

THE IMPACT OF STRATEGIC DECISIONS ON CONSTRUCTION CLIENT SATISFACTION

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Previous research findings indicate that a client's strategic decisions have a significant impact on their satisfaction levels. However, the nature and significance of this impact has not been clearly identified and hence client satisfaction remains as an elusive issue in the construction sector. This research reports on the initial findings of an on-going research project that aims to develop a rigorous empirical model identifying the impact of strategic decisions on client satisfaction. A detailed literature review of strategic decisions and their implications for client satisfaction is presented. Findings indicate the selection of an appropriate procurement system as one of the most significant strategic decisions at the earlier stage of construction projects. The use of an effective cost management approach during the implementation stage was also revealed as being significant towards client satisfaction. Furthermore, it is revealed that the nature of strategic decisions varies across the whole life cycle of construction projects and that the impact on client satisfaction depends as much on timing as on the subject of the decision. Further research efforts focusing on an investigation of strategic preferences and their impact on client satisfaction levels throughout the project life cycle are recommended.

Key words: construction improvement, literature review, procurement, project performance, project life cycle.

INTRODUCTION

In the construction project domain, satisfaction represents the bottom line of successful project implementation (Ashley, 1987; Liu and Walker, 1998; Liu, 1999). Particularly, client satisfaction is essential for the survival of service providers (i.e. contractors and consultants), as this will enable them to improve their performance and better satisfy their clients which substantially will help to derive repeat work.

However, satisfying clients has been a problematic issue for the construction industry for some time (Banwell, 1964; Latham, 1994; Egan, 1998). Dissatisfaction is caused by many aspects but is largely attributable towards overrunning project costs (e.g. the Millennium Dome costing £800 million), delayed completion (e.g. the Scottish Parliament Building), inferior quality and incompetent service providers including contractors, consultants (e.g. the Potters Bar derailment) (NAO, 2000; HSE, 2002; CJ, 2004).

Previous research findings indicated that the client's strategic decisions, especially at the early stages of the construction process e.g. regarding the procurement route, have

a significant impact on satisfaction levels. (Soetanto *et al.*, 1999; Soetanto and Proverbs, 2001). This is significant, as most strategic decisions have to be made during the early stages of the construction project at a time when there is much uncertainty (Chinyio and Olomolaiye, 1999). It was revealed that a client's strategic decisions such as development scale and revenue targets for projects with a limited life should take into account the costs of closure, decommissioning and, where appropriate, eventual sale. Some lessons have been learned from previous project failures such as the Millennium Dome, which has lost millions of pounds due to the failure to achieve its strategic targets (NAO, 2000).

Soetanto (2002) suggested that strategic decisions such as long-term relationship-based partnering and strategic alliances might have advantages over traditional competitive tendering for the client to achieve higher levels of satisfaction. Obviously, the effectiveness of such strategic decisions is a cause for concern, given the uncertainty that exists and their influence on satisfaction levels.

The UK Government, the largest public sector client in the construction industry, has endorsed a commitment to continuous improvement of the construction process towards better management of the supply chain (Latham, 1994; Egan, 1998; Egan 2002). A number of policies, guidance and research initiatives exist, established by the government, to encourage the construction industry towards radical improvement and best value for money (OGC, 2003; CE, 2004). The development of strategy on procurement was considered fundamental to achieve targets identified in those initiatives.

However, the nature and significance of strategic decisions and its impact on client satisfaction has not been clearly identified and hence client satisfaction remains as an elusive issue in the construction sector. There exists a range of models based on general marketing concepts which may be employed in researching the levels of satisfaction of members of the construction supply chain (Walker, 1995; Gable, 1996; Oliver, 1997). Only few have been identified as being particularly applicable to the assessment of satisfaction of construction clients.

This research reviews both general modelling and categorising of strategic decisions and examines the literature related to the implication of strategic decisions on client satisfaction. The conclusions represent the initial findings of an on-going research project that aims to develop a rigorous empirical model identifying the impact of strategic decisions on client satisfaction.

