

A Framework for Strategic Management in Construction Contracting firms – The Case of Pakistan

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Abstract

This paper is an attempt to assess the strategic management approaches currently adopted by construction contracting firms in Pakistan as well as to highlight the key strategic areas by analyzing the current practices. The core objective of the paper is to propose a framework for strategic management for construction contracting firms in Pakistan. The methodology of the research includes investigating the common strategic management areas through literature review and interviews with selected contracting firms, conducting a questionnaire based survey and performing statistical analysis to validate the key strategic areas. These areas are evaluated on the basis of prevailing practices in contracting firms. A framework has been proposed for strategic management in local construction contracting firms. The significance of this research is that the construction contracting firms in Pakistan can build their capacity in the right strategic direction by considering the findings of this research study, which will make them increasingly competitive.

Keywords

Strategic Management, Built environment, Dynamic issues, Competitive advantage, Pakistan.

1. Introduction

Strategic management is a relatively young discipline but plays a critical role in the study of business and management (Boyd *et al*, 2005). Conventionally, strategic thinking is implicit in construction industry emerging from field practices and decision making, targeting the professionals to a specific unique project; but for long-term strategies explicit approach countering dynamic issues which are vital for success in market. These dynamic issues are mainly economy, technology, market and knowledge which drive the firms to concentrate on development of corporate culture.

Construction contracting is a high risk, dynamic and complex business, which is subject to a high level of uncertainty and features an industry that is fragmented and very susceptible to environmental influences

(Khosrowshahi and Howes, 2005). Unrelated diversification entropy for non-contractors is higher than that of contractors which implies that non-contractors could have distributed risks more efficiently by engaging in multiple businesses. In addition, the contractors may have been positioned in a more competitive environment than the non-contractors (Choi and Russell, 2005). The strategic management field can be conceptualized as one centered on problems relating to the creation and sustainability of competitive advantage (Bowman *et al*, 2002). Owing to its roots as a more applied area, strategic management has traditionally focused on business concepts that affect firm's performance (Hoskisson *et al*, 1999). Contracting firms' forefront position in construction industry made them liable to respond to dramatic changes in environment and viscous factors of business as risk, threat and uncertainty requires the incorporation of strategic management implementation to bring about changes in important areas by conducting long term planning.

This paper aims to assess the current state of implementation of strategic planning in Pakistani construction contracting firms. General, internal and external dynamic issues were highlighted on the basis of past research study resulted at expense of built environment which has influence the performance of construction contracting market. A quantitative questionnaire based survey has been done with seventy three firms selected according to large market share and high growth rate. The variant approaches towards key strategic management areas for induction in firms were statistically measured and analyzed. The interpretation of analyzed data has revealed that strategic management adoption is in integration phase. A framework has been devised to emphasize the less attended areas in order to enhance capability for firms to gain competitive advantage in the market.

2. Literature Review

2.1. Strategic Management Perspective

Strategic management concept can be defined as “a process that deals with the entrepreneurial work of the organization, with organizational renewal and growth, and, more particularly, with developing and utilizing the strategy which is to guide the organization's operations” (Schendel and Hofer, 1979). Strategic management is the process by which general managers of complex organizations develop and - use a strategy to co-align their organization's competences and the opportunities and constraints in the environment (Jemison 1981). Strategic management can be defined as the formulation, implementation, and evaluation of managerial actions that enhance the value of a business enterprise (Teece, 1990). The fundamental idea of any strategic management system is to anticipate, recognize, evaluate, resolve, control, document, and learn from past experiences in ways that support the overall viability of the project (Ibbs, *et al.*, 2001). Strategic Management is that set of managerial decisions and actions that determines the long-run performance of a corporation. It includes environmental scanning (both external and internal), strategy formulation (Strategic or long-range planning), strategy implementation, and evaluation and control (Thomas *et al*, 2008).

Importance of strategic management in construction industry is validated by its requirement for better performance. Strategic management asks questions of the future. What are the forces driving change in the marketplace? What are the new competencies we will need to meet them? How will we have to change ourselves to build those competencies (Lewis, 1998)? The field of strategic management is predicted fundamentally on the idea that managements' decisions are endogenous to their expected performance implications (Hamilton and Nickerson, 2001). Strategic management research will become increasingly important for current executives and in educating future executives (Hoskisson *et al*, 1999). Strategic Management theories are slowly gaining recognition in the construction industry with incremental efforts to apply concepts such as a competitive positioning to the industry (Chung and Charles, 2006). Strategic management in the construction industry opens many areas of research,

particularly the measurement of strategy deployment. This issue should be accounted for when developing or applying any performance measurement framework (Bassioni *et al.*, 2004).

