

CHAPTER - III

REVIEW OF LITERATURE

In this Chapter, the strategic management literature as it developed during different periods of time is briefly reviewed. Thereafter, an extensive review is done of literature on important aspects of strategic management, such as the process of strategic management, strategies adopted by business organizations and strategy – performance linkages. Following this important studies on Biomass power plants, which are relevant to the present study are presented in this Chapter. This is very important to understand the strategic issues of the present study and the context of those issues.

The strategy of an organization is considered to be an important variable as it serves to guide the organization's alignment with its environment and also helps to integrate the organization's internal operations Snow and Hambrick, 1980; Ramanujan, and Venkatraman (1987). The concept of strategy was introduced into organizational literature from the 1950s onwards by the Harvard Business School (Snow and Hambrick, 1980). Subsequently several writers have examined this variable in terms of its content, the process of strategy formation and the linkages between strategy and organizational performance. Although there were numerous early contributors to the literature, the most influential pioneers were Alfred D. Chandler, Philip Selznick, Igor Ansoff, and Peter Drucker.

In this Chapter, the major literature on several important aspects of strategic management is reviewed. This literature pertains to the study of strategy within the context of business organizations, especially small enterprises. The purpose of this literature survey is to help guide the search process on strategic management within the context of select Biomass power plants in Andhra Pradesh.

3.1 STUDIES ON STRATEGIC MANAGEMENT PROCESS

Strategic management is considered as either decision-making or planning, or a set of activities related to the formulation and implementation of strategies to achieve organizational objectives. Strategic management has been defined in different ways by different authors. Some examples of more commonly known definitions of strategic management are listed in Table 3.1.

Table 3.1 - Definitions of Strategic Management

- 1) **Glueck (1984)** Defines strategic management as “a stream of decisions and actions which leads to the development of an effective strategy or strategies to help achieve corporate objectives
- 2) **Hofer and others (1984)** consider strategic management as “the process, which deals with the fundamental organizational renewal and growth with the development of strategies, structures, and systems necessary to achieve such renewal and growth and with the organizational systems needed to effectively manage the strategy formulation and implementation process.
- 3) **Ansoff (1984)** a systematic approach to a major and increasingly important responsibility of general management to position and relate the firm to its environment in a way that will assure its continuous success and make it secure from surprises.
- 4) **Sharplin (1985)** the formulation and implementation of plans and carrying out of activities relating to the matters which are of vital, pervasive or continuing importance to the total organization.
- 5) **Wheelen and Hunger (2002)** “Strategic management is that set of managerial decisions and actions that determines long-term performance of a corporation”. It includes environmental scanning. (Both external and internal), strategy formulation, strategy implementation and strategy evaluation and control.

The process of strategic management is generally explained through a model. The process consists of different stages having a number of components in each.

The various components of strategic management process were discussed in the review of literature. Most of the authors on strategic management selected a common four-step model of planning process: specify objectives; generate strategies, evaluate strategies and monitor results, while the choice of indicators has varied widely across studies.

Bracker and Perason (1986) identified eight planning components i.e., i) objective setting ii) environmental analysis, iii) strengths, iv) weaknesses, opportunities and threats, v) strategy formulation, vi) financial projection, vii) functional budgets, operating performance and viii) measurement and control procedures. Based on the above planning components strategic management in small businesses consists of four levels of planning, viz., i) structured strategic planning, ii) structured operational planning, iii) intuitive planning, and iv) unstructured planning. The authors concluded that the formal planners placed more emphasis on formulating goals, selecting distinctive competencies, determining authority relationships, deploying resources, and monitoring implementation while non-formal planners did not emphasize on any of these planning levels.

Ramanujam & Venkataraman (1987) identified the five strategic planning system characteristics, viz., i) the degree of internal orientation of the system, ii) the degree of external orientation of system, iii) the level of integration achieved within functional departments, iv) the extent of key personal involvement in the planning process, and v) The extent of use of analytical techniques in addressing strategic issues.

Sharma, Chrisman and Chua (1997) suggested five components of strategic management process: goal formulation; strategic formulation; strategy implementation; organizational performance; and strategic evaluation and control for studying the practice of strategic management process elements on family business firms and concluded that family business firms also use all these five components although more emphasis is placed on family goals of the firm.

Boyd and Reuning–Elliott (1998) identified seven strategic planning components: mission statement; trend analysis; competitor analysis; long term goals; annual goals; short term action plans; ongoing evaluation in order to study the degree of emphasis on the above components from 60 hospital executives. They concluded that strong support for the measurement properties of the strategic management components of his model.

Yusuf and Robert O. Nyomori (2002) identified twenty five strategic planning components, some of them are customer services; efficiency of operations processes; high quality staff; analysis of financial strengths and weaknesses; analysis of past performance; studying technological trends; studying finance function; personnel function; operations/manufacturing function; research & development, etc. Respondents of 174 New Zealand small firms were asked to rate the degree of emphasis for each of the components and found that all are valid.

O’Farell and Hitchins (2002) explained that there are two environments in which an organization carries out business, one is external environment consisting of suppliers, customers, competitors, government policies, etc., and the other is the internal environment consisting of the leadership factors of the entrepreneur, resources, etc. Growth is a combination of both these environmental factors. High growth firms give more priority to external relations (Lechner and Dowling, 2003), Chan and Foster (2001) and Kelmar and Wingham (1995). The latter listed 47 growth strategies reported in various research works and classified them into 12 categories. They reported that 55.5 per cent were related to external variables of growth (market penetration, pricing, product mix, product demand, promotion, market creation, market stability and intermediary use as the greatest contributors) and the rest were the internal variables (corporate strategy and staffing are the greatest contributors). They concluded that a combination of external and internal variables supports growth of small organizations and the organizations establish relationship with the external environment to progress.

Wheelen and Hunger, (2004) identified eight components (formal) for a small company or an entrepreneurial venture: Define mission; set objectives; formulate strategies;

determine policies; establish programs; prepare pro forma budgets; specify procedures; determine performance measures.

