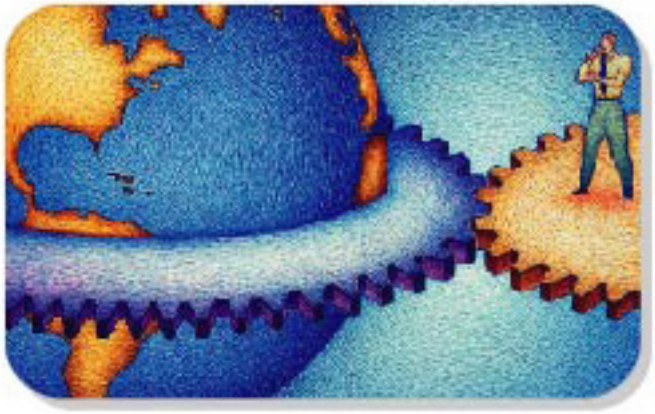
ICICI Bank
SME KNOWLEDGE Series

Creating Value for SME's

Concepts & Strategies in Indian context

Section – I
Challenges for SMEs: Agenda for Change



Executive Summary

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Challenges for SMEs: Agenda for Change

Ms. Dolly Bhasin, SPH Consultants

Background

Whereas in the old economy land, labor and capital were the only three generic factors of production, in the new economy, the critical assets are know-how, creativity, intelligence and information. Intelligence embedded in software and technology across a wide range of products has become more important than capital, materials, or labor.

A study of 192 countries conclude that human and social capital explains no less than 64% of growth performance, while physical capital explains a meager 16%, with the remainder being explained by natural capital.

Production has been witnessing exponential knowledge intensification. The knowledge intensity of world-manufactured exports remained largely unchanged from 1970-1977, but has since increased steadily and persistently. As early as in 1996 it was estimated that more than 50% of the GDP in OECD (Organization for Economic Co-operation and Development) economies is knowledge-based. Industry now funds almost 60% of OECD R&D activities and carries out about 67% of total research. [1]

Knowledge Management (KM) is one of the important tool for leveraging of knowledge within an organization to add value to the business for SME's in order for them to break free from the limitations of physical size and limited resources.

Importance of SMEs in Economy

The SME sector plays a vital role in the growth of the country. It contributes almost 40% of the gross industrial value added in the Indian economy.

It has been estimated that a million Rs. of investment in fixed assets in the SME sector produces 4.62 million worth of goods or services with an approximate value addition of ten percentage points. It has been estimated that 100,000 rupees of investment in fixed assets in the sector generates employment for four persons.

SME Sector in India creates largest employment opportunities for the Indian populace, next only to Agriculture. They create wealth, foster new ideas and are a key source of new jobs.

Definition of SMEs

SMEs are defined as businesses that employ fewer than 250 people and are independent from other organisations. However, SMEs are diverse: some are dynamic and flexible, with a great power to innovate and a vast range of diversity, others traditional, based on family involvement, embedded in local business environments, and others are start-ups, fragile organisations striving for life and subsistence. [2]

Classification of Enterprises in India (based on MSME Act, 2006)

The earlier concept of 'Industries' has been changed to 'Enterprises'

Enterprises have been classified broadly into:

i. Enterprises engaged in the manufacture / production of goods pertaining to any industry; &
ii. Enterprises engaged in providing/rendering of services.

i. **Manufacturing enterprises** have been defined in terms of investment in plant and machinery (excluding land & buildings) and further classified into:
   - Micro Enterprise - investment upto Rs.25 lakh.
   - Small Enterprises- investment above Rs.25 lakh & upto Rs. 5 crore
   - Medium Enterprises - investment above Rs. 5 crore & upto Rs. 10 crore.

ii. **Service enterprises** have been defined in terms of their investment in equipment (excluding land & buildings) and further classified into:
   - Micro Enterprises - investment upto Rs. 10 lakh.
   - Small Enterprises- investment above Rs .10 lakh & up to Rs.2 crore
   - Medium Enterprises- investment above Rs.2 crore & up to Rs. 5 crore

The Eight Challenges

Change is happening faster than ever before. Small Businesses need to work hard not just to cope with change, but to embrace it. But what are the likely challenges for the SMEs over the next few years?