2.2. Strategic Management Key Areas

Environmental scanning is the monitoring, evaluating and disseminating of information from external and internal environments to identify the strategy areas for long term planning. These areas are evaluated according to validation influence to performance of the firm. Important key areas have been compiled through detailed literature review. Vision, mission and goals, core competencies, knowledge resources, education, finance, markets, and competition are enlisted strategic management areas which are iterative in nature depending on the focus over requirement (Chinowsky and Meredith, 2000).

2.2.1 General perspective

Vision: The vision statement paints a picture of what a firm aspires to be in the future. The vision summarize the desired future for the organization; it expresses 'where we want to be' in relation to the business success of the organization. It indicates the areas of significant change and the desired outcome of such changes and developments. Hamel (2000) argues that the best strategy is geared towards radical change and creating a new vision of the future in which you are a leader rather than a follower of trends set by others.

Mission: The mission Statement captures the essence of why a firm is in business. It carries the account of purpose, separates the firm from other in same business and reasoning of existence. Those situation analysis tools, along with the organization's own mission statement, allow the firm to formulate a competitive strategy, and therefore to make long-term commitment and investment decisions (Warszawski, 1996).

Short term objectives/ Goals: Goals are quantitative objectives by which a firm can measure progress. By establishing short-term goals, or milestones, within the business planning process, executives are forecasting the relationship between changes in performance drivers and the associated changes in one or more specified goals (Kaplan and Norton, 1996). Intention and autonomy shape the knowledge frame that provides the ability to link units of knowledge and their priorities. Intention defines an organization's goals and fosters its employees' commitment, providing direction for the intensity of effort, and autonomy provides an environment in which a self-organizing team is able to function creatively (Linsu, 1996).

2.2.2 Internal issues

Core competencies: Some strategic management researchers are advocating the importance of dynamic core competencies (Lei *et al.*, 1996) or the understanding of firms' market positions from a dynamic theoretical perspective (Porter, 1991).

Knowledge resource: There is broad agreement that a strategic approach to human resource management (HRM) involves designing and implementing a set of internally consistent policies and practices that ensure a firm's human capital(employees' collective knowledge, skills and abilities) contributes to the achievement of its business objectives (Baired and Meshoulam, 1988: Jackson and Schuler, 1995: Schular and Jackson, 1987). Better understanding of collaborative engineering principles will lead to more effective design and use of complex systems composed of people, corporate knowledge, engineering processes, and automation technology (Michael and Griffith, 1999).

Learning: Tacit-to-tacit conversion (socialization) takes place when tacit knowledge within one individual is shared with another through training, whereas explicit-to-explicit conversion (combination) takes place when an individual combines discrete pieces of explicit knowledge into a new whole. Tacit-to-explicit conversion (externalization) takes place when an individual is able to articulate the foundations

of his or her tacit knowledge, whereas explicit-to-tacit conversion (internalization) takes place when new explicit knowledge is shared throughout the firm and other members begin to use it to broaden, extend, and reframe their own tacit knowledge (Linsu, 1996). Strategic planning, effective administration and communication together with effective knowledge management, can contribute to minimize risk, whilst also carefully incorporating the employee voice into the decision-making (Raiden, *et al*, 2004).

2.2.3 External issues

Finance: Unlike other economic sectors such as the manufacturing industry where demand may be undermined almost immediately, this is not usually the case in the construction industry, which enjoys two distinct advantages. Firstly, the long gestation in building projects means that contracts, which may be completed two to three years later. The gestation in construction is primarily dependent upon the size and complexity of the building project. The larger and more complex the project, the longer its gestation. Nevertheless, the scenario assumes that the financial crisis has not affected the liquidity of the developer-owner that can still finance the project through to completion. Secondly, because of the forward and backward linkages, which the construction industry has with other economic sectors, it is often used as a stimulus by the government to pump-prime the economy (Low, 1992). Although the construction sector is vital to the achievement of national socio-economic development goals of providing employment, shelter and infrastructure, it can be a significant source of negative impacts on the physical environment (Hasan, 2006).

Market & Competition: A good market analysis will have an economy review, which is very helpful in understanding where your current market is and where it is going (Nale, 2007). In contrast to organizations that ride the waves of the marketplace, the organization that institutes a strategic management perspective will be setting its own direction and path through the changing waters of the market (Chinowsky and Meghann, 2001). Competition becomes more cut-throat, firms go out of business and a gradual decline in performance sets in as the most talented and enterprising individuals and firms make a step change into a new kind of work. This signals a return to a new initial learning stage and the start of new sigmoid curve (Bennett, 2000).

