

# The Role of Information Technology in Small and Medium Sized Business

Sanjay D. Beley<sup>1</sup> and Pravada S. Bhatarkar<sup>2</sup>

<sup>1</sup>Vice Principle, Dr. Ambedkar College of Arts, Commerce and Science, Chandrapur (M. S.)

<sup>2</sup>M. Tech., Information Technology, KSOU, Mysore (Karnataka)

**Abstract-** Information Technology (IT) had a great impact in all aspects of life such as economy, businesses and enterprises. The global economy is currently undergoing fundamental transformation in which IT plays a key role. IT has a real impact in most of industries and in all aspects of economy, while businesses and enterprises continue to undergo considerable changes. Usage of these technologies is revolutionizing the rules of business, resulting in structural transformation of enterprises. Modern businesses are not possible without help of information technology, which is having a significant impact on the operations of Small and Medium scale Business (SMB). It is claimed to be essential for the survival and growth of economies in general. SMB is drawing attention in developed and developing countries as well as in transition countries. It is generally recognized that SMB play a vital role in the revitalization and development of national economy in many countries and particular in the context of India. It is encouraging the development of SMB and the role that SMB sector can play in promoting economic and social development by creating opportunities for employment. These components are described and discussed while more research and studies on the adoption of information technology in SMB in India are proposed as necessary.

**Index Terms-** Business, Economy, Information Technology (IT), Small and Medium Sized Business (SMB).

## I. INTRODUCTION

Information Technology (IT) provides an opportunity for businesses to improve their efficiency and effectiveness, and even to gain competitive advantage. Small and medium sized business (SMB) plays an important role in economical development of a any country. There are several theories, which elaborate the connection between information technology, economic development and social change. Almost all agree on the importance of information and communication technology adoption in SMB, while the importance of SMB as engines to economic growth is well acknowledged worldwide. Information technology, particularly the Internet is having a significant impact on the operations of any small and medium scale business and it is claimed to be essential for the survival and growth of nation's economies [1]. At present, the economy and traditional business become more dependent on new technologies due to information technology. Compared with traditional business new technologies facilitate an increased interactivity, flexibility, cheap business transactions as well as improve interconnection with business partners and customers. Information technology is having a significant impact in sector of SMB, especially where industries are in decline or when unemployment levels are high. In developing countries, SMB development is drawing attention too and modern trends of businesses and information technology usages are taking place.

In this paper, the impact of new technologies in SMB is described. The main focus is on exploring the opportunities that new technologies present to SMB with the purpose to usage of information technology for competitive advantages in both local and international markets. Firstly, the paper highlighted the concept of SMB and information access and their uses and secondly, described SMB in India and ICT infrastructure.

## II. CONCEPT OF SMB AND INFORMATION ACCESS AND THEIR USES

Generally, new technologies had a great impact on all aspects of life and the global society and economy is undergoing a fundamental transformation [2]. The present society is changing and is becoming "knowledge society" [3]. This is more dependent on new technologies, with a new economy or "knowledge economy", where knowledge and information are essential and the key factor of production. In this, the ideas, processes, knowledge and information are growing share of trade in the knowledge economy. In the information society, environment successful enterprises produce high technology goods and services and transform human effort, materials and other economic resources into product and services that meet customers need. In order to be successful in such society,

SMB would need high quality information and must always provide superior value, better than competitors, when it comes to quality, price and services [4].

SMB have a vital role for the growth and innovation of economies. The long terms of economic development of the countries are depending on the promotion of SMB sector [5]. Behind this, a common recognition of SMB plays an important key role in revitalization and development of national economy [6] by providing various goods and services, forming a structure of division of labour and developing regional economies and communities [2]. Furthermore, SMB are considered key agents of social and economic growth and are increasingly becoming the most vital part of the economy due to its major role in fostering growth, jobs creating and reducing poverty. As such, there is no acknowledged universal definition of SMB. For our purpose, we restricted our attention to the common definition of the Organization for Economic Cooperation and Development [6], which is based on employment figures. The widely accepted definition points to Small Sized Business enterprises with the employees between 10 to 49, while Medium Sized are enterprises with employees between 50 to 249 [7]. According to this definition, Small Sized Enterprises are defined as firms that are registered and have less than 50 employees. On the other hand, Medium Sized Enterprises are defined as registered firms with less than 100 employees.