1. **Knowledge Based Economy:** Increasing growth of knowledge based economy – an economy that relies far more on intellectual capital than on physical assets

2. **Internet and E-Business** :Increasing use of internet and e-business

   - **The Death of Distance:** proximity to customers, distance and location are no longer important;
   - **Ease of Access to Information:** about markets and potentially about competitors will drive down prices;
   - **Lower Transaction Costs:** will reduce barriers to entry and reduce the effect of economies of scale;
   - **Effective Distribution:** will offer a competitive edge

3. **Demanding Customers**: Increasingly demanding customers

4. **Industrialization & Competitiveness**: Increasing industrialization in developing countries and cheaper labour means that SMEs have to innovate more to stay ahead.

5. **Globalization**: increasing globalization even by smaller firms.

6. **Harmonization**: more harmonization and integration of Europe & Asian economies.

7. **Skilled Manpower:** finding staff with appropriate skills and managing them effectively.

8. **Increasing Pressures for additional care** on firms of all sizes - to be good corporate citizens and provide for employees, environment & community.

Meeting the Challenges

As businesses move towards reliance on knowledge assets rather than physical assets, they will inevitably rely much more on better - educated, better skilled people. Three important drivers of change management in SMEs are - Thought Leadership, Learning Companies and Role of ICT in development and growth.

Leadership

The businesses that cope best with change are those that are led by champions of change: leaders with the vision and determination to use change as an opportunity to focus on the needs and aspirations of future customers, not just tomorrow's customers but perhaps next decade's customers.

Learning Companies

Not only do businesses need to promote individual development, they also have to become institutional learners as well. David Garvin[3] defines a learning organization as one that is "skilled at creating, acquiring and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights".

Role of ICT in development and growth

By using ICT and particularly e-business, SMEs have greater opportunities to develop: they are able to buy and sell over the Internet, reduce their costs and boost productivity, and manage change more effectively. eBusiness helps eliminate the barrier of distance, allowing SMEs to trade worldwide from a single website.

- ICT offers the SME's to cope with the challenges by helping them in:
  - Adapting themselves to the Digital Economy
    - Use of e-documents
    - Deliver Documents to suppliers & buyers electronically
    - Buying & selling online
    - Proper workflow

- Using ICT for Productivity Enhancement
    - Enterprise Resource Planning (ERP)
    - Supply Chain Management (SCM)
    - Logistics and Distribution
    - Quality & Process Improvements
    - ELearning & Knowledge Management

- Using ICT for Competitiveness
    - Market Research
    - Business Intelligence (BI)
    - Technology
    - Marketing
    - Customer Relationship Management (CRM)
    - Ecommerce

References

[1] *Source: http://www.sme.gov.eg/*

[2] *Source: http://ec.europa.eu*

[3] *Source: David Garvin, "Building a learning organisation", Harvard Business Review, Jul-Aug, 1993*

Further reference sites and books are enumerated below:

1. **European Union:** The European Union (EU) is a family of democratic European countries, committed to working together for peace and prosperity.
   http://europa.eu.int/index_en.htm

2. **CORDIS:** Community Research and Development Information Services
   http://www.cordis.lu

3. **SIMAP:** Important information on EU public procurement: rules and guidelines, inks to national opportunities
   http://simap.eu.int/

4. **NUTS Codes:** Nomenclature des unités territoriales statistiques
   http://simap.eu.int/EN/pub/src/welcome.htm

5. **SIDO Online:** Small Industries Development Organization
   http://www.smallindustryindia.com

6. **UNIDO:** United Nations Industrial Development organisation
   http://www.unido.org

7. **Ministry of Commerce & Industry:**
   http://commerce.nic.in

8. **FICCI:** Federation of Indian Chambers of Commerce & Industry
   www.ficci.com

9. **Trade Point Portal - NCTI:** National Centre for Trade Information
   http://www.ncti-india.com

10. **National Portal:**
    http://india.gov.in

Challenges in Vitalisation and Internationalislation of SMEs

Dr. S. P. Agarwal, Prof. & Head, CITT, IIFT, New Delhi

1. Introduction

Small and Medium Enterprises significantly contribute to industrial, economic, technological and regional developments in all economies, developed and developing, though the definitions of SMEs may vary[1]. In India, it is estimated that there are over 1.4 million small industries, out of which about 30 per cent may relate to manufacturing. SSI sector account for about forty percent of total industrial production, thirty five to forty percent of total exports and a significant share in employment (close to 2.5 million) and close to 8% of GDP. However SMEs or SSI sector (now called as micro, small and medium enterprises, MSMEs) are going through a transition phase including restructuring of strategies and facilities since the announcement of new policies in 1991 and thereafter progressive adoption of liberalised and globalising policies in India. We will however continue to use 'SME' nomenclature, as it is more popular, and widely accepted.

