CHAPTER I: INTRODUCTION

Chapter one is focusing on background of the study and Covers need and rationale for the conduct of the study along with discussions on problem statement and objectives of the study.

1.1: Background of the Study

It is necessary to look into some factors and their status related to business environment, particularly which factors are influencing innovation and with the shift and transformation from a product centricity towards customer centricity, business organizations operating in a complex environment need to focus resources, processes and energies towards this shift. Global trade and business today rests on a strong knowledge base where people constantly endeavor towards providing enhancement and improvement in product design and delivery. Customer retention and building competitive edge are two crucial factors that govern and regulate businesses. The key component to keep meeting benchmarks of these two factors is a strong inclination to innovate. People buy because business innovate, innovation leads to several tangible and intangible benefits within an organization. Organization should strive to develop and reinforce innovation culture and innovation practices in order to have competitive advantage.

In view of fast changing technologies, changing demography of labour market, growing competition and complexities of the market forces, it has become imperative for medium scale industries to be constantly innovative. On the other hand there is tendency for these companies to continue to function in the conventional manner. Innovative practices can become effective provided if there is conducive environment, better understanding of market forces and highly specialized workforce.

The study is important for following reason It gives a proper understanding of those organizations in the changing environment. The study also helps in understanding the idea of innovative practices from the perspective of management. The study shall
provide guideline to such enterprises for understanding the innovation process in more planned and systematic way.

1.2: Innovations in India

The growth rate of Indian economy has seen a healthy trend in the recent years. Reports state that the rate of growth has been around 6 – 8% of which there is a positive growth rate from conduct of exports which is growing at 30% CAGR. The spurt in growth rate has triggered high levels of competitiveness among Indian companies who are successfully competing with international conglomerates and top brands and have thereby gained advantages such as high capital and labour productivity; delivery efficiencies; quality of goods and services produced and marketed; and low costs. These significant improvements in competitiveness among Indian firms can be attributed partly due to foreign investments in India both in terms of setting up base as well as investments in research and development in sectors such as Automobiles, Consumer Electronics, Consumer Durables, Services etc., to name a few (Mark a Dutz, 2007).

According to Dutz, 2007, the Indian business environment has been an enabler for growth of firms through formulation of favorable economic policies, efforts towards radical changes in industrial licensing, reduction of protection policies to make Indian firms more competitive, permissions for foreign investments into India and Indian organizations, lowering governmental regulations and control. The result has been that companies in India are taking a serious look at adding competencies in their operations which is possible through an innovative approach. Indian organizations have thus acted upon the fact that “Innovation is a key driver” (National Knowledge Commission, 2007). The report from National Knowledge commission further states that the key to economic success and growth is Innovation, where in 42% of large scale firms and about 17% of Micro, Small and Medium Enterprises (MSMEs) have adopted innovative practices in their business operations.

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1 Cumulative Annual Growth Rate.
2 The report on Action Agenda for Innovation by Mark a Dutz mentions about the enabling environment that Indian firms are competing under.
3 Joseph Schumpeter was one of the first economist to link innovation with economics growth.
Very little mention was found in articles about innovation activities carried by various organizations in India. Though there is a shift in contributions by various sectors to the India economy, (the contribution of service sector is the largest) the innovation activities are comparatively higher in the manufacturing sector than services as mentioned in the report of the National Knowledge commission.

It is a well known fact that the innovation has led to increase in profitability for all global organizations; the firms in India who belong to manufacturing sector too have witnessed the same. It is further reiterated that Innovation not only increases profits but on the other hand plays a pivotal role in cost reduction activities. This may not compare well with the service sector as they have far less spends on R &D, lower volumes of revenue as manufacturing has high capital spends, and that the service based firms partner with many intermediaries in the value chain of activities. In contrast the percentage spend on innovation vis-à-vis revenues earned, is higher in service sector as compared to the manufacturing sector.

