CHAPTER III
LITERATURE REVIEW
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3.1 INTRODUCTION
This chapter studies the literature on cost management, in the chapter number 1 & 2, the researcher had already studied the overview and the concept of cost accounting in detail and strategic cost management. Apart from cost management, this chapter also reviews SME definition, various strategic cost management practices and profitability of engineering SMEs around the world. It emphasizes the impact of strategic cost management and its impact on the engineering SMEs through the analysis of the stage of Break-Even Point (BEP) from the view point of the management of the companies.

The sole objective of this chapter is to review the previous research related to the areas of cost management, Strategic cost management practices and the engineering SMEs profitability. It is also to be noted at this point that the development of ‘a model of impact of cost management, strategic cost management practices and its relationship with the engineering SME profitability’ is also an objective of the researcher.

3.2 DEFINITION OF SME IN INDIA (Structural changes from 1st Five Year Plan (1950) to MSME Act, 2006)
After India won the independence in 1947, the founding fathers of free India came out with the first Industrial Policy Resolution on 6th April, 1948 through which the importance of small scale sector was recognized as a means of achieving dual objectives which were better utilization of the local resources and achievement of local self sufficiency. The earliest definition of Small Scale Industry (SSI) in 1950 was based on twin criteria of gross investment in fixed assets and workforce (employment). As per this definition, the limit of
investment in fixed assets was rupees five lakhs and the number of workers employed were fifty (50) with power utilization and hundred (100) without power. In 1960 the conditions stipulating the norm of employment has been removed and the investment in fixed assets remained pegged at five lakhs rupees.

In the year 1966 the limit of investment in fixed assets was replaced by limit of investment (original value) in Plant & Machinery (P & M) and the same was fixed at 7.5 lakhs. In the year 1975, the investment limit in Plant and Machinery further enhanced up to ten lakhs rupees. In an upward revision of the investment limit in Plant and Machinery to twenty lakhs rupees in 1980 with the addition of a further clause in the definition that whether held on ownership basis or hire purchase. Additional provision included in the definition stating as “Provided further that no undertaking referred to as Small Scale Industrial Undertaking (SSIUs) shall be a subsidiary of or owned or controlled by any other undertaking.” The main purpose of adding such provision was to prevent the medium and the large scale industrial undertakings from taking away the special benefits exclusively meant for Small Scale Industrial Undertakings (SSIUs). It included protecting the reservations of certain items being manufactured by Small Scale Undertakings only. By adding this provision the Government of India (GoI) closely linked the question of ownership by providing backing that the special benefits and subsidies provided to Small Scale Industrial Undertakings (SSIUs) and it should not be misused by medium and large scale industries. Also government stated that Small Scale Industrial Undertakings (SSIUs) cannot be owned or controlled or be a subsidy of any other Industrial Undertakings. Accordingly the combined investment made in Plant and Machinery (P & M) in one or more industrial undertakings was set up by common proprietor/partner(s), director(s) in case of Proprietary / Partnership / private limited / public limited. Industrial Undertakings were to be clubbed
together and the same exceeded the limit of the investment determined for Small Scale Industrial Undertakings (SSIUs) and all such industrial undertakings would cease to hold the status of small scale industrial undertakings (SSIUs). So the above provision restricted the entry of medium and large scale industrial undertakings from obtaining various fiscal and monetary concessions by setting up of small scale Industrial undertakings (SSIUs ). With the furtherance of economic development and changes in the price indices and the changing and emerging industrial needs, resulted in to hike in the investment limits with additional investment in Plant & Machinery, Laboratory equipments etc. The investment limit in Plant and Machinery was further raised to Rs. 35 lakhs in 1985. At the inception of liberalization and globalization in the country in the year 1991, brought in further enhancement in plant and machinery investment limit and the same was raised to rupees sixty lakhs. There has been a significant change in the definition was made with the addition of a provision stating that equity participation up to 24 % in Small Scale Industrial Undertakings (SSIUs) is allowed by any other industrial undertaking (s) with out the application of the clubbing criterion. In the year 1997 there has been significant change ever in the definition of Small Scale Industrial Undertaking (SSIUs) with the steep hike in the investment limit of SSIUs and the same was enhanced to 300 lakhs. Such in-proportionate hike in the investment limit attracted the concerns form the associations of Industries from all over the country since majority of SSIUs had investments in Plant and Machinery less than rupees twenty five lakhs. So in the year 1999 the Government of India brought back the investment limit to 100 lakhs. In this journey of structural changes in the definition of SSIUs, there were some important intermediate concepts that are needed to be understood in this research which are enumerated as follows.
a) Ancillary Industrial Undertakings (AIU) – The concept of Ancillary Industrial Undertaking was introduced in 1960 for the classification of the industries that manufacture parts, components, tools or the intermediaries or render services. An ancillary unit has been defined as “An industrial undertaking which is engaged or proposed to be engaged in the manufacture of parts, components, sub assemblies, tools, or intermediaries or the rendering of services, an undertaking supplies or renders or proposes to supply or render not less than fifty percent of its production or services as the case may be to one or more industrial undertakings. The investment limit stipulated in 1960 was rupees ten lakhs in Plant & Machinery. This cut off limit was increased along with the increase in cut off limit of SSIUs. As stated above, the investment limit was enhanced to rupees forty-five lakhs (Rs.45 lakhs) in 1985 and rupees seventy-five lakhs (Rs. 75 lakhs) in 1991. The provisions added to the definitions of Small Scale Industrial Undertakings in 1980 relating to ownership and in 1991 relating to 24 % equity ownership were also made applicable to the definition of ancillary industrial undertaking.