SMEs need to be vitalised for competitiveness and sustainable growth under new - world trade rules and faster technological changes, including wider use of ICT, besides new business models. Several initiatives have been taken by the government from time to time to promote and support MSMEs, including new support measures, financing mechanisms, and gradual de-reservation of items for production. Innovations and technologies are becoming more crucial for competitiveness and sustainability of SMEs, in the emerging international trade regime. MSMEs (or SMEs) need to adopt internationalization strategies in tune with objectives and strategies and global supply chain management of transnational corporations (TNCs) or large companies. Some of the recent initiatives, key issues and best practices evolved worldwide to vitalize and internationalize SMEs, particularly from technology point of view have been discussed in this paper.

It draws lessons from the studies carried out by the author recently in 2005-06 for UNESCAP, after a desk research and field surveys and visits to SME related organisations in select four developing countries in Asia Pacific region[2]. This study report was also discussed in an UNESCAP international workshop held at Seoul, South Korea, in Jan. 2006[3], in which about thirty countries and international agencies participated. The findings were further presented in another seminar at Seoul in March 2006 and a workshop at Beijing, Republic of China, in Oct. 2006[4]. Prevailing technology capability building measures and national manufacturing strategy recently announced in India have also been discussed, and some suggestions made to internationalize to improve competitiveness of SMEs in India.

It is hypothesized in this paper that vitalization and internationalisation of select SMEs is necessary in developing countries such as India, and technological inputs and support is a prerequisite for their growth and competitiveness; alongwith a comprehensive policy framework, implementation mechanisms and built evaluation systems.

2. Measures in India

2.1 Government Initiatives

Ministry of Small Scale Industries is primarily responsible for promotion and development of SMEs in India, and has evolved several policies, institutional and support measures, spread all over the country, in order to enable SMEs to meet their changing needs. Small Industries Development Bank of India (SIDBI) has developed various financing schemes. Ministry of Science and Technology (DST, DBT, DSIR[5]) has evolved several measures and programmes for technological assistance and development and transfer of technologies for SMEs. Some of the economic ministries such as Ministry of Textiles, Department of Food Processing and Department of Handicrafts etc. have also recently announced initiatives for technical assistance in various firms[6].

Some of the measures and new initiatives to promote SMEs include:

- SME development fund
- A specialized stock exchange for SMEs
- Encouragement for patenting and ISO Certification
- SME venture capital fund
- National Commission for Small Industries (informal sectors)
- SME development bill
- Credit Rating Agency
- Promoting special venture capital companies and risk financing companies for SMEs
- Improve the working of credit guarantee and export promotion institutions
- Progressively reduce protection measures and simplify implementation policies and control mechanisms
- SME Development Centres at SIDBI and IIFT
- Considering liberalizing FDI in SMEs and encouraging their linkages with TNCs and large companies
- Promoting industrial growth centres/clusters, EOUs, district industry centres, business incubators and business parks
- Market assistance and export promotion
- National Small Industries Corporation
- Small Industries Development Organization
- Limited Liability Partnership Bill 2006

Technology Support Initiatives

- Proto-typing and product development centres
- Design, engineering and development centres
- Small industries and services institutes
- Tool rooms
- Specialized development centres with international assistance in areas such as electronics, toys, handicrafts, etc.
- Technology business incubators
- Software technology parks
- S&T Entrepreneurship Development Board
- Technopreneur Promotion Program
- Consultancy Development Program
- Tax incentives, fiscal incentives, custom duty exemptions, grants & other financing mechanisms

- In-house R&D recognition scheme for industry
- National Innovation Foundation
- Technology Development Board
- Technology, Information and Forecasting Assessment Council (TIFAC)
- Innovation centres, entrepreneurship development institutes
- National Institutions for specific industries such as fashion design, packaging, glass and ceramics etc.
- Small Industries Information and Resource Centre Networks (SENET)
- S&T Parks
- Technical Consultancy Organizations (TCOs)
- Technology Up gradation Fund
- The Asia and Pacific Centre for Transfer of Technology

2.2 National Manufacturing Competitiveness Council (NMCC)

NMCC has also recognized in its national strategy for manufacturing announced in March 2006, the need for ensuring the competitiveness of small -scale sector, as it would help in overall growth of manufacturing sector as also the national economy. The strategy report has identified the following important impediments, among others:

- Access to timely and adequate credit
- Technological obsolescence
- Infrastructural bottlenecks
- Lack of R&D linkages
- Marketing constraints, disabling rules and regulations

The National Strategy for Manufacturing has recognised the need for a focused project on advance technology products and has recommended the constitution of a special group to study the potential for manufacture and export of such products. It has also recommended the establishment of technology parks around institutions of higher technological learning on the lines of those existing in USA. Another important recommendation relates to setting up a "Global Technology Acquisition Fund" to enable Indian industry to acquire very high technology intensive companies abroad[2].

