

THE BARRIERS TO INNOVATION FOR IN INDIAN MSMES SECTOR AN ANALYTICAL STUDY

REVANASIDDAPPA. K.B. Assistant Professor, Department of Economics, Govt. First Grade College, Bhadravathi, Shivamogga, Karnataka	Dr Reanasiddayya .C.Hiremath. Asst Professor in Economics Nehru arts, commerce, science college Hubli
---	--

ABSTRACT

The Micro, Small and Medium Enterprises (MSMEs) sector is a vital constituent of India's industrial sector. MSMEs including khadi and village/rural enterprises. It contribute significantly to India's Gross Domestic Product and export earnings besides meeting the social objectives including that of providing employment opportunities to millions of people across the country. With the introduction of reform measures in India since 1991, the Govt. has withdrawn many protective policies for the Micro, Small and Medium Enterprise (MSMEs) and introduced promotional policies to increase competitiveness of the sector. The Micro, Small and Medium Enterprises in India are acting as power and spirit of economic growth in the 21st century. This paper analyze the barriers, to Innovation for in Indian MSMEs sector.

Key Words: Micro small and medium enterprises, Barriers

INTRODUCTION:

In India, small and medium industries play a vital role in the growth of the economy. Small industries have a 40% share in industrial output, producing over 8000 value-added products. They contribute nearly 35% in direct export and 45% in the overall export from the country. They are one of the biggest employment-providing sectors after agriculture, providing employment to 28.28 million people.

However SMEs in India, which constitute more than 80% of total number of industrial enterprises and form the backbone of industrial development, suffer from the problems of sub-optimal scale of operation and technological obsolescence. Indian SMEs are facing a tough competition from their global counterparts due to liberalization, change in manufacturing strategies and turbulent and uncertain market scenario.

Innovation has always been the hallmark of small and medium enterprises. SMEs that integrate innovation can reap significant benefits. Studies conducted by US Department of Commerce, revealed that since World War II, 50% of all innovations and 95% of radical innovations, have come from new and smaller firms. The key process in the economic force of changes, as described by Schumpeter, is the introduction of innovation and culture of innovation in the enterprise. The innovation process is seen as a cycle involving trial and error, where problems, at some stage of development lead to the need for reevaluation of the earlier stage of the innovation process.

Although Indian SMEs realize the importance of technological innovation, most of the Indian SMEs still believe in importing technology, rather than developing them in-house or through/in association with, national Research and Development (R&D) centers. Indian SMEs, over the years, have largely ignored their R&D and have mostly not embarked on new product development and technological up-gradation. This is despite the fact, that India has the third largest pool of technologically trained manpower.

The paper addresses some of the core issues related to barriers to innovation for Indian SMEs and measures for overcoming them.

Innovation:

The word **innovation** comes from the Latin word “**Innovare**” which means to —make new. Innovations involve new methods of doing things and are associated with risks, failure, new ways of management thinking and unlearning of old ways Innovation is the process of doing new things. It is important to recognize that innovation implies action, not just conceiving of new ideas.

According to Drucker —Innovation is the means by which the entrepreneur either creates new wealth producing resources or endows existing resources with enhanced potential for creating wealth. Arthur D. Little has classified **innovation** further as:

- **Product Innovation**

-**Process Innovation**

-**Organizational innovation**

Product innovation is defined, as the creative development and commercialization of radically new products or services, using new technology and linked to unmet customer requirements.

Process Innovation is defined, as the development of new ways of producing or delivering services that lead to cost efficiencies or speedier deliveries.

Organizational innovation is defined as the development of new business processes and new ways of conducting business, that provide competitive advantage.

Innovation and Indian SMEs:

India has nearly 3 million SMEs, which produce a diverse range of products from very basic to highly sophisticated products. Despite their strength, SMEs are facing tough challenges in the present scenario of liberalization and globalization. Indian SMEs are finding it difficult to sell their products in the domestic and international markets because of increasing competition.

To make their products globally competitive Indian SMEs need to up-grade their technology and put more emphasis on innovation per se.

Barriers to innovation for Indian SMEs

Barriers to innovation can be broadly classified as :

- i) Managerial barriers
- ii) Financial barriers
- iii) Technological barriers

As the man behind the machine is the most important, I will take up the managerial barriers to innovation in the context of Indian SMEs, first. India, as you know, was a protected market economy before liberalization. The Indian industrial environment was traditionally identified by its regulative and protective characteristics. Till, 1990, the Indian economy was inward looking and protected from internal and external competition. In the absence of competition, firms did not develop the technological capability needed for penetrating the global market. This decade’s long protective environment also reduced the risk taking capacity of the SME manager and made him complacent and averse to risk. He chose to avoid risky situations.