b) Tiny Units – The concept of Tiny Units referred to those units, which had an investment ceiling in Plant & Machinery up to rupees one lakhs (Rs. 1 lakhs) and located in the villages and towns with the population of less than fifty thousand (50,000). In 1991, the manufacturing enterprises were treated as Tiny units in which the investment in Plant & Machinery did not exceed rupees five lakhs (Rs. 5 lakhs) irrespective of the location of the unit and afterwards to rupees twenty five lakhs (Rs. 25 lakhs) referring as micro enterprises since 2nd October 2006 (MSME Act).

c) Small Scale Service & Business (industry related) Enterprises – In the year 1985, the concept of Small Scale Service & Business enterprises (SSSBEs) was introduced. In 1991 it was merged with
the concept of Small Scale Service & Business (industry related) enterprises. An industry related service or business enterprise with an investment up to rupees 10 lakhs in fixed assets, excluding land and building was treated as Small Scale Service & Business (industry related) enterprises (SSSBEs).

d) Export-Oriented Units (EOU) - The concept of export oriented units was introduced among the small scale industrial undertakings in 1991. With the increased geographical limits of the markets at the eve of Globalization, the concept of Export-Oriented Units has been evolved. A unit with an obligation to export at least 30 percent of its annual production by the end of the third year of commencement of production and having an investment ceiling of rupees 100 lakhs was termed as export-oriented SSI unit.

The definition the Small Scale Industries (SSI) and the relevant investment criterion has undergone changes from First Five Year Plan (FYP) up to introduction of the Micro Small & Medium Enterprises Act, 2006. Following (Table no.3.1) depicts the changes in the investment limits of small scale industrial undertakings and ancillary industrial undertakings from time to time.

Table No. 3.1

<table>
<thead>
<tr>
<th>Particulars</th>
<th>SSI (in lakhs)</th>
<th>Ancillary (in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nominal</td>
<td>Real</td>
</tr>
<tr>
<td></td>
<td>Real</td>
<td>Nominal</td>
</tr>
<tr>
<td></td>
<td>Real</td>
<td></td>
</tr>
<tr>
<td>1966-67</td>
<td>7.5</td>
<td>117.55</td>
</tr>
<tr>
<td>1975-76</td>
<td>10.0</td>
<td>63.45</td>
</tr>
<tr>
<td>1980-81</td>
<td>20.0</td>
<td>91.49</td>
</tr>
<tr>
<td>1985-86</td>
<td>35.0</td>
<td>103.70</td>
</tr>
<tr>
<td>1991-92</td>
<td>60.0</td>
<td>104.80</td>
</tr>
<tr>
<td>1997-98</td>
<td>300.0</td>
<td>357.70</td>
</tr>
<tr>
<td>1999-00</td>
<td>100.0</td>
<td>115.27</td>
</tr>
<tr>
<td>2006-07</td>
<td>500.0</td>
<td>500.0</td>
</tr>
</tbody>
</table>

The real Assets values have been estimated by deflating WPI (Weighted Price Index) for machinery and transport equipment at FY 2006-07 price.

*SIDBI Report on MSME, 2009-10 (page no.15)
Evolution of Micro Small & Medium scale enterprises – Micro Small Medium Enterprises Development Act (MSMED) had enacted in the Parliament of India and the same came into effect on 2nd October, 2006. The Act has introduced the concept of ‘Enterprise’ as opposed to the earlier concept of ‘Industrial undertakings’. As stated in the MSME Act the classification of MSME’s is done in the following manner i) Enterprises engaged in manufacturing or production of goods pertaining to any industry specified in the first schedule to the Industries Development & Regulation Act, 1951 and ii) Enterprises engaged in providing or rendering of services. The definition of MSME (Micro, Small & Medium Scale enterprise) as given in MSME Act, 2006.

a) Micro Enterprise – A manufacturing enterprise with total investment in Plant & Machinery up to or less than twenty five lakhs rupees. (Rs.25,00,000) or a service enterprise with total investment in equipments up to or less than ten lakhs rupees. (Rs.10,00,000).

b) Small Enterprise - A manufacturing enterprise with total investment in Plant & Machinery up to or less than five crore rupees. (Rs.5,00,00,000) or a service enterprise with total investment in equipments up to or less than two crore rupees. (Rs.2,00,00,000).

c) Medium Enterprise - A manufacturing enterprise with total investment in Plant & Machinery up to or less than ten crore rupees. (Rs.10,00,00,000) or a service enterprise with total investment in equipments up to or less than five crore rupees. (Rs.5,00,00,000)

MSME sector apart from including the constituents of SSI / MSE sector, has also added in its sphere the enterprises falling under the
Khadi Village Industries Commission (KVIC/KVIB) the COIR board, the Handlooms, the Handicrafts, Retail trade etc. Classification of Micro, Small & Medium scale enterprises and their definitions and investment limits are given below.