Globalization of world economy and technological developments in the two decades of twentieth century has transformed the majority of wealth creating work from physically based to knowledge based. It has greatly enhanced the values of information to business organization by offering new business opportunities. While, for the last two hundred years, economics has recognized only two factors of production: labour and capital, which is now changing. Information and knowledge are replacing capital and energy as the primary wealth creating assets. Information has become a critical resource, a priceless product and basic input to progress and development. Information has become synonymous with power. Therefore, accurate, rapid and relevant information are considered to be essential for SMB [4]. SMB would need as well as effective information systems [8] to support and to deliver information to the different users. Such information systems would include those technology that support decision making, provide effective interface between users and computer technology and provide information for the managers on the day-to-day operations of the enterprises. Information is needed for various purposes and serves as an invaluable commodity or product. It is very important aspect of decision making in all levels of management in enterprises [1], especially in competitive business environment and managers utilize information as a resource to plan, organize, staff administer and control activities in ways that achieve the enterprises objectives. The ability of SMB's to realize their goals depends on how well the organization acquires, interprets, synthesizes, evaluate and understands information and how well its information channels supports organizational processes. Information technology is noted as one of the most important factors of any production activity and technological changes can have profound consequences [4]. These technologies will continue to enable the growth of global work, where SMB operate across national boundaries. Today, new technologies, especially Internet technology are changing the global flows of information, trade and investment and the competitive advantage of industries, services and regions. These changes are requiring from all enterprises, no matter of their size to invest in the adoption of new technology. The ability of SMB to survive in an increasingly competitive and global environment is largely influenced upon their capacity to access information as a resource and usage of new technologies. Greater use of these technologies is often associated with improved availability of information, quality of work, effectiveness and efficiency in accomplishing tasks. This trends will develop rapidly over next years and capabilities will steadily increase accompanied by greater ease of use [9]. Information technology will continue to be first importance in the development of the countries, economies and enterprises. Taking in to the consideration the full potential of these technologies, they may also play an important role in the future.

### **III. SMB IN INDIA AND ITS INFRASTRUCTURE**

With the advent of planned economy from 1951 in India, SMB was earmarked as a special role by the planner in Government of India. Due protection was accorded to SMB sectors, and particularly for small scale business from 1951 to 1991, till the nation adopted a policy of liberalization and globalization [10]. SMBs always represented the model of socio-economic policies of Government of India which emphasized judicious use of foreign exchange for import of capital goods and inputs; labour intensive mode of production; employment generation; non concentration of diffusion of economic power in the hands of few discouraging monopolistic practices of production and marketing; and finally effective contribution to foreign exchange earning of the nation with low import-intensive operations. It was also coupled with the policy of de-concentration of industrial activities in few geographical centers. It can be seen that, SMBs in India met the expectations of the Government in this respect [11]. SMBs developed in a manner, which made it possible for them to achieve high contribution to domestic production, significant export earnings, low investment requirements, operational flexibility, location wise mobility, low intensive imports, capacities to develop appropriate indigenous technology, import substitution, contribution towards defense production, technology – oriented industries, and competitiveness in domestic and export markets .At the same time it has some limitations , such as low capital base, concentration of functions in one / two persons, inadequate exposure to international environment, inability to face impact of WTO regime, inadequate contribution towards R & D, lack of professionalism. In spite of these limitations, the SMBs have made significant contribution towards technological development and exports. Almost all-major sectors in the Indian industry SMBs have been established. As a result of

globalization and liberalization, coupled with WTO regime, Indian SMBs have been passing through a recessionals period. With slowing down of economy in India and abroad, particularly USA and European Union and enhanced competition from China and a few low cost centers of production from abroad many units have been facing a tough time. Those SMBs who have strong technological base, international business outlook, competitive spirit and willingness to restructure themselves shall withstand the present challenges and come out with shining colours to make their own contribution to the Indian economy.