The strategy suggests a cluster approach for improving the manufacturing competence. New and innovative approach to cluster development should be adopted. Further, small scale sector should be encouraged as breeding ground of innovation and technology development where it becomes the technology sources for large companies. Towards this, government must incentive technology development in SMEs to enhance their competitiveness. A National Manufacturing Competitiveness Programme (NMCP) is being developed which includes objectives to support SMEs. A Design Clinic approach is suggested to bring Indian manufacturing sector and design expertise on to a common platform and to provide expert advice and cost effective solution, resulting in continuous improvement and value addition for existing products. Emphasis is also laid down to enable SMEs to be competitive through quality management standards and quality technology tools. These are only some of the strategies among those suggested in the Report.

NMCC seems to have prepared Rs.1,000 crore National Manufacturing Competitiveness Programme for small and medium enterprises jointly with Ministry of Small Scale Industries. This aims to benefit over 10,000 firms in more than 500 SME Clusters. The thrust of the plan is towards technology infusion.

The areas for support include "lean" manufacturing, ICT, technology and quality up gradation, increasing number of tool rooms, encouraging patents and so on[7].

National Knowledge Commission has also identified SMEs as a thrust sector for education, skill upgradation, training and ICT encouragement. Various studies have shown that ICT and technology levels are higher in internationalized SMEs in sectors such as food processing, auto components, ICT, leather, to engineering, garments etc. Compared to non-exporting or domestic SMEs[8].

2.3. Private Sector Initiatives

There are a few national level associations and several state level associations for promotion of SMEs. Federation of Small and Medium Enterprises (FISME), Confederation of Indian Industry (CII), PHD Chamber of Commerce, Federation of Indian Chamber of Commerce and Industry (FICCI), and World Assembly of Small and Medium Enterprises (WASME), etc. have evolved various program towards technological capability building and enhancing competitiveness of SMEs. Public-Private Partnership (PPP) Projects are also being recently evolved for sustainable support to SMEs in some areas such as food processing and handicrafts. However, the expertise and capabilities to provide effective technology related services are generally limited.

2.4. Academic and R&D Organizations

Some of the engineering and technical institutions such as IITs, National Institutes of Technology and CSIR Research Laboratories, are also providing R&D and technology related support facilities and services to the SMEs including training and skill development programs. However, access to these facilities are generally not easy, and often lack the business needs of entrepreneurs. There are very limited start-up enterprises based on technologies or intellectual property from academic and R&D institutions. Ministry of Small Industries and Development Commissioner, have a wide network of technical, design, training, pro-type development, testing etc., facilities all over the country spread up to district levels. But, these facilities need to be modernized and tuned to emerging needs.

2.5. Foreign Tie Ups and FDI

Internationalisation of SMEs usually refers to the SMEs engaged in international businesses, have developed cooperation, partnerships, linkages and networks with foreign companies and institutions. Imports and exports tend to enhance the efficiencies, capabilities, competitiveness and vision of SMEs. FDI is considered to be an important channel for internationalisation, besides catalyzing technology flows and investments. Most countries are aiming at attracting larger FDI, which poses challenges, and provide opportunities to SMEs. The domestic policies therefore need to be finely tuned to take full advantage of FDI and international aid/support measures or loans. However, the SMEs need to be growth oriented and forward looking, with innovative capacities, for internationalisation.

A survey of over 8000 SMEs in Europe in 2003 revealed that internationalisation spurs growth and competitiveness[8]. The foreign supply relationships are the most common forms of internationalisation while exporting is the next and some establish foreign subsidies and branches. Access to know-how is a frequent motive for going abroad.

The study has interestly revealed that smaller countries with small domestic markets are more internationalized. Further the study point to three elements as crucial for developing holistic measures with regard to internationalisation.