The National Knowledge commission emphasizes that one of the key enablers for India’s economic growth story and building its competitiveness globally, is through Innovation adopted by organizations. The report states that awareness of the benefits of adopting innovation and actual utilization of innovative practices in the conduct of business is on the rise. Despite this, there is a need to provide impetus to innovations adopted by firms covering several facets of operations of an enterprise. It reinstates that optimal results can be achieved by a business organization only when the said factors collaborate to have maximum impact of adoption of any innovative practices. There has to be a gradual spread of adopting innovation at all levels of activities within an organization as currently the focus of innovation is concentrated only in area of production and operations; sales and marketing etc. Manufacturing organizations in particular should focus on all processes and not just concentrate on operations. However, the success of all innovation programmes largely depends on available talent pool, as creativity and cutting edge solutions to solve complexity arises only when organizations possess people with adequate skills and expertise.

**Government Partnership for Innovation:**
The Government of India has always encouraged innovation through providing a conducive environment for growth and provided necessary facilities and support through the initiation of several programmes such as:

- The National Innovation Foundation,
- New Millennium Indian Technology Leadership Initiative (NMITLI),
- Techno-Entrepreneurs Promotion Program, (TePP),
- Home Grown Technology Program (HGT),
- Technology Development Board (TDB)

**National Innovation Council Initiatives:**

To pursue innovation and provide stimuli to organisations in India the National Innovation council set up by the Government of India has prepared a framework. The framework was prepared to formulate a roadmap and as an action plan for undertaking innovations for 2010 – 2020. The framework is as follows:

- Evolving an Indian model of innovation focusing on inclusive growth
- Policy formulation with the appropriate government departments to encourage innovation
- Aim to foster inclusive innovation through the creation of requisite eco-systems
- Strategic initiatives to spur innovations through collaborative efforts and associations.
- Efforts towards sustenance and scaling up innovations
- Through encouragement of SMEs, R &D institutions, Central and State Governments, Universities etc. to undertake innovation and innovation based programmes.
- Encouraging innovation in public service delivery
Barriers of Innovations in India:

Though there are numerous barriers that stifle innovation and thereby growth of organizations, innovation may not be adopted if there are high resistances through these barriers. However, looking at barriers with a positive outlook creates fewer hurdles in adopting and implementing innovative practices.

The National Knowledge Commission report 2007 spells down various barriers to adopting innovations faced by Indian enterprises in the MSME category such as:

- High Government regulation
- Time taken for innovation to be experienced by target markets
- Inability on pricing of products and services so as to gain value from Innovation implemented.
- Need for strategic focus on Innovation for their growth and competitiveness
- Lack of requisite knowledge management systems in firms.
- Adequate knowledge of market dynamics and customers demands.
- Innovation continuity as MSMEs has initial innovative practice and lack sustaining the momentum of innovation further.
- Need for collaborative efforts with other important stakeholders to innovate.

These barriers need to be overcome by Indian firms. The impetus to economic development will largely depend on innovations undertaken by organizations which will create new products that might cater to existing and newer markets. It is imperative that firms pursue innovation as a strategy for sustained organizational development.

India’s stand in Global Innovation Index:

The Global Innovation Index (GII) provides innovations undertaken country wise on predetermined and specified variables. The focus of the GII is to bring about increased awareness of the derived benefits of innovation. The efforts of the GII are to bring about awareness to policy makers about the importance of innovation, create an environment

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where innovation is constantly focused upon for its reexamination and revaluation.

The Global Innovation Index (GII) focuses on two sub-indices:

- Innovation Input Sub-Index, and
- Innovation Output Sub-Index

(Figure 1.2.1: The Global Innovation Index)

The position of India stands on Global Innovation Index is:

- India ranks 62nd in the specified region. It is 8th in the income group after countries such as China, Moldova, Jordan, Thailand, Viet Nam, Ukraine, and Guyana
- In terms of GDP, it is eleventh among all nations with GDP of $1,310 billion
- In terms of population, India is the second most populated country, with population size of 1.2 billion.

