micro, Small & Medium Enterprises (MSME -DI) – Selective Dissemination of Technology Information)**  
The objective of the project is to build up a database on the technologies that are available indigenously with technology institutions and with industry, and also to build up a parallel database of the technology requirements of Micro, Small & Medium Enterprises (MSME -DI). The project provides an excellent opportunity to the small enterprises as well as those institutions and units that have technologies for offer/sale.

**LITREATURE REVIEW**

• **DC-MSME (June, 2014)** During primary research it was found that the Development Center of Micro, Small and Medium Enterprises identified, MSME sector as engine of growth all over the world. Many countries of the world have established a SME Development Agency as the nodal agency to coordinate and oversee all Government interventions in respect of the development of this sector. In the case of India, also Medium establishment has for the first time been defined in terms of separate Act, governing promotion and development of Micro, Small and Medium Enterprises (MSME) i.e. Micro, Small and Medium Enterprises (MSME) development Act, 2006 (which has come into force from 02nd Oct, 2006) the Office of Development Commissioner (Micro, Small and Medium Enterprises) functions as the nodal development Agency under the Ministry of Micro, Small and Medium Enterprises (MSME). Consequent to the increased globalization on of the Indian economy, MSMEs are required to face new challenges. Office of the Development Commissioner (MSME) has recognized the changed environment and is currently focusing on providing support in the fields of credit, marketing, technology and infrastructure to MSMEs. Global trends and national developments have accentuated Office of the Development Commissioner (MSME)’s role as a catalyst of growth of MSMEs in the country.

• **Dr. S.Baskaran (2013)** identified that Small and Medium Enterprises play a vital role for the growth of Indian economy by contributing 45% of the industrial output, 40% of exports, 42 million in employment, create one million jobs every year and produces more than 8000 quality products for the Indian and international markets. As a result, MSMEs are today exposed to greater opportunities for expansion and diversification across the sectors. The Indian market is growing rapidly and Indian industry is making remarkable progress in various industries like Manufacturing, Precision Engineering, Food Processing, Pharmaceuticals, Textile & Garments, Retail, IT, Agro and Service sectors. SMEs are finding increasing opportunities to enhance their business activities in core sectors.

• **Ishu Garg and Suraj Walia (2012)** commended that undoubtedly the MSME sector has enormous potential and is a crucial aspect of the Indian economy. However it is essential on
the part of the government to take careful decisions and honest policy implementation to overcome the problems of MSME sector. A technologically vibrant, internationally competitive small and medium industry should be encouraged to emerge, to make a sustainable contribution to national income, employment and exports. It is imperative to take care of MSME sector to enable it to take care of the Indian economy.

- Shambhu Ghatak (2009) in his study highlighted the impact of information technology or Internet-enabled environment on SMEs; it helps in fast and accurate decision-making by the SMEs due to increased mobility. The critical components before SMEs are speed of services, access to information, empowering employees in terms of skill and delivering highest valued services at competitive cost. SMEs need IT-based solutions in terms of multi-tasking, expanding customer base, raising productivity, controlling cost, working remotely, fast and accurate decision-making and facilitating collaboration. SMEs have various needs to function in an aggregated manner in order to reach out for value addition by keeping in mind the variable cost model. IT usage by the SMEs raises productivity of the sector in particular and the economy in general.

- 4th All India Census for MSMEs 2006-2007 reports that, of the total working enterprises, proportion of micro, small and medium enterprises were 94.94%, 4.89% and 0.17%, respectively. Data also reveals that 10.49 lakh units (67.10%) were manufacturing enterprises, 2.52 lakh units (16.13%) were repairing and maintenance enterprises and 2.62 lakh units (16.78%) were service enterprises. Proportion of the enterprises operating in rural areas was 45.23%.

- Divya Sampath (2006) in her research considered exporting to be one way of stimulating growth of SMEs; she finds that if SMEs gradually improves the quality standards of manufactured products they can capture more global shares. Boosting the contribution of small and medium enterprises in total exports of India is vital to India's future economic growth.

