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AN INVESTIGATION INTO THE IMPLEMENTATION OF IN-HOUSE VERSUS OUTSOURCING PROJECT MANAGEMENT SERVICES IN PROPERTY DEVELOPMENT FIRMS IN SOUTH AFRICA.

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A research report submitted to the Faculty of Engineering and the Built Environment, University of Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Science in Building.



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2018

Declaration

I declare that this research report is my own unaided work. It has been submitted for the Degree of Master of Science in Building at the University of Witwatersrand, Johannesburg. It has not been submitted for any degree or examination in any other University.

_____

(Signature of Candidate)

_____ Day of _____ (year) _____

Abstract

The face of construction is changing globally and with the growing complexity and dynamic nature of construction projects, stakeholders are increasingly under pressure to ensure the successful delivery of projects to their clients. The construction industry has responded to the increasing demands placed on it, with increased specialisation of the services provided by stakeholders, making the management of construction projects increasingly important competencies to ensure that the input of the various contributors on a project is implemented for maximum efficiency.

With the increasingly important role construction project management plays in the successful delivery of construction projects, strategic sourcing and organisational boundary decisions have become significant topics of discussion, focusing on the internal organisational issues of project, and the subsequent management of resources and processes.

While the fundamental “make or buy” decision has been researched and explored by various researchers in a number of different fields. Research into the boundary decision in the field of construction project management services, particularly the factors influencing large property development firms in making the boundary decision, has been found incomplete and this research aims to add to this body of knowledge.

Therefore, the purpose of this research was to explore the factors/ considerations that influence clients, specifically large property development firms, in making the choice between retaining project management services in-house sourcing the same services externally from the market.

To investigate the above, a qualitative research strategy was applied using two case studies. Data was collected using semi-structured interviews as the primary method and using a questionnaire survey as a supplementary, secondary method. Where respondents both the interviews and questionnaire survey were selected using a non-probabilistic purposeful sampling strategy.

The research found trust and ognanisational capabilities were the two most important factors for large property development firms when making this boundary decision. Where trust and ognanisational capabilities were found to have an inversely proportional and directly proportional relationship respectively with the likelihood of a large property development firm retaining construction project management services in-house, rather than outsourcing the same services.

It is anticipated that the results of the research will provide a better understanding of not only the advantages and disadvantages of implementing either sourcing option but perhaps more importantly, insight into the reasons why either sourcing option chosen.

Key words; Transaction Cost Economics, Agency Theory, Organisational Capabilities, Project Management,

Acknowledgements

First and foremost, I would like to thank God for giving me the strength and perseverance to see this research project through. I would also like to thank my mother and father, Dr. Liako Tseki and Dr. Potlaki Tseki, for their constant love, encouragement and support and for setting the standard, as the most inspirational role models, instilling in me, their uncompromising dedication and work ethic. To my sister, for always having my back, through thick and thin, thank you. To my supervisor, Professor David Root, it's been a long journey, thank you for your unwavering belief and guidance. Your support has ensured that I've completed a research paper that I am truly proud of. To the rest of my family and friends, your patience and encouragement made all the difference, thank you.

I would also like to extend a special word of gratitude to my employers for their support and assistance in fulfilling this personal goal, as well as, to the many participants that contributed their invaluable time and knowledge, without which this research would have not been possible.

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INTRODUCTION

Ruekert et al, (1985) point out that in any industry, one of the more challenging choices facing a firm is the fundamental decision of which tasks should be undertaken internally by the organisation and which should be contracted out to independent contractors (outsourced). Keeping tasks in-house, on one hand, requires management to commit significant resources to a course of action, the effects of which may be costly to reverse, while forgoing numerous advantages associated with the marketplace, while, on the other hand, this also allows a firm to accumulate resources necessary to generate or maintain a competitive advantage (Dierickx and Cool, 1989). The difficulty of this decision has only been exacerbated, in recent years, by rapid technological changes and geographical and organisational dispersion of knowledge (Leiblein, Reuer, and Dalsace, 2002) and an uncertain economy (Demirtas, 2013), where a strategic advantage in these areas increasingly plays an important role in achieving competitive advantage in the marketplace (Ahmad and Schroeder, 2011).

The objective of this research is to report on an exploratory investigation into the reason(s) why certain property development firms are choosing to move away from the traditional strategy of outsourcing construction project management services and retain this competency internally (i.e. in-house), while others are opting to relinquish this competency and source it externally (i.e. outsource).

It is anticipated that the findings of this investigation will not only shed light on possible reasons why property development firms select either sourcing strategy but will also highlight the advantages and disadvantages of each sourcing option, in the context of construction project management services. In addition, it is expected that the findings of the research, will also provide project management firms and practitioners with insight into the basis of the reasons behind the sourcing decision, allowing them to better strategically align themselves in a competitive market.

1.1. Background and Need for the Research

The central paradigm of outsourcing versus retaining services in-house is whether a given transaction can be undertaken at a lower cost via the market or within the firm. If the costs of undertaking transactions within the firm are higher, then the firm can gain economic benefits by 'externalising' the transaction (Jones and Hill,1988). However, the debate around outsourcing, in recent years has shifted from whether to outsource, to rather what, and what not to outsource (Lafontaine and Slade, 2007). Academics have focused on the strategic advantages and disadvantages of outsourcing decisions, while practitioners have been more concerned with which core activities should stay in house and which non-core activities can be outsourced, in order to maintain core competencies (Kakabadse and Kakabadse, 2000). Where Prahalad and Hamel's (1990) ‘core competencies’ or Kay's (1993) ‘distinct capabilities’ can be described as a collection of “corporate skills that cut across traditional functions, such as product or service design, technology creation, customer service and logistics. Certain scholars postulate that the outsourcing decisions should be driven by the nature of the task to be undertaken, the contractual and informal relationships between the purchaser and supplier, the use of market opportunities for competitive advantage, and the successful management of contracts” (Kakabadse and

Kakabadse, 2000: 764). Although, the definition of what core competencies are for any one organisation is quite vague, where some consider core activities as core competencies, that is to say, the activities that the firm is continuously engaged in and non-core activities; as the sporadic 'peripheral activities' that can therefore be outsourced (Quinn and Hilmer, 1994).

Alexander and Young (1996: 117) list the following as the four meanings that are commonly associated with a 'core activity':

1. "Those traditionally performed in-house;
2. Those critical to business performance;
3. Those that create current or potential competitive advantage; and
4. Activities that will drive further growth, innovation, or rejuvenation".

Porter (1990), on the other hand, argues from the competitive advantage perspective, where core competencies are regarded as the activities that must be kept in-house because they give the firm a long-term competitive advantage. Where activities traditionally considered integral to the firm can be outsourced, if they do not provide the firm with a strategic advantage (Quinn and Hilmer, 1994). This perspective of outsourcing is called 'strategic outsourcing', where decisions on whether to outsource or not, are based on a holistic assessment of what the strategic core of the firm is and which activities are necessary to reach the firm's strategic goals (Quinn, 1999), creating maximum efficiency by focusing only on activities unique to them, giving them a competitive advantage. This is especially applicable when a firm's strategy is highly service delivery orientated, dependent on creativity, personal dedication, and initiative or on attracting top-flight professionals (Quinn and Hilmer, 1994), because in such instances the firm's success is closely linked to superior performance or developing assets of high specificity that create value (Turner and Crawford, 1992). It is therefore argued that it is essential in service orientated firms in pursuing innovation growth, the advantage obtained through superior quality internal capabilities, is maintained in-house, not only for control and quality purposes but also to ensure the retention of such expertise on completion of contract (Kakabadse and Kakabadse, 2000).

The growth in outsourcing in recent years has been fueled by improvements in communications infrastructure, better enforcement of intellectual property rights, increasing competition in numerous sectors and talent shortages (Liesch et al, 2012). Generally outsourcing offers several competitive advantages, including: enabling internal staff to focus solely on core activities, focusing on achieving key strategic objectives, lowering overheads, and minimising the need to investment in the latest cutting-edge technology (Quinn 1999). In addition, outsourcing also provides firms with better flexibility in dynamic markets, with fast changing technologies and environments (Harrison, 1994), as smaller specialised suppliers are often better equipped to respond to the introduction of new technologies, often achieving better economies of scale, negating the need for vertical integration (Quinn and Hilmer, 1994). As such, firms benefit from having a network of small specialist suppliers, allowing them to increase and decrease the scale and scope of production, at a lower cost, enabling them to quickly adapt to rapid

changes in demand (Kakabadse and Kakabadse, 2000). In line with this, it is therefore generally accepted that outsourcing allows for greater flexibility than vertical integration (Harrison, 1994; Domberger, 1998). Another advantage of outsourcing, is that it can decrease the product/ process design cycle time, if the firm sources from various 'best-in-class suppliers', working together on individual components of a system, as each supplier would then be able to contribute their specialist, expert knowledge, resulting in higher quality inputs than any individual firm would be able to achieve on their own (Quinn and Hilmer, 1994). Finally, one of the most important benefits of outsourcing is that it gives the firm full access to an external supplier's investments, innovations, and specialised professional capabilities, then would otherwise be possible for an individual organisation to replicate (Kakabadse and Kakabadse, 2000).

