

Chapter 1

Introduction

1.0 Introduction:

Small and Medium Enterprises (SMEs), contribute significantly to the GDP growth and the economic development of a country be it developing or developed. SMEs provide, significant employment avenues, platform for creativity and innovation that stimulates national income, as well as entrepreneurial opportunities and social stability¹.

Based on a study, International Finance Corporation (IFC) surmised that there is a positive correlation between the overall level of income of a country and the no of SMEs measured on a unit (per thousand) of population¹. According to the Organization for Economic Co-operation and Development (OECD), internationally SMEs account for 50% of GDP, 30% of exports, 10% of FDIs and 60-70% of the private sector employment².

During the boom period of early years of the current decade (immediately preceding the recent slowdown), as per a nine country Asia-Pacific Survey done in 2007, HSBC bank opined that SMEs are considered to be the backbone of the economy in developing countries. With oozing business confidence, especially in India, and to sustain its growth India's booming manufacturing sector needs to focus on development of SMEs³. During the same period Mr. V. Krishnamoorthi, chairman of the National Manufacturing Council (NMCC) said, "There is no doubt that the manufacturing sector is experiencing phenomenal growth. There is certain degree of resurgence but in order to have an all inclusive

¹ N Janadhan Rao in the article "SMEs in India" published in 'Global CEO' November 2007

² Siba Prasad Pothal in the article "SMERA – Reinforcing Indian SMEs" published in 'Global CEO' November 2007

³ N Janadhan Rao in the article "SMEs in India" published in 'Global CEO' November 2007

growth and to sustain it for a long time, it is imperative to focus on the development of millions of SMEs⁴.

In view of the paucity of private capital, since independence, India has pursued the strategy of promoting and supporting SMEs as the main stay of its Industrial Policy.

The strategy has resulted in the SMEs contributing substantially to the Gross Domestic Product of India. SMEs have played a vital role in changing and strengthening the industrial scenario of the country. SMEs have assisted in the utilization of assets for productive purposes with minimal initial investment as well as contributed significantly in nurturing private enterprise and accelerating the economic development by generating employment, exports and reducing regional & social disparity.

1.1 Role of Small and Medium Enterprises in growth of the India's economy:

Small and medium enterprises are the key drivers for the economic growth of a country in general and India in specific. SMEs have contributed significantly to the Industrial and economic growth of India and have also been the prime-mover of the Industrial growth in China.

SMEs not only make the back bone of the industrialization of a country but also provide the essential supply chain for the large corporates.

Among the SMEs, '**Medium Enterprises**' provide structured and stable organizations and usually emerge from among the successful small enterprises and are normally the tier 1 suppliers to large corporates or/and are leaders in their field.⁵

⁴ N Janadhan Rao in the article "SMEs in India" published in 'Global CEO' November 2007

⁵ T S Krishnaswamy in the article "Small and medium enterprises in the Indian economy" published in 'Global CEO' November 2007.

For the purpose of this research, we have selected 'Medium enterprises' located in and around Pune.

A 'medium enterprise' for this study has been defined as a 'Limited' or Private Limited manufacturing company, located in and around Pune, with annual sales turnover between Rs 100 crores to Rs 500 crores during the financial year ending March 31st 2007.

The reason for focusing on the manufacturing sector is because major percentage of the medium enterprises (as per the above criterion) from Pune is from the manufacturing sector.

Also manufacturing is vital for the economy of a country. India is gradually moving towards becoming the preferred manufacturing centre of the world and to be so it is essential that the medium enterprises, the primary engines to service this demand, perform like a world class enterprise. In an article Mr. Peter Drucker⁶, the management Guru, stated:

"If we redefine manufacturing as 'the systematic process of production', manufacturing is indeed the most important part of any world class economy..."

1.1.1 Performance of SMEs:

Small and Medium Industries have performed very well as proven by the data in the table given below which is extracted from the annual report of 2008-09 published by the "**Ministry of Micro, Small and Medium Enterprises**" (**MMSME**) of the **Government of India**.

⁶ Industry week (USA) September 1998 issue.