**HODOLOGY & DESIGN**

**Study Design:** The study undertaken is descriptive in nature which includes surveys & factual enquiries to measure the impact of new technology on the export potential of MSMEs situated in Indore region. The study is an attempt to analyze firm's core competencies with respect to production, quality standards, technology and financial performance (financial health) so that they can be promoted as export oriented units in the near future. The Study has proven its validity on the ground of available literatures. The study also explores the positive aspects of various factors such as Government schemes, technical assistance, etc. for the technological development of export oriented environment among the entrepreneurs. The exploration and evidences of studied phenomena gives better understanding and valuable knowledge about MSMEs in Madhya Pradesh helping the researchers to carry relevant research topics for further studies. The study is primarily based on primary data collected from 192 Micro, Small and Medium Enterprises in Indore.
SAMPLING PLAN

Universe: Micro, Small and Medium enterprises situated in Indore region.

Sampling Unit: The research covered 192 MSMEs as target respondents. Responses had been collected from different categories of enterprises as given below.

Types of Organisations

<table>
<thead>
<tr>
<th>Micro Enterprise</th>
<th>Small Enterprise</th>
<th>Medium Enterprise</th>
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<tbody>
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Total 192

THE TOOLS

For Data Collection: Data has been collected using self-designed questionnaire. The questionnaire was based on predetermined questions. The questionnaire was based on nominal scale (Yes/No) type questions.

For Data Analysis: Once the response is collected it was converted into the useful data that can be used for statistical analysis by using SPSS software. Further, to meet the objective of the research Graph is used as a statistical tool.

RESEARCH HYPOTHESES:

$H_0$: New technology has not significantly improved the production of MSMEs in Indore region.

RESULT

For the hypotheses, "$H_0$: New technology has not significantly improved the production of MSMEs in Indore region". The data compiled and depicted with the help of bar-graph as a statistical tool.
The null hypothesis $H_0$ is rejected as the test was found significant.

The above graphical presentation of obtained result revealed that latest technology has significant impact on productivity of MSMEs. The study found that the MSMEs situated in Indore region are equipped with latest technology in their production process that results in high quality products and cost-effective production. Out of the total responses it was found that 100% of studied MSMEs have installed new technology (Refer Figure 1).

CONCLUSION: "New technology unknowingly gives birth to Innovation"

Hence, the result revealed that there is a significant relation between new technology and improved production of MSMEs in Indore and therefore the export potential is present in MSMEs in Indore. The study founds that the production increased due to new technology were ranging from 10% to 40%. The studied MSMEs also have given credit to the government schemes, workshops and training programmes held in Indore to meet the quality and standards.

Source: Author made graph.
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Role of MSME-DI in overall growth of MSMEs: A study of Indore Region.

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Abstract:
Micro, small and medium-sized enterprises (MSMEs) play a vital role in the national economies of countries in most of the economies; MSMEs constitute over 90% of total enterprises, and are efficiently credited for generating the highest rate of employment. It also accounts for a major share in the area of industrial production and exports. Through this conceptual paper we have attempted to analyze the role of Micro Small and Medium Scale Enterprises- Development Institute (MSME-DI) Indore towards overall growth of MSMEs located in Indore region

Key Words: MSME, MSME-Development Institute, Indore

INTRODUCTION

In India the role of micro, small and medium enterprises (MSMEs) in the economic and social development of the country is well established. MSMEs contribution towards GDP was 22% in year 2011-2012, and rose to 37.54%. In year 2012-2013 (PIB, 2014) showing a consistency of 11% growth rate every year. The major advantage of the sector is its employment generation at low capital cost. Its total employment in the MSME sector is 805.24 lakh in 2012-2013 (PIB, 2014). The labor potential of the MSME sector is much higher than that of large enterprises. The sector provides employment to about 69 million persons through 26 million enterprises throughout the country. In recent years, the MSME sector has consistently registered higher growth rate compared with the overall industrial sector. With its agility and dynamism, the MSME sector has shown admirable innovativeness and adaptability to survive the recent economic downturn and recession.
As per the Report of the Working Group on Micro, Small and Medium Enterprises (MSMEs) Growth for 12th Five Year Plan (2012-2017), the sector accounts 45% of the manufacturing output and 40% of total exports of the country. Over 6000 products ranging from traditional to high-tech items are being manufactured by the MSMEs in the country. The labor to capital ratio in MSMEs and the overall growth in the sector is much higher than in the large industries. The geographic distribution of the MSMEs is also more even. Thus, MSMEs are important for the national objectives of growth with equity and inclusion.