Earlier, Indian firms had quite often followed an opportunistic approach to growth, as opposed to capability driven approach that seeks to strengthen key aspects of manufacturing. Consequently, firms have paid very little strategic attention to their shop floors in the last few decades. Today Indian industry is facing tough competition from imports in the domestic markets also. This competition is in terms of new designs, new usages, reduced cost, improved quality, products with higher performance and variety, better services, all delivered simultaneously to enhance values to the customers.

Adopting an innovation is risky by definition. It is possible for most SMEs to deal with perceived risk – if they have enough time and resources. They need time to think and reflect on the benefits versus the level of risk involved. They also need resources to investigate the pros and cons of a proposed innovation, e.g. customer reactions, financing, and production capacity. Unfortunately, today both time and resources are in short supply.

To enhance the capacity of the Indian SME manager, we have taken the following measures:

The Government of India has established a net work of entrepreneurship development institutes including 3 national level institutes, for imparting entrepreneurial education and training. These Institutes are responsible for development of training modules and undertaking of research and training for meeting the needs of the SME manager. They work in close coordination with the local industrial associations.

Most of the SMEs, do not have access to well researched database whether it pertains to market intelligence or technology. This information needs to be provided to them proactively on a regular basis. Government of India SIDO website www.smallindustryindia.com and www.laghu-udyog.com is a dynamic portal, while NSIC also runs its own infomediary services on its website: www.nsicindia.com and www.techshowindia.com.

Besides, Government of India also provides financial assistance for surveys, studies, participation in foreign exhibitions, business meets, marketing assistance, vendor development programme, subcontracting, Prime Minister's employment scheme, Small industry Cluster Development Programme etc.

It is estimated that there are 400 modern SSE and 2000 rural and artisan based clusters exist in India. These contribute to 60 % of India's manufacturing exports. Some of the clusters are so big that they produce 70 to 80 % of the total volume of that particular product produced in India. For example Panipat produces 75 % of the total woollen blankets produced in the country, Tirupur produces 80% of the country's cotton hosiery. The problems faced by the SMEs, particularly in accessing technology and maintaining competitiveness have been formidable. It has been found that sharing of information at local and national clusters are mostly informal. Information regarding the latest development and competency understanding is much less. Work sharing is not seen in the local and national clusters, as it is a fight for the same customer, in the same market. Even though the product and technology used by the entrepreneurs are similar, the tendency to share is less among the cluster participants.

The concept of cluster development offers new insights into the potential role of SMEs, in enhancing their access to new technology. Characteristics of a successful cluster are inter-firm cooperation, cooperation blended with competition, the importance of local value systems, flexibility and innovative capacity, geographic proximity, sectoral specialization, a local pool of skilled labour and the presence of a large number of firms. It also includes willingness to work together to resolve potential clashes of interest, widespread entrepreneurial spirit and ability, promotion of a social compromise Cluster development programme has been undertaken aggressively in India and I would like to narrate a success story of Gujarat.

The Gujrat model:

Gujarat a State in Western India, has been identified as an entrepreneurial hub of India, primarily due to the innovative behaviour of the Gujarati entrepreneurs. It is a major centre for innovations happening at the grass root level, with a strong cultural influence. The entrepreneurial behaviour is largely attributed to their typical culture comprising of traditions, values, beliefs and attitudes.

The model shows that Gujarati entrepreneurs have values such as self-employment, openness to learn, radical economic sense, family orientation, community orientation, congeniality, venturesome and quest for the unknown, coupled with environmental stimuli, such as family background, and easy availability of cheap resources which result in typical entrepreneurial orientations giving rise to Pioneering-Innovative behaviour.

Since 1960s, Gujarat has shown new patterns of entrepreneurial innovations. These innovations are made within different forms of organisations i.e. from proprietorship, public limited companies to cooperative form of organisation. Again industries such as Brass-parts manufacturing, Ship-breaking and Gems and Jewelry, which were non-existent before 1960, have been started by thousands of small entrepreneurs. What is more important to observe, is the fact that people from all walks of life and from traditionally non business classes have taken to starting and nurturing small businesses, in all parts of Gujarat.