Table 1.1 MSEs' Performance: Units, Investment, Production, Employment & Exports

Sl. No.	Year	Total SSI units (lakh numbers)	Fixed Investment (Rs. Crore)	Production (Rs. crore)		Employment (lakh persons)	Exports (Rs. crore)
				Current Prices	Constant Prices (1993-94)		
1	1990-91	67.87	93555	78802	84728	158.34	9664
2	1991-92	70.63 (4.07)*	100351 (7.26)	80615 (2.30)	87355 (3.1)	165.99 (4.83)	13883 (43.66)
3	1992-93	73.51 (4.07)	109623 (9.24)	84413 (4.71)	92246 (5.6)	174.84 (5.33)	17784 (28.10)
4	1993-94	76.49 (4.07)	115795 (5.63)	98796 (17.04)	98796 (7.1)	182.64 (4.46)	25307 (42.30)
5	1994-95	79.60 (4.07)	123790 (6.9)	122154 (23.64)	108774 (10.1)	191.40 (4.79)	29068 (14.86)
6	1995-96	82.84 (4.07)	125750 (1.58)	147712 (20.92)	121175 (11.40)	197.93 (3.42)	36470 (25.46)
7	1996-97	86.21 (4.07)	130560 (3.82)	167805 (13.60)	134892 (11.32)	205.86 (4.00)	39248 (7.62)
8	1997-98	89.71 (4.07)	133242 (2.05)	187217 (11.57)	146262.9 (8.43)	213.16 (3.55)	44442 (13.23)
9	1998-99	93.36 (4.07)	135482 (1.68)	210454 (12.41)	157525.1 (7.7)	220.55 (3.46)	48979 (10.21)

(Source: 2008-09 Annual Report of MMSME)

Sl. No.	Year	Total SSI units (lakh numbers)	Fixed Investment (Rs. Crore)	Production (Rs. crore)		Employment (lakh persons)	Exports (Rs. crore)
				Current Prices	Constant Prices (1993-94)		
10	1999-00	97.15 (4.07)	139982 (3.32)	233760 (11.07)	170379.2 (8.16)	229.10 (3.88)	54200 (10.66)
11	2000-01	101.1 (4.07)	146845 (4.90)	261297 (11.78)	184401.4 (8.23)	238.73 (4.21)	69797 (28.78)
12	2001-02	105.21 (4.07)	154349 (5.11)	282270 (8.03)	195613 (6.06)	249.33 (4.44)	71244 (2.07)
(At 2001-02 prices)							
13	2002-03	109.49 (4.07)	162317 (5.16)	314850 (11.54)	306771 (8.68)	260.21 (4.36)	86013 (20.73)
14	2003-04	113.95 (4.07)	170219 (4.87)	364547 (15.78)	336344 (9.64)	271.42 (4.31)	97644 (13.52)
15	2004-05	118.59 (4.07)	178699 (4.98)	429796 (17.90)	372938 (10.88)	282.57 (4.11)	124417 (27.42)
16	2005-06	123.42 (4.07)	188113 (5.27)	497842 (15.83)	418884 (12.32)	294.91 (4.37)	150242 (20.76)
17	2006-07	128.44 (4.07)	213219 (8.68)	585112 (17.53)	471663 (12.60)	312.52 (4.23)	177600 (24.54)
18	2007-08 (P)	133.68 (4.08)	238975 (12.08)	695126 (18.80)	532979 (13.00)	322.28 (3.12)	NA

*Figures in bracket indicate growth rate over the previous year. (Source: 2008-09 Annual Report of MMSME)⁷