Over the years, the small scale sector in India has progressed from the production of simple consumer goods to the manufacture of many sophisticated and precision products like electronics control systems, micro wave components, electro medical equipments, etc. The process of economic liberalization and market reforms has further exposed these enterprises to increasing levels of domestic and global competition.

The MSME sector in India is highly heterogeneous in terms of the size of the enterprises, variety of products and services, and levels of technology. The sector is playing a crucial role in providing employment opportunities at comparatively lower capital cost than large industries. It also helps in industrialization of rural and backward areas, reducing regional imbalances and assuring more equitable distribution of national income and wealth. They comprise a widely divergent spectrum of establishments, engaged in economic activities ranging from engaged in economic from micro and rural enterprise to modern industrial units using sophisticated technologies. Such enterprises exist in the form of factories, workshops, trading and service organizations. Ownership patterns range from proprietorship and partnership to companies and co-operatives. Due to their contribution to their respective national economies, the importance of SMEs has been accentuated in the minds of policy makers, planners and the industry in the recent past (Dr.A.P.Pandey and Shivesh, 2007).

The development of the micro, small and medium enterprises (MSME) sector is on the priority of Government Agenda. As per the Results-Framework Document (RFD) for Ministry of Micro, Small and Medium Enterprises (2012-2013), the Mission of the government is to – "Promote growth and development of globally competitive Micro, small and Medium Enterprises,
including Khadi, Village and Coir industries, in cooperation with concerned Ministries / Departments, State Governments and other stakeholders by providing support to existing enterprises and encouraging creation of new enterprises. To endeavor to achieve a cumulative growth of 40%-50% in the number of registered enterprises by the end of 12th Plan and enhance this sector's contribution to GDP from the present 8% to 10% by the end of 12th Plan.

**Definition of Micro, Small & Medium Enterprises:** In India, the term SSI (Small Scale Industries) is used far more often than SME and is based upon investment in assets. Although definition differ across countries, they have one thing in common; the vast majority of SMEs are relatively small and over 95% of SMEs in Asia employ less than 100 people. Based on this, a broad comparison of the nature and role of SMEs is still possible even with differing definitions.

According to the provision of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 the Micro, Small and Medium Enterprises (MSME) are classified in two Classes:

(a) **Manufacturing Enterprises:** The enterprises engaged in the manufacture or production of goods pertaining to any industry specified in the first schedule to the industries (Development and regulation) Act, 1951) or employing plant and machinery in the process of value addition to the final product having a distinct name or character or use. The manufacturing enterprises are defined in terms of investment in plant and machinery.

(b) **Service Enterprises:** The enterprises engaged in providing or rendering of services and are defined in terms of investment in equipment.

The limit for investment in plant and machinery / equipment for manufacturing / service enterprises, as notified, are as under:
The objective behind this study is to find out the different roles played by the MSME-Development Institute in overall growth of MSMEs in Indore region. For achieving the objective this research comprises of an overall contribution of MSMEs in Indian economy, as well as covering the different benefits to MSMEs in Indore (Madhya Pradesh).

**LITERATURE REVIEW**

Many Studies are conducted on the contribution of MSMEs in the overall growth of global trade. Some of the related studies reviewed for this paper is as follows:

- **Amar Shankar and Prakash Singh (2014)** in the article published in economic times identified the challenges faced by MSME sector. These challenges include accessing markets -international and domestic, accessing finance, accessing modern technology accessing skilled manpower and deficiencies in infrastructure etc. On analyzing this sector’s issues and requirements it becomes clear that it requires
focused support and a concerted effort from multiple stakeholders. It is in this context that the Government of India established a separate ministry focusing on the needs of MSMEs. By design being a horizontal ministry it requires support and collaborative decision making from other ministries to ensure the competitiveness of the Indian small and medium enterprises can improve.

- **Erdal Akdeve (2013)** has identified that exports play an important role in global trade and in turn the economic growth of the country. However, in order for exports to achieve the expected benefit to the country’s economy, it is essential that firms manufacture exportable products. Therefore, in order to keeps entrepreneurship thriving and to increase economic development and international competitiveness, it is important that SMEs export potential should be increased since they make up 99.5% of the Turkish economy.