SMEs find it difficult to match the wage rate, job security and career development opportunities, available in larger organizations and therefore are not in a position to hire skilled and competent manpower. Often, as a result a bottleneck develops in the SME organisation, it may result in just one or two people controlling the organisation, whether at the decision making level or at the operational level. Even in moderately large sized firms employing several hundred workers, these bottleneck points seem to exist. The decision-makers at the bottleneck points, are obviously busy people. They must handle many day-to-day problems that demand immediate attention, e.g., payroll, inventory, finances, personnel, suppliers, and customer demands. These problems must be solved quickly, or the company will be unable to function. Clearly, there is little chance for them to think about making major changes or risk taking, which is essentially required for innovation process.

Small traditional enterprises, with poor support system and little exposure face difficulties in the new e-business environment. SMEs usually are diffident about adopting IT or solutions based on IT. Limited human resources, especially those familiar with IT or corresponding backend processes, place these SMEs in an unfavourable position, in an e-commerce environment where the preferred physical channels of distribution and delivery still favour large enterprises. Further, adding to the limitations of SMEs, are lack of formalized contractual relations and the reliance on cash payments.

The Ministry of Small Scale Industries, Government of India has been promoting the use of IT in SMEs, as a part of the overall effort towards enhancing SME competitiveness, in the context of globalization. The Small Enterprises Network (SENET) project was launched for ensuring electronic delivery of services, to SMEs through dynamic web based applications and e-enabling SMEs. It primarily does this through a knowledge portal for SMEs, which is also the front end for delivery of services. The Ministry of SSI has also recognized various IT enabled services such as medical transcription, call centers, back-office processing, as well as software development by SMEs in the services sector. This recognition enables such SMEs easier access to land, infrastructure and credit.

Inadequate management skills are often the cause of non-competitiveness of small enterprises. NSIC's advisory and mentoring services are aimed at effectively addressing this impediment to growth. It offers Mentor-Pupil relationship services, in which the Mentor, a person with wide experience is running his own business, volunteer his services to individual or a group of units - the pupil. An Advisor, a senior professional, generally retired and a specialist in a specific area assists in the process. Mentors and advisor provide the necessary professional and moral support in the lifecycle of an enterprise or to existing units facing critical operational problems.

Information plays a vital role in the success of any business. Recognizing the importance of information and its relevance to SSI units, NSIC provides Infomediary services to SSI units. Besides hosting an integrated website (www.nsicindia.com), NSIC hosts sector specific portals for focused information dissemination. Under this scheme, SSI units can become members and avail of a number of value-added services. Some important services are:

- E-transaction portal
- Supply databases
- Advisory and Infomediary Services
- Market intelligence
- Technology providers
- Information providers
- Linkages with relevant institutions

The portals, targeted at specific sectors, aim at providing information and facilitation to members in the first stage, and transaction and integration services in the second and final stage.

Financial barriers.

The non-availability of institutional finance on affordable and easy terms is hindering access to new technologies. In India the situation is further complicated by the fact that the preferred mode of finance is either self or other sources.

Some of the measures undertaken to improve the position are :

Innovation in developing countries is promoted by venture capital, to help in indigenous development of technologies. In India financial institutions, such as Industrial Development Bank of India (IDBI), Industrial Credit and Investment Corporation of India (ICICI), Industrial Finance Corporation of India (IFCI), and other banks are providing financial assistance, for commercialization of indigenously developed technologies and adoption of imported technologies for wider domestic applications through venture capital.

Small Industry Development organization (SIDO) offers offers a number of financial services to SMEs. Some of its the popular schemes are Credit Linked Capital Subsidy Scheme for Technology Up-gradation, Credit Guarantee Scheme, ISO 9000 / IS 14001 Certification Reimbursement Scheme, Integrated Infrastructure Development Scheme, Cluster Development program , Mini Tool Room Scheme etc.[more details at www.smallindustryindia.com and www.laghu-udyog.com]

In addition, recently Government of India has taken a number of initiatives to help small industries. Some of these initiatives are

i) SED Bill: The Small Enterprises Development (SED) Bill is on the anvil. Enactment of this Bill will remove the barrier to SSI growth, by inculcating a hassle free, user-friendly environment enabling SMEs to diversify from their conventional product range. It will, thus, encourage exports and global integration and propel SSI towards the projected 12 % targeted rate of growth.

ii) Credit Rating Scheme: The scheme has been introduced to encourage the SSI Units to get their credit rating done, by reputed third party credit rating agencies. The credit rating will facilitate hassle free flow of credit to SMEs, while enhancing the comfort-level of the lending banks. The rating will also bring out the strengths and weaknesses of the unit and provide opportunities to enhance their competitiveness. The rating will enhance the capability and credibility of the enterprise, to not only approach banks and financial institutions for capital and debt servicing on more favourable terms but also project its strength before buyers of its products. Government of India will reimburse 75% of the fees charged by the rating agency subject to a ceiling amount.