6 Global Innovation Index 2012
- India ranks among top 30 on labor productivity growth (21st with 4.5%) and computer and communications services exports (4th globally, with 70.0% of total commercial service exports)
- India is among the top 40 nations for: high-tech exports (32nd, at 6.34% of GDP), R &D (35th), general infrastructure (11th) and Foreign Direct Investment net out-flows (38th, at 1.08% of GDP)
- Regarding export of creative goods and services, it ranks 9th for creative goods exports, and 29th on creative services exports
- Regarding input side, India’s performance is way below as it is ranked 87th.
- India ranks way below in areas of providing a conducive business environment, education in both primary and higher, and knowledge workers.

1.3: Indian Medium Scale Manufacturing Sector

1.3.1: Definitions of Micro, Small and Medium Enterprises

Micro, Small and Medium Enterprises (MSME) are classified in two different classes according to the provision of Micro, Small and Medium Enterprises Development (MSMED) Act, 2006.

- **Manufacturing Enterprises:**
  “Firms / enterprises that are involved 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 Enterprise is defined in terms of investment in Plant and Machinery”.

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7 [http://www.dcmsme.gov.in/ssiindia/defination_msme.htm](http://www.dcmsme.gov.in/ssiindia/defination_msme.htm)
• **Service Enterprises:**

“The enterprises engaged in providing or rendering of services and are **defined in terms of investment in equipment**”.

As per the Act, The MSMEs are classified on basis of capital investment (investment in plant and machinery)

<table>
<thead>
<tr>
<th>Manufacturing Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Enterprises</strong></td>
</tr>
<tr>
<td>Micro Enterprises</td>
</tr>
<tr>
<td>Small Enterprises</td>
</tr>
<tr>
<td>Medium Enterprises</td>
</tr>
</tbody>
</table>

1.3.2: **Indian Medium Scale Manufacturing Sector**

Manufacturing sector is the one where research and development starts with the invention of new technology to develop new and better processes and products. Being a backbone of all the developed and developing nations, India is rated among the top growth economy of the fast moving economies of the world. There have been increase in challenges and opportunities to the firms and business organizations that belong to the manufacturing sector in the Indian economy after liberalization. This sector being dynamic, flexible and innovative; there has been consistent rise and growth in investments that it has attracted, opportunity creation, creation of employment, production, understanding of markets, management development in terms of abilities to manage business in turbulent environments and operational capability has seen set high standards of performance.

This sector promotes regional and interpersonal equalization which helps to build the conventional and futuristic knowledge and expertise. As this sector has great
competitive advantage its tendency to grow to large scale is high. This sector being less capital intensive and more labour intensive is less worried about loosening of trade protection policies as it has gained high competitive standards globally.

The exposure of Indian Medium scale manufacturing enterprises (MME’s) to a competitive landscape that is both at the domestic and global front, has enabled greater access to markets that are geographically spread and strong collaborative linkages with large scale organizations. This competition, co-operation and interaction between SMEs and larger firms help to generate collective efficiency and technical upgradation to produce the goods as per the customer’s needs. This liberalized economic atmosphere forces them produce goods and services of high quality, diversified product portfolio, technology utilization on a continuous basis, efficient management systems. The focus on above has been an imperative as these were hitherto neglected in the earlier decades.

This economic liberalization has provided opportunities of growth to urban areas but areas that are remote especially in states that are not yet developed face tall challenges and thus are trapped in vicious poverty circles. The biggest difficulty in seeking fresh investments as little investments may flow to backward areas due to higher returns on investment in fats growth areas.

The new development policies according to MSMED act 2006 will provide fresh impetus to growth of MMEs as it will translate to changes in the current environment faced be these firms and changes in the very philosophy and concept of business operations. The new planned actions may thus provide corresponding opportunities and challenges to these firms. These measures can accelerate the overall growth of industry by removing out the frail units and providing support and strength to those who intend to change for the good and the strong resource units. The new policies thus implemented, will bring about administrative reforms and eliminate all restrictions that are local or central and minimize the effect of licensing norms and rules. These reforms will help boost the competitive positions of MMEs as they will be in a position to extract best from available and offered resources with the support and direction of the government. This coupled with use of current technology and entrepreneurial spirit backed by innovation will provide immense benefits.
Introduction of new definition of MMEs made it possible for the medium units to get access to facilities and benefits that are provided by the Government. It has been the prerogative of the Government of India to provide necessary support and help towards modernizing and building the MME sector in India through encouraging transformations in conventional set-ups and establishment of new age firms with new age products. This push by the Government has made current MMEs eady to adapt to changing conditions and processes that modern science and technology are offering.