- **Dr. S. Baskaran (2013)** studied Indian MSMEs w.r.t their contribution in economy and concluded that Micro, Small and Medium Enterprises play a vital role for the growth of Indian economy by contributing 45% of the industrial output, 40% of exports, 42 million in employment, create one million jobs every year and produces more than 8000 quality products for the Indian and international markets. As a result, MSMEs are today exposed to greater opportunities for expansion and diversification across the sectors. The Indian market is growing rapidly and Indian industry is making remarkable progress in various Industries like Manufacturing, Precision Engineering, Food Processing, Pharmaceuticals, Textile & Garments, Retail, IT, Agro and Service sectors. SMEs are finding increasing opportunities to enhance their business activities in core sectors.

- **Pareek H S (1989)** in his book, ‘Financing of Small Industries in a Developing Economy’ highlights the problem of small scale industries, with particular reference to the financial aspects and presents an analysis of the capital structure of 181 Small Scale units in different capital resources belonging to various industrial groups. The study reviews the role of the financial institutions and the state agencies in extending credit to small scale
industrial units and pinpoints their attitude of indifference in catering to the needs of the tiny units.

- Srinivas K.T (2003) in his research calculated the contribution of MSMEs in GDP and identified that there are 30 million enterprises in various industries, employing 69 million people. Together, these account for 45% of the industrial output and 40% of the exports. Although 95% of Micro, Small and Medium Enterprise units are informal in nature, the contribution of the sector to India's GDP has been growing consistently at 11% per annum, higher than overall GDP growth of 7-8%.

**BENEFITS FOR MSMEs IN INDORE (MADHYA PRADESH)**

Madhya Pradesh the second largest Indian State covering 9.5% of the country's area is bestowed with rich natural resources, a gifted climate and fertile agro-climatic conditions. With a rich cultural heritage, an excellent quality of life, a flourishing industrial base, peaceful labor force, a progressive & investor friendly environment, Madhya Pradesh is a great place to set up new industries.

M.P. is located in very heart of incredible India and similarly Indore is located at heart of M.P. It is like an industrial hub right in the epicenter of India's commercial activities. To go places, you need connectivity and this is the key to development. Connectivity is M.P.'s strength. The State has a near perfect equidistant link to India's metros and lies in close proximity to most markets. Many important railway tracks and highways pass through Madhya Pradesh. The State has about 70,000 Kms of road, over 6,000 Kms of railway lines, four airports, and 25 air strips with regular air services to airports, including private airline operations. It houses more than 1800 companies and 19 industrial growth centers, many of which are close to major cities thus making good social infrastructure accessible to industrial units. Nevertheless, the rates of prime land in the State are still among the lowest in the country.

It is one of the focal points in the country for 'testing' new products and services, and has an increasingly modern, educated and aware society. There is connectivity to all major cities and
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It is one of the focal points in the country for 'testing' new products and services, and has an increasingly modern, educated and aware society. There is connectivity to all major cities and
industrial hubs in the country. A world class 4000 acre automobile testing track is coming up near the SEZ. The State is in the 'achiever' mode! Welcome to a new vibrancy! Welcome to the new Madhya Pradesh.

Madhya Pradesh is already one of India's most prosperous trade centers, boasting of many distinguished industrial groups. The auto and pharmaceutical sectors have special presence. A proactive and peaceful industrial work atmosphere, availability of basic infrastructure facilities, natural resources and skilled workforce has made it an attractive investment destination.

A cosmopolitan city accepted as the commercial capital of Madhya Pradesh, Indore plays a pivotal role in the trade and commerce of the State. Poised to become a software and industrial hub, and suitable for inclusion in the coveted category of software cities, Indore has grown many folds and has more business potential to offer than any other cities of similar stature in the country. Major corporate and business houses including foreign investors have already invested heavily in concurrent projects going on in and around Indore.

A complete civic & industrial friendly environment with state of the art infrastructure has resulted in phenomenal industrial growth of this part of M.P.

As the capital of the Holkar dynasty, Indore has always been known for its rich cultural heritage and hospitality. The city has proximity to almost all the major towns of India, through rail, roads, and air, which is a boon for the MSME Sector.

ROLE OF MSME-DI IN OVERALL GROWTH OF MSMEs IN INDORE

MSME-Development Institute, Indore is a field level agency of Ministry of Micro, Small & Medium Enterprises (MSME) to take care of the needs of the MSME Sector in the state of M.P. in the area of Techno-economic and managerial consultancy service.