iii) SME Fund: Small Industries Development Bank of India (SIDBI) was set up in April, 1990 under an Act of Parliament. SIDBI is the principal financial institution for promoting, financing and development of industries in the small-scale sector. To further improve credit availability, a SME fund of \$ 2 billion has been operational from the year 2004.

iv) Credit Cards: Laghu Udyami Credit Card (LUCC) Scheme (Small Entrepreneur's Credit Card) has been liberalised. The credit limit has been enhanced from \$4000 to \$20,000 for borrowers who have a satisfactory track record.

v) Efforts are being continuously made to facilitate flow of institutional credit to SSIs on easy terms.

vii) Some of the other initiatives taken are

- Allocation of \$87 million towards Technology Upgradation Fund for Textiles

-Setting up of Knowledge Commission Institutions of Excellence at the cost of \$20 million at the Indian Institute of Science, Bangalore

-Weighted deduction of 150% of expenditure on in-house research and development facilities of companies, engaged in the business of biotechnology, pharmaceuticals, electronics, telecommunications, chemical, or any other notified products.

- Custom duty exempted on capital goods and raw materials to a company for R&D project.

Technological barriers

Technology is the key to enhancing a company's competitive advantage in today's dynamic information age. SMEs need to develop and implement a technology strategy in addition to financial, marketing and operational strategies, and adopt the one that helps integrate their operations with their environment, customers and suppliers. Ministry of SSI , Government of India ,offers a number of technical services through its National Small Industries Corporation Ltd (NSIC) and Small Industry Development Organisation (SIDO).

National Small Industries Corporation Ltd (NSIC) was established 1955, by the Government of India to promote, aid and foster the growth of small scale industries in India. It offers a number of technical services to SMEs through its Technical Services Centres, Extension Centres, Software Technology Parks and Technology Transfer Centres. These include technology audits and benchmarking, technology needs assessment, technology sourcing and application of new techniques, technology acquisition, development of software, material testing facilities through accredited laboratories, product design common facility support in machining and tooling, energy and environment audit services Classroom and practical training for skill up-gradation etc.

Besides these, Technology Business Incubation (TBI) is one of the most recent service, that NSIC has started. TBI enable technical entrepreneurs to conduct their R&D programmes in a professional, friendly and supportive environment, while receiving the guidance and hand holding they need in the initial phase. This facility is being offered in Information Technology, Product Design, Energy and Environment auditing, Bio-Technology Electronics and Communications

Small Industry Development Organisation (SIDO) established in 1954, provides a wide spectrum of technical services to the small industries sector. These include common facilities for testing, tool room services, technology up-gradation, modernisation, quality improvement, training for entrepreneurship development, a number of trainings for skill up-gradation, preparation of project and product profiles, technical and managerial consultancy, assistance for exports, pollution and energy audits etc.

Technology is the harbinger of change development, Developed nations spend substantial amounts on technology. It is believed that Japan spends not only on acquisition of technology but also spends seven times more on adoption of technology. Technology in conjunction with finance management, marketing capabilities is a powerful tool of economic development. Taiwan, which once had a productivity level equal to Indian SMEs has now much enhanced it with the use of technology. In India, the technology used by SMEs ranges from primitive to sophisticated but so far, Indian SMEs have been predominantly preoccupied with finance and management issues.

India ranks quite high in possessing a large pool of organizations, scientists and engineers (There are 1200 technical institutions providing technical education to 0.38 million student every year) and a fully developed intellectual infrastructure, but is still is quite low in the matter of developing and adoption of new technologies in the SME sector. As technology is an important element, along with price and quality in determining competitiveness, many organizations are active in the area of offering technological assistance to SMEs, including the Council of Scientific Research (CSIR), Indian Institute of Technology (IIT), Technology Information Forecasting and Assessment Council (TIFAC), National Research and Development Corporation (NRDC), National Institute of Design (NID) Product and Process Development Centers (PPDCs), Mechanical Engineering Research and Development Organization (MERADO), National Small Industries Corporation's (NSIC), and Asia Pacific Center for transfer of Technologies (APCTT) etc.