Having considered all the above-mentioned aspects in the literature relating to the components of strategic management process in organizations, the model suggested by Wheelen and Hunger (2004) was found to be simple. From the above literature review, the six components of strategic management process as suggested by Wheelen and Hunger's model are identified and used as a strategic management model. Strategic variables under each component identified by Ramanujam & Venkataraman (1987), Veliyath & Shortell (1993) and Yusuf and Nyomori (2002) criteria were also referred to for clarity. By following this model, an attempt was made to examine the degree of emphasis placed on six components and identified the gaps in each component/element of the strategic management process of select Biomass power plants under study.

3.2 STUDIES ON STRATEGIES ADOPTED BY BUSINESS ENTERPRISES

The term "strategy" is widely used but is difficult to define (Schwenk, 1993). In fact, several definitions of strategy exist, without any consensus concerning which one is the best (Shirley, 1996). Some examples of the more commonly known definitions of strategy have been listed in Table 3.2.

Table 3.2 - Definitions of Strategy

| |
|---|
| <p>1. Strategy is:</p> <ul style="list-style-type: none">• The basic long-term goals and objectives of an enterprise,• The adoption of courses of action,• The allocation of resources necessary for carrying out these goals. <p style="text-align: right;">– Chandler, 1962</p> |
| <p>2. Strategy is: The common thread among the organization activities and products - markets that defines the essential nature of business that organization was planned to be in future.</p> <p style="text-align: right;">- Igor Ansoff, 1965</p> |
| <p>3. Strategy is:</p> |

- The pattern of objectives purposes, or goals and major policies and
- Plans for achieving these goals, stated in such a way as to define what business the company is in or is to be in, and the kind of company it is or is to be.

- Andrews, 1971

4. Strategy describes:

- The fundamental characteristics of the match an organization achieves among its skills and resources, and the opportunities and threats in its external environment and enables it to achieve its goals and objectives.

- Hofer and Schendel, 1978

5. Strategy is a pattern in important decisions that (i) guides the organization in its relationships with its environment, (ii) affects the internal structure and processes of the organization and (iii) affects the organization's performance.

- Hambrick, 1980

6. A strategy is:

- An unified, comprehensive and integrated plan that relates the strategic advantages of the firm to the challenges of the environment, and
- Is designed to ensure that the basic objectives of the enterprise are achieved.

- Glueck and Jauch, 1984

7. A strategy is a set of decision-making rules for the guidance of organizational behavior.

- Ansoff HI, 1984

8. Strategy is aimed at matching, or aligning organizational resources with environmental opportunities and threats.

- Harrison, 1987

9. Strategy is developing and communicating the company's unique position, making trade-offs, and forging fit among activities.

- Michel E. Porter, 1996

To study the content of strategy, researchers have used several dimensions. The most commonly used set of dimensions for empirical studies are those of Miles and Snow, Porter, Watkins, Chandler & Hanks, Wheelen & Hunger, etc. The literature of these authorities is briefly reviewed below:

Miles and Snow (1978) have presented four types of strategies based on the response of the organizations to the environmental forces. They are prospectors, defenders, analyzers, and reactors. A Defender organization will behave quite differently from a *Prospector* organization. For example, defender cultures find change threatening and tend to favor strategies which provide “continuity” and “security”. This is supported by a bureaucratic approach to management which may make the organization averse to innovation. In contrast, a Prospector culture thrives on change, favoring strategies of product and market development supported by a more creative and flexible management style. It is a culture in which innovation can prosper. Thus, according to Miles and Snow, an organization will lean towards those strategies that best fit the culture.

Porter (1980) emphasized three generic strategies, viz., cost leadership, differentiation, and focus. Firms adopting cost leadership pursue economies of scale and productivity enhancements that result in cost minimization. Firms pursuing a differentiation strategy strive to acquire competitive advantage by distinguishing the quality of their products and services, through unique characteristics and charging a premium price. Firms using focus strategy target a narrow segment of the market that they satisfy using cost leadership or differentiation. These three generic strategies of Porter are taken as a model to examine the business strategies of firms.

Davig (1986) studied 60 firms from apparel, foundry, and fabricated metal products. The results of his study indicated that firm size did not appear to have any relation to performance, but the larger companies tended to be either analyzers or prospectors. This study showed that the four different strategic types could be found among a sample of small firms.

Slevin and Covin (1987) studied 79 small business firms in the Western Pennsylvania area to know the competitive strategies adopted by firms in high-tech and low-tech industry. The study concluded that the strategies adopted by the firms in high-tech and low-tech business firms are significantly different.

Chaganti (1989) conducted a study on 192 small firms and found that in growth industries the most profitable strategies were: low cost production; low product innovation; less use of patents; and a higher percentage of sales in local markets whereas in other industries only competitive pricing was adopted as a major strategy.

Rinalini and Dhar (2002) have studied 100 small firms and found that they had been using ten strategic variables such as superior product/service, new product development, cost reduction, innovation in marketing technique, process innovation to reduce cost, lead time reduction, building capability, customized product/service, productivity and efficiency. They concluded that among four competitive strategies, quality strategy appears to work best on performance measures followed by cost and innovation strategy.

Prater and Ghosh (2005) in an empirical study on U.S based small and medium sized enterprises operating in Europe reported that new product development, expansion into new international markets and expansion into new European markets are the major growth strategies. Contrary to the common belief upgrading operation strategy was not reported to be a major strategy. The study also concluded that the enterprises did not take advantage of outsourcing of operation functions such as logistics.

All the above-mentioned aspects relating to the study of strategy content were taken into consideration while planning the steps for data analysis for this study (Chapter-7). This study focuses on the strategic variables identified by R.P. Kakati & U R Dhar (2002) and Wheelen & Hunger, (2004) and an attempt was made to identify strategies adopted by select Biomass power plants in Andhra Pradesh.

3.3 STUDIES ON PERFORMANCE MEASURES

Performance is the end result of any activity. The measures to be followed and the manner to assess performance, depends on the organizational unit to be appraised and the objectives to be achieved. Although firm's performance plays a key role in strategy research, there is considerable debate on the appropriateness of various approaches to the conceptualization and measurement of organizational performance (Venkataraman and Ramanujam 1987). The complexity of performance is perhaps the major factor contributing to the debate. Despite such debate, there is general agreement among strategic management scholars that objective measures of performance are preferable to those based on manager's perceptions.