The new policy helps MMEs broaden outlook for:

- Being adaptable to changes and looking at new ways of current operations.
- Focusing on providing platforms for product changes and updations, design changes, which are needed to meet current market demands.
- Providing avenues to technology development initiatives and its final utilization at firms.
- Management development of entrepreneurs by focusing on ownership skills, leadership skills and skills to handle market complexities.
- Focus on organizational skill development for employees to effect their performance and work towards contribution in creative manner.

Taking into consideration the strategic role played by MMEs, it is very important to study how their performance can be worked upon at global level and their export competitiveness. This is because, the support through subsidies and protectionist policies under which MMEs operated earlier will cease and as a result the efforts towards self sustenance and competitiveness will take importance.

The growth of MMEs can be accelerated unless there is constant supervision and monitoring of the operations of these firms. Corrective actions need to be supported at these forms to raise their productive levels. The regulatory authorities and support agencies can forge out collaborations with international players and investors to mentor and guide local entrepreneurs with potential, provide support through adequate infrastructure, technical support, and adequate support through the help of lenders who are necessarily banks and non banking financial institutions in the development of these enterprises.
1.3.3: Size of Indian Medium Scale Manufacturing Enterprises:

The rough estimate about the size varies from 10000 to 70000 units. According to the data available from the most reliable sources i.e. Department of Industrial Policy and Promotion there are 12760 medium enterprises with investment of Rs.87949 crores and 2009557 employments. These enterprises fall in the investment slab of Rs.5 to 10 crores in plant and machinery.

1.3.4: Contribution of Indian Medium Scale Enterprises:

The medium scale enterprises have played a larger role in development and growth of the economy. The total number of enterprises of MMEs is about 18% of the total number of enterprises in India, has about investments of 3.5% of the total investments by firms put together and employs 2% of workforce among all manufacturing enterprises. This pertains to all firms with capital investment above Rs.1 crore.

The ratio of employment to investment is a healthy one among the medium enterprises in India. The said ratio among medium enterprises is 22.85, which suggests that every Rs 1 crore invested in setting and running a medium enterprise provides employment to about 23 workers.

a) Regional Distribution (State wise) Indian Medium Scale Enterprises:

There is high variation among states in terms of the total number of enterprises in respective states. These variations are on factors such as number of enterprises, investment and employment. The state’s leading in number of medium enterprises are Maharashtra and Gujarat, followed by Uttar Pradesh, Andhra Pradesh, Haryana, Tamil Nadu and West Bengal. These states in total have about 66% units. Two states of these 7 states, which are Maharashtra and Gujarat have about 32% units’. Close to 15 states have less than 1% units.

b) Indian Medium Scale Enterprises in terms of Investments:

Maharashtra and Gujarat lead in terms of investment which is followed by Uttar Pradesh, Andhra Pradesh, Haryana, Tamil Nadu and West Bengal. These states put together have about 65.78% of the investment. Maharashtra and Gujarat account for 31% of
investment. Close to 16 states have less than 1% share in investment. The average investment was Rs. 7 crores per unit, whereas the state wise average investment in medium enterprises is Rs 2665.12 crore.

c) **Employment in Indian Medium Scale Enterprises:** The states that lead in terms of providing employment are once again Maharashtra and Gujarat, followed by Uttar Pradesh, Andhra Pradesh, Haryana, Tamil Nadu and West Bengal. These states together contribute to about 78.5% of the employment. The leading states in providing and generating employment are Maharashtra, Tamil Nadu and Gujarat as they provide about 30% of employment. Close to 16 states contribute to less than 1%.

d) **Investment:** Average investment per unit varies from 5.7 crores in Sugar units to 7.7 crores in Dye-stuffs. In terms of average investment the position of different industry groups in medium sector enterprises was almost similar.

e) **Employment:** Product-wise employment distribution is concentrated in metallurgical, chemical and textiles industries accounting for 43% share of employment, out of which only metallurgical and textile industries account for 34% share of total employment. Average employment per unit varies from 418 persons in Rubber goods to 56 persons in Glue and Gelatin industries which is quite dissimilar across the different product groups. 58.92 in Rubber goods shows great variations in Employment Intensity in different industry groups.