⁷ www.msme.gov.in

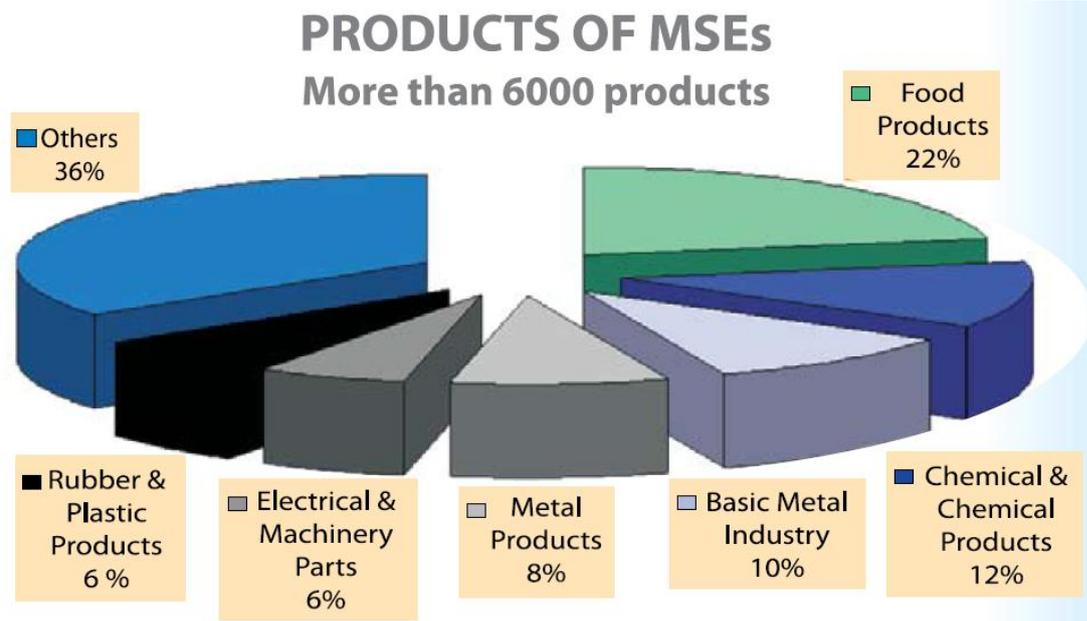
Analysis of the above data shows that the growth achieved between the financial years 1999-2000 to 2006-2007 has been as follows:

No of units:	32%
Fixed Investment:	52%
Production value at constant price level of 1993-94:	177%
Employment:	36%
Export Value:	228%

From the above analysis, it is amply clear that SSIs have contributed significantly to the Indian economy. During the year 2006-07, 12.844 million small industries with fixed investment of Rs 213,219 crores, contributed production of Rs.585,112 crores through employment of 31.252 million persons and accounted for exports valued at Rs 177,600 crores (30% of its production value). What a fantastic contribution to the nation's economy?

1.1.2 Manufacturing spectrum of the SMEs:

SMEs are engaged in manufacture of over 6000 products from varied industrial sector. Break down by sector is provided below in the form of a pie chart published by MMSME in its annual report of 2008-09. Analysis of the pie chart indicates that 42% of the SMEs are engaged in various types of manufacturing activities, 22% are focused on producing food products and the balance 36% are engaged in all other segments.



(Source:-- 2008-09 Annual report of MSME)⁸

Figure 1.1 Products of MSEs

1.1.3 Resilience to the global competition:

There was an apprehension that the International players' entry in India in the wake of globalization may result in slow down (even negative growth) of the SME sector in India. However the resilient SME sector has proven these apprehensions to be wrong as proven by the following data (Source:-- 2008-09 Annual report of MSME):

Table 1.2 Growth rate of MSE sector Vs. Overall Industrial Sector

Year	Growth Rate of MSE Sector (%)	Overall Industrial Sector (%)
2002-03	8.68	5.70
2003-04	9.64	6.90
2004-05	10.88	8.40
2005-06	12.32	8.10
2006-07	12.60	11.5
2007-08*	13.00*	8.00