Gupta and Govindrajan (1984) considered sales level, sales growth rate, cash flow, return on share holder equity, gross profit margin, net profit from operations, profit to sales ratio, Return on Investment and ability to fund business growth from profits are the appropriate criteria for measuring financial performance of a firm.

Freeman (1984) developed a stakeholder approach for measuring firm's performance. In his stakeholder approach, customers (sales volume, new customers, number of new customers needs met), suppliers (cost of raw materials, delivery time, inventory quality of employees (number of suggestions, productivity, number of grievances), are the appropriate performance measurement suggested by the author.

Chakravarthy (1986) found in his study that performance measures like return on assets, return on sales and return on capital employed failed to distinguish between 'excellent' and 'non excellent firms'. He concluded in the study that the performance measures should include both financial and strategic measures.

Dale (1996) found that investment analysts who measured both financial and non-financial measures are more accurate in their analysis than those considered only financial indicators.

Kaplan and Norton (1992) developed a balanced scorecard which provides the framework for selecting multiple key performance measures including that supplement traditional financial measures and strategic measures of customer satisfaction, internal business processes, and learning and growth perspectives. It is a step towards linking 'short-term' operating controls to the long-term vision and strategy of the business. The focus of the balanced score card is on the strategy and its implementation.

Silk (1998) found that 60 per cent of the Fortune 1000 companies in the USA have had experience with the Balanced Scorecard. Chenhall and Smith (1998) in their survey found 88 per cent adoption rate of the Balanced Scorecard in the Australian firms (n=69) and observed moderate benefits from its use. In his survey of 128 senior executives (response rate of 22.5 per cent) of Finnish companies, it is found that the balanced scorecard is extremely popular. It is being used in two different ways-one close to MBO and the other as a management information system.

Stivers and Joyce (2000) in a study of the 'Fortune 500' firms in United States and 300 firms in Canada concluded that the most popular non financial measures are customer satisfaction, customer service, product quality, market share, productivity, service quality and core competencies, new product development, corporate culture and market growth.

Mendoza and Zrihen (2001) observed that the French management control tool called the 'tableau de bord' – best translated as performance scorecard – is identical to the Balanced Scorecard developed by Kaplan and Norton. The firms have used these contemporary performance management tools to overcome the limitations of traditional budget and planning system.

The reported studies on the performance scorecard practices in the Indian context are by Anderson and Lanen (1999) and Joshi (2001). In their study of management accounting practices of 14 Indian firms, Anderson and Lanen (1999) found that information on customer expectations and satisfaction, competitor's performance, and internal information on process variations (such as quality measures, on-time delivery, unit

product cost, and product quality failure) have assumed greater significance for measuring firm performance in the post-liberalization India.

Joshi (2001) studied 60 large and medium-sized manufacturing firms in India. He found an extensive use of financial measures such as 'return on investment,' 'variance analysis,' and 'budgetary control', etc. Further he found a moderate use of supplier's evaluation and customer satisfaction surveys and a minimal use of non-financial measures in performance evaluation.

Brush and Venderwerf (1992) conducted a study on small firms and found that as many as thirty-five different measures of performance are being used by them. Further he found the return on investment is being mostly used by almost all firms as a measure of performance. Other authors advocated market share gain as the best measure of new venture performance. As with growth studies on performance measurement in sales, market share gain measures the market acceptance of the new firm's product and standard for comparison. However, some authors are of the opinion that market share gain may be problematic for pioneering ventures

Doutriaux (1992) measured the success of new ventures on the annual level of sales because the data were readily available, easy to measure, and non-confidential. Chandler and Hanks (1994) used two main variables, growth and business volume. **Chakravarthy (1986)** used three variables associated with profitability factor – return on sales, return on total capital, and return on book equity. These were also the three profitability- measures used by Peters and Waterman (1992).

Olson and Slater (2002) surveyed 208 managers for understanding the relation between the product market competitive strategies. They found that most of the managers are preferring the innovation and growth perspectives than any other strategy. High performing analyzers placed greater emphasis on innovation and growth and financial perspectives visa-a-vis low performance. The high performing and low-cost performers placed greater emphasis on financial perspectives. Lower emphasis on both customer

and learned growth perspectives. The high performing differentiated defenders emphasized the customer perspectives more. They argued for the adoption of multiple perspectives in the performance scorecard but question the argument of equal weight age to each perspective of balanced scorecard irrespective of the product and strategy adopted.

There are problems in defining growth and measuring growth performance in small business organizations. **O'Farrel and Hitchins (2002)** analyzed these problems. First, there is major inconsistency in defining the small firms. Second, there are inconsistencies in the dimensions of growth; employment, profit, value added, turnover, total asset and market share are the parameters suggested by theorists. High performing small manufacturing firms emphasize on new product development, product improvement and product quality; for those organizations customer service, measurement of performance indicators and adoption of new performance methods, employee productivity and efficiency, and employee welfare are important (Kotey and Meredith, 1997). Growth also depends on the changing industry patterns and management, and the sociological evolution of the business (Boswell, 1973).

Kakati and Dhar (2002) surveyed 100 owner managed new and small ventures in Assam and Gujarat. They selected nine measures as appropriate measures for firm performance. The measures include: Return on Net Worth (RONW), Return on Total Assets (ROTA), Sales Volume, Sales Growth, Net Worth, Total Assets, Profit after Tax (PAT), Return on Sales (ROS) and Return on Investment (ROI). They concluded that competitive strategy significantly influences performance and found performance is higher in Gujarat than Assam firms in these measures.

Spechbacher et al. (2003) surveyed 174 senior management executives from German-speaking countries, namely, Austria, Switzerland, and Germany and found that 26 per cent of the firms use the balanced scorecard in a limited way at the business unit level or use its incomplete version. The cause-and-effect chains have been found in the scorecard of 50 per cent of the user firms. More than two-third of the balanced scorecard user firms

have linked their compensation and incentive system to the balanced scorecard; one-third of them do not have learning and growth perspectives in their scorecard.