**1.3.5: Growth Pattern (All India Bases)**

There is steady growth in terms of number of enterprises at all India level, with a growth of 11.99%.

<table>
<thead>
<tr>
<th>Indicative year</th>
<th>Number of enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1995</td>
<td>3252</td>
</tr>
<tr>
<td>2 2000</td>
<td>7441</td>
</tr>
<tr>
<td>3 2005</td>
<td>10701</td>
</tr>
<tr>
<td>4 2007</td>
<td>12760</td>
</tr>
</tbody>
</table>
1.3.6: Growth of MMEs concerning Population and Area:

a) Growth in numbers of units across Population and Area: The growth is measured in terms of density. The number of enterprises per thousand kilometers is about 3.8 units, whereas the density per lakh of populations is 1.1 units. The highest density of units concerning area and population is Dadra and Nagar Haveli and Daman and Diu.

b) Investment across Population and Area: Though there is increase in investment, it varies from state to state. Given the entire states put together, the average is about Rs 13.9 crores of invested amount per lakh of the population and in terms of area the investment is Rs 47.7 crore per thousand square kilometers. The states with the highest figures are Dadra and Nagar Haveli and Daman and Diu. The said investment is Rs 20 crores per lakh of population in seven states for medium enterprises and its is less than than Rs.5 crores in 14 states. In 16 states, the investment is more than Rs. 20 crores per thousand square kilometers.

c) Employment over Population and Area: For a population of a lakh spread the average employment created in the country was 1713 and the employment generated over thousand kilometers was 498 persons.

d) Global Scenario of Manufacturing Sector: The manufacturing sector has witnessed tremendous growth right from the period of Industrial Revolution. The spends on R & D leads to adoption of new technologies, challenges to continually develop new products and their designs, newer technologies, better processes etc. The share of the manufacturing sector in the most fast moving economies of the world manufacturing sector has a share between 30-50% of the economy. The contribution of the manufacturing sector is about 50% of GDP in China, whereas the contribution of manufacturing sector in India is at 25% share of GDP. In India, the impetus to manufacturing sector is not as compared to China due to policies of labour that are not suitable for business firms, labour intensive production and technology and reservations in the small scale sector.
e) **Medium Scale Enterprises**: Medium enterprises fall exactly between the large scale and small scale enterprises. The policies of the government apply commonly to both small and medium enterprises.

f) **Economic Environment**: One of the key factors affecting small and medium enterprises is inflation. Despite the increasing demand for inputs, there is not a corresponding effect on the need for more labour. Due to this increase in demand, medium enterprises have created additional capacities as market opportunities are growing.

g) **SME, Status and Contribution**:  
- Comprise of a total of over 80-90% of all enterprises in India.
- Provide employment and contribute to over 60% of the private sector employment
- Generate 30-40% of total employment in the country
- Regarding sales or value added to goods and services, the SME sector contribute about 50% and its share in direct exports is about 30%.

1.3.7 **Major Growth Constraints**:  
In India medium and small scale industries have various constraints. Thus constraints do have influence on their growth therefore it has a snowball effect; which has a direct bearing on innovation abilities. The constraints belong to external and internal factors of the industry. It also provides some comparison on some of these factors with other countries.

1. **External Constraints**:  
a) **Policy Related**: Some countries face the brunt of high taxation laws and high taxes. These constraints are faced by SMEs of countries such as India, Mauritius and Malaysia. The countries such as India, Mauritius and China also face bureaucratic hurdles thus rendering less governmental support. This may be reflected through the unfavorable legislation prevailing in India.