* Projected

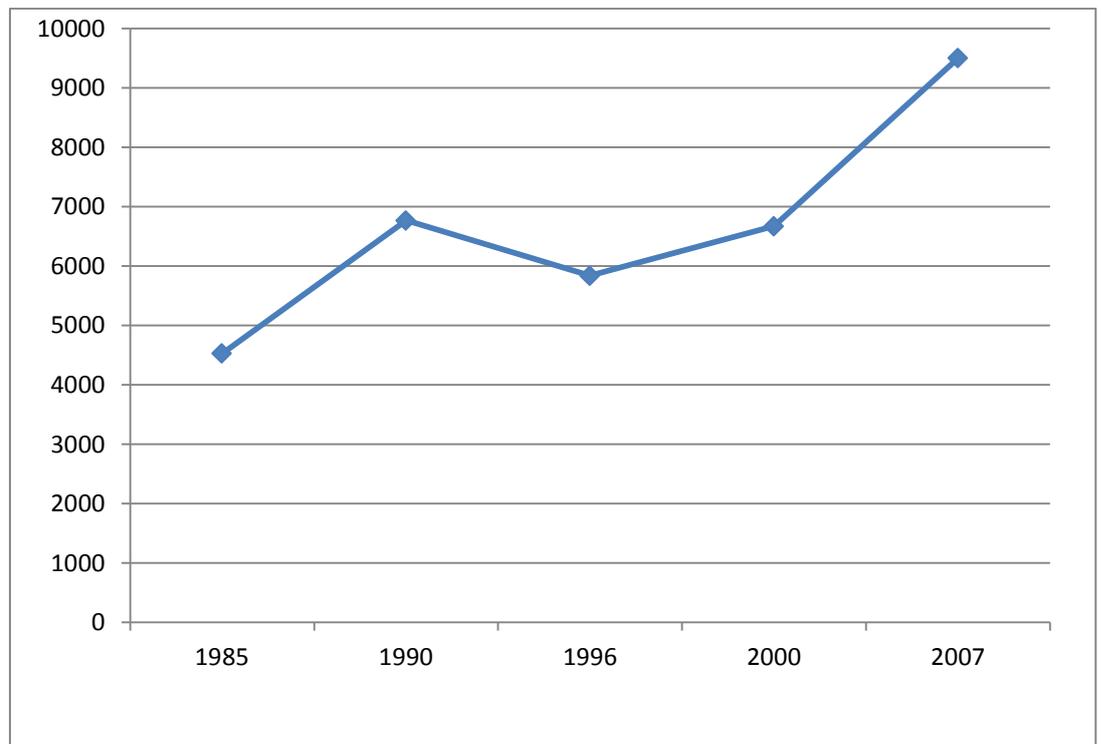
⁸ www.msme.gov.in

Above data proves that in spite of the onslaught of the Chinese and other international organizations, SMEs in India have consistently sustained its growth rate and that too at a level higher than the overall growth of the India's industrial sector.

1.2 SMEs in the Pune District

SMEs scene in the Pune district follows the trend shown above for pan India. Relevant statistics are given below:

Growth of the No. of Industrial Units in Pune District



(Source: Mahratta Chamber of Commerce, Industries and Agriculture)⁹

Figure 1.2 Growth of the No. of Industrial Units in Pune District

⁹ "Profile and Analysis of Pune Mfg. Inc. published by Mahratta Chamber of Commerce, Industries and Agriculture in Feb. 2008)⁹

In the above chart, numbers of Industrial units in existence at Pune district have been plotted from the year 1985 till 2007. Significant trend to be noted is that there was a negative growth between 1990 and 1996 (from approx. 6800 to 5900). However the trend was reversed between 1996 and 2000. As a result the no of SME industrial units in the year 2000 reached the same level (around 6800) as the no in the year 1990. After the year 2000, the SMEs sector bounced back resulting in a steep growth resulting in number of industrial units in the year 2007 to be nearly 9500.

1.2.1 Categorization of Industrial Units in Pune District, into Small, Medium and Large Units as per the norms announced by the Government of India:

Table 1.3 No of Industrial MSME units in Pune District

Year	Small	Medium	Large	Total
1985	4439	36	54	4529
1990	6643	45	78	6766
1995	5593	73	172	5838
2000	6407	86	177	6670
	Micro	SME	Large	Total
2007*	4790	4600	110	9500

(Source: Mahratta Chamber of Commerce, Industries and Agriculture)⁹

*Please note that the classification for 2007 is ruled by the MSMED Act of 2006 (please see section 1.3 below) and hence the units have been divided as micro, SMEs and large scale units.

From the above it emerges that the major addition of new industrial units was in the SME sector.

1.2.2 Employment provided by the Micro, SMEs and Large enterprises during 2007 in Pune District.

Table 1.4 Employment provided in 2007 by MSMEs in Pune District

Classification	No. of units	Employment	%age of total
Micro	4790	47,900	8.8
SME	4600	4,14,000	76.4
Large	110	80,000	14.8

(Source: Maharashtra Chamber of Commerce, Industries and Agriculture)¹⁰

From the above table it is clear that SMEs account for 76% of the private sector employment. Whereas SMEs provide employment to 4,14,000 persons, large industries provide employment to only 80,000 persons. Contribution of micro enterprises is 47,900 employees. In other words contribution of SME sector to employment is 5 times more than the employment provided by the large sector.

