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Factors Influencing Performance of Small and Medium Scale Technological Industries

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ABSTRACT

In the present scenario of liberalization, privatization & globalization, small and medium scale technological industries are facing intense competition and hence survival and growth of these industries has become a tough challenge. Some industries are consistently achieving the growth under competitive conditions while others are not. As a result of this, new opportunities and threats have emerged. Small and Medium scale technological industries in India are playing a pivotal role in the economic development of a country. Recognizing this fact, Government of India and various State Governments had given considerable protection and a helping hand for these units. But after the economic reforms, policy implemented by Government of India from 1991, the protections given to these units has been reduced slowly. Earlier, these units were competing in the local markets only, but now these units are exposed to intense global competition. So these units are operating under a competitive pressure to excel in performance in terms of quality, cost, delivery and flexibility. Some of these units has survived and growing inspite of the intense challenges caused by global competition. But a number of small and medium enterprises have failed to survive and grow and remained sick or underperforming. There is a tremendous scope for the production management, product development, process planning, tool design, plant layout improvement, productivity improvement etc. for performance improvement in these industries with ultimate aim of cost reduction and to provide the innovative product or technology, catering to the needs of the customers. There are big challenges in front of these small and medium scale technological industries. Their major weaknesses are high cost of operation, financially weak, lack of management skill and its knowledge, lack of marketing ability, lack of knowledge about generation of venture capital, training etc. Survival and steady growth of these industries in the era of globalization, liberalization and competition is depending on how efficiently these industries are managed. Performance improvement of these industries is a need of time. For this purpose critical investigation of factors affecting their survival and growth is necessary.

Keywords: - *Small and Medium scale technological industries, quality, cost, delivery and flexibility, survival and growth etc.*

Introduction

Business Growth is an important parameter for any business undertaking, especially in the era of today's intense competition. Small and medium enterprises are operating in a highly dynamic market which has created vast opportunities as well as challenges. Small and Medium scale technological industries in India are playing a pivotal role in the economic development of a country. Recognizing this fact, Government of India and various State Governments had given considerable protection and a helping hand for these units. But after the economic reforms, policy implemented by Government of India from 1991, the protections given to these units has been reduced slowly. Earlier, these units were competing in the local markets only, but now these units are exposed to intense global competition. So these units are operating under a competitive pressure to excel in performance in terms of quality, cost, delivery and flexibility. Some of these units has survived and growing inspite of the intense challenges caused by global competition. But a number of small and medium enterprises have failed to survive and grow and remained sick or underperforming. In this regard the factors affecting the survival and growth responsible for SMEs are important. Several researchers tried to develop the Performance Measurement Model but none of them is ideally suitable for SMEs because of characteristic limitations of small scale industries. There is a need to develop a suitable performance measurement model(PMM), especially for SMEs of India. In this paper an attempt is made to present the factors influencing the SMEs and PMM .

Literature Review

Industrial sickness and *growth* is a gradual process and does not develop suddenly. There are some symptoms on the basis of which growth or decline of SME's is seen. It includes turnover of Industries, stock movement (slow or fast), increase or decline in production, sales and profitability (Mohanty R.P.1999).

The literature review indicates that, the term Industrial Sickness has been defined in a number of ways. According to Misra S.K. and Puri V.K. (1999), prior to the enactment of sick industrial companies act (special provision Act,1985), there was no unanimity regarding the definition of industrial sickness. Reserve Bank of India, Term lending institutions and State Bank of India all defined sick industries in different ways. However, enactment of the Sick Industrial Companies Act 1985, settled the issue. According to this act an industrial company is declared sick if,

(i) It was registered for at least seven years;

(ii) It incurred cash losses for the current and preceding year; and

(iii) It's net worth was eroded. Also, a company which had eroded 50 % or more of its peak net worth during any preceding five financial years, was to be classified as 'incipiently sick'.

Initially only private sector companies were covered under the Act. In December 1991, public sector companies were also brought under the purview of the Act. The

1992 amendment has altered the criterions somewhat: firms only need to be registered only for five years, and the criterion of cash losses for two successive years has been eliminated. As far as small-scale sector is concerned that small-scale industrial units is considered to be sick that has:

(a) Incurred a cash loss in the previous accounting year and was likely to continue with losses in the current accounting year and erosions on account of cumulative cash losses to the extent of 50 % or more of its peak net worth during the last five years and/or

(b) continuously defaulted in meeting four consecutive installments of interest or two half-yearly installments of principal on term loan and there would have to be satisfied in the case of larger small scale units, it would suffice if either alternative (a) or (b) was satisfied in the case of tiny and decentralized sector units.

According to Desai Vasant (1997), "A small-scale industrial unit should be considered as sick if it has, at the end of any accounting year, accumulated losses equal to or exceeding 50% of its peak net worth in the immediately preceding five accounting years".