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*Source : SMEs in Asian Region; AAMO, Global Projects - 2007*
b) **Infrastructure Availability:** The countries on a high growth trajectory with regards to government fillip towards infrastructure are China and India. These countries have witnessed tremendous growth in economic terms due to modernization of roads, special economic zones, industrial estates, and power and transport facilities.

c) **Major Financial Constraints:** Regarding procusing loans from banks, collateral security happened to be a big constraint for the enterprises of countries such as Sri Lanka, China and India. Obtaining working capital loan is the major constraints for SMEs in Mauritius which is not so difficult for small and medium enterprises from New Zealand.

d) **Technological Constraints:** The technology constraints have affected growth for some enterprises which are in terms of getting the right supplier and source of requisite technology, getting finance for technology acquisition, and techno based product design. These have caused major constraints towards achieving growth for Mauritius, Thailand and China.

e) **Application of ICT Tools:** Use of ICT tools in business operations is very high in India (80%) followed by Thailand and China and some other countries.

f) **Relative Strength of Certified SMEs (ISO or Equivalent):** There is high support from the Government of India through part funding so that SMEs are motivated to obtain ISO. Thus, about 32% SMEs in India have taken benefit of this incentive and have obtained ISO certification to remain competitive and take advantages of globalization followed by China and Hong Kong with 25% ISO certification.

g) **Marketing Constraints:** Lowering of import duties, reduction in protection to SMEs in India, reduction in subsidy support are the main constraints that are faced by Indian SMEs.
h) **Business Environment:** Technology change, competition from imports, high competitive threat from similar firms from local domestic markets are witnessed as a normal scenario by many of the countries.

2. **Internal Constraints:**

   Internal environment of firms shows their internal capabilities and competencies. They are the foundations which fosters innovation culture.

   a) **Shortage of Working Capital:** it creates a vicious cycle of sorts as shortages of working capital leads firms to be under managed or ineffectively meeting market requirements.

   b) **Lack of information:** Today’s era is information era, lacking in a such valuable resources which always deviate the firm from main stream and makes incompetent to innovate.

   c) **Inability to contact potential customers:** Inability to contact potential customers prospects are the sources of new needs, new specification, new product etc. This gap in contacting them is a major leg pulling factor towards innovation.

   Some other factors that pose as challenges are lack of identifying business opportunity in global foreign markets, time constraints to meet issues of internationalization, Inadequate and poor skilled personnel, need for more government assistance, high costs of transportation etc.

1.4: **Pimpri Chinchwad MIDC area**

Pimpri Chinchwad is a city of Pune Metropolitan Region in the state of Maharashtra, India. Pimpri Chinchwad M.I.D.C area is known for manufacturing industries in India. Pimpri Chinchwad M.I.D.C. area is hub of automobile and other several other manufacturing units of various sizes including auto components, chemical, pharmaceutical and plastic. Pimpri Chinchwad is known as ‘Detroit of East’. Pimpri
Chinchwad is located to the North-West of Pune. Pimpri-Chinchwad is well connected by road, rail and air. Pune is the nearest airport for Pimpri Chinchwad area. Government is planning new international airport near Pimpri Chinchwad at Chakan.

Pimpri Chinchwad is a one of the most important industrial hub in Asia. Industrialization in Pimpri Chinchwad is started in 1954 with the establishment of Hindustan Antibiotics Pimpri Chinchwad has been known as the hub in industrial activity for over five decades, especially the last two decades have witnessed a tremendous manufacturing growth in Pimpri Chinchwad. Pimpri Chinchwad is a leading manufacturing destination in India, a logistics hub, and a renowned centre for automobile companies and automobile design. Recently many global business organizations from various countries of the world have set up operational base in Pune. The city has many well known companies such as Kirloskar Oil engines, Sandvik Asia, Atlas Copco, Alfa Laval, SKF Bearings, Finolex, Forbes Marshall, Garware, Bajaj Tempo, Force Motors, Kinetic, Bharat Forge, Kalyani etc to name a few. These organisations and many other foreign automobile and manufacturing organisations such as General Motors, Daimler AG, Volkawagen AG, Tata-Fiat, International Truck and Engine Corporation, Piaggio Vehicles, Hyundai Heavy Industries etc have led to growth and set up of many medium scale manufacturing companies in and around the industrial belts of Pune. It is now touted as the fastest growing industrial hubs for manufacturing and IT in India. Based on these facts, the Geographical Area considered for the study included PCMC MIDC as majority of the medium and small scale manufacturing enterprises are located in this region.