1.2.3 Classification of Industries in Pune District by Annual Sales slabs (2006-07)

Table 1.5 Classification of Industries in Pune District by annual sales in the year 2006-07

Sales Slab	Percentage*
Less than 1 crore	65
Between 1-20 crores	30
Between 20-100 crores	4
More than 100 crores	1

*Based on data provided by 6000 units

¹⁰ * "Profile and Analysis of Pune Mfg. Inc. published by Maharashtra Chamber of Commerce, Industries and Agriculture in Feb. 2008)¹⁰

58 Industrial units that have sales turnover of nearly 100 crores and above can be further classified as follows:

- More than 1000 crores: 12
- Between 500-1000 crores: 7
- Between 100-500 crores: 39

The 39 units which fall in the category "Between 100-500 crores approx.", are further analyzed below:

- No. of units that have since then merged with the parent co. 2
- No of units that are non manufacturing and also do not provide support services to manufacturing units: 2
- Balance no of units in this category: 35

To the above 35 units we have included two additional companies that are in the sector and are just marginally outside the range (Rs 98.57 crores and Rs.607.65 crores) as both the companies are well managed and known in their field. Hence the total no of companies meeting with our criteria from the above publication (February 2008) by the Maharashtra Chamber of Commerce and agriculture add up to be 37.

Interestingly 18 (nearly 50%) among the above units are engaged in the auto components manufacturing and the remaining are spread across various other manufacturing segments including paper products, pharmaceuticals, industrial machinery, etc.

(Source: Maharashtra Chamber of Commerce, Industries and Agriculture)¹¹

¹¹ "Profile and Analysis of Pune Mfg. Inc. published by Maharashtra Chamber of Commerce, Industries and Agriculture in Feb. 2008)¹¹

1.2.4 Exports from Pune:

MCCIA in their survey found that "Primary estimate derived from the survey is that the total exports of Pune could be close to Rs. 10,000 crores per annum i.e. close to 19% of the total industrial output produced is exported out to several destinations. Interesting part of the export story lies in the product mix being exported. A plethora of products ranging from engineering products, machine tools, machinery, capital equipment, automobile components, forgings, processed food products, hardware and chemicals are being exported out of Pune."¹² The focus on exports has been steadily growing. Automobile components manufacturers have shown a tremendous inclination and potential for export.

1.3 Definition of the Micro, small and medium enterprises by the Governments of a few countries.

Government of India:

Definition of Micro, Small and Medium enterprises, as per the Micro, Small and Medium Enterprises Development ACT, 2006¹³, is as follows:

- Micro Enterprises:
 - ❖ Engaged in manufacturing or production: the investment in plant and machinery not to exceed twenty five lakh rupees.
 - ❖ Engaged in providing or rendering of services: the investment in equipment not to exceed ten lakh rupees.
- Small Enterprises:

¹² "Profile and Analysis of Pune Mfg. Inc. published by Maharashtra Chamber of Commerce, Industries and Agriculture in Feb. 2008)¹²

¹³ www.msme.gov.in

- ❖ Engaged in manufacturing or production: the investment in plant and machinery is more than twenty five lakh rupees but does not exceed five crore rupees.
- ❖ Engaged in providing or rendering of services: the investment in equipment is more than ten lakh rupees but does not exceed two crore rupees.
- Medium Enterprises:
 - ❖ Engaged in manufacturing or production: the investment in plant and machinery is more than five crore rupees but does not exceed ten crore rupees.
 - ❖ Engaged in providing or rendering of services: the investment in equipment is more than two crore rupees but does not exceed five crore rupees is more than two crore rupees but does not exceed five crore rupees.

The above definition by the Government of India does not specify annual sales revenue of the enterprise and/or the number of employees as parameters for classification as micro, small or medium enterprise or business.

European Union:

The European Union has defined the category of micro, small and medium-sized enterprises (SMEs)¹⁴ as the enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million (Rs 330 crores approx.), and/or an annual balance sheet total not exceeding EUR 43 million (Rs 280 crores approx.). Within the SME category, a small enterprise is defined as an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not

¹⁴ www.ec.europa.eu

exceed EUR 10 million (Rs. 6.6 crores approx.). Within the SME category, a micro enterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million (Rs. 13 crores approx.).