MSME headed by the Development Commissioner, under the ministry of Micro, Small & Medium Enterprises (MSME). Government of India is an apex body as well as the nodal agency for formulating, co-coordinating and monitoring the policies and programmes meant for
promoting and development of Micro, Small & Medium Enterprises (MSME) throughout the country.

MSME DI, started in 1958 (Formerly known as SISI), is one of the field level agencies of MSME and is the only one of its kind in M.P Apart from offering various consultancy services, this institute also offers various technical and management training programmes for the benefit of prospective/ existing entrepreneurs. To assist the MSME sector, we are having Field Testing Station at Bhopal and Branch MSME Dls at Gwalior & Rewa under the administrative control of MSME DI, Indore.

The office of the Development Commissioner (MSME) functioning within the Ministry of MSME in Indore is located at the following address:

| Micro, Small & Medium Enterprises Development Institute (MSME-DI) |
| 10, Industrial Estate, Polo ground, Indore. |
| Phone :0731-2420723 / 2421540 / 2421037 |
| Web Address: dcdi-indore@dcmsme.gov.in |

- **Services offered by MSME DI Indore**

MSME-DI offers a wide variety of consultancy services as well as training programmes for the promotion and development of Micro, Small & Medium industries. It also guides MSMEs in Indore to avail the benefit from government schemes and programmes like Bar-Code Reimbursement scheme see (Table-1 in Annexure-1), product certification reimbursement scheme see (Table-2 in Annexure-1), ISO certification Reimbursement scheme see (Table-3 in Annexure-1). Keeping in view the requirements of different Industries, separate sections are set-up. Amongst these main are Metallurgy section, Mechanical section, Chemical section, Electronics & Electrical section, Glass and ceramics section, Leather & Footwear section, Economic Analysis & Industrial Indices of production section, Industrial Management & Training section and Export.

There are separate technical officers in each section that provide guidance to the entrepreneurs & MSME-DI units under the following areas:-
1. Technical Consultancy
2. Economic Counseling
3. Management Consultancy
4. Technical Upgradation
5. Ancillary and Vendor Development
6. Sub-Contract Exchange
7. Export Promotion
8. Marketing Assistance
9. Workshop Facility
10. Women Cell
11. Entrepreneurial Development Program
12. Assistance to Sick Industries
13. Preparation of Project Report
14. Industrial Pollution Control and Energy Conservation
15. Assistance under PMRY
16. Retraining for rehabilitation of rationalized mill workers
17. Small Enterprise Network
18. Field Testing Station
19. Consultancy on Quality upgradation, ISO 9000 & TQM.
21. Technology Resource Centre (TRC)
22. Modernization

Consultancy in selection of proper process, machinery & equipment and their installation is provided to the existing units. They are also assisted in solving their technical, marketing and managerial problems. Detailed project reports are prepared on request by the entrepreneurs. Industrial studies, feasibility studies for both product and areas are prepared to determine their industrial potential. In-plant studies, impact studies, market studies, etc. are also undertaken.
Small units are registered by the Institute under this program. Machine wise idle capacity available with the registered units is assessed and efforts are made for better utilization of their spare capacity.

A women cell has been established to provide information regarding Small Industries to women entrepreneurs. Women entrepreneurs are assisted in solving the problems related to establishment of their industry.

Educated, unemployed, including technical persons and women entrepreneurs are suitably oriented to entrepreneurial culture both through formal training, actual demonstration and motivation to start small industries of their own. Actual demonstration of process involved in manufacturing of some items forms an integral part of entrepreneurial development efforts.

Motivational and promotional programs are organized in backward and rural areas in co-operation with the State Directorate of Industries, Banks, National Small Industries Corporation Ltd., etc. to motivate prospective entrepreneurs to set-up small units.

The major services in brief are listed below

• **Project Assistance**
  It includes identification of product, preparation of project report and pre-feasibility report, appraisal and evaluation of projects for banks and other agencies. Selection of plant and machinery, raw materials, technology and process Know-how. Quality improvement, standards Drawings and plant lay-outs. Capacity assessment assistance for hire/purchase of machinery etc.

• **Modernization and Technology Up-gradation**
  It includes Technology Up gradation studies and In plant studies, Production-cum-process know how, Development and Diversification of project.