**Table No. 3.2**

<table>
<thead>
<tr>
<th><strong>Definition of Micro, Small, Medium Enterprises (MSME) in India.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manufacturing Sector</strong></td>
</tr>
<tr>
<td>Investment in Plant &amp; Machinery (original Cost excluding Land &amp; Building and the items specified by Ministry of MSME, the then Ministry of Small Scale Industry, Vide its notification No.S.O.1722 (E) dated October 5, 2006.</td>
</tr>
<tr>
<td>Micro Enterprise</td>
</tr>
<tr>
<td>Small Enterprise</td>
</tr>
<tr>
<td>Medium Enterprise</td>
</tr>
<tr>
<td><strong>Service Sector</strong></td>
</tr>
<tr>
<td>Investments in Equipments</td>
</tr>
<tr>
<td>Micro Enterprise</td>
</tr>
<tr>
<td>Small Enterprise</td>
</tr>
<tr>
<td>Medium Enterprise</td>
</tr>
</tbody>
</table>

*Developed for the thesis*

So from the above table clear distinction between Micro, Small & Medium scale industries could be understood.

### 3.3 COST MANAGEMENT & STRATEGIC COST MANAGEMENT (Definition & Development)

It is historically well accepted assumption that the management accounting systems should give all the required details of the business which are useful for effective decision making, but the same expectations were non-fulfilled by the management accounting practices then and so such management accounting practices failed. It could not able to stood up to the challenges poised by the days of rapid technological changes and fierce competition and revolutionary practices in information processing. Johnson & Kaplan (1987) in their work ‘Relevance Lost’ brought revolution in the history of management accounting also Peter Drucker (1992) argued that accounting systems should provide answers about their businesses, markets, customers and environment to empower manager with
necessary information required for decision making. So, the expectation from management accounting provides information for managerial decision making and control systems. Cost Accounting is an integral part of Management Accounting (pg. 2, Khan & Jain, 2005).

So, the essential element of the definition of Cost Management lies in the expectation of the users and from the entrepreneurs perspective that includes ‘Information for managerial decision making and financial control.

Various researchers have worked on Cost Management and Cost Management practices in the past. The compilation of the research work related to Cost Management and Strategic Cost Management practices could be presented as follows.

Anthony Govindrajan & Shank (1992) commented that the role of management accounting and cost management depends upon the strategy followed by the organization (cost leadership or differentiation) so the effective control systems have to be defined and differentiated on the basis of the strategy followed by the organization.

A cost management system is primarily concerned with producing outputs for internal information users, using inputs and processes needed to satisfy management objectives. A cost management system is not bound by externally imposed criteria that define inputs and processes. Instead, the criteria that govern the inputs and processes are set by people within the company. A financial accounting system is primarily concerned with producing information for the company’s external information users. The three broad objectives of a cost management information system are (1) to cost out products, services, and other cost objects; (2) to provide information for planning and control; and (3) to provide information for decision making.

Various factors affecting focus and practices of cost management are global competition, service industry growth, advances in information
technology, advances in the manufacturing environment, customer orientation, new product development, total quality management, time as a competitive factor, and efficiency.

Apart from the factors mentioned above, Sheilds & Young (1992) observed that effective long term cost reduction initiative requires change in the strategic thinking and developing an organizational culture of continuous improvement in quality cost and time. The approach towards cost management has changed as the traditional approaches to cost reduction such as technology, lean and mean organization, offshore retreat, mergers and diversification may lead to short term cost savings which are not perpetual. But with the above given approaches from strategic (long term) point of view, it brings out perpetual and long term cost reduction. So cost management in the short run is not enough to be profitable but a long term approach (strategic) is required to be sustainable in the long run.


Basically, cost management includes traditional costing methods which includes absorption costing, overhead accounting, standard costing, transfer pricing and budgeting. In a costing research study conducted by Tangent et al, (1979) studied 144 US firms and 102 Japanese firms, wherein the use of traditional costing methods mentioned above were used.

Shank & Govindrajan (1992) made a case for use of standard costing as a management control tool for those firms which are following cost leadership strategy in a mature market. This research is an application of cost management and top level strategic management decision making.
Despite cost management is a common concept in literature, this concept is not well defined in acceptable way. Some researchers looked at time dimension of cost management. Within that, strategic cost management has special attention as a system that generates necessary information to support strategic management and sustain competitive advantage at the long run [Blocher et al. (1999), Shank (1989)]. Other researchers [Hilton et al. (2000), Dailey (1998)] ignore dividing cost management into two constructs according to time dimension. Therefore, cost management concept used to maximize profit and sustain competitive advantage at short run and long run as well. Nevertheless, both parties accorded to consider cost management as a system of improvement. This system aims to permit organizations to seek what is needed to cement its ties with customers, to attain their satisfaction and reduce costs. Simultaneously, it aims to use specific tools to maximize profit and sustain competitive advantage by using long-term strategies [Horngren et al. (2003), Icolau (2003), Barfield et al. (2001), Hilton et al. (2000)].