However, despite all the advantages associated with outsourcing, it also has a number of disadvantages (Kakabadse and Kakabadse, 2000). Such as, the organisation becoming dependent on external suppliers to achieve its objectives, failing to achieve the expected cost savings associated with an outsourcing strategy, the loss of control over critical functions, as well as, the additional burden of managing and maintaining relationships between the organisation and the external suppliers (Kliem, 1999). Perhaps more importantly, outsourcing introduces additional risks to the organisation, such as losing critical, specialised capabilities within the organisation and losing control over external suppliers (Quinn and Hilmer, 1994; Domberger, 1998). These risks are further exacerbated when the supplier's objectives are not aligned with those of the organisation (Kakabadse and Kakabadse, 2000).

Despite universal acknowledgement of the importance the sourcing decisions or if you will, boundary decisions play, it still remains unclear what the effects of the decision are on the performance of the organisation (Leiblein et al, 2002). Some researchers assert that outsourcing capital-intensive production activities enhances an organisation's ability to quickly adapt to changes in technology or demand, to accumulate external knowledge, to avoid coordination inefficiencies, and to compress product development cycle times (Nishiguchi, 1994). Outsourcing shifts costs from the organisation to the external contractors, but also creates economic value within the supply chain, enabling a firm to tap into specialised capabilities (Helper and Sako, 1995) and to shorten product development cycles through concurrent development (Clark and Fujimoto, 1991). Teece (1992) argues that outsourcing also avoids the complex decision making otherwise typically required and is therefore, better suited to competing in dynamic environments where there is a convergence of technologies from different sectors (Leiblein et al, 2002). Whereas, others claim that outsourcing leads to the loss of organisational resources, resulting in the depreciation of existing capabilities and the inability to take advantage of new opportunities and develop new capabilities (Leiblein et al, 2002). Argyres (1996) argues that vertical integration also allows firms to create restraint of trade, creating entry barriers in competitive environments. Vertical integration may also improve inter-organisational performance, due to the coordination benefits associated, such as, improved flow of administrative information and technological interdependencies (Leiblein et al, 2002). This is supported by research which suggests that locating manufacturing activities outside the organisation can degrade a firm's capabilities by impairing cross-functional coordination (Teece, 1996).

The two opposing views on the sourcing strategy decision are the result of different sets of underlying assumptions. Arguments supporting outsourcing, assume that core critical capabilities are found outside the organisation and misappropriation problems are minimal, typical in stable environments involving autonomous technologies (Teece, 1984), where contracting hazards are minimal, specialisation is encouraged and outsourcing enhances performance by allowing specialised suppliers to benefit from economies of scale by pooling demand and driving economies by focusing on a limited number of well-defined activities. Empirical results are consistent with these arguments (Liebeskind et al, 1996). Alternatively, arguments supporting vertical integration assume instead, that the most valuable capabilities are found within the organisation and that misappropriation problems are significant (Leiblein et al, 2002).

These arguments follow the logic of systems theory, where loosely linked component systems are more appropriate in a dynamic environment, fraught with uncertainty. Whereas, tightly linked systems are more suitable in stable environments, with the advantage that resources can often be more efficiently used, resulting in less redundancy and waste, and faster processes (Perrow, 1986).

An intermediate position argues that the choice of individual sourcing decisions is dependent on the characteristics of each individual transaction and the environment in which it occurs (Leiblein et al, 2002).

1.2. Contextual Background

Taking this into account and acknowledging that the face of construction is changing in Africa and the world at large, with the scale of construction projects getting larger and more complex, in both detail and the environment in which stakeholders operate, as highlighted in Deloitte's on Africa: African Construction Trends Report (2013), which attributed this to rapid urbanisation, strong economic growth, a steady growth in the middle class and an increase in regional cooperation between the continents states; all contributing to a continually increasing demand on Africa's construction industry (Creamer Media (Pty) Ltd, 2015). The complexity and dynamic nature of this environment has resulted in increased pressure on clients, including property development firms, intent on remaining competitive, pushing for increased effectiveness and efficiency from the construction industry as a whole (Hitt et al, 1998). In turn the construction industry has responded to the ever-increasing demands placed on it, by increased specialisation of services provided by consultants and contractors, bringing the issue of the management of construction projects to the fore, as the element ensuring that the inputs of the various contributors on a project are utilised in the most effective manner (Baiden et al, 2006). According to Walker (2002) this increase in specialisation and complexity of projects within the construction industry has resulted in the development of high levels of differentiation within the construction process, necessitating strong integration of the different independent specialists and skills.

From this perspective, not only is the role of project management pivotal, but also the position relative to a firm’s boundary from which the project management services are administered from, also becomes a topic of interest. As such, the organisational structure and boundary decisions within construction

projects becomes significant, as it focuses attention on internal organisational issues, relating to the management of human resources within the project management process, rather than the planning, control techniques and decision techniques, typically associated with project management (Walker, 2002). This alternative perspective highlights that the use of tools and techniques, are ineffective if applied within inappropriate organisational structure (Williams, 2013).

Highly simplified, a successful construction project can be defined as the project delivering the client's objectives, which can be generally summarised as delivering the project on time, within budget and to the predetermined quality. However, as Walker (2002) notes, many construction projects, large and small, encounter difficulties and fail to successfully deliver the client's objectives not due to a lack of technical skills but rather due to poor management.

This is to say, the success of construction projects is largely dependent on the manner in which the various contributors and skills are organised to provide optimum effectiveness and efficiency (Walker, 2002). This acknowledgement of the importance the role of effective management plays within construction projects puts focus on the role of the construction project manager and what impact, if any, their position within the firm's boundary and consequently within a project's organisation structure has on their ability to perform their duties. Concurring, Burke (2007) highlights, "the selection of the project manager is a key appointment which can influence the success or failure of a project". By inference, it is reasonable to question whether, the position within the firm's boundary from which the functions of the project management role are administered from, also influence a projects outcome.

Walker (2002) states the organisational structure of construction project organisations differ from the typical organisational structures covered in mainstream organisational literature, in that the construction project organisation is, in reality, an inter-organisational structure i.e. the project team. Requiring an appropriate structure suited to the production of the construction project as a whole, as opposed to each individual parts of the project. The purpose of organisational structures is to maximise organisation effectiveness, and the construction project management system during the course of a project becomes temporarily a sub-system of the client's organisation system (Walker, 2002). As such, understanding why there are variations in the way project management services are integrated into the organisational structure for different project organisations becomes an important question.

As Walker (2002: 16) puts forward, "ideally it seems that project management should be exercised by the client organisation itself, and this reflects the need for clients to be very close to the organisation and implementation of their projects. However, many clients do not have the expertise to manage their own projects. This, therefore, is the dilemma for clients and for project management. Clients should be concerned with ensuring that the design of organisational structures for their projects recognise and seek to overcome such potential conflicts".

1.3. Significance of the Research

While the firm's boundary decision has been explored by numerous researchers in various fields and industries (Harding et al, 2000, Leiblein et al, 2002 and Pieri et al, 2013) and despite general agreement

of the importance the firm's boundary decision plays, their still remains uncertainty in the role the decision ultimately has on organisational performance (Leiblein et al, 2002). Therefore, taking into account the crucial role the construction project manager plays (Walker, 2002) and the ever increasing complexity of construction projects (Hitt et al, 1998), the position relative to a firm's boundary from which project management services are administered from, also becomes a critical area of research. To ensure the most effective application of tools and techniques within the organisational structure (Williams, 2013).

1.4. Problem Statement

With the increasing complexity and uncertainty associated with today's modern large scale commercial construction projects and the increasing recognition of the impact that project management has on the outcome of these projects, the importance of the nature of the sourcing decision of project management services has come to the fore.

Traditionally property development firms in South Africa have outsourced project management services to undertake the management of the construction of projects. However, in recent years there has been an increasing number of property development firms that have chosen to retain this discipline in-house.

Fundamentally the research question is a "make or buy" decision, which has been expounded on by numerous researchers in various fields of study, including health care goods and services (Harding et al, 2000), technological performance (Leiblein et al, 2002), and Italian machine tool industry (Pieri et al, 2013). Property developers, as with all firms when looked at through the perspective of the neoclassical founded, microeconomic concept of the theory of the firm, exist and make decisions, first and for most for the maximisation of profit (Katzner, 2005). As such, defining the property development firm's boundary plays a crucial role in achieving this objective, where on one hand, some of the anticipated benefits of outsourcing project management services are that it allows the firm to achieve economies of scale, reduce overheads and achieve greater flexibility in a dynamic environment, while allowing the optimisation of project management services on the basis of "deal flow". However, at the same time, while not negating the benefits of outsourcing, outsourcing also has the potential introducing possible new hazards such as; the hollowing out of critical, specialised firm capabilities, while introducing additional agency and transaction costs to the firm. Therefore, taking into account the potential gains and pitfalls of either sourcing strategy, determining which sourcing strategy to adopt is essential in providing the firm with a competitive advantage, while the wrong decision can ultimately be detrimental to the firm's long-term competitiveness and overall longevity.