Following previous Research, this study viewed performance as having multiple dimensions, which we grouped into two. The first group covered 'Quantitative' factors (Objective performance) based on the work of Freeman (1984), Jeffrey Covin (2001) and Kakati and U.R Dhar (2002). The second group covered 'Qualitative' factors used by Freeman (1984), Norton and Kaplan (1992) and Stivers and Joyce (2000).

In so far as quantitative factors are concerned, responses were sought on the firm's sales volume, sales revenue, market share, number of customers, PAT, RONW, ROTA, ROS, ROI, unit cost, productivity and number of grievances from employees. In respect of qualitative factors, responses were sought on firm's customer satisfaction, customer service, product quality, service quality, core competences, ability to attract and retain talent, ability to innovate and speed of response to change. On both measures of performance, responses were recorded on a five-point Likert Scale, ranging from 'much deteriorated' to 'much improved'.

This 'Subjective' measure of performance were chosen over objective data for several reasons. First, small firms are often very reluctant to provide 'hard' financial data. It was therefore felt that more complete financial information could be obtained with a subjective measure. Second, objective financial data on the sampled firms were not publicly available, making it impossible to check the accuracy of any reported financial performance figures. Third, assuming that accurate financial data were reported, such data on small firms are difficult to interpret. Finally, absolute scores on financial performance criteria are affected by industry-related factors (Miller and Toulouse, 1986). As such, directly comparing the objective financial data obtained from firms would be misleading.

Support for the validity of this type of performance measure can be found in an article by Covin and Slevin (1988). They used a very similar measure of performance (same

design/format but with fewer financial performance criteria) and found a correlation of $r = 0.82$ between their subjective measure and the sales growth rates of a sub sample ($n = 20$) of the firms in their study. This information would seem to indicate that the subjective measure used in the current study is a reasonable substitute for 'hard' data and possibly a superior measure given the aforementioned arguments.

3.4 STUDIES ON IMPACT OF STRATEGIC MANAGEMENT ON ORGANIZATION'S PERFORMANCE

A vital assumption on which the entire field of Strategic Management is founded is that planning enhances firm's performance (Robinson, 1983). There is a growing body of literature examining the effects of strategic planning on the financial performance of small firms (e.g., Robinson, Pearce, Vozikis, & Mescon, 1984; Bracker, Keats, & Pearson, 1988; Shrader, Mulford, & Blackburn, 1989). There are also numerous field studies examining the effects of various forms of strategic and operational planning activities on a variety of financial performance measures for both large and small firms (Robinson & Pearce, 1984). Researchers who have undertaken these studies, especially those of small firms, have drawn conflicting conclusions; some claim that formal strategic planning provides structure for decision making, helping small business managers take a long-term view, and, in general, benefits small firms; others concluded that formal strategic planning has no potential payoff for small firms because it is a high-level, conceptual activity suited solely to large firms and therefore has no effect on the financial performance of small firms.

This controversy is interesting and there is much to be gained from subjective debate over the issues. Therefore, a few studies addressing this subject are discussed in this section.

The first was Hofer's 1976 broad review of strategic planning research, the purpose of which was to point out gaps in knowledge rather than compare findings across studies. In this vein, Hofer reviewed the literature addressing costs and benefits of formal planning and concluded that formal planning probably had a beneficial impact on the content of plans. Hofer did, however express concerns over the lack of rigor in this stream of

research and suggested that future research should employ methods that would allow cross study comparisons.

Steiner (1979) provided thorough conceptualization of strategic planning. According to Steiner, planning is an attitude and process concerned with the future consequences of current decisions. Formal strategic planning links short, intermediate, and long-range plans. Strategic planning does not attempt to make future decisions or even forecast future events. It need not replace managerial intuition and judgment with massive, detailed sets of plans.

According to **Roach and Allen (1983)**, the strategic planning process is the product of the best minds inside and outside the corporation. The process considers future implications of current decisions, adjusts plans to the emerging business environment, manages the business analytically, and links, directs, and controls complex enterprises through a practical, working management system. This process plays a vital role in firm's performance.

Robinson and Pearce (1984) studied the effects of formal strategic planning on performance of small firms. They concluded that formal strategic planning has not been a popular practice among small firms because they have neither the time nor staff to invest in strategic planning. Rather, the managers of a small firm must be more concerned with the day-to-day operational problems of running the firm.

Wortman (1986) reviewed a set of small business planning/performance studies in the context of a broad survey of the methodologies employed in the small business/entrepreneurship literature. He clearly addressed the need for continued refinement in several streams of research - including planning performance relationships- and recommended the use of sophisticated statistical techniques for addressing such substantive research questions.

Greenley (1986) agreed with Robinson and Pearce and others (Cartwright, 1987; Ramanujam & Venkatraman, 1987), but provided an alternative perspective, suggesting that there may not even be a positive relationship between planning and performance. Specifically, Greenley noted the face validity of the planning-performance linkage, but reports that existing empirical data has not yet substantiated the relationship.

Ramanujam and Venkatraman (1987) provide limited support for Greenley's contention. However, their empirical analysis of high and low performing firms elicited significant differences between the groups that relate to the planning process. Specifically, their research examined the quality of the planning. For example, high performing firms tend to commit resources to planning and promote line-staff cooperation substantially more than low performing firms. Low performers may plan; they just may not plan effectively.

The literature is inundated with the apparent advantages of planning, most notably its ability to improve the fit between the organization and its external environment (Godiwalla, Meinhart, & Warde, 1981). Others have argued that planning aids in the identification of future marketing threats and opportunities, elicits an objective view of managerial problems, creates a framework for internal communication, promotes forward thinking, and encourages a favorable attitude to change (Hausler, 1968; Loasby, 1967; Stern, 1966). Further, there are intrinsic benefits that accrue as a result of the planning process, including the positive effects of planning on local employment and the economy (Greenley, 1986).