GENERAL MODELS OF THE STRATEGIC DECISION PROCESS

Mintzberg *et al.* (1976) defined the characteristics of strategic decisions as novel, complex and open ended with decisions not so much made under uncertainty but within a continuous state of ambiguity, where almost nothing was given or easily determined. Their field study of twenty-five Strategic Decision Processes across a range of organisations suggested that there was a basic structure underlying those unstructured processes. A general model of the strategic decision process was constructed, which intended to show that whilst strategic decisions were immensely complex and dynamic, it was possible to give them conceptual structuring. It was found that the structure could be described as a matrix comprising three "central phases" which were:

- Identification

- Development and
- Selection

and three sets of supporting routines which included decision control, decision communication and political. Six sets of dynamic factors (interrupt, scheduling delays, timing delays and speedups, feedback delays, comprehension cycles and failure recycles) were also identified and integrated into their model. The general model described the interrelationships among them and gave the impression of a relatively straightforward, iterative and systematic decision.

However, the conceptual model of strategic decisions confused reaching a decision with implementing a decision. The identification of the numerous subsequent interrelated decisions becomes difficult (Wilson, 2001). Further more, the complexity of the decision process is not well represented in the model if it is applied by construction organizations such as clients. The model in itself does not explicitly identify “dynamic factors” or the “supporting routines” that in the case of strategic decisions were critical issues and as such requires further development.

Woodhead (2000) investigated how large and experienced clients in the UK construction industry arrived at their strategic decisions to build and explained the complex process of the pre-project stage through 12 in-depth case studies drawn from a sample of clients. This complex process was shown with the aid of three decision models, which added layers of details and showed other options such as rent, buy, lease and no-go decisions in the context of the decision to build.

Findings revealed how clients divided the decision-making process among managerial roles as decision-approvers (e.g. main board members), decision-takers (e.g. senior managers), decision-shapers (e.g. expert focus group with construction-related expertise) and decision-influencers (e.g. other internal or external people who influence). In order to gain approval, the decision-shapers had to work the proposal so that it fit positively with the expectations from internal and external forces such as corporate finance, the economy, local authority planning permission and so on.

By understanding the complex process of the strategic decisions to build, it becomes possible for client organisations to question their underlying assumptions. If clients see construction as a valuable part of their core business strategy, rather than a necessary consequence of it, then new opportunities can be realised. Rather than seeing buildings as expenditure to be minimised in terms of cost and time, the construction industry could help the client's organisation to increase value. A client hence may be better served by a building programme that actually took longer than normal scheduling to suit the needs of their business.

However, Woodhead's (2000) research failed to examine why this complex process of decisions typically took place within client organisations and the implication and significance of such decisions remains unexplained.

STRATEGIC DECISIONS ON PROCUREMENT

The establishment of an appropriate procurement strategy is a key decision if project success is to be achieved (CE, 2004). Most clients will want to ensure as far as possible from the outset that they can achieve the solution they require within affordable cost and by an acceptable date in the future. Establishing an appropriate procurement strategy will reduce the risk of disappointment and hence increase the

levels of satisfaction. OGC (2003) recommended the use of three primary procurement routes as:

- Private Finance Initiative (PFI)
- Prime Contracting and
- Design and Build

It was recommended that central government should limit their procurement strategies to these three routes for the delivery of new construction and all refurbishment and maintenance contracts, with traditional and non-integrated strategies being used where it can be shown they offer best value for money. Delivering a quality product and achieving the best relationship between the client and the supply chain is very largely dependant on the procurement route that is adopted.

Reporting to Parliament about PFI procurement strategy Sir John Bourn, Head of the National Audit Office (NAO, 2003), said:

“Most construction work under the Private Finance Initiative (PFI) is being delivered on time and at the cost expected by the public sector. Central government has generally obtained a much higher degree of price certainty and timely delivery of good quality built assets, compared to previous conventional government building projects”.