SMB defined by SBA of United States of America:

In USA, SBA (Small Business Administration)¹⁵ has defined the small businesses by no of employees for each standard industrial category (SIC). The 'Manufacturing' small industries category has been defined to employ between 500-1500 employees depending on the type of manufacturing the enterprise is engaged in. Statistical data based on annual Sales revenue is provided for a suitable classification depending on the purpose of a study. Such statistical data for the census year 2002 is given below:

¹⁵ www.sba.gov

Table 1.6 Receipts Size of Enterprise in USA, in thousands in 2002

Receipts Size of Enterprise in thousands	<u>Firms</u>	<u>Establishments</u>	<u>Empl oyment</u>	<u>Payroll Annual (\$1,000)</u>	<u>Sales or Receipts (\$1,000)</u>
Less than \$100	1,291,552	1,292,473	1,945,928	26,447,381	64,040,172
\$100 to \$499 thousand	2,387,780	2,396,006	8,724,876	167,457,202	596,925,336
\$500 to \$999 thousand	819,513	835,546	6,869,133	166,589,812	576,474,893
\$1 to \$4.9 million	906,936	1,038,624	17,430,229	519,122,708	1,896,143,798
\$5 to \$9.9 million	138,195	225,217	7,054,818	242,369,521	957,896,121
\$10 to \$49.9 million	122,785	350,320	14,465,046	522,395,899	2,504,242,359
\$50 to \$99.9 million	15,895	104,599	5,430,875	203,490,400	1,095,837,221
\$100 to \$249.9 million	8,732	123,220	6,648,609	259,027,065	1,330,102,972
\$250 to \$499.9 million	2,880	93,491	5,201,186	199,189,814	1,006,886,217
\$500 to \$999.9 million	1,544	107,929	5,380,010	204,735,327	1,078,980,045
\$1 to 2.499 billion	1,056	174,666	7,132,953	280,897,627	1,642,368,662
\$2.5 billion or more	891	458,679	26,116,991	1,151,456,850	9,312,630,400

Source:

[Statistics of U.S. Businesses](#), 2002¹⁴

Dubai:

Government of Dubai has defined¹⁶ the MSMEs as follows:

Micro businesses: For trading companies--up to nine employees and annual sales of US \$2.4 million (Rs. 10.80 crores); for manufacturing companies—up to 20 employees and annual sales of US \$ 10 million (Rs. 45 crores); for service companies—up to 20 employees and annual sales of US \$ 3 million (Rs.13.50 crores).

Small businesses: For trading companies--up to 35 employees and annual sales of US \$ 13.33 million (Rs. 60 crores); for manufacturing companies—up to 100 employees and annual sales of US \$ 26.66 million (Rs. 120 crores); for service companies—up to 100 employees and annual sales of US \$ 6.67 million (Rs.30 crores).

Medium businesses: For trading companies--up to 75 employees and annual sales of US \$ 66.65 million (Rs. 300 crores); for manufacturing companies—up to 250 employees and annual sales of US \$ 66.65 million (Rs. 300 crores); for service companies—up to 250 employees and annual sales of US \$ 40 million (Rs.180 crores).

1.4 Growth Opportunities available to the manufacturing enterprises.

The India's integration with the global economy has opened doors for the 'Medium Enterprises' to be in the International league thereby creating great opportunities for growth while posing its own challenges. In the current global village, several barriers need to be overcome to be a world class enterprise so as to compete well with the International competitors.

¹⁶ National Business news paper of UAE dated December 23, 2009. www.thenational.ae

To grow from the current medium level to a medium world class enterprise requires several capabilities and skills, suitable for sustained all-round growth, including the following:

- state of the art technology,
- sound information systems,
- management skills,
- sound operational processes,
- open and growth oriented culture,
- flexible organization structure, etc.

The critical success factors for a World Class Manufacturing Organization are as follows:

- Cost control
- Quality
- External flexibility
- Internal flexibility
- Capacity to change (Human resources)
- Innovation capacity

World Class Manufacturing Organizations have successfully incorporated the above capabilities and success factors in their DNA, culture and business processes. However the current "Information Age" is different than the preceding Industrial age and hence the above capabilities and skills have to take cognizance of this.