Maharashtra Industrial Development Corporation (MIDC) is a separate corporation started by the government of Maharashtra for providing infrastructure such as open plot and built up spaces, roads, water supply, drainage facilities and street lights etc

### 1.5: Significance of the Study

In view of fast changing technologies, changing demography of labour market, growing competition and complexities of the market forces, it has became imperative for medium scale industries to be constantly innovative. On the other hand there is tendency for these companies to continue to function in the conventional manner.
In India, the medium and small scale sector comprise majority of manufacturing industries. The economy is dependent on the performance and sustainability of these industries. A lead role is played by this sector leading to high economic growth. It contributes to 45% of the manufacturing sector, has nearly 95% of industrial units and nearly 40% in Indian exports. Various reports provide facts about the huge employment prospects in the Medium and small scale enterprises (MSME). The MSMEs provide for huge employment opportunities. It is imperative that these MSME firms build competitive advantage as there is onslaught of global competition especially from firms operating in other Asian countries who are cost effective and those from European nations who compete on value and high technology based products. Though the MSMEs from India from basic and simple goods that are manufactured to goods that are sophisticated, the need for keeping up pace to global developments and improving productivity is highly felt.

MSMEs in India face numerous challenges such as: need for optimum operation scale; impact of technology and developments thereof rendering it way back other nations; need for efficiencies in supply chain, increasing competition both at domestic and global level; strategies for both supply chain management and manufacturing etc. The processes adopted by MSME’s need to be streamlined which calls for an innovative outlook. MSMEs have low technology utilization which is a huge drawback in the global markets which hinders growth and innovation. The sector also faces shortage of skilled manpower which is required for handling operational processes, manufacturing, quality implementation efforts and marketing.

Some factors that affect firms are:

- global exposure – which firm may lack by way of training, information sharing, knowledge flow, areas of collaboration etc
- Patterns of Organization structure – which has a major influence on processes
- Focus on Research and Development

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*Refer Price Waterhouse Coopers report on India 2011: Innovation – changing the MSME landscape*
The firms need to focus on reducing process time, costs of production, increase market share, reduce cycle time, new technology adoption, quality building mechanisms, reduce consumption of energy, harness power of human capital etc,

The way out to surge ahead and compete with enterprises globally is that MSME need to adopt innovation approaches in all aspects and operations of the firms. MSME needs to innovate on aspects such as business process innovations; technology based innovations and the ability to handle external business environments. The thrust areas for manufacturing MSMEs to compete globally lies in increasing competitiveness through technology development, skill development, process orientation and marketing. Need for innovation in these areas and all other operations of a business organization is much needed as it provides for new initiatives and new markets thereby increasing the scale and scope of these firms. Innovation adoption may lead to development of cost effective versions of new and existing products. In western world, research studies have pointed out that there is a significant relationship of factors such as growth and innovation of MSMEs. Studies by Engel et al (2004) and Coad and Rao (2008) showed that there was a positive impact of innovation on sales of firms. Firms have to develop innovation strategy which needs an innovation mindset and culture to be developed, better information management among its departments and functional areas, knowledge diffusion from all levels thus thereby creating best practices.

In a knowledge economy that current world is characterized by; creating knowledge and deriving competitive advantage is most needed than just access to physical resources. Generating ideas and translating them into economic value requires innovation and a culture that promotes it. Achieving customer satisfaction is through improvisation of products and services, efficient supply chain, efficient distribution, and efficient marketing systems. The driving force to achieve the same is through Innovation

There is a high need for Innovative practices that can become effective provided if there is conducive environment, better understanding of market forces and highly specialized workforce. Hence the study becomes relevant and important in the present day context. The study is important for following reason
- It gives a proper understanding of those organizations in the changing environment.
- The study also helps in understanding the idea of innovative practices from the perspective of management.
- The challenges faced by those companies became obvious through such studies.