The key areas mentioned above have been formalized for the investigation according to the level of induction in contracting firms.

3. Objectives and Scope

The research work reported in this paper provides a picture of strategic management in Pakistani contracting firms. The core objectives of the study were:

- To evaluate the existing concepts and practices regarding strategic management.
- To assess the adoptability of strategic management key areas in accordance to level of induction.
- To devise a framework concentrating on ignored dynamic areas so as to increase competency in contracting firms.

Since no accurate information regarding the extent of strategic management application in Pakistan construction industry especially contracting firms was available, this paper attempts to compile all the current strategic management issues in relation to its adoption, and provides away forward to further research in this discipline.

4. Methodology

The research methodology consisted of the following steps:

1. Conducting literature review to develop the base for research.

2. Development of questionnaire to elicit information about strategic management practices of contractors.
3. Conducting questionnaire survey through personal interviews, fax and email.
4. Assessing feedback from questionnaire survey to identify the current state of strategic management approach of contracting firms, evaluate practices on key areas and highlight the ignored areas.

A questionnaire was developed initiating with request of personal information (e.g. qualification & position) and company information (e.g., related construction sectors, experience, number of employees). The questionnaire was divided into three (03) sections as follows:

1. General perspective: It included three (03) questions for definition, concepts, application of strategic management.
2. Internal Issues: It included six (06) questions for vision, mission short term objectives/goals, core competencies, internet based communication and life long learning.
3. External issues: It included three questions (03) for financial risk analysis, market analysis and new competitors; and in last views of respondents asked about this study.

Seventy three (73) top firms licensed by Pakistan Engineering council were selected from both private and public sector, on the basis of “no limit of construction cost of project” and “highest professional credit points” categorized as constructor’s category “CA”. There were fifteen (15) interviews conducted with operational managers; rest of the contracting firms was approached through fax and email. The selected firms had a large market share and high growth rate in contracting market. Their practices of strategic management were significant and applicable for prevailing competitive built environment and provided basis to identify dynamic key areas for this study.

5. Analysis and Discussion

The analysis and discussion about the questionnaire survey is organized in three main areas comprising eleven questions, viz., general perspectives, internal and external issues. Each area is analyzed through tabulation of response data either in number or percentage. Most of the contracting firms are well established and highly experienced. According to sector distribution responded firms had expertise in Roads (52%), Bridges (61%), Industrial buildings (57%), residential buildings (35%), High rise buildings (39%), piling (57%), infrastructure (52%), power plants (39%), marine structures (13%), dams (22%), and offshore work (9%). Most of the firms had additional specialty concern providing them a competitive edge over market like GIS, train laying/linking, PEB, tube wells, tunnels, transmission lines and air fields. For the survey, highly experienced and professional persons were approached with positions like directors, chairmen and chief executive officers.

5.1. General Perspective

The first area of interest for the survey effort was to investigate the general concepts/ perceptions and evaluate the definition according to current trends and practices. This question covers all dimensions of strategic management definition and concept which can be adopted to evaluate direction of long term planning. The related parts of definition as who will do strategic management in firms; why this concept must be implemented; what are the resources required to function the process; what are the ultimate goals that can be gained; what are the areas to emphasize.

Table 1: Dimensions for Strategic Management Definition

Parts	Perceptions					
	Strategy	Innovation	Acquisition	Diversification	Learning	
<i>Why</i>	7	12	19	13	1	
<i>By Whom</i>	CEO	Top	Board	Director	Entrepreneur	
	3	7	14	1	0	
<i>Required Resources</i>	Capability	Asset	Knowledge	Technology	Competency	Finance
	5	3	5	14	21	4
<i>Ultimate Goal</i>	Growth	Advantage	Return	Decline	Dominance	
	20	7	1	2	14	
<i>For</i>	Firms	Business	Company	Corporate	Enterprise	SBU
	12	0	23	0	0	0
<i>Emphasize on</i>	Industry	Market	Competition	Environment	Uncertainty	Risks
	3	20	24	5	0	1

In Table 1, it is interpreted that the major reason to induct strategic management in firms is acquisition (19) because most of them are struggling for survival and main stream flows to pre-qualify and gain projects with maximum profit margins. Another group has emerging thoughts for innovation (12) to fulfill the demands of market by applying successfully executed engineering process with advance technology and mechanisms. Diversification (13) is symbolized for enhancement of expertise in other sectors to increase market share.