• **Ancillary Development Programme**
  It includes vendor development and buyer-seller meets, Identification of ancillary items, Quality awareness in vendor units etc.
• Economic Research Information Service It includes:
  a. Undertaking District Industrial Potential Surveys, Undertaking Market potential surveys,
     Disseminating information about Government Policies and Programmes, Providing
     information on incentives and facilities available for MSME sector in M.P.
  b. Energy Conservation Studies, Pollution Control Studies, Motivation Campaigns etc.
  c. Quality Awareness and Up gradation Programmes.

• Assistance to Sick Industries
  It includes survey of Sick Industries and preparation of report on their rehabilitation.
  Banks forward names of Sick Industries to development institute centers and the
  Institute conducts sick unit study.

• Assistance under PMRY(Prime Minister Rojgar yojna)
  It serves educated unemployed persons by assisting them in identification of their industries
  according to their interest and qualification. The Institute also provides them detailed project
  report to understand the things in better way.

• Retraining for rehabilitation of rationalized mill workers
  It offers training for mill workers as, MSME Indore was selected as Nodal agency for retraining
  of rationalized mill workers. MSME has devised various training programs for mill workers. Mill
  worker are being interviewed and identified for specific need based training programs.

• Small Enterprise Network
  It is an electronic database network that has been established, in order to provide latest
  information to small entrepreneurs. It serves them to access the latest information easily.

• Field Testing Station
  Field Testing Station is working at Bhopal since 1984. The objective of testing center is:(a) To
  provide testing facilities to enable small industries to produce stores conforming to IS
  Specifications(b) To provide testing facilities in accordance with the requirements of DGS&D
  and other purchasing departments of State and Central Governments.(c) To provide testing
  facilities under pre-shipment inspection scheme to facilitate export of small industries
  products.(d) To provide facilities for testing under quality marking scheme introduced by State
Governments.

(e) To help the individual units to set up in house testing arrangements in a more feasible and practical way.
(f) To coordinate with Bureau of Indian Standards (BIS) and other technical testing / inspection organizations in matters relating to standardization of products in small scale sector.
(g) To provide testing facilities to the export oriented units in order to build quality of the products manufactured by MSME sector and thereby improve the export performance from this sector for specified products.

➢ Special services offered by MSME-DI are:

• **M.P. Sub Contact Exchange (M.P.SX)**

Under this service, an existing small-scale entrepreneur, along with product details, can register their names with M.P. SX constantly interact with large and medium industries in the State as well as neighboring States and identifies requirements of inventory. This information is disseminated to the small scale entrepreneurs to utilize the already existing spare capacity of production and hence helps in maximizing the profit. Any small-scale entrepreneur with the idle capacity of production is welcome to register with M.P.SX.

• **SENET (Small Scale Industries and Resource Center Network)**

SENET is an intranet project launched by the Office of the Development Commissioner- MSME in April 1997 and is a small enterprise information resource center network. Its Objectives are:

a) To Create - an electronic intranet for small enterprises

b) Databases for small enterprise to Provide - technical know-how and package assistance to them.

c) Limited financial assistance to information providers to Promote a network alliance among the public and private sector.

• **TRC (Technology resource Center)**

TRC is a ‘TECHNOLOGY RESOURCE CENTER’ which is made functional from October, 2001. It is major drive is to create a friendly and conducive environment for entrepreneurs. Entrepreneurs can assess the latest available technology and industry related information on the spot. Though it is stared in a humble way, it is expected to hit in a big way in future by equipping itself by using the latest Information Technology tools.
• UPTECH (Integrated Technology)

Up gradation and Management Programme

UPTECH is launched by Development Commissioner (MSME-DI), Government of India. The objective of this project is to implement an integrated Technology Up gradation and Management programme addressed to the smaller skills based enterprises. The programme is organized around clusters of enterprises and is designed to provide for the promotion cost that are inherent in transfer of technology from its producer to the end user.

• MSME DI–SDTI (Selective Dissemination of Technology Information)

MSME DI– Selective Dissemination of Technology Information has been launched by the office of Development Center in collaboration with Technology bureau of small Enterprises (TBSE), is a joint venture of small industries Development bank of India (SIDBI) and Asia pacific Center for transfer of technology (APCTT) The objective of the project is to build up a database on the technologies that are available indigenously with technology institution and with industry, and also to build up a parallel database of the technology requirements of Micro, Small & Medium Enterprises development Institute (MSME -DI). The project provides an excellent opportunity to the small enterprises as well as those institutions and units that have technologies for offer/sale.