3.3.1 Strategic Cost Management - Concept

Strategic Cost management concept is widely accepted in literature to express a new accounting information system. This system aims to generate information needed to help organizations to create competitive advantages to hold and attract customers. In addition to measuring and controlling costs, SCM produce financial and non-financial information at short run and long run as well to add value to customers in order to prevail over competitors and reduce costs, by considering all stakeholder interests, [Horngren et al. (2003), Barfield et al. (2001), Hilton et al. (2000)]. The essence of cost management is to utilize a group of tools to generate information regarding planning, decision making, and
control at both short run and long run in order to help organization's management to create products or provide services with more effective and efficient way comparing with competitors [ Horngren et al. (2003), Hansen and Mowen (2000), Hilton et al. (2000) ].

SCM emerged within the management accounting discipline with the aim to use cost information (Shank and Govindarajan 1989; 1993), provided from several and often heterogeneous sources, to create a competitive advantage. It is also argued that cost analysis and cost management must be approached with an explicit focus on the firm’s strategic positioning, its overall value chain, and the full set of cost drivers for the firm (Shank and Govindarajan, 1993). Key issues for organizations thus comprise the firm’s position in the industry value chain, the activities that should be performed, and the potential for cost compression and value enhancements.

Recent developments in the SCM discipline have further investigated the relationship between the costs of the firm, the value that firm provides to its customers, and its importance in shaping the ability of the firm to reach its profit potential (McNair et al., 2001a; 2001b).

So, the focus of Strategic Cost Management is concentrated on following three techniques which are predominantly focused by the previous researchers are Value Chain Analysis, Cost Driver Analysis and Value Creation Analysis.

**Value chain analysis**

SCM requires that attention be devoted to understanding the overall value generated by an industry or a network of firms, and to grasp how value is distributed between the various actors that contribute to its formation (Shank and Govindarajan 1989; 1993). The final outcome of analysis is to identify those phases of transformation that achieve the best return within the ‘value system’, towards which financial resources should consequently be addressed. In a growing number of
businesses, value is progressively shifting towards activities that are 'intangible', are located further 'downstream', and involve a high degree of interaction with the customer. In the case of major multinational companies like General Electric and Coca Cola have significantly enhanced their performance by focusing managerial and financial resources on these end-stages. As such, a downstream shift closer to the customer has also occurred in this industry, informed largely by a focus on where value is generated within a broader industry chain of activity.

**Cost Driver Analysis**

Within the SCM framework, competitive advantage presumes a good understanding of the causal factors that drive cost incurrence. Costs, indeed, are caused by many interrelated factors. Some factors are implicit in the firm’s choices about its underlying economic structure (structural cost drivers). They include strategic choices concerning: scale (size of investment to be made in manufacturing, research and development, marketing areas), scope (degree of vertical integration), experience (number of times the firm has already done what it is doing again), technology (type of process technologies used at each step of the firm’s value chain) and complexity (product or service line breadth). Structural cost components can be managed (up or down), but only by changing the fundamental economic elements of how the business competes, and are far from easy to implement. Also, in general, structural factors are not monotonically scaled. So, one can have too much scale, or complexity, as well as too little. This makes optimization difficult.

Costs also are driven by the firm’s ability to execute successfully within its given structure (executional drivers). In particular, executional cost drivers include work force involvement (Commitment to improvement), total quality management (Kaizen
and zero defects approaches), capacity utilization, plant layout, product configuration, and linkages with customers and suppliers. In general, executional cost drivers are monotonically scaled, so that more is always better (Riley, 1987). Lower costs and improved efficiency can be achieved either through redesigning the firm’s value chain, reassessing the coherence of current activities compared with the customers’ business requirements, reconfiguring the structural business model, or better executing within that model.

**Value Creation Analysis**

A recent development in the SCM discipline is to more explicitly link value created by the firm to the individual activities performed by the firm and the costs of doing so. One such model is the value creation model (McNair et al., 2001b), which seeks to understand the trade-off between what the customer is willing to pay for a product/service bundle (value) and the cost the firm bears to provide what the customer desires. Specifically, the value creation model (VCM) defines the firms' cost structure in terms of *value added* (directly related to the reason why the customer purchases the product), *non value added activity* (an essential support activity such as administration, personnel management and maintenance, for example), and waste activities (those activities that are not directly valued by the customer and do not support the activities of the organisation). In relation to this, evidence from the field shows that a large proportion of total activities costs are non value added but required, and waste, implying that firms struggle to reach their profit potential (McNair et al., 2001b). In general, making visible the level of alignment between activity costs and the value generated enables the commencement of actions to emphasize value added (VA) activities, and (NVA) activities become more efficient and eliminating waste (W).
Background behind Strategic Cost Management-

Globalization and growth of Information and Communication technology are regarded as the key factors behind the development of the concept of ‘strategic cost management’. (Macro Aglihati, 2003). Majority of the companies are working on the multinational basis, and are countered by the fierce competition and the continuous development. Globalization at large means the process of progressive transformation of the world economy from the cluster of national markets into a network of connected regional markets, independent from national borders. The globalization perspective form strategic cost management point of view, which is conceived in majority of literature on the same suggests that, it is not necessary for the company to operate on worldwide basis in all the stages of Value Chain. On the other hand, literature on Strategic Cost Management advocates the fact that not only ‘Globalization’ but the transformation of economic environment after ‘Globalization’ has compelled the companies to adopt Strategic Cost Management practices i.e. to reduce the cost of value added activities in value chain at the same time increase the ‘value’ transferred to the customers through the products supplied to them.