Sinha (1990) appears to have empirically established some kind of a planning-performance linkage. Sinha examined 1087 decisions made by 129 Fortune 500 firms between 1982 and 1986. He concluded that characteristics of the decisions accounted for 15 per cent of the variance in data showing the contribution planning makes to decision making. However, Sinha concedes that the quality of planning is critical to the relationship.

Even though some have concluded that small firms do not commonly practice strategic planning (Robinson & Pearce, 1984; Sexton & Van Auken, 1985; Gable & Topol, 1987). There have been several studies that have found a positive relationship between strategic planning and performance in these companies.

K. Ramachandran's (1991) study covering 117 small scale enterprises located in Ahmadabad answered some of the questions related to strategic planning practices of such firms. It is observed that most of the firms do undertake analysis of the constituents of the environment such as suppliers of materials, customers and implications of government policy changes. They also undertake analysis of their own strengths and weaknesses. Their planning horizon however is limited considering their limited level of operations. However, they need to respond to environmental forces rather quickly and there is need to have speed and flexibility in planning and it is because of this reason that their plans are for short periods. Also there could be lack of awareness of the usefulness and importance of systematic planning.

Charles, Schwenk and Shrader (1993) study covered fourteen studies on formal strategic planning and performance in small firms. They argued against the assertion that strategic planning is only appropriate for large firms. They concluded in their study that strategic planning promotes long-range thinking, reduces the focus on operational details, and provides a structured means for identifying and evaluating strategic alternatives and thus helps small business firms. Their study strengthened the case for recommending the use of strategic planning in all firms, regardless of size.

Miller and Cardinal (1994) synthesized the results of twenty six prior studies using a multiple regression technique and concluded that planning positively, but modestly, affected performance.

Rita C.Kean, Shirley Niemeyer, and Nancy J. Miller (1996) examined competitive strategies used by retailers who market crafts to tourists. Craft retailers (n-373) in three midwestern states responded to a mailed questionnaire about their businesses and their

selected tactics for competing in the crafts retail market. Retailers relied on strategies that minimized operational costs while considering quality, uniqueness, and innovation as important in their marketing efforts. Store type and number of years in business affected which strategies were used.

Beal (2000) conducted study of small manufacturing firms competing in a wide variety of industries examines the effect of the frequency and scope of environmental scanning on environment-competitive strategy alignment. Results suggests that obtaining information on several aspects of specific environmental sectors (customers, competitors, suppliers) facilitates alignment between some competitive strategies and environments where the frequency of scanning has no effect on such alignments but no relationship with organizational performance.

Gimenez (2000) in his study gave additional evidence in support of *Miles and Snow's* model of existence of four types of generic strategies in a competitive environment composed mainly of small firms. The most common strategy, in both samples was the analyzer one (40.7 per cent). The least frequent strategy, again for both regions, was the defender type (14.7 per cent).

McMohan (2001) in a study on growth of small and medium manufacturing organizations concluded that business growth and performance outcomes are correlated. The financial control in the fast growing enterprises maximize profit and target to increase turnover, these are interdependent. Cash flow, profitability and sales are the key variables monitored. Investment planning, growth commitment, export commitment, and enterprise size significantly influence strategic planning for growth in these organizations.

Jeffrey G. Covin (2001) conducted study on the business strategies and performance levels of 111 small firms with entrepreneurial and conservative strategic postures. Results indicate that entrepreneurial firms differ from conservative firms in terms of their growth rates as well as several financial, operating, and marketing related variables. The

data suggest that the patterns of strategic behavior associated with high performance are different for entrepreneurial and conservative firms.

Shui-Ying Chan and M.J. Foster (2001) conducted a study on strategy formulation in a small business in Hong Kong firms and found that a generic robust theory does not fit well in the small business context and particularly that of Hong Kong small businesses (HKSBs). The results of this study strongly support the premise posited elsewhere that strategic planning (strategy formation) is a highly contextual activity. One of the key contingency factors making up the context in Hong Kong is the ‘Westernized Chineseness’ of the participants, almost all of whom were under 50 years of age. Within that, the elements which we saw as playing the most evident mediating role in our study were ‘familism’ and an emphasis on relationship building. It was also found that Hongkongers are often seen as opportunistic, as followers rather than innovators. They lack the patience to take things step by step: they hanker after the quick fix or short-cut.

Yusuf and Nyomori (2002) surveyed 174 small New Zealand firms and found that small firms do not respond to uncertainty with increased planning. However when they plan, their performance does record some improvement.

Kakati and Dhar (2002) surveyed 100 owner-managed new and small ventures to explore the strategic orientation of new ventures and their performance implications. They concluded that a venture’s competitive strategy significantly improves its performance. On the other hand, a complete lack of strategic orientation may lead to negative performance and subsequently may even threaten its very survival.

Spillan and Ziemnowicz (2003) study investigate how managers in forty Guatemalan businesses practice strategic management. Whether the business managers are proactive or reactive in their decisions, they all recognize strategic management as an integral business activity. Two types of businesses, service retail and product retail businesses are used as the unit of analysis in this research project.

Gibbons and O'Connor (2005) conducted a study on small enterprises in Ireland and found that small business firms adopted more formal strategic planning approaches than large firms. In addition, both management shareholding and experience of chief executive officers are negatively related to formal strategic planning activities.

Several other studies have also reported positive relationships between formal strategic planning and financial performance in small firms (Shuman, 1975; Van Hoorn, 1979; Burt, 1978; Jones, 1982; Ackelsberg & Arlow, 1985; Sexton & Van Auken, 1985; Bracker & Pearson, 1988; Wood, Johnston & DeGenaro 1988; Watts & Ormsby, 1990). Still others have reported positive relationships among various measures of strategy content and small firm's performance (Trow, 1961; Miller & TouLouse, 1986; Segev, 1987).