Strategic management is concerned with those issues faced by managers who run entire organizations, or their multifunctional units (Fredrickson, 1990). Strategic management is mainly applied by board of directors (14), the governing and authorized bodies to decide and address the issue raised in the firms.

According to Langford and Male(2001), the strategic management process refers to the manner in which strategic decision makers determine the objectives of the firm and make choices to achieve those objectives within the context of the resources available and the firm's mission. Competency (21) to implement the proposed strategy is required resource which resulted due to lack of corporate culture and the firms' ultimate goal observed to be increase in growth (20), the firms having specialty sector concentrate on dominance (14) factor to gain competitive advantage in the market.

The implemented strategy is applied to the company (23) as a whole because both internal and external issues influence the growth. Firms substantially highlight and consider external issues as trend of competition (24) among other firms and its influence on market (20) as a whole.

In Pakistan, major competition has seemed in pre qualification and bidding process for high budget projects and the registered firms with profound capabilities and lower bid values are mostly recommended. The perception of strategic management is around competition and other areas like environment, uncertainty, threat, risks are not addressed so whenever the decline in economy hit the firms bear loss on investment due to lack explicit approach regarding long term planning.

Second question under this head is to investigate regarding planning to strategic initiatives, it has observed that around eighteen firms possess the initiative for more than five years, market is trendy and the competition is tough because of built environment, so the firms has took initiatives for their sustainability and survival. Surveillance

Table 2: Perceiving of Strategic Planning

Level of induction	Response
<i>Unaware</i>	0%
<i>Have knowledge but not took action</i>	12%
<i>Conceptualization phase</i>	28%
<i>Implemented</i>	52%
<i>Evaluate the measured results and improve</i>	9%

Thirdly the question has asked about the perceiving of strategic planning in the firms, survey results in Table 2. It has observed from the survey results that considerable numbers of firms are in conceptualization phase (28%) for comprehensive strategic planning. Major firms (52%) stated to be group of companies has developed strategic management plans as these are diversified in business like pre-cast structures, steel structures, ready mix concrete, transmission, mechanical commissioning etc with construction contracting. A very few multinational firms do review their long term plans and progress to set future strategies.

5.2. Internal Issues

Table 3: Vision, Mission Statement and Short term Objectives/goals

Issues	Yes	No
<i>Vision statement</i>	48%	52%
<i>Mission statement</i>	64%	36%
<i>Short term objectives/goals</i>	100%	0%

First three questions under this head comprise direct investigation of vision statement, mission statement and short term objectives/goals, results in Table 3. Partially induction of vision concept reveals that firms are not clear about future as it is evident from current situation and economy imbalance, but on the other side well established firms are motivated and futuristic to visualize their position in market. Next is mission statement with average (64%) response interpreted that firms are concerned to present customer and made efforts to satisfy them though safe and quality work with time and cost constraints. Thirdly the question has asked about the short term objectives/goals made to achieve the over all strategy indicating long term planning aspects in vision and mission statement, all the firms showed positive response which presents full commitment and capability to achieve set short goals to attain required level of progress necessary for survival. Understanding corporate strategic goals also become more important than merely possess the technical expertise (Pheng and Hong, 2005).

Table 4: Perceiving of Core Competencies.

Level of induction	Response
<i>Unaware</i>	0%
<i>Have knowledge but not took action</i>	4%
<i>Conceptualization phase</i>	12%
<i>Implemented</i>	24%
<i>Evaluate the measured results and improve</i>	60%

Fourthly the respondents have asked about the concept of core competencies, they stress on this strategic management area with (60%) response as shown in Table 4. The firms has realized the market requirements and timely evaluate their strengths as experience, expertise, machinery, setup, finance etc on the basis of dynamicity according to market direction and tried to retain competitive position.

Table 5: Induction of Internet Based Technologies

Level of induction	Response
<i>Unaware</i>	0%
<i>Have knowledge but not took action</i>	8%
<i>Conceptualization phase</i>	28%
<i>Implemented</i>	52%
<i>Evaluate the measured results and improve</i>	12%

Fifthly, induction of internet based technologies has been surveyed and found that most of the firms (52%) are in technology integration stage or full implemented with review information technology system (12%). The aptitude has been found proactive due to need of awareness of market, new technologies etc (Table 5).