But as stated earlier, the pace of technological transfer needs to be increased and linkages strengthened and streamlined for which efforts are underway to plug the gap. There are however, some success stories also, for example

i) Mechanical Engineering Research and Development Organization (MERADO), Ludhiana, was established in 1965 to nurture the growing industrial clusters in Ludhiana, in the field of knitwear, agro-industrial machine tools and bicycles industry. Since then, MERADO has contributed significantly towards design development and standardization of industrial machinery, agriculture machinery, machine tools, special purpose machines, consumer durables, etc.

ii) National Small Industries Corporation (NSIC) has pioneered several schemes, for the growth and development of the small-scale sector. In the initial stages of development of the small-scale industries after independence, it was the innovative and novel schemes of the NSIC such as government purchase, hire purchase, development of prototypes, technical training, etc. which led to the establishment of new enterprises, development of appropriate manufacturing technologies and

creation of a strong first generation entrepreneurial base. These schemes of the Corporation acted as a catalyst for this sector. It has helped the small units in identification, adoption, absorption and transfer of technology.

At present, there are 2900 R&D institutions in India, of which 1350 are in the private sector. Out of these, over 1250 are in-house R&D units, employing over 45,000 scientific and technical personnel. However, the SME sector is largely aloof of such facilities. In the majority of the cases, the R&D outputs do not get commercialized for want of initial investment and the needed enabling environment and networking. In the recent past, the Department of Science and Technology, Government of India, has been focusing its attention on this aspect and has initiated a number of institutional based programmes. These include the mechanisms of Science & Technology Entrepreneurs Park (STEP) and the Technology Business Incubator (TBI).

The National Science and Technology Entrepreneurship Development Board of the Department of Science and Technology has played a pioneering as well as catalytic role in the Indian Business Incubation arena since year 2000. So far 15 Technology Business Incubators have been set up at various institutions. In addition, there are 17 Science and Technology Entrepreneur's Park and 50 other such organisation promoted across the country.

While most of the SMEs in developed countries have financial as well as technical capacity to identify technological sources and evaluate alternate technologies that would suit their requirements. Unfortunately, this capacity is missing in most of Indian SMEs. It is this feature of our SMEs that makes them an ideal partner for technological up-gradation, through technological cooperation with foreign enterprises.

Conclusions:

Today organizations are knowledge based and their success and survival depend on creativity, innovation, discovery and inventiveness. An effective reaction to these demands lead to innovative change in the organization, to ensure their existence. The rate of changes is accelerating rapidly, as new knowledge idea generation and global diffusion are increasing. Creativity and innovation have a bigger role in this change process for survival.

SMEs have to learn and imbibe the process of innovation, in their day to day working, to remain competitive. Instead of looking for support from other agencies, they have to find their own ways of overcoming barriers. Despite all the barriers and gaps which I have stated before, Indian SMEs have continued on their path of progress. In fact, their rate of growth is higher than the rate of growth of the industry sector as a whole, their contribution to our GDP is almost 7%. In the past also, our SMEs have shown enough strength, vigour and resilience and in current situation they will not only survive but win also. We have our examples of Hero Honda, Ranbaxy, Infosys, WIPRO, Bharti Telecom and many more SMEs who have shown to the world the path of success.

REFERENCES

1. 1. Annual Report 2011-12, Govt. of India, Ministry of Micro, Small and Medium Enterprises Bhavani, T.A. (2011), — Dynamic Business Environments: What These Mean for Indian Small Enterprises in — Micro and Small Enterprises in India: Era of Reforms: Keshab Das (Ed) pp. 27-45.
2. MSME Development Act 2006, Ministry of the District Industry Centers (DIC) MSME, Government of India.
3. Lahiri Rajib , Financing Micro, Small And Medium Enterprises (MSMES) In India During Post Liberalization Period: A Study On Traditional And Unconventional Approaches Of Financing : Indian Streams Research Journal , Vol.2, Issue 8(Sept. ; 2012)
4. Sandesara, J.C. (1993) — Modern Small Industry, 1972 and 1987-88: Aspects of Growth and Structural Change. Economic and Political Weekly, Vol.28 No. 6.
5. PCMA Journal of Business, Vol. 1, No. 2 (June, 2009) pp. 135-146, ISSN0974-9977, (Available in [http://www. Publishingindia.com/Upload/Sample Article/PCMA-Sample-Article.pdf](http://www.Publishingindia.com/Upload/Sample%20Article/PCMA-Sample-Article.pdf), Accessed 27.9.2012 at 9.23 a.m.)
6. Subrahmanya, Bala (2011), — Small-Scale Industry Development for Export Promotion: India's Experience Under Liberalisation in — Micro and Small Enterprises in India: Era of Reforms: Keshab Da(Ed) pp. 46-66.
7. Canadian Journal of Administrative Science, Volume 21, No.1, pp 22-34.
8. Annual Report (2011-2012), Ministry of Micro, Small and Medium Enterprises, Government of India.
9. Performance and Prospects, Economic and Political Weekly, Volume XXXIX, No.18, pp 1826-1834.