The prime contracting route is in effect an extension of the design and build route adding tighter controls on the whole process, requiring high levels of performance to be achieved throughout the life cycle of a project. The initiative, launched originally by the Ministry of Defense in 1999, was to give a single contractor full responsibility for a project from the beginning and aimed to achieve major savings both on capital costs and whole life costs.

Morton (2002) argued that the prime contract, which expected a high quality of supply chain management but did not require any kind of partnering agreement, imposed too much risk on the contractors and would lead to further conflicts, far from following Egan (1998) principles. Some major clients in the private sector such as Sainsbury’s were to adopt a similar route but instead based on long-term relationships with contractors. However, it remains unclear how prime contracting will impact on the implementation of projects and furthermore on client satisfaction levels.

Abrahams and Farrell (2003) investigated the influence of design and build procurement on clients’ value for money. Cost, time and quality were identified as measures of clients’ value for money and client’s satisfaction levels. It was suggested that a competitive design and build approach in which tenders were developed from clients’ briefs /sketch drawings would give clients greater success.

The procurement strategy should enable the development of a strategic brief for the project that identifies how the project will be designed, what the parameters are and how project delivery will be implemented. A key role for the client is to ensure that the strategy established at the beginning is not lost sight of when the priority of design and construction processes is progressed. Because the strategy is based upon the unique needs of the client, the key parameters will be clearly communicated to the project team.

Clients who set down clearly their project objectives are more likely to contribute to project success. Conflicting objectives leading to unsatisfactory project performance

can arise because of differences in aspirations of the various parties involved in the project. This is consistent with Ward's (1991) finding that the client must clearly define and specify his project objectives as it is used as a basis for assessing project performance. Cleland (1994) also suggested that project success was dependent upon the client's effectiveness in discharging his strategic planning and management responsibility.

Furthermore, a client's strategic briefing practice could be improved by using soft systems methodology (SSM) to provide the basis for a significant enhancement and offer a rigorous framework for modeling of client business process (Green and Simister, 1997). The briefing process comprised two stages, which were concerned with understanding of the clients' business process and the conceptualisation of built solutions and issues of performance specification. It was reckoned that the first stage understanding of the client's business process was the most problematic, where the terminology of SSM also was likely seen as a barrier to those construction professionals who were unwilling to make the necessary intellectual investment.

In the report entitled "Modernising Construction", the National Audit Office (2001) agreed that lowest cost tendering did not give best value for money on construction projects. OGC, NHS Estate, the Environment Agency and other key public sector clients support the toolkit developed by the Strategic Forum for Construction (2003) because they are convinced that it will achieve predictable delivery, continuous improvement and value for money for construction projects.

The establishment of an appropriate procurement strategy can achieve the following objectives:

- Match prioritised project objectives with an appropriate procurement strategy.
- Establish primary parameters including budgets and time constraints.
- Identify key elements associated with project design functions to be accommodated, such as specific design needs in space layout, internal environment and appearance etc.

Risks related to such strategies cannot be ignored. These risks include completing a project which does not meet the functional needs of the business, a project which is delivered later than the initial programme or a project which costs more than the client's ability to pay or fund. All these risks are potentially of high impact to the client's core business and again their satisfaction levels. A procurement strategy should be developed, which balances the risks against those project objectives established at an early stage.

COST MANAGEMENT STRATEGY

The decision of cost management approach apparently has crucial impact on projects' performance and hence will affect levels of client satisfaction. Life cycle costing (LCC) or whole life costing (WLC) has become a more accepted cost management approach adopted by construction clients to achieve their long-term objectives. Recent surveys undertaken by BRE and DETR indicated that WLC is currently used extensively in PFI projects and public sector procurement (Clift and Bourke, 1999).