In the process of economic globalization, the fierce competition amongst the firms operating at national and international level results in to competition in terms of efficient value chains of the businesses. Savings in the costs in the absence of decrease in the value delivered to the customers, but on the other hand increased value impartation at the reduced cost to customer has became necessary in the globalised environment. So, the need of strategic cost management was felt soon after the ‘globalization’. Improved Information and Communication technology supported the process of strategic cost management by catering real time data and meaningful information and processing the same for guiding and helping the businessmen and managers in
the process of strategic decision making. (6 lines more and then literature review of 3 researchers)

Literature review and proliferation of research papers on strategic cost management revealed that there exists three broad phases which are dominated different researchers with their thrust on the key areas in strategic cost management. Professor Shank, Cooper & Slagmulder, Robert Kaplan has extensively worked on the research related to strategic cost management.

So the development of the concept of ‘strategic cost management’ has taken place in three phases which are as follow

**Research contribution on SCM by Professor Shank**

The concept of ‘Strategic Advantage’ was discovered by Professor Michael Porter (1980), by extending the Porter’s model. Professor Shank (1992) developed the Shank’s model of strategic cost management. The model provides a series of analysis methods which could insight in to strategic management. These analysis methods are strategic value chain analysis, strategic position analysis and strategic cost driver analysis. The three methods together brings close relation. The company firstly must analyze the sources of costs and understand the structure of the product cost from strategic point of view. The company must analyze the three important aspects which are product, industry and market and determine whether company should take the lower cost strategy or should follow the product differentiation strategy. So after choosing the strategic management approach company must choose a suitable cost management approach to match the competitive strategy. Thirdly after having determined the competitive strategy, the company should carry on strategic cost driver analysis, to find out what factors induce cost change and seek reduction in costs to match the kind of competitive strategy to the requirements.
Professor Robin Cooper was one of the initiators of ABC (Activity Based Costing). Professor Robin Cooper along with Co-author Slagmulder developed Strategic Cost Management model in 1988-1998 in a series of articles on ‘Management Accounting’. The key idea behind this model is to apply ABC to Strategic Management. Authors believed that ABC should be applicable to strategic management such as to build optimal strategy and to provide all the services for the strategic programme implementation. Further it was argued that strategic cost management is the application of cost management techniques, to improve the strategic position of the firm and the costs. These research efforts attempted to derive relationship between a firms strategy, cost structure, and casual relationship between activity levels and the resources required (Cost Drivers). Robin Cooper and Slagmulder further explored the strategic cost management and applied it from inter-firm application to beyond boundaries of the company. They explored the Strategic Cost management techniques that cross organizational boundaries between buyers and suppliers and to realize their objectives which is to reduce costs through collaborative efforts.

Robert Kaplan and David Norton developed the concept of ‘Balanced Scorecard’ which is one of the highly followed qualitative performance measurement systems. In the case of strategic cost management Prof. Kaplan contributed significantly (1996, 2004) by highlighting that how firm level strategy and constituent business level strategies are linked to performance measures through an integrated performance management process. Kaplan & Norton (1996) extend the cost management to performance management in four perspective (financial, customer, internal processes, learning and
The most important feature of their model is introducing the metrics of performance as defined by multiple stakeholders (i.e. employees, suppliers, shareholders, government, society at large). Kaplan & Norton (2004) also developed a architecture of cause–effect relationship by linking four perspectives and creation of value (how and for whom) through a force of a strategy map. Kaplan research stream extends the strategic cost management to strategic performance management of four perspectives.

3.4 LITERATURE REVIEW THROUGH RESEARCH PAPERS

Following papers were reviewed for concept orientation and understanding of Strategic Cost Management practices and profitability.


The above mentioned research article titled ‘A Review of Research on the Theory and Practice of Cost Management’ is authored by Prof. Manoj Anand, Reader, Finance and Accounting area, University Business School, Punjab University, Chandigad, and the same is published in Vol. II, No.1, South Asian Journal of Management. The author has acknowledged the financial assistance by AICTE, New Delhi under R&D scheme.

This paper defines the conceptual framework of ‘Cost Management’. A survey was conducted by the researcher to measure the present status of theory and practices of Cost Management. This paper focused on the issues related to ‘Activity Based Costing and its implementation’. The Strategic Cost management issues such as Customer Profitability Analysis (CPA) in Value Chain Analytic and Life Cycle Costing (LCC) are also reviewed. The directions for further research were suggested. Twenty Six (26) respondents out of Fifty-Three (53) firms were using ‘Activity Based Costing’ for product
pricing and operational feedback in corporate India. One of the findings of the paper revealed that the firms which had adopted ‘Activity Based Costing’ were found successful in capturing accurate cost in formation for Value Chain Analysis (VCA) and Supply Chain Analysis (SCA). It is revealed by the author that once the value added and non-value added activities are identified, then competitive position of the organization could be attained and maintained. It is also revealed that performance of the firms is improved on the front of price, quality and product performance.