The growth of Small and Medium Enterprises (SMEs) is monitored by the Ministry of MSME by conducting the All India Census of the sector, periodically in the country [12]. As per the Third All India Census of Small Scale Industries (SSIs) with reference year 2001-02 and Fourth All India Census\* of MSMEs with reference 2006-2007, the number of registered working enterprises increased from 13.75 lakhs to 15.64 lakhs, recording annual compound growth rate of 2.61% during the period from 2001-02 to 2006-2007. The Ministry facilitates the promotion and development of MSMEs through implementation of various schemes/programmes relating to credit, infrastructure development, technology upgradation, marketing, entrepreneurial/skill development, etc. The Major schemes include Credit Guarantee Scheme, Credit Linked Capital Subsidy Scheme, Performance and Credit Rating Scheme, Cluster Development Programme, National Manufacturing Competitiveness Programme and Prime Minister's Employment Generation Programme. The latest Census (Fourth Census) was conducted with reference year 2006-07, wherein the data was collected till 2009 and results published in 2011 as shown in Table 1. Before going further, it is important to mention some of the organisations that are associated with small-scale industry/ MSMEs: Small Industries Development Organization (SIDO), Small Scale Industries Board(SSIB), National Small Industries Corporation Ltd. (NSIC), Confederation of Indian Industry (CII), Federation of Indian Chamber of Commerce and Industry (FICCI), PHD Chamber of Commerce and Industry (PHDCCI), Associated Chamber of Commerce and Industry of India (ASSOCHAM), Federation of Indian Exporters Organization (FIEO), World Association for Small and Medium Enterprises (WASME), Federation of Associations of Small Industries of India (FASII), Consortium of Women Entrepreneurs of India (CWEI), Laghu Udyog Bharti (LUB), Indian Council of Small Industries (ICSI), Indian Institute of Entrepreneurship (IIE), National Institute of Small-Industry Extension Training (NISIET), National Backward Caste Finance Development Corporation, National Institute for Entrepreneurship and Small Business Development (NIESBUD), Small Entrepreneurs Promotion and Training Institute (SEPTI), Small Industries Development Bank of India (SIDBI) etc. are the SMBs in India. Current worldwide movements show us that usage of information technology will be an important factor for competitive growth of SMB in global and regional markets [13]. Growth of competitive pressure, force SMB to fight for new markets, new products and new distribution channels. These environment movements can be faced just from those businesses that have quality information systems support.

The only competitive advantages companies and SMB enjoy are their process of innovation and availability to derive value from information as resource. SMBs can gain from developing capabilities for managing, information intensive resources, enjoy reduced transaction costs, develop capacity for information gathering and dissemination of international scale and gain access to rapid flow of information. New business models and market configurations enabled by information technology, including business process outsourcing, provide SMBs with access to new market and new sources of competitive advent- ages.

Table 1: State-Wise Number and Growth Rate of Registered Working Enterprises

Sl. No.	Name of State/UT	Number of Registered Working Enterprises		
		3rd All India Census of SSIs (2001-02)	4th All India Census of MSMEs (2006-07)	Annual Compound Growth Rate (%)
1	JAMMU & KASHMIR	14,625	14,993	0.50
2	HIMACHAL PRADESH	10,891	11,931	1.84
3	PUNJAB	65,015	48,110	-5.84
4	CHANDIGARH	1,281	996	-4.91
5	UTTARAKHAND	15,285	23,765	9.23
6	HARYANA	39,584	33,150	-3.49
7	DELHI	7,360	3,754	-12.60
8	RAJASTHAN	43,145	54,885	4.93
9	UTTAR PRADESH	162,938	187,742	2.87
10	BIHAR	52,107	50,036	-0.81
11	SIKKIM	174	122	-6.85
12	ARUNACHAL PRADESH	255	417	10.34
13	NAGALAND	568	1,332	18.59
14	MANIPUR	4,599	4,492	-0.47
15	MIZORAM	2,733	3,715	6.33
16	TRIPURA	959	1,343	6.97
17	MEGHALAYA	1,939	3,010	9.19
18	ASSAM	14,453	19,864	6.57

19	WEST BENGAL	42,148	43,259	0.52
20	JHARKHAND	18,322	18,190	-0.14
21	ODISHA	12,366	19,606	9.66
22	CHHATTISGARH	33,909	22,768	-7.66
23	MADHYA PRADESH	101,939	106,997	0.97
24	GUJARAT	138,537	229,830	10.65
25	DAMAN & DIU	1,026	594	-10.35
26	DADRA & NAGAR HAVELI	693	1,716	19.88
27	MAHARASHTRA	83,098	86,586	0.83
28	ANDHRA PRADESH	62,917	45,692	-6.20
29	KARNATAKA	110,487	136,186	4.27
30	GOA	2,139	2,621	4.15
31	LAKSHADWEEP	68	2	-50.60
32	KERALA	146,988	150,188	0.43
33	TAMIL NADU	180,032	233,881	5.37
34	PUDUCHERRY	1,721	1,451	-3.36
35	ANDAMAN & NICOBAR	673	750	2.19
	<b>ALL INDIA</b>	<b>1,374,974</b>	<b>1,563,974</b>	<b>2.61</b>

#### IV. CONCLUSION

It is encouraging the development of SMB sector as a way to diversify Indian economy. Information technology usage in SMBs in India is finding fast usage too. But, despite the improvement of information technology infrastructure in SMB's and although information technology is perceived as critical in creating employment and job opportunities, compared to other countries in the region, they lag behind their counterparts. A small business managed by leaders who understands the benefits of IT adoption will be able to take advantage of the promised benefits of IT adoption, including improved organizational efficiency and effectiveness.

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