It is anticipated that substantiation of this research problem will largely rely on similar research conducted in different industries/ fields relating to the similar sourcing dynamics.

1.5. Aim of the Research

Considering the significance, the role project management plays in the successful outcome of construction projects, this research attempts to explore the factors/ considerations that lead clients,

specifically property development firms, to make the choice between vertically integrating and outsourcing project management services. Gaining a better understanding of the benefits and disadvantages of implementing either option from a broad literature review of organisational economic theory perspectives, concluding with a case study of a selection of large Johannesburg based property development firms.

As we address the process of outsourcing, we refer to the 'external/ outsourced project manager,' including both the independent project manager and the project management firm. Conversely, we refer to the 'internal/ in-sourced project manager' as that company employee performing the project management function within the firm.

1.6. Research Objectives

The objective of this research is to investigate and understand the reason(s) or factors that influence large private/ commercial property development firms, based in Johannesburg, South Africa, in making the organisational boundary decision to either outsource or vertically integrate construction project management services, in large scale commercial developments, from organisational economic theory perspectives.

By exploring these factors, it is anticipated that a better understanding of the advantages and disadvantages of implementing either sourcing option will be gained. As a secondary outcome, it is expected that the findings of this research will provide property development firms, project management firms and practitioners with insight into the factors/ considerations on which to ultimately base their decision on, providing a basis to which, to align themselves more strategically within the market.

Towards achieving the above mentioned primary research objective the following secondary research objectives were formulated:

1. Determine whether there is a difference between outsourced and in-house project management services.

2. Establish what the differences are between outsourced and in-house project management services.

3. Determine whether the differences between outsourced and in-house project management services impact on the implementation of project management services within the project organisation.

4. Establish whether choosing an outsourced versus in-house sourcing strategy for project management services has any impact on the client's (developers) perceived success of a project, i.e. meeting the client's objectives.

5. Establish whether the nature or characteristics of a specific property developer influence the sourcing strategy the choose to employ.

1.7. Primary Research Question

The purpose of this research is to conduct an in-depth investigation into the following primary research question:

What are the factors/ considerations that influence large property development firms, when making the organisation boundary/ sourcing strategy decision to either vertically integrate or outsource project management services, in large scale commercial developments?

1.8. Key Research Questions

The following subsidiary research questions have been formulated to help address the specific objectives relating to the primary research question:

1. Is there a difference between outsourced and in-house project management services?

2. What is the difference between outsourced and in-house project management services?

3. Do the differences between outsourced and in-house project management services impact on the implementation of project management services within the project organisation?

4. Does the difference between outsourced and in-house project management services have any impact on the client's (developers) perceived success of a project, i.e. meeting the client's objective?

5. Does the sourcing strategy selected reflect the nature of the property developer involved?

1.9. Assumptions

1. Property developers have a choice in opting to implement either sourcing strategy.

2. The findings of this research can be used as the basis of making generalised conclusions and further assumptions as to why other property developers opt for either sourcing strategy.

3. A conscious, rationalised, reasoned decision is made in selecting either sourcing strategy by the property developers.

4. Concepts and theories established in other industries/ fields and from other regions of the world can be applied to the context of this research and the local property development, project management and the construction industry/ environment.

5. The two property development firms used in the case studies are operating in and subjected to similar market forces and external environmental conditions, which lead them to selecting either sourcing strategy.

1.10. Limitations

1. This research is exploratory in nature and therefore, rather than trying to define the phenomenon in study, this research only seeks to shed light on to the reasons why property developers opt to implement either sourcing strategy.

2. This research does not seek to make a value judgement on the merits of either sourcing strategy, again only the reasons why either option is selected.

3. The number of case studies to be investigated will be determined by a factor of the time allocated to the research.

4. Time and resources will play a role in the extent and depth this research will be carried out to.

1.11. Proposed Research Design

1.11.1. Primary sources of data

Primary sources of data include interviews on the case study and the supporting sources.

1.11.2. Secondary sources of data

Secondary sources of data are made up of books, journal papers, conference papers and the internet.

1.11.3. Brief Research Methodology Overview

The aim and objectives of the research are to be achieved by using the following research method and structure.

A broad literature review is to be conducted focusing on the predominant and current theories relating to the research question. This in turn assisting in revealing and narrowing down further theoretical perspectives, that more acutely guided and inform the development of a set of key research questions relating to gaps in the existing literature.

It is anticipated that a qualitative methodological approach will be used in undertaking this research mainly based on the inductive/ exploratory nature of the primary research question i.e. what are the factors/ considerations that influence large property development firms when making the organisation boundary/ sourcing strategy decision to either vertically integrate or outsource project management services, in large scale commercial developments? As the fundamental objective of this research is to build concepts and theories (Merriam, 1998).

In addition, the context of the research question frames the research in a subjective light, dependent on the individual perspective of the participants and how they view their environment, thus the qualitative approach in the context of this research provides the researcher with the opportunity to engage with participants and ask preliminary questions, with further follow up questions to more

accurately understand the participant's point of view and bring clarity to any ambiguities, therefore providing, in this instance, far more meaning and richer data from which the researcher can develop a theoretical stand point. Furthermore, the qualitative approach lends itself to the identification of patterns and similarities in participant's responses, which will ideally facilitate the discovery of generalities, which can be used to develop a theoretical understanding. As Leedy (1997) explains, the advantage of using the qualitative approach is that it records observations and experiences which can then be extrapolated into theory or trends within the population being studied.

In summary, the qualitative methodological choice is assumed appropriate for the purposes of this research, as the qualitative approach is viewed as "a naturalistic, interpretative approach concerned with understanding the meanings which people attach to phenomena within their social worlds" Ritchie and Lewis (2003: 3), giving a complete picture from the perspective of the participant.

Due in part to the limited time horizon, a two-tail, holistic case study strategy is envisaged to be adopted, however, also largely due to appropriateness in relation to the exploratory nature of the research, combined with the fact that research only seeks to establish some of the factors that influence to property developers in making the decision and not to exhaust the spectrum of all possible consideration, the two-tail, holistic case study was felt to be able to give adequate insight into the research problem as it would represent a commonly occurring phenomenon within the property development industry.

Semi-structured questions for one on one interviews are to be developed to collect data from the selected sample of property development practitioners, working for large property development firms, operating out of Johannesburg, South Africa.

The semi-structured interview data gathering method has been cited as particularly applicable to exploratory research by numerous researchers including Boyce and Neale, 2006, as they facilitate flowing, extended discussion beyond the parameters of the listed themes and questions initially envisaged by the interviewer, allowing in-depth understanding of context, as expressed by each individual respondent from their own unique perspective as the issue is explored, garnering rich, quality data.

Again, emanating from the exploratory nature of the research question, the semi-structured interview data collection method is expected to be the most appropriate interviewing method in understanding the factors/ considerations that influence large property development firms when making the organisation boundary/ sourcing strategy decision to either vertically integrate or outsource project management services, in large scale commercial developments.

The semi-structure interview method finds the ideal middle ground between the unstructured, unconstrained, interviews and the rigidity of structured interviews, allowing fluidity and adaptability in the interviewers questioning approach depending on responses received, giving the interviewee the chance to further "explain, or build on, their response" (Saunders et al, 2012), allowing for greater

engagement and understanding of issues, while still retaining the required level of structure and focus to lead to the fruitful insights being sought.

The data collected from the interviews will be collated and processed using appropriate techniques.

This processed data will then be analysed and reviewed and will be used to draw out findings relating to the research objectives, which are then to be discussed in the context of the established theoretical framework and used as the basis to draw appropriate conclusions and recommendations.

1.12. Ethical Considerations

This research primarily deals with examining and interpreting human behaviour and as such, the ethical issues that arise from such a research must be considered carefully (Leedy and Ormond, 2005), in order to deal with any ethical issues that may arise from such a research. Saunders et al, (2012: 226) advise that a code of ethics be must be established and followed, where "standards of behaviour that guide your conduct in relation to the rights of those who become the subject of your work or are affected by it" are established. Further advising that ethical matters should be identified and dealt with as early as possible, during the research design stage of a research project, ensuring the integrity and objectivity of the entire research is maintained (Saunders et al, 2012).