An analysis of all the definitions given above indicates that Industrial Sickness, more or less, has a perfect positive correlation with profitability. Profitability alone can generate surpluses for an industrial unit to meet its various obligations to the creditors like financial institutions, the government and others.

Factors Influencing Performance of an Industry:

There are many factors which affects the performance of industries. It may be divided into two groups: (1) External factors & (2) Internal factors.

External factors are those which results from factors beyond the control of an entrepreneur (e.g. availability of power and other infrastructure facilities required for smooth running of an industry) while *internal factors* are those which are within the control of an entrepreneur. Some of the internal factors affecting the industries are related to organization structure, production planning & control, distribution channel, technical know-how, training, industrial relations and inadequacy of management etc Desai Vasant (1997). The external and internal factors which affect the performance are as mentioned below:

External Factors	**Internal Factors**
Macro Economic Factors • Geographic area and region • Density • Inflation • Interest rates • Unemployment	**Company demographic factors** • Size of firm • Age of firm • Organizational structure • Community networks • Product /service

• Exchange rates	differentiation
Political-Institutional factors • Macro-economic policies • The business environment • The judiciary • Bureaucracy • Public support	**Human demographic factors** • Age • Gender • Family background • Exposure to role models
Socio-cultural factors • Access to public infrastructure • Access to money/capital technology**;** labor and other resources • Crime • Health • Culture	**Previous experience factors** • Education • Training • Work experience • Business ownership • Industry specific
Market opportunity factors • Demand for supply • Competition • Access to market • Location • Market uncertainty	**Human capital factors** • Personal characteristic • Capabilities, abilities and skills

Internal factors are very important because these factors are within the control of entrepreneur. The internal factors can be further illustrated as,

(1) Planning

(a) Technical feasibility

- Inadequate technical know-how
- Location disadvantages
- Outdated production process

(b) Economic viability

- High cost of inputs
- Break-even point too high
- Uneconomic size of project

- Under-estimation of financial requirements
- Unduly large investment in fixed assets
- Over-estimation of demand

(2) Implementation

- Cost overruns resulting from delays in getting licenses and sanctions etc
- Inadequate mobilization of finance

(3) Production

(a) Production management

- Inappropriate product-mix
- Poor quality control
- Poor capacity utilization
- High cost of production
- Poor inventory management
- Inadequate maintenance and replacement

(b) Labour management

- Excessively high wage structure
- Inefficient handling of labour problems
- Excessive manpower
- Poor labour productivity
- Poor labour relations
- Lack of trained skilled labour or technically competent personnel

(c) Marketing management

- Dependence on a single customer or a limited number of customers
- Single or limited number of products
- Poor sales realization
- Defective pricing policy
- Booking of large orders at fixed prices in an inflationary markets
- Weak market organization
- Lack of market feedback or market research
- Lack of knowledge of marketing techniques.

(d) Financial management

- Poor resources management and financial planning
- Faulty costing
- Liberal dividend policy

- General financial indiscipline
- Deficiency of funds
- Inadequate working capital
- Absence of cost consciousness

(e) Administrative management

- Over centralization
- Lack of professionalism
- Lack of MIS
- Lack of controls
- Lack of timely diversification
- Excessive expenditure on R & D
- Incompetent management
- Dishonest management

Skill needed to improve entrepreneurial performance

Four skills are needed to improve the performance and can be categorized as personal skills, business management skills, entrepreneurial skills and technical skills.

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Recent Literature on Factors Influencing The Performance Of SME's:

Various researchers tried to evaluate the important factors affecting the performance of SME's .B.C. Ghosh et.al., suggested the six key factors 1)A committed ,supportive, and strong management team.2)A strong visionary and capable leadership. 3) Adopting the correct strategic approach. 4) Ability to identify and focus on market. 5) Ability to develop and sustain capability. 6) A good customer and client relationship.

U. Jayalakshmi Srikumar (2006) in her paper on 'Problems of Small and Medium Enterprises and Effective Strategies for Global Competence' suggested the important role the Government has to play to remove inspector-raj ,reforms of labour laws, providing infrastructure facilities, need of training and need of technology up gradation.

Erik Stam(2007) in his paper provided insights into the nature of entrepreneurship and its role in innovation and economic growth. He found that small set of specific types of entrepreneurship techno start-ups and corporate venturing, and high growth start–ups seems to be more relevant for innovations than any other types.

SMEs have an important role to play in integrating their operations with other small businesses and ultimately with global firms to justify their own existence and realize fruits of their complementary status. A dual strategy of vertical integration and horizontal cooperation is recommended for the local SMEs to work with global transnational corporations for the production of intermediate goods, and also for

networking among local SMEs to link up with global firms for the production and marketing of consumer goods [Bala Subrahmanya 2007].