1.6: Problem Statement

There are various factors responsible for the growth and development of any organization. In many cases the major factor is innovation. Is the growth the result of innovation practices? Medium scale manufacturing enterprises facing different challenges in implementing innovation practices. What are those challenges to implementation of innovation practices? Whether the framework development is possible to implement innovation practices for the development of organization?

The pertinent question that the researcher had in mind was to identify the following:

- What are the challenges faced by Medium scale enterprises in conduct of their operations?
- What were the new developments undertaken by MME’s for improving growth and sustainability
- What is the importance of adopting innovation practices by these firms?
- What innovation methods and modes are being utilized by the MMEs?
- What are the key functional areas that need innovation for firms?
1.7: Objectives of the Study

1. To understand the importance, implementation and outcome of adopting innovation practices in business organizations
2. To identify processes that contribute to implementation of innovation practices
3. To identify factors that will aid in determining the existence of innovation practices carried out by select medium scale manufacturing enterprises
4. To evolve a framework as guides for implementation of innovation practices. This is considered as a mapping as this guideline is a kind of roadmap to innovation practices.

1.8: Hypotheses

Hypothetical statements are placed in this part of the chapter however they are outcomes of the literature review on innovation practices and preceding contents of this chapter and pilot work as well as interactions with MMEs personnel. Thus refining of all above, the researcher has revived as an outcome of the following statements in the form of hypothesis.

Hypothesis – I:
Ho: There is no relationship between innovative practices and yearly sales.
H1: There is significant relationship between innovative practices and yearly sales.

Hypothesis – II:
Ho: There is no difference in intensity of challenges perceived by respondents across different challenging factors presented to them.
H1: There is significant difference in intensity of challenges perceived by respondents across different challenging factors presented to them.
Hypothesis – III:
Ho: There is no difference in degree of importance of responses attached to the various components of innovation.
H1: There is significant difference in degree of importance of responses attached to various components of innovation

Hypothesis – IV:
Ho: There is no difference in the mean ranks of growth factors.
H1: There is significant difference in the mean ranks of growth factors.

1.9: Assumptions

Following assumptions were taken into consideration while conducting the present research;

1. That the data obtained from the respondents is accurate and reliable.
2. That the data collected would enable the researcher to test the hypothesis.

1.10: Limitations

1. There is insufficient information relating to private sector companies with respect to innovation practices in Indian context. Though some information of innovation, types of innovations, and challenges of innovation is available, it does not give specific and detailed information of innovation practices in medium scale manufacturing sector. Due to this inadequacy it becomes difficult to access the actual innovation practices of manufacturing enterprises.

2. The area of innovation practices has not received the desired attention from the academic researcher in India consequently there is non-availability of literature pertaining to medium scale manufacturing enterprise innovation practices.

3. Due to above limitations, the present hypothesis, assumptions, analysis and findings
are subject to defects, shortcomings, and aspects that may have been mistaken or overlooked.

4. There are several factors that indicate the innovation practices however; the researcher has considered only those factors and variables that are inductive of the company’s innovation practices because of limitations of time, resource and space.

1.11: Scheme of Chapters and Presentation of Research Output

Chapter 1 focuses on the need and rationale for the conduct of the study along with discussion on problem statement and objectives of the study.

Chapter 2 discusses about innovation its types, innovation models, innovation practices, determinants of innovation, sources of innovation, innovation and business performance, innovation process, research in innovation etc.

Chapter 3, presents Research Methodology comprising of research design, sampling method, data source, variables considered for the study, data collection tools, pilot study, tests of validity and reliability, statistical tools for data analysis.

Chapter 4 deals with Data Analysis of all the parameters considered. The data is analyzed based on the questionnaire and a detailed description is followed to reveal insights from factors affecting a particular factor. It provides a conclusion of each factor to ascertain the application of innovation practices by MMEs.

Chapter 5 provides conclusion and recommendations for MMEs for application of innovation. The chapter lays down the scope for future research as well as highlights the contribution of the current research to the existing knowledge in the area of innovation and innovation management.