A key consideration when conducting research involving input from respondents is understanding what the social and ethical implications of their participation in the research (Save the Children, 2014), as ethical research is about "doing good and avoiding harm, to those that participate" in your research (Save the Children, 2014: 8).

As this research uses semi-structured interviews as a primary data collection method, where direct contact and interaction with the research participants is required the establishment of a guiding principal of an ethical code becomes particularly important in ensuring that the data collection process and the results thereof; are reliable, transparent and accurate (Saunders et al, 2012).

In line with Leedy and Ormrod's (2005: 101) recommendations relating to ethical research conduct when undertaking a research project, this research will endeavour to ensure that participants/ subjects are afforded the benefit of the following overarching ethical principles:

1. Protection from harm;
2. Informed consent;
3. Their right to privacy;
4. Honesty with professional colleagues.

In undertaking this research access to key participants within the case study property development firms was required for the conducting of the semi-structured interviews. However, in arranging access

no attempt was made to put undue pressure on any potential participant to partake in the study and all participants were notified that their participation was purely voluntary.

All potential participants were advised of the purpose of the study and were notified of their right to refuse to partake in the study, as well as, their right to withdraw from the study at any time without giving reason.

All interviewees were notified of the right to intervene at any point if they felt that the line of questioning infringed on their rights and all attempts were made to avoid questioning that made the interviewee uncomfortable in any way or feel obligated to respond. All interviewees were further notified of their right to withdraw from the interview proceedings at any time without giving reason.

Due to the sensitive and strategic nature of the research topic, to allay certain concerns and fears the participating property development firms, as commercial businesses, may have had in participating in the research, it was agreed that although the certain descriptive information about the two companies, required to contextualise them in their environment and allow for comparison would be included in the research, their specific identities would be withheld.

Similarly, the names of all interviewees were kept anonymous to ensure the confidentiality of participants.

While implementing the described method of concealing the identities of the participating firms and interviewees, will not provide complete anonymity, it will prevent specific identification of the both the participating firms and individual respondents.

In addition, the researcher committed to storing all audio recordings and identifying information in a safe and secure location only accessible to himself until the completion and assessment of the research, after which all information collected would be destroyed.

1.13. Research Report Structure

This research report is structured in five chapters, as follows:

Chapter 1: Introduction - This serves as an introductory chapter, outlining the background of the research, where the purpose of the study is discussed, drawing out the research problem, objectives as well as the aim, assumptions, limitations and definition of terms to be used in the research conducted.

Chapter 2: Literature Review - This chapter provides a review of existing literature, delving into theoretical perspectives relating to the research problem.

Chapter 3: Research Design and Methods - This chapter provides an overview of the research methodology used in the research, justifying the selection and execution of the methodology. Further discussing the data collection techniques used in this research.

Chapter 4: Data Collection Protocols - This Chapter covers the data collection and presentation aspects of the research.

Chapter 5: Data Presentation and Analysis - This Chapter analyses and discusses the findings of the data collection, relating the findings of the research to existing findings in the literature and theory from the literature review.

Chapter 6: Conclusions and Recommendations - This chapter summarises the entire research, highlighting key findings and conclusions of the research and providing a critical reflection on the research process, concluding with recommendations of possible areas of further study.

LITERATURE REVIEW

2.1. Theoretical Backgrounds

Following a brief overview of general management theory, organisations and project management, this chapter then proceeds into a detail literature review of the three main theories of this paper; agency theory, transaction cost economics and organisation capabilities theory, followed by a concluding section discussing the relative strengths, limitations and commonalities linking each theoretical perspective.

Tiwana and Bush (2007) assume that the decision to outsource is driven by three main considerations:

1. Likelihood of the firm achieving substantial cost savings by outsourcing,

2. Likelihood of reconciling the divergent objectives of the firm and the external vendor,

3. The significance of the external vendor's expertise in successfully meeting the firm's objectives.

Over the years various theories have been used to try and explain how firms make their firm boundary choice decision, including but not limited to transaction cost economics, knowledge and resourced based theories; including organisational capabilities theory, institutional theory, control theory, agency theory, bargaining power theory, resource dependency theory and stakeholder theory to name a few (Brouthers and Hennart, 2007).

As this paper seeks to explore the reasons why different property development firms make the organisational boundary decision to either outsource or retain construction project management services in-house, in large scale commercial developments, from organisational economic theory perspectives, transaction cost economics theory, agency theory and organisational capabilities theory were selected to investigate this question based on the framework established by Tiwana and Bush (2007). In their study, Tiwana and Bush (2007) used the same three theories to look into predictors of outsourcing strategy of US and Japanese based information technology firms by investigating the relative importance that information technology managers attributed to the various factors from these three different but complementary theories, arguing that all three would be simultaneously used in making their project outsourcing decisions, shedding light on the relative importance give to the factors from these three theories.

This multi-theory investigation is also supported by Jacobides and Winter (2012: 1378), who used the same theories to highlight "the importance of the multiple causal forces operating above the actor level as well as the reciprocal causation between the agency of individual actors and the structure of the larger systems in which they operate".

While transaction cost economics over the years has emerged as a predominant explanation of firm boundary choice decision, due to its thoroughness in explaining governance choices. It has also

received criticism from detractors for its narrow focus on ex post contractual costs (e.g. contractual hold up problems due largely to asset specificity) (Tan and Mahoney, 2006), while only acknowledging the impact of revenue generation on governance choices to a limited extent (White, 2000).

Whereas, agency theory is noteworthy for its juxtaposing theoretical framework "analysing ex ante contractual problems and thus provides a balance for the transaction costs theory" (Tan and Mahoney, 2006: 457) perspective. Eisenhardt (1989), further argues agency theory is particularly applicable in instances where contracting is difficult, such as when there is potential divergence in objectives between principals and agents, allowing possible agent opportunism to occur (e.g. principal and professionals). Although agency theory gives a unique, realistic, and empirically testable perspective on problems of cooperative effort, it however, only provides a partial explanation because it does not factor in the complexity of organisations (Eisenhardt, 1989) and therefore, it is recommended that it is used in conjunction with complementary supporting theories (Hirsch et al, 1987).

Organisational capabilities theory provides and alternative but complimentary explanation to transaction cost economics theory for the firm boundary decision (Madhok, 1996), by looking at the role capabilities play in the development firm specific competitive advantages and influencing firm level decisions.

By appreciating their alternative but complementary explanations in making the firm boundary decisions, in recent years researchers have increasingly been combining these three theories toward providing a more holistic, integrated understanding of various strategic management choices, including firm sourcing strategy (Tan and Mahoney, 2006 and Jacobides and Winter, 2012).

2.2. Brief Overview of General Management Theory

The definition of management is illusive, and there is no one accepted definition of term, however, Henri Fayol is credited as having made the first major contribution to defining the term management. In his book 'General and Industrial Management' published in 1949, Fayol defined management in terms of the following five functions (Cole, 1990):

1. To forecast and plan;
2. To organise;
3. To command;
4. To coordinate;
5. To control.

Cole (1990), however, further states that concept of management has since evolved from being seen as purely the controlling factor of organisations, to instead being recognised as a function of organisations, allowing organisations to define and fulfil their objectives. In line with this definition, Naoum (2001) succinctly defines the concept of management in contemporary terms; as the targeting

of high level performance using various management techniques to achieve individual and organisational goals and objectives.

The evolution of modern management and organisational theory, although distinctly separate theories, are aligned and both have their developmental roots stemming from the following four stages (Naoum, 2001):

1. Classical theory;
2. Human relation theory;
3. Modern system theory;
4. Contingency theory.

Unlike classical theory, that focuses on the management of organisations, specifically management's role and the formal structure of the organisation (Naoum, 2001), human relations theory also known as the behavioural approach, focuses on the human element of management, dealing with issues relating to motivation and human inter-personal relations (Cole, 1990). System theory which then superseded both classical theory and human relations theory as a more comprehensive theory of the management of organisations (Cole, 1990), came about as a response to the increasing complexity of organisations and their rapidly changing environmental conditions (technical, economic, social and governmental).

From the perspective of systems theory, the organisation is recognised as both a whole and as part of the larger environmental system simultaneously (Naoum, 2001). Cleland and King (1983) concur, defining the system theory approach as made up of interdependent components, where actions that affect one component ultimately affect the other components in the system, and similarly the action of one component causes reactions in the other components. Further stating that recognition of such interactions and interdependencies, both inside and outside the organisation is the basis of system theory; where projects, organisations and their environment are viewed as components of a larger system.

Walker (2002: 25) while discussing project management viewed from this perspective, similarly concludes that the "the fundamental premise of systems theory stresses interrelationships and is as concerned with the links between parts of the system as with the parts themselves. The problem of how to make the links work effectively is essentially the problem of project management…. The attraction of systems theory as a medium for identifying conceptual framework for the management of the construction process lies in the basic premise that a system is an organised or complex whole: an assemblage or combination of things or parts forming a complex unitary whole, which greater than the sum of its parts. The systems approach stresses the contribution of the interrelationships of the parts of the system and the system’s adaptation to its environment in achieving its objective".