This paper defines the conceptual framework of ‘Cost Management’ and ‘Strategic Cost Management’. The relationship between the adoption of ‘Strategic Cost Management’ and ‘Profitability’ and managerial decision making is defined in this paper. So this point supports the statement that ‘Strategic Cost Management’ impacts the firm’s profitability and firm value. It is also confirmed that managerial decisions are impacted by the considerations of Strategic Cost Management.

The above mentioned research paper titled as ‘Cost Management Practices in India : An empirical study’ is authored by Prof. Manoj Anand, Professor of Finance & Accounting, Indian Institute of Management, Indore, Prof. B S Sahay, Director and Professor of Operations Management, Institute of Management & Technology, Gaziabad and Mr. Subhashish Saha, Securities Exchange Board of India, Mumbai. The above mentioned research was carried out of the financial assistance by All India Council for Technical Education under the R&D scheme, the same was acknowledged by the authors in the paper.

In the above mentioned research paper, a study of 53 CFO’s of corporate India were conducted. The chronological development of
cost management practices is analyzed in the above mentioned research paper. It is found as one of the major research outcome from the present research paper that firms are successful in capturing accurate cost and profit information from ‘Activity Based Costing’ system also results suggested that such firms has better insights for budgeting and benchmarking but consistency in their priority of budget goals is lacking unlike the firms using traditional costing systems. At the end of the survey analysis under the research, authors found that both modern and traditional practitioners of costing have the clarity of reasons for effective implementation of planning and budgeting process in their firms. It is also found that application of Standard Costing amongst traditional costing system users and modern costing system users is almost same.

From the above research paper it is understood that, with the development of cost management practices, there is significant change in the use and the application of modern techniques of cost management. It is also evident from the present research that the application of modern methods of cost management (strategic cost management) and its impact on the accurate collection and measurement of costs and the managerial decision making can’t be generalized. But it is strictly found to be case sensitive, as both the traditional costing advocators and modern costing advocators have adequate clarity of reasons for effective implementations of planning and budgeting activities in their own respective way.

‘Managing Cost and Cost Structure throughout the Value Chain : Research on Strategic Cost Management’

The above research paper titled as ‘Managing Cost and Cost Structure throughout the Value Chain : Research on Strategic Cost Management’ is authored by Prof. Shannon W. Anderson, Professor, Rice University, Houston, TX. And the same is published in
In this research paper, the researcher has stated that alignment of firm’s cost structure with its strategy and the optimization of the enactment of strategy is attained through ‘Strategic Cost Management’. The researcher explored that alignment and optimization must comprehend full value chain and all the stakeholders to ensure long term sustainable profits for the firm. The conceptual framework of ‘Strategic Cost Management’ and the attainment of long term objectives of the organization with an immediate impact on the short term profits could be understood. It is proved with the literature review in the research paper that Strategic Cost Management takes two forms: Structural cost management, which employs various tools of organizational design, product design and process design to built a cost structure which is coherent with strategy and executional cost management which considers various measurement and analysis tools (variance analysis, cost-driver analysis) to evaluate cost performance. This research paper came out with the model depicting a relationship between Strategic cost Management to Strategy development and performance evaluation. The researcher argued at the end that lot of advanced research has been carried out to understand and for the effective application of executional cost management but understanding of structural cost management is not regarded up to the same level.

It is understood from the evaluation and study of the above research paper that their exists two forms or two approaches towards ‘Strategic Cost Management’. This research paper enriches the conceptual understanding of the term ‘Strategic Cost Management’.
3.5 SME PROFITABILITY (Definition and Measurement)

Sub section above reviewed the literature of cost management practices and strategic cost management practices of SME’s. One of the most important element of our study which is the third and the remained element is Profitability. This section reviews the literature on the profitability of the firms with special reference to SMEs. This section is structured into three sub sections. Subsection 1 reviews the importance and need of profitability to survival and development of SMEs. Subsection 2 reviews the measurement of profitability. Subsection 3 reviews various factors influencing the profitability of SME.

3.5.1 Importance of Profitability

One of the basic goals of financial management is ‘Profit Maximization’ (Pg. no. 3, Financial Management, I M Pandey, 2009) Profitability has the positive relationship with the survival of the organization. Ivan Major (2008) argues that SMEs should concentrate more on profitability than any other measure of performance, also the researcher stressed on the point that in the initial startup days survival is important than any other business objective. So Small and Medium scale industries have to concentrate more on profitability. Maximization of sales is not the only objective of the firm but more importance is given to maximization of profits.

Pentti J K Kouri (1982) observed that the importance of ‘Profitability’ for capital accumulation and growth is regarded very high and the survival of Small and Medium scale enterprises is dependent exclusively on the profitability of the firm. Low profitability results in to working capital problems as well as it contributes to undercapitalization which cumulatively results in to liquidity problem. All the above problems leads to reliance on external funds which attracts the mandatory burden of interest payment and its
default attracts liquidation of the SME (Mike Kuehen and Anna Fay-Lohn, 2007)

### 3.5.2 Defining and Measurement of Profitability

In general sense, the accounting profitability is defined as the excess of revenue over and above the expenses incurred for earning that revenue. In accounting terms, profitability is measured and interpreted in different ways by different users which is enumerated as follows. Operating Profit which is alternatively called as Earning Before Interest & Taxes (EBIT) where as Net profit is regarded as Earnings after Taxes (EAT). In between these two lies Earnings Before Taxes (EBT) which is considered as pre-tax profitability.