Several medium enterprises in India particularly the enterprises from the "Auto Components Industry" have been extremely successful in exploiting the global opportunity through providing and sustaining competitive edge by way of cost, quality and delivery.

At Pune Bharat Forge Limited is an example of such a success story. They have created a world class manufacturing facility that utilizes the advantage of skilled cost effective labor, world class technology, quality culture, sound application of information technology as well as International standard management skills. Thermax is another case where the company has grown consistently over the past 35 years and is now a well respected large engineering manufacturing organization.

1.5 Information Technology:

The current age is the information age wherein information technology plays a vital enabling role in transitioning an Industrial Enterprise to a world-class organization. Information Technology is the asset/capability base on which an enterprise constructs its business information systems. At this stage it would be apt to define the terminology IT (Information Technology):

“Information Technology is the preparation, collection, transport, retrieval, storage, access, presentation, and transformation of information in all its forms (voice, graphics, text, video and image).”

Information movement can take place between humans, humans and machines, and/or between machines.

Information management ensures the proper selection, deployment, administration, operation, maintenance, and evolution of the IT assets consistent with organizational goals and objectives.

1.5.1 Role of Information Technology:

To support human endeavor to achieve excellence, information technology (IT) provides: the electronic means of data capture, conversion of data to information, analysis of data and information,

storage and retrieval of data and information; tools and techniques to carry out a task more efficiently and so on.

Over the past two decades application of IT in the enterprises has gone through drastic change. Whereas two decades or so earlier IT was mainly employed to carry out mundane transactions oriented back office tasks (typically like payroll computations, accounting, inventory management, invoicing, etc.), today it is not uncommon, to find IT being used not only in the main stream revenue generation and operation management tasks but also in planning and monitoring functions as well as in implementing management practices and realizing organizational values and culture. Several enterprises use IT as the primary business generation and revenue earning means, a typical example being that of Amazon and several other Business to Business and Business to Consumer businesses.

In the past decade, IT has played a key role in bringing in the new ways of business innovation and resource optimization in the business and industrial world. The biggest beneficiaries would have been the Medium enterprises, who did not carry the legacy bureaucratic baggage and hence could easily implement world class best business practices with the help of IT.

Today IT has evolved into a strategic weapon for the well organized and efficient business organization. Business and Industrial organization are deploying IT as a strategic tool to gain competitive advantage and to build future competencies. IT is used across the organizational processes. Applications of IT include Enterprise level applications like ERP, robotics, shop floor automation, decision support systems, artificial intelligence, etc. We are proud to be from Pune where the legendary 'Nano' small car was developed by Tata Motors. It is inconceivable to imagine

design and development of 'Nano' without the IT applications like CAD/CAM/PLM, etc.

In other words, role of IT is to provide a resource for building, compounding and sustaining competitive advantage for the enterprise. Deployment of IT applications to minimize time to market, reduce cost by improving both productivity and quality, improve customer satisfaction through on-time delivery, and meeting with customer expectations of fit-for-purpose-and-use products and services, etc. are specific instances of this greater purpose. In the current information age, the purpose of IT is to be the foundation of sustained competitive advantage.

To effectively harness the power of IT, both business and IT must be in a state of harmony.

1.5.2 Chasm between IT and Business and its mitigation:

Every enterprise struggles to gain a competitive advantage, be it through new innovative products brought to market in the shortest possible time, or timely implementation of strategic and operational strategies and tactics or for that matter generation and implementation of innovative ideas across all processes of the enterprise, and in several more ways. Somewhere or the other in the world today some enterprises have used IT to gain a specific competitive advantage. The current information age has provided us with the tools like world-wide-web and means to research and find the above information as well as to use the immense computing power provided by IT to innovate, develop and implement.

In other words in the current hyper information age a key business advantage equates to the superior innovative and novel use of the

Information Technology and is perhaps a key pre-requisite to be a world class organization.