Table 6: Perceiving of Lifelong Learning

Level of induction	Response
<i>Unaware</i>	0%
<i>Have knowledge but not took action</i>	32%
<i>Conceptualization phase</i>	48%
<i>Implemented</i>	20%
<i>Evaluate the measured results and improve</i>	0%

Sixthly, the respondents are asked about life long learning concept, survey results in Table 6. This strategic management area has very low response as many firms (48%) are still in developing set plans to induct life long learning. Lacking of culture for documentation of the project reports and evaluation of executed methodologies and engineering processes, monitoring time, cost, quality and safety and over view of project management aspects as scheduling, procurement, costing, budgeting etc, in addition of low knowledge sharing at every level lead to less stress to this area.

5.3. External Issues

Table 7: Perceiving of Financial Risk Analysis

Level of induction	Response
<i>Unaware</i>	4%
<i>Have knowledge but not took action</i>	0%
<i>Conceptualization phase</i>	28%
<i>Implemented</i>	48%
<i>Evaluate the measured results and improve</i>	20%

In Table 7, survey results of question seven is presented that the firms (48%) has well implemented the concept of financial risk analysis, basically the analysis has done project to project having different variables. A considerable number of firms (28%) are still in conceptualization phase and require directive approach to implement this concept. But on corporate level this analysis is projected on large scale as at national level. The forecasts and estimation has done by considering the progress of last years and variables are measured according to substantiality. The stress over this area is better and lead to review stage which provides feed for survival.

Table 8: Perceiving of Market Analysis

Level of induction	Response
<i>Unaware</i>	0%
<i>Have knowledge but not took action</i>	4%
<i>Conceptualization phase</i>	4%
<i>Implemented</i>	28%
<i>Evaluate the measured results and improve</i>	64%

Eighthly, it is asked about the market analysis and respondents stresses (64%) on this area as it is key tool to remain competent. Firms recognized the importance of new markets and opportunities, they not only implemented this concept but they review these for competitive positioning. Awareness of market scanning is vital requirement as it provides grounds for strategic decisions (Table 8).

Table 9: Perceiving of Market Analysis

Level of induction	Response
<i>Unaware</i>	0%
<i>Have knowledge but not took action</i>	4%
<i>Conceptualization phase</i>	16%
<i>Implemented</i>	64%
<i>Evaluate the measured results and improve</i>	12%

Ninthly, in Table 9, it has been asked about the preparation of the firms for new competitors in the market. Although firms (64%) respond that they are implemented this concept but there is a room for review and improvement. There is no such measuring like pre qualification where firms has to show capability professionally and financially, well firms has eye on new competitors in lieu of competitive edge and dominance, and put efforts to enhance these.

6. Statistical Interpretation

The surveillance factor (S.F) has been introduced to present the less emphasized strategic management areas in contracting firms. This factor is evaluated on the response and weighted level of induction which showed prevailed adoptability of specific concept in firms. The greater the value of S.F, less the attention is paid (Table 10).

Table 10: Statistically Interpretation of Response

Internal issues	S.F
Core competencies	4.04
Technology	2.92
Life long learning	3.56
External issues	S.F
Financial Risk Analysis	3.1
Market Analysis	1.8
New Competitors	2.4

The S.F of core competencies, life long learning and financial risk analysis has maximum values and considered as greater emphasized areas because the firms are lacking knowledge. The positive areas are technology and new competition which has continuous integration according to built environment and at the last is market analysis which can also consider as positive area, it is the most adopted concept by contractors due to project to project pre qualification and tendering.

7. Conclusions

Strategic management in Pakistani construction contracting firms is done by board of directors of the firms for acquisition, diversification and innovation with strengths of technology and competency for growth and dominance of the firm by considering external issues as market and competition. It is evident from the study that concept is integrating from conceptualization to implementation phase.

Contracting firms are not clear about the vision of industry because of the influence of dynamic issues and lead to biased strategic planning.

Contracting firms are clear about present customer so drive the mission and accordingly short term goals/objectives.

Contracting firms have showed positive aptitude towards areas as market analysis, competition and technology induction.

Contracting firms paid less attention to core competencies, life long learning and financial risk analysis areas.

8. Recommended Framework

The strategic management survey illustrated that construction contracting firms are taking steps to increase focus strategic management issues but the dimensions in context of framework of contracting firms can be evaluated as:

1. Develop clear vision statement basing upon future customer and market.
2. Monitor the implemented practices regarding market analysis, competition and technology induction and improve the processes and methodologies in accordance to dynamic issues.
3. Develop procedures to adopt the concepts of core competencies through evaluating strengths, life long learning through sharing knowledge at all level, and financial risk analysis through concentrating economic swings.
4. Propose strategic management plans for your firm initially from 1-3years and review the strategic planning aspects accordingly.

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