Profitability is the measure of economic performance of an enterprise. It is also observed that fine tuning (allocation) of indirect operating expenses results in improved profitability measurement (Mike Kuehen and Anna Fay-Lohn, 2007). In practical sense, profitability for investor lies only when the invested firm generates enough profitability which is naturally more than the investors himself independently could have achieved in the capital market. So, in short profitability is an inevitable business element which is responsible for the operation/survival as well as the growth/long term valuation of an enterprise.

Thomas A. Hannagan (2007) advocated capital based profitability measurement in which the author stressed on the capital allocations to link the profits to risk. In his research, the author classified the measurement of profitability in two ways as profit measurement at bank level and profit measurement at transaction level looking account revenues and expenses but eventually overlook risk involved. Richard G.P. McMahon and Anthony M.J. Stranger (1995) emphasized on the use of return on Sales, return of assets and return on equity are the major indicators of profitability performance.
I M Pandey (2009) classified the measurement of Profitability performance of a firm in terms of following Profitability ratios. He also stressed on different ways in which accounting profits of the firm are calculated which are narrated by him as Gross Profit (GP) which is the difference between Sales and the manufacturing cost of goods sold. Profit After Taxes (PAT), Profit Before Taxes (PBT), Operating Profit as EBIT (Earnings Before Interest and Taxes). In addition to the same return on sales, return on assets and return on capital are also mentioned as important indicators of profitability performance. Various Profitability ratios advocated by the author are as follows. These are helpful to measure the financial characteristics of an organization from the profitability perspective as -

**Gross Profit Ratio** = Gross Profit/Sales

**Net Profit** = Net Profit/Sales

**Operating Profit Ratio** = Operating Profit (EBIT)/Sales

**Operating Ratio** = Total Operating Cost/Net Sales*100

**Return on Investment** = Profit After Taxes/Capital Employed*100

**Return on Equity Ratio** = Profit After Tax – Preference Dividend/Equity Capital*100

So in the above manner the profitability performance of an enterprise is calculated. In short various researchers have used various ratios to measure profitability of SMEs based on various research purposes. Out of the above available literature, it is found that profitability is a multidimensional construct and subjective in nature. It is important consideration of the businesses to cover their cost by revenue. So, in short Break Even point has assumed a great importance in the definition and measurement of profitability. So, the same is taken as the basis for the present research by the researcher for the measurement of SME profitability.
3.5.3 **Factors influencing Profitability**

This sub section reviews the factors affecting SME profitability. There are two objectives of this sub section which are as follows,

1) To identify which factors affects the profitability of SMEs
2) To segregate those factors that are caused by financial management practices and financial management characteristics and intangible resources management.

According to and Cohen (1989) and Jaifee (1999) there are three major factors which influences the profitability of an organization which includes revenue, cost and capital. Out of the above mentioned factors, Cost and Capital are affected by financial management decisions and Revenue is affected by marketing and sales management.

According to Charis Charlambous and John Gittins (2008) there exist non financial factors which affects Small and Medium scaled industries in Pharmaceutical industry. Thomas A Hannagan (2007) advocated that Capital Allocation is necessary for linking profitability with the risk. Mike Kuehne and Anna Fay-Lohn (2007) has strongly put forward the check and the ubiformity in allocating the indirect operating expenses. It is also strongly put that due to fine tuning of indirect operating expenses and the check thereon has resulted in to increased accountability. Pentti J Kouri (1882) has linked profitability and growth and it is explored by the means of an alternative explanation suggested by standard neoclassical theory of the firm. The research paper identified various factors affecting profitability such as real wage rate, the rate of profit, taxation and saving behavior as well as the rate of growth. AMIfs Research Committee has identified various factors based on which acceptable profitability measurement system can be constituted.

According to James Foreman-Peck, Jerry Makepeasce and Brian Morgan (2006) has identified important factors affecting the
profitability of SMEs, which are firm size, marketing plan, stand alone computers, Innovation, Trade Association, finance, financial turnover, Labour productivity. From the viewpoint of Financial Management Due Pond Model is considered as a standard model to analyze the factors affecting SME profitability. Due-Pond analysis advocated three major ratios which describes the relationship of dependent variable i.e. Profitability with other variables. The major outcome of Due-Pond analysis is the one summary ratio i.e. Return on Equity (ROE), but while calculating return on equity it takes into account three important points which are Profit Margin, Asset Turnover, Assets/equity, which collectively cover Income statement analysis and Balance Sheet analysis.

3.6 PRODUCTIVITY
Productivity is a measure of output from a production process, per unit of input. It is observed in engineering companies, labour productivity is typically measured as a ratio of output per labor-hour, an input. Productivity may be conceived of as a metric of the technical or engineering efficiency of production. As such, the emphasis is on quantitative metrics of input, and sometimes output. Productivity is distinct from metrics of a locative efficiency, which take into account both the monetary value (price) of what is produced and the cost of inputs used, and also distinct from metrics of profitability. It address the difference between the revenues obtained from output and the expense associated with consumption of inputs.