However a definite chasm exists between IT and business across the world. In a recent Forrester survey (Forrester is a leading IT research organization in USA), only 15% of IT leaders declared themselves to be fully aligned with the business. Business executives painted a similar picture. Nearly 80% of the 600 business executives who responded to Forrester's Q3 2008 North American Business Online Survey ranked IT "somewhat" to "critically" important for key business activities, such as lowering the operating costs, improving workforce productivity, and acquiring and retaining new customers. But less than half of these business leaders saw IT as doing "well" to "excellent" in supporting these needs. What is true for the North American enterprises is perhaps more so for the evolving Indian Medium scale enterprises who, for growth, need to export besides catering to the domestic requirements. To foster growth of medium scale enterprises, it is imperative to find out the drivers to bridge this gap and also deploy such applications of IT tools and techniques that are effectively used by the successful high growth industries.

Traditionally business leaders perceive IT to be a necessary white elephant that requires a large investment and operations cost but does not deliver business value congruent with the investment and recurring expenses. They further discern IT persons to be techies who only understand bits and bytes and communicate in technical terms, instead of business language, resulting in serious communication gap between the IT persons and business executives. This is further compounded by the focus of IT function on keeping up with technology and measuring its performance in IT technical metrics like uptime, turnaround time to fix a fault, time to fix a bug, etc. instead of measuring the business value addition.

This communication gap further widens the divide between the business executives and the IT function.

Primarily due to the above reasons, business leaders, tell the IT function the IT applications that the IT department should work on and deliver. This is further compounded by the approach followed by the IT persons which is 'we deliver what the users want'. This approach would result in 'IT applications' as an afterthought and not as an integral part of the business strategic and tactical plans resulting in a serious handicap on account of the proven contributions that IT can make. A few examples are as follows:

- IT has increasingly become the critical mechanism to lower costs, compress time to market, provide value addition, and interact with customers and suppliers.
- Provide software (functionality) that is many times the actual product delivered to a customer.
- Become increasingly the vehicle of customer satisfaction and value added innovation.
- Provide the competitive advantages and counter the competitors' advantages.
- Provide significant ability to react promptly to the changes in the market place, thereby by being ready ahead of competitors to use opportunities for growth and sandbag against an economic downturn.

In the current IT era, wherein businesses operate as a wired system, the speed of business processes' operation is becoming closer to the speed of thought. Consequently improvement in business performance invariably requires improvement in performance of the underlying processes by way of changes or redesign. Quantum jump in operational performance (by way of

cost reduction, improvement in customer service, reduction in defects released to customers, etc.) necessarily requires IT involvement from the beginning of an initiative and not as an afterthought.

To achieve this end, enterprise needs to select, adopt and institutionalize well defined and proven continuous improvement and change management methodologies and techniques (like Six Sigma, Lean Sigma, etc.). IT persons of the enterprise need to be well versed with the business operation processes, and actively participate in the improvement and change management techniques and methodology adopted by the organization.

1.6 Conclusion:

Most often, the difference between a successful and average enterprise lies in its ability to execute¹⁷. This is as applicable to execution of business strategy issues as to the operational issues. Execution is perhaps the singular key obstacle to success and is perhaps the main cause of the failures. Blood of the execution process is timely, accurate, reliable and up-to-date information made available in an easy to comprehend form so as to enable the users to initiate actions that would facilitate a successful execution. There is no better way to generate and provide such information except by IT. However to enable IT to effectively provide such information IT has to be a part of the business long term and short term planning process.

Enterprise IT applications and infrastructure like ERP, Robotics, communication network, CAD, office productivity and communication applications (e.g. Word processing, email, electronic diary, etc.) provide the necessary horse power to the

¹⁷ "Execution" by Larry Bossidy, Ram charan and Charles Bruck. Published by Random House Inc.

enterprise for integrated, well oiled and efficient day to day operation at the least cost.

Recent and past recession during the current millennium has clearly proven that a lean and mean organization structure is required to face the tough times brought in by an economic slowdown caused by recession. This is possible only through well planned and researched applications of IT tools and techniques reinforced with efficient processes. This is not uncommon to find organizations investing enormous money to automate old processes using state of the art IT applications which definitely speed up the old processes but deprive the organization of the substantial benefits that would have accrued by rationalizing and improving the processes before automation. Hence for optimum performance, an enterprise not only needs to implement well researched and designed/selected IT applications and infrastructure, but also ensure involvement of all users and all levels of management for implementation and monitoring the success thereafter.

In this research, the objective is to determine how well the medium enterprises have deployed IT applications and institutionalized the process of execution of the IT strategy aligned with the business strategic plans.