In contrast, a few studies have concluded that there is little or no significant relationship between strategic planning and the performance of small firms (Kallman & Shapiro, 1978; Unni, 1981; Robinson & Pearce, 1983; Robinson, Pearce, Vozikis, & Mescon, 1984; Orpen, 1985; Robinson, Logan, & Salem, 1986; Gable & Topol, 1987; Cragg & King, 1988; Shrader et al., 1989; Watts & Ormsby, 1990). These studies report mixed planning/performance relations, and most suggest that the value of planning is mitigated by factors such as environmental uncertainty, managerial expertise, and stage of firm development.

Taken together, these reviews have produced a large number of potential topics for future research. They have not, however, been illuminating as to the basic question of how formal strategic planning affects firm's performance. Part of this problem is due to sheer number of studies involved. It is difficult to draw consistent conclusions from the traditional narrative discursive method of most literature reviews.

3.5 STUDIES ON BIOMASS POWER PLANTS

Strategic Management is a key factor to achieve the long-term objectives of survival growth and success of Biomass power plants. It acts as an integration framework, coordination tool, and a central guide that aligns different activities of various functional areas of a biomass power plant. A survey of literature reveals there are very limited studies on strategic management in Biomass power industry in both India and abroad. An attempt has, therefore, been made to review research contributions made by academicians, researchers and consultants in the area of strategies adopted by Biomass power plants.

Don Hewson (2011) studied raw material procurement strategies adopted by Biomass power plants. He concluded in his study that residuals from timber mills, and recycled paper are helpful in supplying most of the raw material for biomass power plants generating electricity. He opined that among all biomass fuels, wood biomass is the cleanest residual fuel for sustainable power generation. Electricity generation from wood biomass can be done without depleting any soil organic matter.

P.R. Shukla (1998) has studied the implications of Biomass energy demand on local and global environmental policies. He observed that due to several reasons like advanced technology, environmental awareness and permanent benefits that accrue from biomass energy, the global businesses have acquired interest in biomass energy. The author opined that the modern way of generating biomass overcomes the environmental problems that occur due to traditional way of biomass production. He further observed that a viable use of renewable resources requires large-scale acceptance of energy conversion improvement by eliminating harmful emissions by technology improvement. The policies and climate change reduction in developing countries should use biomass and other renewable resources as an alternative. In conclusion, the author felt that transformation of biomass into sustainable commercial energy will be achieved only by overcoming social, economic and technological barriers.

PR Shukla (2010) in his research paper “Biomass Energy in India: Policies and Prospects” has opined that there is a need to intensify the focus on improving the biomass traditional technology in order to provide reliable energy sources by exploring modern technologies. He opined that there is an imminent need to remove tariff distortions and producing services with modern technology at competitive cost. He concluded that electricity can be generated with the help of biomass provided that there is continuous availability of raw material to the Biomass power plants.

E.J.L. Chappin (2008) focused on technology strategy being adopted by European Biomass power plants. He opined that the technology of reduction process results in gradual increase of CO_2 leading to the severe damage of the atmosphere and it is necessary to take measures to decrease the content of CO_2 . As regards raw material for Biomass power plants, he opined that the European plants mostly depend upon wood, the demand for which continues to grow and price of the wood becomes a major hurdle to the growth of Biomass power plants in Europe.

Xin-Gang Zhao and Tian-Tian (2014) studied on dilemmas and strategy of power generation industry in China and observed that day-to-day demand for fossil fuels has been increasing which may lead to the scarcity of fossil fuels in China because of Biomass power plants. The development strategy for biomass includes strategic objectives and technology roadmap. In conclusion, they observed that power generation industry in China has made considerable progress in investment and offered several suggestions which provide a strategic direction for development in order to ensure stable and fast development of biomass power plants in China.

Nandini Shekhar (2010) suggests strategies for popularization of Biomass briquettes. He observed that there is a huge demand for current agro - waste as a source of energy in India, and the process called ‘briquetting’ will be of great advantage. This process involves physical transformation of loose raw material mostly made of agro waste like rice husks, bagasse, ground nut shells etc., into high density fuel briquettes through a compacting process.

Rishi Kumar (2007) in his study discussed the estimation of power generation potential of agro-based biomass species and increasing interest in the utilization of biomass power generation. He calculated the net energy required for generation of electricity from various samples of biomass compared with already studied biomass materials. From all these observations; he identified the IDT (Initial Deformation Temperature) and the FT (flow Temperature) of several biomass materials. He finally concluded that coconut residue, maize residue, paddy residue, arhar residue, ash fusion etc. have maximum advantage.

Udomsak Kaewsiri et. al. (2014) have discussed the Biomass Power Generation Life cycle i.e. transforming business needs to get a technical solution in Cambodia, Laos, Myanmar, Vietnam, Indonesia and Thailand. He opined that these countries suffered from power generation process due to lack of technology, expertise and investment because they have imported all their electricity needs from other countries. To overcome this gap, the authors proposed a business life cycle approach which sets clear standards for access and implementation of power generation plants. In addition to this, they have also proposed central purchasing and selling of raw materials which should give support for risk warranty.

Islam & Mondal (2013) presented their views on the technology strategy to be followed by biomass power plants. The study presents exploitability, proper selection, and grading of biomass and also making use of by-products from biomass power plants. It includes the technology for generation of electricity from rice husk with the production of by-products like silica and calcium carbonate in order to minimize manufacturing costs. Besides use of latest technologies, convenient loan facility, subsidies towards installation cost, by-product usage, etc., need to be focused in future.

Charcrit Sritong et. al. (2012) in their research study, identified three major problems in generating electricity from biomass using bamboo. Firstly, the purchase price paid by the electricity department is lower than actual operational cost. Secondly, high cost is

incurred in transportation of raw materials. Thirdly, community around the plant is opposing the location of the biomass power plants as it is affecting their habitations. To resolve these problems, the authors suggested that there should be an understanding and cooperation between power plants and bamboo farm farmers which can be achieved by involving the communities in suitable activities organized by Biomass power plants.

M. O. Oliveira et. al. (2012) presented a research paper on feasibility study for rice husk usage in biomass electricity generation. They suggested that electricity generation using biomass should be given priority as there are considerable financial returns and investment required is also small. The use of rice husk for power generation can give significant savings in costs and also additional revenue through sale of carbon credits.