SMEs' managers often have limited time and management skills. A policy measure should consider providing some practical tasks to support the manager, especially in the case of SMEs with low international experience.

Studies indicate that SMEs often need specific, targeted support. Such 'customized' support comprises, for instance, assistance in identifying an appropriate foreign business partner for a joint venture or collaboration. Moreover, recent studies indicate that SMEs' awareness of support measures is low due to the measures' traditional focus on export activities. The studies suggest that policy measures, in order to be effective, need to focus on the experience of the entrepreneur and on developing his/her qualifications in a broad sense.

Internationalization is more than just exporting. Policy measures, whether general or company-specific, need to encompass all the different approaches to internationalisation and the support to include a wide range of international activities.

Foreign partnerships, foreign investments and cross border clustering represent new viable ways to strengthen the international business strategies of SMEs. Such diverse international activities may integrate different business functions (i.e. R&D, production and marketing) and thus involve elements across the entire value chain.st developing countries have adopted or are adopting a liberalized FDI regime in various sectors of development, though the degree of liberalization may vary. In case of SMEs, several countries have opened up to 100% FDI while in some it is restricted, say up to 24% in India, in general. Limited studies are available[10] related to FDI flows to SMEs, specially in developing countries. A study of technology financing through FDI, for SMEs in India and other select countries[11], was carried out in 2004-05 at IIFT, based on the FDI approvals of the government. This study indicated that FDI approvals for SMEs accounted for about 6.0% of total approvals while the amounts were about 2% of the total amount approval. One can infer that FDI approvals were mainly perhaps intended to internationalize markets and technologies rather than investments. The extent of amounts and the number of approvals vary from sector to sector.

3. The Challenges in Vitalization and Internationalization of SMEs

SMEs are going through a transition phase and are generally restructuring their strategies and capabilities to remain competitive and grow in the emerging world trade environment. The government is also evolving policies, strategies and modes of implementation to encourage and support SMEs for their growth, capacity building and international competitiveness. The issues and strategies vary with the level of development and priorities in national economies.

The following key challenges have been analyzed in vitalization and Internationalization of SMEs:

1. Adoption of Innovation, technology, productivity and quality in the manufacturing for competitiveness
2. Foreign Direct Investments (FDI), networking and technical tie ups for –
    - Facilitating access to newer technologies
    - Strengthening technological and management capabilities
    - Access to market information
3. Training and Skill up-gradation of SMEs
4. Adoption of ICT applications
5. Risk mitigation for financing and development of SMEs
6. Extending the implementation of government policies at the grass root level
7. Implementation of NMCC at the grass root level
8. Bridging the Digital Divide
9. Adoption of International business practices in Indian SMEs

We can adopt the role model of countries such as Republic of Korea, Singapore and Taiwan to address the same.

References

1 Agarwal, S. P. (2005); Report on 'Strategy for Enhancing Competitiveness of SMEs Based on Technology Capacity Building' for UN Economic And Social Commission For Asia And Pacific (ESCAP), Bangkok, November

2 (2006); The National Manufacturing Competitiveness Council The National Strategy for Manufacturing, New Delhi, March

3 Agarwal, S. P. (2006a); UNESCAP Regional Consultative Meeting on NIS/SIS, Seoul, RoK, 18th-20th January;
Agarwal, S. P. (2006a); Strategy for Enhancing Competitiveness of SMEs Based on Technology Capacity Building; UNESCAP International Workshop/Consultative Meeting, Seoul, RoK, March

4 Agarwal, S. P. (2006b); An Innovative Policy Framework for Technology Capacity Building of SMEs; UNESCAP SIS Workshop, Beijing, China, October
Agarwal, S. P. (2006c); Technology Capacity Building of SMEs; Leveraging International Networks and Resources; UNESCAP SIS Workshop, Kathmandu, Nepal, December

5 DSIR (2002) – Foreign Collaborations in India

6 (2006) Annual Report 2005-06, DCSSI, New Delhi

7 (2006); The Economic Times, 2006 13 July

8 Agarwal, S. P. and P. Shrivastava (2005b); EDECAD Report on 'E-Status in SMEs in India', IIFT;

9 http://ec.europa.eu

10 UNCTAD (1998); Handbook on Foreign Direct Investment by SMEs – Lessons from Asia

11 Agarwal, S. P. (2005); FDI in SMEs in India; International Conference for Development and Revitalisation of SMEs in China, DMU, China, 14th July