Generally, systems can be either defined as open or closed. Open system components are highly affected by economic, social, technical and political changes in the external environment. Whereas, in

closed systems, the external environment fluctuations are not an important factor to the internal processes of the organisation and focus is primarily on optimising the internal efficiency of the organisation rather than looking outside the organisation (Arora and Bokhari, 2007). Walker (2002) adds that both the client organisation and the construction project organisation can therefore be seen as open systems.

Finally, evolving in step with systems theory over the last two decades, contingency theory has taken over and become one of the more prominent conceptual frameworks for research into management and organisational theory (Banalieva and Sarathy, 2011). Contingency theory purports that there is no one best way to structure an organisation, lead a team or design a system, as all are dependent on the specific case by case circumstances, "the best way to organise depends on the nature of the environment to which the organisation relates" (Scott 1992: 89).

2.3. Organisations & Project Organisations

2.3.1. What is an Organisation?

Organisation and management are interlinked concepts; strategic and routine decisions from management are required to make organisations function, where the organisational activities are a component of management and "their observable criteria are objectives, some pattern of authority and responsibility between the participants with some non-human elements involved" (Walker, 2002:4).

Organisations vary in size and shape, however, in general can be described as the arrangement of people and resources, arranged in such a way that they act as a unified whole to perform a specific function or to achieve specific organisational objectives, where the organisation's resources are coordinated by a set of procedures and are integrated using an organisational structure (Naoum, 2001). Frimpong (2000) states that organisations can be considered to be either project driven or non-project driven, where work in project driven organisations is characterised through projects, with each project as a separate cost centre. Such an arrangement can be seen to apply to property development firms.

Organisational objectives and the way they are executed differ from organisation to organisation, Naoum (2001) states in general, organisations consist of numerous interdependent components, where one component of the organisation cannot achieve success in isolation. Adding, that what affects one component of the organisation at a particular time will also affect others, as the components are functioned and administrated by a collection of 'systems' and 'sub-systems', consisting of the following:

1. *The managerial sub-system* - including setting goals, planning a strategy, structuring, coordinating and administrating.

2. *The technical sub-system* - including planning and control techniques, production methods, facilities and equipment.

3. *The social sub-system* - including leadership, personnel management, work groups, motivation and culture.

Organisational effectiveness is reliant on the interaction between managerial, technical and the social sub-systems. Where, the success or failure of the organisation is a result of the clarity of the operation and objectives, the quality of people employed, the availability of resources and appropriateness of the structure and management system adopted, throughout all components of the organisation (Naoum, 2001). As projects are housed in project organisations, the proper functioning of the project organisation will inevitably impact the success of the project (Frimpong, 2000).

2.3.2. Role of Organisational Structure

Although there are various forms of organisational structures, each with its own application, it can be said that the appropriate form is determined by the organisational strategy of the organisation. As each type of organisational structure has its own particular benefits and disadvantages, the selection of the appropriate structure for an organisation is dependent on the task to be undertaken, the organisation's size, the variety of contributors and the environment. Evidence indicates that organisational structure influences effectiveness, especially the attitude and behaviour of the people working within the structure, in turn influencing productivity and efficiency (Naoum, 2001).

Generally, an organisation can be said to consist of individuals and groups who are governed by a set of rules and procedures within a structural hierarchy brought together to work as an interconnected team to perform specific tasks and organisational objectives (Naoum,2001). In this context, organisational structure can be defined as "a mechanism for linking and coordinating people and groups together within the framework of their roles, authority and power. Structure can be regarded as the backbone of the organisation and its effectiveness depending on how strong or weak the skeleton is" (Naoum, 2001: 77-78), further adding that the design of an organisational structure can affect the organisation in two ways (Naoum, 2001):

1. *Technically* - affecting the productivity and economic efficiency of the organisation.

2. *Socially* - affecting moral and job satisfaction of employees.

Frimpong (2000:17) asserts that "organisational structures are dictated by factors such as; complexity, technology, resource availability, products and/or services, competition and decision-making process". Whereas, Naoum (2001) sees the factors influencing the choice of organisational structure as:

1. Organisational characteristics – age, size subordinates

2. *Organisational management* – Manager's personality and values, goals and objectives, strategy

3. *Operation* – task and technology

4. *Environment* – external and internal.

Although there are numerous factors that have a significant bearing on the performance of an organisation, organisational structure is particularly important because if properly designed, it allows the other aspects of the organisation to function properly (Walker, 2002). In the context of construction project organisations, an appropriately designed project organisation structure will provide the required framework for the other factors that influence the effectiveness of the project management process, giving it the best chance of achieving maximum efficiency towards accomplishing a client's objectives.

Decision making is closely linked to organisational structure; organisational structure dictates how people work with one another to produce output that decisions are based on. Quality decision making is essential for the efficient functioning of the entire organisation. However, it is especially important in construction projects, due to the complexity of construction projects, with their vast array of contributors to the decision-making process (Walker, 2002). As such, it is necessary that the organisational structure implemented in construction projects, allows for timely communication to be delivered to and received from the relevant contributors for decisions to be made.

Walker (2002) states that the organisational structure of a construction project is a subset of the project's management process, shaping the relationship between the organisation and its members, influencing their response to demands placed on them. In turn determining the way advice is generated for decision making and the way technology and techniques are implemented within the organisational structure.

2.3.3. The Environment and Firm Boundary

An organisation, its projects and the project management processes contained within them are all subject to the external conditions that surround the organisation at any particular time, these external conditions are called the 'environment'. The environment comprises of all external elements to the organisation, some of which are dynamic, and require the project management process to change and respond accordingly, for the organisation to remain effective others are static. All organisations, irrespective of size, operate within the same environment, in the context of construction projects, the environment comprises of national, economic, social, political, technological and geographical conditions, where changes in any one of these environmental factors can have a significant impact on the corporate strategy and organisational development of a firm (Naoum, 2001).

Naoum (2001) highlight the four common characteristics of the environment as being stability, sophistication, market diversification and hostility.

Stability - An organisation's environment can vary from stable to dynamic. Stable environments are relatively straightforward to understand and upcoming changes can be forecast. Whereas, a dynamic environment is unpredictable, with a high degree of uncertainty with regard to future events. As such, organisations operating in dynamic environments need to have strategies in place to adapt to environmental forces in order to stay in business.

Sophistication - An organisation's external environment also varies between less sophisticated (simple) to highly sophisticated (complex). In the context of the construction industry the degree of sophistication depends on the characteristics of the organisations (i.e. the type of building being built, the size of the organisation and the geographical location it operates out of). In simple environments, knowledge is rationalised and the building process can be broken down into smaller, easily understandable components. Whereas, in complex environments, a great deal of sophisticated knowledge is required, relating to clients and their projects, technology involved and market conditions.

Market Diversification - There exist two types of markets; integrated and diversified. An integrated market is a market in which an organisation operates offering specialised services or products to specific clients. In contrast, a diversified market is a market consisting of a large variety of clients, products, services and geographical areas. Market diversification therefore has an impact on organisational structure through an enforced change in strategy.

Hostility - The degree of hostility in an organisation's environment ranges from open to hostile. Where the degree of hostility is influenced by the level of competition, the organisation's relationships with other organisations and government and the availability of adequate resources. The construction industry is generally seen as a hostile environment due to the high level of competition between competing firms.

The cut off or separation between what is internal to the organisation or firm and what is external, i.e. the environment, is called the ' firm boundary'. The firm boundary, acts as a filter between the organisation/firm and the environment, filtering inputs and outputs traversing over this boundary, as well as, a buffer between the zones (i.e. between the organisation and its environment and between project and its organisation) (Naoum, 2001).

2.3.4. Project Organisations

In the context of construction projects, the project organisation is a series interconnected relationships, authority chains and responsibility structures established between members of the project organisation, to deliver the client organisation's objectives, where management is a dynamic input that makes the organisation function. In which the function of project management is setting up, monitoring and adapting the project organisation objectives established from the client organisation, and making and advising on decisions to be made to reach the client's objectives (Walker, 2002).

In the construction industry, the function of project management is achieved working through the project organisation, where the project contributors produce information that allows the project manager to make decisions to keep the project moving forward. The quality of the information and the decisions taken are completely dependent on the effectiveness of the project organisations structure. However, the temporary nature of most construction project organisations, adds an additional challenge to this process, as typically the members of the project organisation are from external parent firms and are only there for a limited time, Walker (2002: 16-17) quoting Thompson (1991) wrote, "the temporary nature of the project team and the need to define and achieve specific project objectives against a demanding timescale, together with the high level of risk and expenditure encountered on many projects, will demand a style of project management that is likely to be more dynamic than that of corporate management". The challenged faced in the construction team is that typically the construction project team is what Scott (1992) calls an autonomous professional organisation, meaning that the project organisation has "responsibility over their own goals and the establishment and maintenance of their performance standards" (Walker, 2002:16), which adds an addition degree of difficulty in monitoring and managing their performance and ensuring that their objectives remain aligned with those of the client, raising further issues relating agency and transaction costs.