Keith Openshaw, et. al. (2010) presented a report on ability of biomass in generating power. Biomass being versatile and is a renewable carbon based fuel, it can be promoted as a sustainable energy producer. Development agencies can appraise the biomass on supply and demand situation and create opportunities to rural development. It is also important to involve biomass specialists in planning energy and investment in biomass research. It was suggested in the report to slow down the deforestation by improving the agricultural productivity and thus by bringing the poor into partnerships by providing more opportunities to the rural areas to earn additional income.

World Bank and ESMAP (2010) prepared a handbook on fuel supply to biomass projects. They recommended to create long-term partnerships with biomass fuel suppliers for the power plants which will reduce supply risks. Fuel stock should be made available at all times for the biomass power plants. In order to avoid unexpected shortage of fuel supply, it is suggested to build power plants with enough fuel storage capacity. Further, they recommended conducting market surveys frequently and determining benchmark for fuel costs. In order to organize fuel supply efficiently in normal conditions, an emergency system should be available to manage disturbances in fuel supply.

P. Abdul Salam et. al. (2010) studied the Biomass gasification in Thailand and Cambodia and observed that Biomass gasification is a high electrical efficiency technique than the traditional biomass electricity generation systems. They opined that, for economic advantages, gasification of biomass needs to run in full speed and it is essential to have correct design of the plant especially in the rural areas which are susceptible to load fluctuations. The plant should have a technological support and it should be able to run on partial load or full load. So, plant should be able to work in quick load shifts. They concluded that gasification of biomass is highly recommended for the decentralized systems.

Maria Gavrilesco (2008) discusses strategies for achieving sustainable development and energy from biomass power plants. Biomass plants facilitate to increase employment opportunities in rural areas which ultimately lead to rural development. It contributes to the energy strength of a country and reduces the oil import from other countries. He observes that Biomass power plants should consider long lasting solutions, such as use of Biomass as the largest source of managing waste and generating renewable energy.

Jane H. Turnbull (1996) discussed the strategies to get clean, cost effective and sustainable energy using biomass resources. He observed that biomass development must be approached duly recognizing the importance of scaling and locating the plant based on the generation facility. Electric power producers should start building sustainable and reliable energy resources through appropriate policies taking due care of climate, requirements for electric capacity and resource competition. He concluded that the accomplishment of these objectives will be achieved only incrementally and on locality specification basis.

Dawit Diriba Guta (2012) studied the potential for fuel resources in Ethiopia and various strategies used for its utilization, with particular emphasis on sourcing options for cleaner energies. He discussed about the innovative investments which were needed to be planned by Ethiopia and the need for broad distribution of improved fuel stove technologies to rural and urban households. Further, he identified the major strategies for

renewable biomass fuel for future energy diversification in Ethiopia that may assist to reduce susceptibility to price of fossil fuel, reduce dependence on import, help reduce poverty and promote sustainable development.

Claudio Vescovo et. al. (2012) in their research paper explained why the promoters of biomass power plants find the industry as attractive as well as challenging. The main reasons included are stability, long term cash inflow as well as low volatility of returns as the biomass fuel is controllable when compared to wind or solar energies. The authors identified the risks that the developers of biomass power plants need to mitigate are fuel supply risk which includes both quantity and price risks and operational risks which are similar to other power plants. The authors concluded that the approach for setting up of biomass power plants is very crucial as the opportunities are limited and the projects take time to get properly structured, built and financed.

Landell Mills Development Consultants (2009) in their report on development of biomass power generation in rural areas emphasized that sustainable power can be generated using biomass in rural areas. They analyzed the data on power generation for the past few years and opined that biomass power plants have increased the income to the respective power plants. They analyzed the technology that is used with respect to management and supply of electricity through biomass power plants, their operational maintenance, and the process of converting biomass residues into energy resources.

Blair Moody, Edward Reilly, and John (2006) in their report, presented the details of the utilization of biomass in the most cost effective and highly economical way. They discussed a strategic approach to develop a balanced biomass program which can be economically taken, thus increasing the demand offerings, removing and utilizing the small diameter timber and woody biomass. The study explained the short term, and long term efforts in utilizing the biomass energy.

Jingchun Sun et. al. (2011) in his research paper on Biomass power plant felt that the farmers will get benefits from the sale of agricultural waste hence the government should

encourage private investors to launch the power projects using agricultural wastes as raw materials. In practice, investors are optimistic about the supply of raw materials in the beginning, but when the projects are established and put into operation, they faced various problems such as non-availability of continues supply of raw materials, rise in prices, stiff competition from other developers, etc.

Craig A. Hart (2009) presented a comparative study on promotion of biomass power plants in China and India. The author felt that both countries have provided preferential electricity tariffs and guaranteed the sale of biomass power and other renewable energy to power grid. India has developed an innovative institutional approach that was appropriate to the market economy and the legal system. It relied on private sector generation of biomass power and limiting competition for the same through legal protection. In contrast, China's efforts have focused on financial support for developing biomass power resources, technology and financial support for purchase of biomass power. China's technology development efforts include research and development to increase the efficiency of the traditional biomass power technologies and an innovative program to develop Micro Turbine biomass facilities in an effort to adapt the institutional and market conditions facing Biomass power technology in China. The author concluded that it is desirable for India to follow the example of China's model in promotion of biomass power plants.

Jaana Keranen (2010) in his study on Biomass power, discussed some future challenges for Biomass power production which are related to the expected increase in precipitation. He gave the example that shorter period of ground frost might hamper biomass (wood and reed canary grass) harvesting and transportation, which may also pose a risk in biomass fuel supply to power plants. Further, the power plant's combustion process efficiency is rather dependent on the moisture of fuel components, so the storage aspect might focus on the avoidance of harmful moisture based contamination.

Tom LaTourrette (2011) opined in his research study that biomass energy is one of the potential components of a diversified energy portfolio. In addition to being a renewable

resource, generally with lower greenhouse-gas emissions than fossil fuels, the biomass resource base is large and diverse, and it is also currently the only renewable resource capable of providing liquid fuels.