Kishk *et al* (2003) suggested that the WLC approach could facilitate effective decision-making among a number of competing alternatives across different stages of a project and recommended a conceptual framework allowing feedback of information from occupied buildings to the design process. The framework has most potential

during the design stage as almost all options were open to consideration (Griffin, 1993). In general, about 75-95% of a building's running, maintenance and repair costs were determined at the design stage of a project (Khanduri *et al.*, 1993, 1996; Mackay, 1999).

The ability to influence construction cost decreases continuously as the project progresses forward as the decision to own or to purchase a building normally commits the client to most of the total cost of ownership (HMSO, 1992; Khanduri *et al.*, 1993). WLC could also be used as a management technique during the project occupancy stage where decisions had to be made on how to assess and control costs throughout the whole life of the project.

It was recognized that the WLC approach in practice faced a number of substantial barriers, in particular, the difficulty to obtain appropriate levels of reliable cost data from different sources including historical data, expert opinions, manufacturers and suppliers. The concept of WLC provides an ideal framework to clients' decision-making among various options and the WLC approach remains a fundamental decision towards client satisfaction.

STRATEGIES ACROSS PROJECT LIFE CYCLE

Previous research on the impact of strategic decisions has mainly focused on the procurement route (Rowlinson, 1988; Naoum, 1994; Naoum and Mustapha, 1995; Kumaraswamy and Dissanayaka, 1998) and has relied mainly on the application of quantitative criteria.

However, strategic preferences as well as satisfaction levels may change during the course of the project (Pinto and Prescott, 1988), which again has been ignored in earlier research (Soetanto *et al.*, 1999). The nature of strategic decisions varies across the whole life cycle of construction projects. A client usually has different priorities during each stage of a construction project. Clients' strategic decision-making process in different stages comprises project priority analysis, identification of the direction for the future of a project and high level planning of the implementation. Consequently the impact of the decision on client satisfaction depends as much on timing as on the subject of the decision.

STRATEGIC DECISIONS ON PEOPLE ISSUES

Establishment of an appropriate project team to deliver the right project at the right time for the right cost, given the adopted strategy, is a vital role for the client, whose management competency and construction experience may have significant effects upon the attainment of project success (Lim and Ling, 2002). The nature of the client's business and the business case underpinning the project will enable consideration to be given to which of the criteria: time certainty, price or function, is of the greatest importance.

In their recent research, Gibb and Isack (2001) explored client drivers for construction projects and their ability to influence the project outcomes by interviewing 59 major construction clients. It was found that many clients recognised the need to involve constructors and manufacturers early, although fewer actually achieved this. There was implication of increased standardisation needs for clients as the construction industry recognises the unique aspects of each client needs. Soetanto (2002) suggested that the selection of a capable client's representative and project architect were

essential for higher levels of client satisfaction. Furthermore, the appointment of a contractor with an excellent track record was crucial for enhanced satisfaction levels.

Leung *et al* (2004) argued that management mechanisms rather than particular project goals could directly affect the participants' satisfaction. Cooperation/participation, task/team conflict and goal commitment were the critical factors influencing the levels of satisfaction in the complicated management process.

CONCLUSIONS AND RECOMMENDATIONS

The establishment of an appropriate procurement strategy is identified as a key decision that a construction client has to make during the early stages of a project and one that has substantial impact on project success and client satisfaction. The concept of WLC provides an ideal framework to clients' cost management decision-making among various options and the WLC approach remains a fundamental decision towards client satisfaction. The selection of clients' representatives and project team sourcing is essential for higher levels of client satisfaction. Furthermore, the nature of strategic decisions varies across the project life cycle and that the impact on client satisfaction depends as much on timing as on the subject of the decision.

Yet, the nature and significance of the impact of those strategic decisions across different project stages has not been clearly identified and hence client satisfaction as a whole remains as an elusive issue in the construction sector. Further research efforts focusing on an investigation of strategic preferences and their impact on client satisfaction levels throughout the project life cycle are recommended.

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