➤ Details of the courses offered by MSME-DI Indore:

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Duration</th>
<th>Eligibility</th>
<th>Course fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial Development Programme</td>
<td>10 days</td>
<td>10th pass and above</td>
<td>Rs.100/- for (M), Rs.50/- for (F), Free of cost for (SC/ST/OBC)</td>
</tr>
<tr>
<td>*Entrepreneurship Skill- Development Programmes (ESDPs)</td>
<td>40 working days</td>
<td>10/12 pass/final year graduation students</td>
<td>Rs.200/- for (M), Rs.100/- for (F), Free of cost for (SC/ST/OBC)</td>
</tr>
<tr>
<td>Management Development</td>
<td>40 hours</td>
<td>Working professionals/experienced</td>
<td>Rs.400/- for (M)</td>
</tr>
<tr>
<td>Programmes (MDP)</td>
<td>Post-Graduation final year students</td>
<td>Rs. 200/- for (F)$_2$ Free of cost for (SC/ST/OBC)$_3$</td>
<td></td>
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</tbody>
</table>

*Source: MSME-DI polo ground Indore, (M)$_1$ = Males of General Category, (F)$_2$ = Females of General Category, (SC/ST/OBC)$_3$ = Scheduled Caste/Scheduled Tribes/Other Backward Classes

* Entrepreneurship Skill Development Training Programme in
  a. CNC wire Cutting Programming Workshop.
  c. Managerial Assistance/Export Assistance.
  d. Facilitating participation in International Exhibitions.
  e. Training in Export related subjects.
  f. Dissemination of Export related information.

**Other Seminars/Workshops conducted for MSMEs include:-**

- ✓ One day motivation camp to explore the untapped potential.
- ✓ Bar code seminar: It helps entrepreneurs in understanding the Utility and benefits of barcode on their products.
- ✓ Energy efficiency seminar: It helps MSMEs in engineering industry to understand different new machines and their utility to enhance business.
- ✓ Seminar on product certification: It helps MSMEs in understanding, as what benefits they get if they get their products certified.
- ✓ Seminar on export packaging: It helps MSMEs diversifying their business to Export about the packaging standards and regulations about different countries. Also about the standard packaging that can be accepted globally with no/less modifications.
- ✓ Seminar on Quality Management System (QMS)/Quality Technical Tools (QTT): It helps MSMEs diversifying their business to domestic/export about what quality standards should be achieved and maintained to be accepted globally.

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<th>Post-Graduation final year students</th>
<th>Rs. 200/- for (F)&lt;sub&gt;2&lt;/sub&gt;</th>
<th>Free of cost for (SC/ST/OBC)&lt;sub&gt;3&lt;/sub&gt;</th>
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**Source:** MSME-DI polo ground Indore
The services offered by MSME-DI Indore are mainly focused to help the upcoming/existing entrepreneurs in Indore to increase their productivity and to help prospective entrepreneurs who have a penchant to start their own ventures.

CONCLUSION

In Indore Region MSME sector has benefitted a lot in terms of guidance, motivation, training and support from MSME-DI. MSME-DI's main strength lies in its highly dynamic competent workforce. The technical division like Mechanical, Metallurgy, Chemical, Electrical, Electronics, Leather – Footwear, Food items, Glass and Ceramics, Economic Research, Training divisions etc. are functioning with well experienced and qualified professionals. The professionals are widely traveled and have experienced in serving every nook and corner of the country. Their constructive efforts attain a fruitful completion by the dedication shown by supporting staff. In addition to these, there are three Workshops, namely Mechanical, Fruit & Vegetable Preservation, and Leather. The Mechanical workshop is equipped with modern facilities like CNC wire cutting M/C, Machines Work Shop besides several other machinery. Facilities are available for imparting practical training suit to the modern requirements. Further, the library is well stocked with technical and management information/ literatures apart from various magazines and journals relating to small-scale industries. A sound infrastructure like class Rooms, Seminar Halls with modern audio visual aids also help MSME in rendering the services effectively.

With the presence of MSME-DI, we can hope for the best for the MSMEs in Indore region. As MSME-DI is present as a guiding light to the upcoming as well as existing entrepreneurs.

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