2.3.5. Project Organisation Structure

During the 1950's the use of the project management organisational structure, in which responsibility was assigned to an individual with an autonomous team and authority over a pool of resources started to be favoured as the preferred organisational structure to run project based work, over the traditional functional hierarchical organisational structure, where project work was passed progressively from department to department, which had been the more commonly used structure before this time (Burke, 2007).

Woodward (1997) writes that one of the first priorities a client must attend to at the commencement of any project to be undertaken is the form of project organisational structure to be implemented. Taking what is considered by many the most widely used form of the project organisational structure for project management; the matrix project organisational structure, there can still be permutations within this structure (Burke, 2007), with some client's opting to appoint an existing employee as the project manager and others deciding to appoint an external full-time consultant to this position (Woodward, 1997). The various reasons why one particular client may opt to use one variant of the project organisational structure over another (i.e. in-house opposed to outsourced project management services) are numerous (Burke, 2007) and will be discussed further in the coming sections. However, as Frimpong (2000) asserts, whatever variant of the project organisational structure ultimately is adopted by the client organisation it should ideally speak to the nature of the work to be carried out.

2.3.6. Review of Organisational Structure

Different organisations have different organisational objectives and ways of achieving these objectives. To maximise their potential of achieving these set objectives, organisations are required to select the

form of their organisational structure as an implicit response to their specific organisational strategy and environmental conditions.

Similarly, for project organisation, including construction project organisations, the same rational applies. However, due to the temporary nature of construction project organisations, whose members often consist of independent professional organisations, external to the parent organisation, unique challenges arise associated with increased degree of difficulty in monitoring and managing the performance of these external parties, while trying to ensure that their objectives remain aligned with those of the client, all of which, introduces additional issues relating agency and transaction costs.

2.4. Project Management

2.4.1. What is a Project?

In order to define what project management is; a logical starting point is to first establish and understand what a project in itself is. Again, as with management, there is no one accepted definition of what a project is. However, Duncan (1996) states that projects are central components of an organisation's business strategy and are undertaken at all levels of the organisation. Ranging in size from one individual to thousands, requiring in some instances, less than day to complete and in others many years to complete. Involving at times a single unit within an organisation and at other times crossing organisational boundaries as in joint ventures and partnering.

On the other hand, Burke (2007) describes projects as unique and non-repetitive endeavours, requiring the coordination of limited resources, typically having a single point of responsibility in the form of a project manager or leader, responsible for the execution of the whole project by the project team.

Woodward (1997) summarises the main features common to all projects as the following:

1. A project has the specific objective of creating some new entity which did not exist before.
2. Projects have a defined beginning and finish, with a clear project life cycle.
3. Projects are made up of a large number of separate but interdependent tasks.
4. Projects are unique.
5. Project tasks make demands on a range of resources, usually on an intermittent or varying basis.

Frimpong (2003) concurs, stating that projects often range in type, size, scope, cost and time, from small domestic projects which last a short time, to large complex projects that are executed over the course of many years. He further categorises construction projects as painting by numbers projects, characterised by their complexity and scale, requiring the input of numerous different parties, in which

there is a high level of certainty relating to the project scope, process, tools and understanding of what is to be done and how it is to be achieved.

Whereas, the PMI (2013) describes projects as having special features distinguishing them from operations, which include clear start and finish dates, a lifecycle that comprises of a beginning and an end, with distinct phases in between, with schedules and timelines, and a defined budget often broken down into work packages.

More succinctly, the Project Management Institute's Standards Committee simply defines a project as "a temporary endeavour undertaken to create a unique product or service" (Duncan, 1996: 4).

2.4.2. What is Project Management?

Walker (2002) suggests that general management definition requires amplifying before it can be used to define construction project management. The Project Management Institute's Standards Committee defines project management as "the application of knowledge, skills, tools and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project" (Duncan, 1996). In line with this, the PMBOK states that project management is accomplished through processes, defining a process as a set of interrelated actions and activities that are performed to achieve a pre-specified set of products, results or services (Burke, 2007).

However, Peter Morris (1994) points out, that although "project management is widely perceived as a collection of planning and control techniques" it should be rather seen "as a rich and complex management process. Indeed, many of the project management specialists themselves perhaps do not fully recognize the real scope of the discipline" (Walker, 2002: 72). Frimpong (2000) elaborates, and surmises project management as bringing together and optimising the resources necessary to complete the project successfully. Where these resources include labour, money, equipment, facilities, materials, information and system techniques, all of which must be properly organised and coordinated, in other words managed, if all project objectives are to be achieved.

Perhaps one of the more holistic definitions of project management is it is "the planning, coordinating and control of a project from conception to completion on behalf of the client, requiring the identification of the client's objectives in terms of utility, function, quality, time and cost, and the establishment of relationships between resources, integrating, monitoring and controlling the contributors to the project and their output, and evaluating and selecting alternatives in pursuit of the client's satisfaction with the project outcome" (Walker, 2002: 72).

2.4.3. The Role of the Project Manager

The designation of project manager is one which has come into wide use and many believe is now too loosely used (Woodward, 1997: 164). In an overly simplified summary the responsibilities of a project manager could be said to be 'hitting targets' (Woodward, 1997: 164), namely achieving the completion of the project within the allocated time, at or under budget and in accordance with the specified

performance and quality criteria. However, the way in which a project manager actually manages a project will depend on the nature of the project and the position in which the project manager is placed within the project organisation to administer the project management services (Naoum, 2001).

As such, the selection and integration of a project manager into the project organisation, is a key appointment, which can influence the success or failure of a project (Woodward, 1997). As the single point of responsibility, it is the project manager who integrates and coordinates all the contributions from the various stakeholders contributing to the project and guides them to successfully complete the project (Burke, 2007).

2.4.4. Types of Clients/ Client Organisations

In project organisation terminology, the term stakeholder refers to any person or bodies who have an interest in the execution and/ or outcome of the project. In typical construction projects these would normally include (Woodward, 1997):

1. The client company;
2. The project manager, architect, engineers and other consultant professionals;
3. Banks and other financiers;
4. Local planning and building authorities;
5. The contractor and sub-contractors;
6. Suppliers.

As a general rule, on any given project, the project manager's primary responsibility and obligations are to the project sponsor (Woodward, 1997), the project sponsor is the company or body who authorises expenditure; this could be either an internal or external client (Burke, 2007) and typically the project team recognises the client, as the project sponsor, the body that has authority to approve expenditure on the project, take decisions on the form the project is to take and ultimately who pays their fees (Walker, 2002).

The types of potential clients within the construction industry are too varied to be individually classified, however, the three main client types can be broadly identified as individual clients, public clients and corporate clients (Walker, 2002)

However, for the purpose of this research paper the discussion will be limited to the corporate client. The classification of the corporate client type refers to all companies from the small, simply structured organisations, to the large multinational corporations. Generally, it can be said to effectively carry out its work, the project team needs to understand the objectives of the client. In particular, it is important that the team understands the purpose of the project for which it has been commissioned and how it is intended to contribute to the client's long-term objectives (Walker, 2002).

Masterman and Gameson (1994), on the other hand, chose to classify types of clients based on whether clients were primary or secondary constructors and the client's level of construction experience, defining client constructors as either primary or secondary:

- ***Primary***: Clients such as property developers, whose main business and primary income is derived from constructing buildings, or;

- ***Secondary***: Clients for whom constructing buildings is only a small percentage of their total turnover, and for whom buildings are secondary requirement to take carry out business activities.

As another axis, the client's level of construction experience is either: (ibid.)

- ***Experienced*****:** Recent experience of constructing buildings, with established access to construction expertise either in-house or externally, or;

- ***Inexperienced*****:** No recent and relevant experience of constructing buildings, with no established access to construction expertise.

When these two categorisations are considered together, the following four alternative client types are produced:

1. Primary – experienced;

2. Primary – inexperienced;

3. Secondary – experienced;

4. Secondary - inexperienced.

As such, it must be noted for the purpose of this research paper the discussion will be limited to the primary – experienced client type (i.e. large scale commercial developers).

2.4.5. The Role of the Client/ Client Organisation

The role of the client, the extent to which they are involved in the construction process and the various objectives they seek to satisfy, vary considerably from client to client. Some of the main factors that influence the client's overall participation in the construction process are; the structure of the client organisation, the client's general overall knowledge and experience of the construction process, the level of authority vested in the various levels of the client's organisation, as well as, the personal characteristics specific to the client organisations people who are responsible for the project (Walker, 2002).