Keith Butcher (2007) in his research study focused on strategies for optimal grouping of infrastructure, site location, biomass fuels, processing, conversion technology, etc., and identified the resources and strategies for optimal utilization of biomass fuels available for generation of energy. According to the author the funding agencies can verify the infrastructure, etc., and the policy makers can gauge the practical consequences of rules, regulations, and laws to achieve the above purpose. Conversely, communities and economic planners can highlight the local resources available from more than 60 biomass feed stocks from fields, forests, livestock barns, and municipal waste streams, etc., which they might use to attract biomass power generators to their areas.

Dr. Ajay Sharma's (2013) research study reveals that it is possible that India will be capable of producing 35,000 MW of electric energy by the year 2035, using biomass. At this level of production, it would not only be able to meet 9 per cent of India's power needs, but also replace 8 million tons of coal, and prevent 40 million tons of carbon emission annually. For this to happen, he strongly feels that there is a need to address current drawbacks in the use of technology for production of biomass energy particularly those related to improper biomass technology configuration, designing improper installation, maintenance, etc., of biomass power plants.

Lingling Wang (2014) in their research study explored strategies to reach the goal of alleviating the risks that arise out of developing sustainable Biomass power plants. Wang observed that though Biomass power plant industry is a hopeful industry, which is advantageous not only from the environmental point of view but also from the viewpoint of regional development, yet it has several limitations and each party participated in the Biomass power plants is facing various risks. Wang discusses the strategies to alleviate risks and expand stakeholders' inspiration to involve in Biomass power industry and he

hopes that alleviation of risks in the project will significantly resolve the problems associated with Biomass power plants.

Sritong, et. al. (2013) have pointed out in their study that a crucial problem in establishing Biomass power plants in Malaysia is the lack of raw materials for the purpose of generating electricity. Because the Biomass raw materials are located in all the regions of Thailand and transportation costs are too high, the authors in their research have recommended the introduction of alternative raw materials for generating electricity viz., the Gimsung bamboo and Tong bamboo. Their study of generating electricity with the above alternative raw materials showed that Gimsung and Tong bamboo provided higher energy than the use of current raw materials. Moreover, the growth rate was 30 cm per day, and the CO₂ absorption rate was lower than the use of current raw materials. The researchers concluded that bamboo is an appropriate alternative raw material for generating electricity in Biomass power plants.

Shafie, et. al. (2012) studied electricity generation based on Biomass residue in Malaysia. They observed that, nowadays, biomass is considered as one of the main sources of energy for both developed and developing countries. Malaysia with a large amount of biomass residues as a source of electricity generation is considered as one of the potential countries in this field. This study aims to analyze the potential of recovering energy from major source of biomass residue in Malaysia. For this purpose, the agricultural crop residues and industrial crop waste are investigated. The researchers opined that these will contribute substantially to harness a sustainable resource management system in Malaysia to reduce the major disposal problem of biomass residue. The effective use of the waste can supply the required fuel for future electricity generation.

Adam GULA, et. al. (2012) observed in their study that, according to different estimates, biomass is the dominating, non-stochastic renewable energy in Poland. They examined in their study (i) the technological problems of co-firing biomass with coal, (ii) logistical problems related to transportation of large volumes of biomass, (iii) economic aspects of

support given to biomass-based power generation, and (iv) alternative use of biomass, which relates to heating, particularly in rural areas. They concluded that use of solid biomass for power generation in Poland is a questionable way of using this renewable resource as a means for abating CO₂ emissions, as it leads to significant technological, environmental and economic problems. They concluded that a better alternative is to use biomass for heating, especially in rural areas, which should be supported by diverting a fraction of subsidies given to using biomass for power generation to help farmers install modern, efficient biomass heating boilers.

Gupta and Alok Vyas (2013) observed in their study that there are various types of renewable energy sources and biomass is more economically viable for almost all the continents in the world. Biomass is a carbonaceous material and provides both the thermal energy and electricity, whereas other renewable energy sources can meet thermal needs only. Amongst all the solid fuels like coal, etc., biomass is the purest fuel consisting of very lesser amount of ash materials. The power generation potential data for renewable energy sources in India clearly indicates that the biomass has potential to generate more than 17000 MW of electricity per year in India. However, the country is locking in exploitation of biomass in power generation. Till date, India has been capable to generate only 2000 MW (approx) of electricity per year in spite of declaration of several incentives by the govt. of India. Hence, there is an urgent need to increase the utilization of biomass in power generation. Presently, co-firing (coal + biomass) has been proved to be more attractive and economically viable technique for power generation. In their research study, the authors studied briquettes manufactured by mixing non-coking coal from Orissa mines and the related biomass species in different ratios. The results showed that the energy values and power generation potential of the briquettes is much higher than the ordinary biomass.

It is observed from the literature on biomass power plants that most of the studies relate to raw materials, technology, problems in generating electricity from biomass, etc., and little research relates to strategic management practices in Biomass Power Plants.

It is also observed from the review of literature on strategic management that most of the literature pertains to western organizations and little research appears to have been done in Indian organizations. Further, substantial amount of research revolves around the components of strategic management process and the relationship between the planning process and performance of the firm. There were also a number of research studies about the measurement of performance of organizations which follow strategic management process. However, there is little research about the specific strategies followed by small business enterprises and the correlation between the specific strategy and firm's performance. The western studies also neglected the important aspect of functional strategies a small enterprise needs to adopt and how these strategies might impact the firm's performance. Hence, there is a need to fill this gap by the present study.

Furthermore, these reviews do not underscore the importance of the basic issue, that is, the relationship between strategic management and organization's performance which lies at the very heart of the discipline, yet no clear summary statement has been made in the numerous empirical findings reviewed above. When viewed from all these reviews there is a research gap and felt need to study the strategic management process in small enterprises and the functional strategies adopted by them. Therefore, the primary purpose of the present study is to examine the strategic management process in select Biomass power plants and the functional strategies adopted by them. The study also focuses on the additional strategic initiatives to be taken by the select Biomass power plants to improve their performance and contribute to the growing energy needs of the State of Andhra Pradesh.