Economic size of an entrepreneurial unit may be measured by employment, output, fixed capital investment, and export variables and its economic performance may be indicated by output to capital ratio, output to labor ratio, and labor to capital ratio. Policy formulation may find empirical results to support a cluster approach rather than a dispersed approach for promotion and development of SMEs in India. The cluster approach has implications for establishing linkages between formal and informal SMEs and for elimination of smallness of dispersed SMEs [Narayana 2007]

Performance measurement in SMEs:

The indicators for performance improvement of an organization as mentioned in literature are:

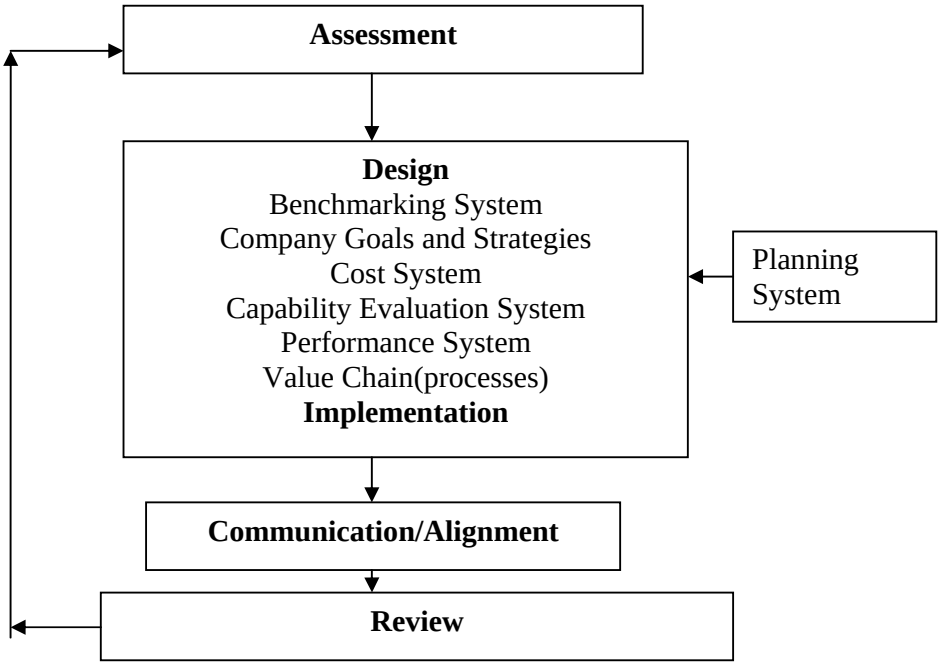
- Cost
- Quality
- Flexibility
- Delivery Dependability
- Delivery speed
- Innovation

The various performance measurement models for SMEs are proposed by different researchers but none of them is ideally accepted as yet. Following are the factors which affects the selection of PMM in SMEs;

- personalized central management, with little devolution of authority;
- resource limitations in terms of management and manpower, R&D, finance, marketing, etc.;
- reliance on small number of customers, and operating in limited markets;
- flat and flexible structures;
- high innovative potential;
- reactive and fire fighting mentality;
- informal and dynamic strategies;
- tacit knowledge and little attention given to the formalization of processes;
- misconception of performance measurement process.

The model proposed by Balchandran et.al.(2008) for performance measurement is presented here;

Reference Framework for PMS Design



Flexibility large-scale vs. Small-scale industries:-

- The larger industries have advantage of resources, infrastructure and finance. But changing business model, values and ultimately culture is difficult, if not possible for large established companies
- Smaller organization on the other hand can leverage their capacities for entrepreneurial innovations and organizational change, thereby learning to achieve advantages over larger organizations (Samuel B. et.al.2009).

Production and Industrial Engineering Techniques to improve the performance of an industry:- Various techniques are used in large industries. There is a tremendous scope for improvement of performance of SMEs by the techniques as mentioned below:

- Total Quality Management (TQM)
- Just in Time (JIT)
- Process flexibility
- Total Productive Maintenance (TPM)
- Partnership with Suppliers
- Enterprise Resource Planning (ERP)

- Business Process Re-engineering (BPR)
- Lean Manufacturing
- Agile Manufacturing
- Material Requirement Planning (MRP)
- Manufacturing Resource Planning (MRP-II)
- Total Productivity Management
- Supply Chain Management (SCM)
- Concurrent Engineering
- Flexible Manufacturing System (FMS)

Conclusion:

In this paper, an attempt has been made to discuss the external and internal causes behind the sickness of industries as many SMEs are either underperforming or declared sick. Literature regarding performance improvement is discussed .There is a need to develop a performance measurement model for SMEs. There is a tremendous scope for performance improvement; some of the techniques which are effectively implemented in large scale industry can be implemented in SMEs also.

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