Productivity is key to Prosperity of any nation (Adam Smith). Productivity Growth is a vital factor for continuous economic growth and increase in profitability. Every organization should strive hard to enhance the productivity as the increase in productivity aims at efficient and effective utilization of resources at the disposal of an organization. Although, there is all around efforts in most of the
organizations and a vast experience gained by people in various sectors, there is a dearth of research on productivity concepts and related experiences in the Indian context, which are to be made available to all people in various sectors irrespective of their level and contribution in their organization.

While the concern for productivity in the public sector is not new, the intensity of concern has increased steadily during the past ten years. In fact, one observer states that productivity has become the very hottest new word among many of the nation's public administrators. The enthusiasm for the concept is facilitated by the fact that at the abstract level everyone is for productivity. It seems to be a simple and uncomplicated concept. It is not.

One of the biggest problems facing the public productivity movement is the assumption that everyone shares a common definition of the term productivity but this assumption is false. Productivity discuss it from perspectives rooted in such diverse subject areas as measurement, labor relations, training and development, management, budget, and finance. Academicians and practitioners specializing in each of these areas tend to have different interests, views and opinions from counterparts in each of the other areas. Consequently, they define productivity in different ways. There simply is no commonly shared definition. Productivity tends to be intertwined with the concepts of efficiency, savings, cutbacks, measurement, effectiveness, and performance. In this research productivity is referred in general way as Productivity and it is a measure of output from a production process, per unit of input.

3.7 COST EFFECTIVENESS ANALYSIS (CEA)

Cost-effectiveness analysis (CEA) is a form of economic analysis that compares the relative costs and outcomes (effects) of two or more courses of action. Cost-effectiveness analysis is distinct from cost-
benefit analysis, which assigns a monetary value to the measure of effect. Typically the cost effectiveness (CEA) is expressed in terms of a ratio where the denominator is a gain in performance from a measure (financial or non-financial) and the numerator is the cost associated with the performance. The most commonly used outcome measure is quality-adjusted life years in health industry. Cost-utility analysis is similar to cost-effectiveness analysis. The concept of cost effectiveness is applied to the planning and management of many types of organized activity including engineering companies. In the acquisition of military tanks, for example, competing designs are compared not only for purchase price, but also for such factors as their operating radius, top speed, rate of fire, armor protection, and caliber and armor penetration of their guns. If a tank’s performance in these areas is equal or even slightly inferior to its competitor, but substantially less expensive and easier to produce, military planners may select it as more cost effective than the competitor. Conversely, if the difference in price is near zero, but the more costly competitor would convey an enormous battlefield advantage through special ammunition, radar fire control and laser range finding, enabling it to destroy enemy tanks accurately at extreme ranges, military planners may choose it instead—based on the same cost effectiveness principle. Cost effectiveness analysis is also applied to many other areas of human activity, including the economics of automobile usage, engineering unit’s performance.

3.8 MATERIALS MANAGEMENT
Materials management is the branch of logistics that deals with the tangible components of a supply chain. Specifically, this covers the acquisition of spare parts and replacements, quality control of purchasing and ordering such parts, and the standards involved in ordering, shipping, and warehousing the said parts.
There are no standards for materials management that are practiced from company to company. Most companies use ERP (Enterprise Resources Planning) systems such as SAP (Systems Applications & Products) Oracle, BPCS, MAPICS, and other systems to manage materials control. Small companies that do not have or cannot afford ERP systems use a form of spreadsheet application to manage materials.

The goal of materials management is to provide an unbroken chain of components for production to manufacture goods on time for the customer base. The materials department is charged with releasing materials to a supply base, ensuring that the materials are delivered on time to the company using the correct carrier. Materials is generally measured by accomplishing on time delivery to the customer, on time delivery from the supply base, attaining a freight budget, inventory shrink management, and inventory accuracy. The materials department is also charged with the responsibility of managing new launches.

From the context of the present research study, the efficiency of materials management function from strategic cost management point of view and its impact on the profitability of selected Small and Medium Scale Enterprises under study has been checked. The investigation of relationship between efficient material management and profitability of selected engineering units has been done.

3.9 RELATION BETWEEN STRATEGIC COST MANAGEMENT & SME PROFITABILITY

This section reviews the relationship between strategic cost management and SME profitability based on the literature by reviewing findings of the previous researchers. But unfortunately, there is very little amount of literature available related to the analysis of the impact of strategic cost management practices and its impact on
profitability of SME. But at the same time, it is found that majority of the researchers extensively researched on defining the strategic cost management characteristics and strategic cost management practices. There are some theoretical evidences of the research conducted in the area of analyzing the impact of strategic cost management on SME profitability. As per Manoj Anand (2004), “the degree of strategic cost management issues such as customer profitability and value chain analysis (VCA) affects the short term performance of the organizations, which is revealed through profitability of the companies.” so from the above theoretical observation, it is very transparent that strategic cost management practices and the profitability of the companies are positively correlated.

The literature reviewed above have to be tested against the empirical data, to propound a model of impact of strategic cost management on the profitability of SMEs. At the same time it is required to ensure that present research contributes to filling up of research gap. The next sub section will consider the possibility of such a model.

### 3.10 DEVELOPMENT OF THE MODEL OF THE IMPACT OF STRATEGIC COST MANAGEMENT ON SME PROFITABILITY