In this respect, it therefore becomes important for all stakeholders in the construction industry, from contractors to consultants including project managers, to understand how the underlying mechanism of

organisations works, in order to align themselves to how a specific client's organisation works, to give them the most advantageous position to interpret and implement their client's objectives. This understanding of the internal workings of the client organisation, including the structure and firm boundaries of the organisation, the client organisations responsibilities (Ward et al,1991), the decision making processes of the organisation and who in the client organisation holds the authority to make decisions, ensures that members of the project team are better able to access required information which they can act on with confidence, which is a cornerstone of any efficient project, allowing the project team to work more productively and efficiently (Walker, 2002).

2.4.6. Choosing the Firm Boundary

It can be said that one of the more challenging responsibilities facing a client is the firm boundary decision, of whether to assign the role of project manager from within or external to the firm/ client organisation. "Project management implies exerting control. To control anything means being able to make change. To change anything implies having authority to do so. Having authority means carrying responsibility. Responsibility involves carrying risk. The main conclusion to be drawn from this is that real project management can only be exerted by someone or somebody that is in a position to carry risk. In most construction projects the only parties that can really do this are the client and the main contractor; any of the other parties cannot really be put in a position of risk unless they have that risk limited somehow. Therefore, a matter of major importance is how the appointment of a project manager is handled and what the limits are on the liability carried" (Woodward, 1997:193).

This choice typically correlates to the client's experience in construction (Woodward, 1997). The integration of the project management services is an extremely important decision, which if not dealt with correctly, often leads to decisions either not being taken at the right time (or even not at all), as well as, frequent changes to decisions already made, leading to delays, abortive work costs and uncertainty amongst the rest of the project team (Alexander, 1985). This view is supported by Pocock et al. (1997) study, where empirical evidence showed that there was a significant positive correlation between integration and performance, including client satisfaction.

Project organisations will find it easier to integrate with some client organisations better than with others (Woodward, 1997). In instances where the client organisation already has in-house construction expertise, dovetailing the efforts of the project organisation with the client organisation will generally happen much easier, whereas integration with client organisations without in-house expertise or no construction experience at all, will be far more difficult (Walker, 2002). Where clients have in-house construction expertise, the client can choose to implement either sourcing strategy, depending on the individual circumstances of each project. However, in instances where the client has limited experience with building, due to a combination of their inexperience and the complexity of the project, they will typically opt to appoint a project manager in an executive capacity from outside the client's organisation (Walker, 2002).

In instances where the client chooses to retain the project management discipline in-house, this arrangement will normally contribute significantly to the integration between the client and the project team, although typically a large degree of authority will need to be delegated to this project manager in order to command the respect of the project team (Alexander, 1985) and subsequently the "manager" of the project team will only have a limited degree of authority, as not only would it be anticipated that access to the client's representatives would be relatively easy but also due to the risk of the design team bypassing the project manager to seek higher authority in the client organisation may occur, seriously undermining the project manager's role, leading to confusion in the decision making process (Woodward, 1997). Although, in instances where authority within the client organisation structure is positioned high in the organisational hierarchy, access may be more difficult and more authority would be required to be assigned to the "manager" of the project team. On the other hand, in instances when project management services are external to the client's organisation (i.e. outsourced), then a large degree of authority would normally have to be delegated to this project manager, to allow for effective management of the project (Alexander, 1985). As can be expected, large scale construction projects are generally characterised by a correspondingly large expenditure of the client's funds by the project team in order to deliver the project, however, "human nature does not normally allow some external agency the authority to do this" (Walker, 2002: 106), raising issues relating to agency and transaction costs.

However, conversely, one of the most cited concerns regarding the implementation of in-house project management services is the obvious question of objectivity (Woodward, 1997). It is trite knowledge that a major factor governing the efficiency and success of a project is the aligning of the project team's objectives with those of the client, particularly those of the project management discipline, however, it is also essential that project manager is able to remain objective in their evaluation of all aspects of the project, to ensure that the best course of action and decisions for the success of the project are made, which may at times conflict with the client's immediate interests (Woodward, 1997). This issue of conflicting loyalties is a common issue faced by in-house project managers, who have to deal with the internal politics of the client organisation and this can contribute to a lack of objectivity, distorting project objectives and again leading to problems for the project team (Walker, 2002).

From the above, it is therefore clear that although there are clearly benefits for a client in retaining project services in-house, such as eliminating the requirement of choosing and briefing an external parties, saving time and money, providing ease of access for close interaction between the client and the project manager allowing for a step by step process to be followed, facilitating easier decision making, when required enabling confidentiality, helping to keep sensitive information within the client organisation, as well as, allowing work to be delegated to existing unoccupied staff members and ensuring due to the familiarity with quality standards expected by the client, quality standards are more easily maintained (Woodward, 1997). Woodward (1997) however, also acknowledges two significant disadvantages of using in-house project management services, specifically that existing staff may not have the most appropriate skills for a specific project or may have other commitments and secondly

that all project risk, even though steps may be taken to mitigate the extent of risk, are borne entirely by the client.

2.4.7. Conflicting Objectives

For project objectives to be achieved, it is necessary that that the objectives of all contributors to the project, especially those of the project manager and those of the client are aligned, ensuring all decisions taken during the project, are taken with the aim of achieving the client's objectives (Woodward, 1997). From this perspective, the challenge for a client is not only ensuring, via the project manager, that the objectives of the typically large number of independent firms involved on a construction project are also aligned towards the client's goal, as one can expect to find, that these independent firms are typically working on numerous projects concurrently, and as such conflicting demands on their time and attention are likely to occur and as can be expected, these independent firms will naturally be inclined to put their interests, at least in parallel, if not above the project objectives in the instances where they do not align, creating potential conflicts of interest (Walker, 2002).

It is however, an important but often overlooked fact that a project manager external to the client organisation, is in a similar situation to these independent firms as well and is not immune to succumbing to similar conflicts of interests. As it is also not uncommon to find a project management firm is handling multiple projects for different clients simultaneously, where conflicting demands are made on its time and attention (Walker, 2002).

In closing, the experience and specific, individual characteristics of the client organisation not only influence the selection and integration method of the project manager, an important appointment which can influence the outcome of a project, into the project organisation, it also influences the way in which the project manager performs his duties.

2.5. Agency Theory

Poppo and Zenger (1998) study into firms “make-or-buy” decision in the information systems industry supported theoretical arguments that organisations and markets possess distinctly different sets of governance tools, supporting the view that boundary choice does actually matter, as markets and organisations have distinctly different capabilities to govern exchanges with differing exchange attributes. As such, business organisations (firms) are required to make trade-offs between economic benefits from using various sourcing strategies, against the bureaucratic costs (also known as transaction costs, which will be discussed in the next section) incurred to achieve them. The need to understand these bureaucratic costs (transaction costs) is the origins of agency theory (Fama and Jensen, 1983), more specifically agency theory looks at the principal/ agent relationship that arises in delegating and performing work respectively (Oviatt, 1988).

Like transaction cost theory, agency theory is hinged on the belief that agents are self-interested and given the opportunity will prioritise their interests over the principals in order to maximize personal gain (Denis et al, 1999). Agency theory highlights that transaction costs do not simply disappear when firms

choose in-sourcing over outsourcing but rather these transaction costs instead manifest themselves in detecting and dealing with the risk of agent opportunism (shirking), which is an ever present possibility when a principal delegates authority to an agent (Jones and Hill, 1988), as this still involves some degree of control loss, as the delegation of authority to subordinates provides them with the opportunity to prioritise their interests over those of the firm (Leibowitz and Tollison, 1980). As such, the main issue highlighted by agency theory is the requirement of establishing and maintaining satisfactory behaviour on the part of the potentially conflicted, self-interested agent by the principal, while collecting information about the agent and the task(s) being undertaken is costly, uncertain, incomplete, and asymmetrically distributed among the parties (Oviatt, 1988).

Eisenhardt (1989) argued that agency theory is concerned with resolving two main problems that can occur in agency relationships:

The problem that arises when the agent's interests deviate from those of the principal and the cost to the principal (effort and expenses) in establishing and monitoring what the agent is actually doing, in ensuring that the agent is behaving appropriately.

The problem that arises when the principal and agent have different attitudes towards dealing with risk and thus have different opinions in which the risk is to be mitigated.

However, for the principal the resolution of these issues is problematic, due to the asymmetry of information favouring agents and in dealing with the issues arising out of this information asymmetry and agent opportunism, researchers have identified the two main issues that a principle are forced to deal with in eliminating agent opportunism; the cost of monitoring and the cost of metering (Sharma, 1997).

From this agency theorists have developed two broad ways in which principals are able to positively influence efficiency from the agent. The first is for the principal to implement mechanisms to monitor the agent's behaviour to ensure that the agent is actually doing what he/ she is supposed to be doing, reducing the information asymmetry between the principal and the agent. Such as, introducing a supervisory role to monitor the agent's behaviour, however, implementing such information gathering mechanisms incur a substantial cost and therefore should only be implemented when it is certain that by implementing these measures the principal will benefit from improved efficiency from the agent. Alternatively, if it is not possible for the agent's behaviour to be monitored, the principal can instead implement a solution that focuses on the agent's actual performance, measured by the outcome of relative expectations. However, due to the fact that outcomes are only partially dependent on the performance of an agent but also determined by other factors not within the agent's control, including quality of materials and equipment and other uncontrollable factors, such a solution, effectively transfers risk from the principal to the agent. In this situation the implementation of this solution then demands that the principal invest in mechanisms that are able to sort through and measure the effect of all the factors, other than the agent's effort, that contributed to the eventual outcome (Sharma, 1997). Despite these mechanisms available to principals to safeguard against information asymmetry and agent

opportunism, these issues still remain a concern, particularly in principal-agent relationships such as attorney-client, builder-owner, and doctor-patient, where skilled agents serve less-skilled and knowledgeable principals (Sharma, 1997).

However, challenging the agency theory premise, of the opportunistic, self-interested agent, Perrow (1986) argues that this is an unrealistic belief, that takes for granted the existence of a flexible, fluid, labour market, which would allow the agent to look elsewhere for job opportunities, in the instance that it is the principal that cheats. Perrow (1986) points out that just because agents tend to stay, this is not conclusive evidence that principals are not in fact themselves the cheaters but could rather be an indication that the labour market is not as flexible and fluid as agency theory assumes, because in reality the principal has the power to fire the agent and replace him/ her with another and therefore, an unequal power balance must be acknowledged, in favour of the principal. Once this point is accepted, it becomes evident that given self-interested behaviour, the principal has more opportunities to exploit the agent by either by breaking the contract, or not including in the contract matters that infringe on their self-interest.

As agency theory has developed it has diverged along two similar but distinct streams: positivist and principal-agent (Jensen, 1983).

2.5.1. Positivist Agency Theory

Positivist agency theory focuses on identifying circumstances where conflicting objectives are likely to arise between the principal and agent and then develop mechanisms to curtail the agent's self-interested behaviour (Eisenhardt. 1989).

2.5.2. Principal-Agent Theory

Principal-agent theory on the other hand focuses on the actual principal-agent relationship and determining the most appropriate contract between the principal and the agent. Principal-agent theory assumes a scenario where the objectives of the principal and agent are unaligned, an easily measured outcome, and a risk averse agent. The rationale behind a risk adverse agent is the assumption that an agent is unable to diversify their employment and is therefore likely to be risk averse, whereas, the principal is assumed to be able to diversifying their investments and therefore is considered risk neutral (Eisenhardt, 1989).

In the scenario where the principal understands what the agent is doing, the principal is in effect buying the agent's behaviour and it follows that a contract based on the agent’s behaviour would be the most efficient. Whereas in the instance the principal who does not know or understand exactly what the agent is doing, factoring the high chances of agent behaving in a self-interested manner, an outcome based contract would be more appropriate, as (a) the principal and the agent may have different objectives and/ or (b) the principal cannot determine if the agent has behaved appropriately, this is defined as moral hazard (Eisenhardt, 1989).

2.5.3. Agency Theory and Organisation Theory

Agency theorists have defined organisations as "legal fictions which serve as a nexus for a set of contracting relationships among individuals" (Jensen and Meckling, 1976: 310). The contractors and stakeholders, are suppliers of the factors of production. The manager (agent) coordinates the contracts, initiating and implementing exchanges between the nexus of shareholders, creditors, employees, customers, suppliers, and other stakeholders (Fama and Jensen, 1983).

Similarities between organisational theory and agency theory exist, especially between contingency theory and agency theory, as both are information theories, based on the assumption that individuals are boundedly rational and information is asymmetrically distributed throughout the organisation. However, where contingency theorists are concerned with the structure, reporting relationships and decision-making responsibilities, agency theory is concerned with the structure of control relationships, resulting from reporting and decision-making patterns (Eisenhardt, 1989).

Eisenhardt (1989) asserts from an agency theory perspective, organisational life is based on self-interest. Organisations are seen as having uncertain futures, to a large extent due to the unpredictable nature of the environment, and agency theory expands organisational theory by linking outcome uncertainty to the associated risk implications, "the implication is that outcome uncertainty coupled with differences in willingness to accept risk should influence contracts between principal and agent" (Eisenhardt, 1989: 65).

2.5.4. The Professional Agent

The importance of professional service organisations has grown in the modern economy, where such organisations deploy knowledgeable personnel to facilitate economic exchange (Sharma, 1997). Shapiro (2005) points out that although principal-professional relationships are similar to agency relationships in nature (i.e. self-interest and bounded rationality), there are also distinct differences. Particularly that with professionals acting as agents, there is not only a division of labour but also of knowledge, highlighting that the importance of knowledge does not play a major role in the traditional agency model, but is a major factor in the principal-professional relationship. "The knowledge asymmetry favouring professional agents undermines, in turn, principals' prerogative to design and enforce agreements vested in them from a fundamental reliance on property rights in agency theory" (Sharma, 1997: 759).

In addition to the difference knowledge plays in the principal-professional relationship compared to the principal-agent relationship, other distinctions between the professional and the agent as viewed from the perspective of agency theory, are that although professionals participate in the market (i.e., selling their services in return for compensation as agents do), as Freidson (1983: 19) states, "most sociologists have been inclined to see professions as honoured servants of public need, conceiving of them as occupations especially distinguished from others by their orientation to serving the needs of the public through the schooled application of their unusually esoteric knowledge and complex skills" (Sharma, 1997). In addition, professionals "are embedded in the community of their respective

professional bodies" (Sharma, 1997: 759), dispelling the image of the autonomous agent prone to maximizing their own interest at the expense of principals but rather the softer mixed image. Sharma states "knowledge power and social embeddedness are, in short, two distinctive attributes of professional work that do not lend themselves readily to pure agency theory without modification of some basic assumptions" (1997:759).

2.5.5. Power Asymmetry

The idea of power being vested in the principal is fundamental to agency theory, where the principal in the typical agency theory scenario has the power to influence the exchange. Therefore, one of the main distinctions between agency theory and principal-professional relationship is its undermining of the key assumption of agency theory that principals have the power to design and enforce contracts. Harrison White (1985) writes, "control remains the purpose of agency" (1985: 187), "meaning assuring that the principal's actions and work get done among and by people" (1985: 189). He continues, "Control needs engender in the construction and use of agency relations ... and the root source of agency is the desire of authority to enlarge the reach of its full control" (1985: 204, 208) (Sharma, 1997).

Whereas, "principal-professional exchanges are inherently those in which professionals have power over principals by virtue of their expertise, functional indispensability, and intrinsic ambiguity associated with the services they provide" (Sharma, 1997: 768). The information asymmetry of the principal-professional relationship shifts the power balance between the principal and the professional, as the principal does not possess the technical knowledge to evaluate the effort invested or the outcome accomplished by the professional, which is different from the information asymmetry of agency theory, where the information asymmetry in the principal-professional relationship arises from a difference in task-related knowledge (Shapiro, 2005). As Sharma (1997: 768) succulently puts it "Not knowing how the agent does a job is distinctly different from and compounds the problem of not knowing what the agent does".

In such circumstances where the principal does not have the task-related knowledge of their agents' profession, the principal will also ultimately not know the standards of practice required to be applied to accomplish and assess the successfulness of the desired outcome. Leaving the professional not only to decide how and what is to be done but also to decide based on his professionalism whether the minimum standards of practice have been met. As a result, the power asymmetry assumed in agency theory is reversed in principal-professional agency (Sharma, 1997, Alvesson, 2001).

In contrast, to agents described in mainstream agency literature, the work of professional agents is typically done in consultation with their clients, the principal, to create the end product, bring factors such as social influence, interpersonal attraction, and trust to play much more significant role. This active participation of principals in the production of the end product is another key distinguishing feature of principal-professional agency (Sharma, 1997).

Although principal-professional agency makes use of many of the assumptions of agency theory, the numerous distinctions are outlined in Tables 2.1 and 2.2 below (Sharma, 1997):

Table 2.1: Theoretical assumptions, professional and manager

Assumptions	Principal-Professional	Owner-Manager
Self-interest	x	x
Bounded rationality	x	x
Altruism	x	o
Social embeddedness	x	o
Risk aversion	o	x
Efficiency as effectiveness criteria	x	x
Partial goal conflict	x	x
Information asymmetry	x	x
Information as a commodity	o	x
x is assumption made, o is assumption not made		

Sharma, A. (1997). Professional as Agent: Knowledge Asymmetry in Agency Exchange. The Academy of Management Review, 22 (3), 773.

Table 2.2: Professional versus Manager

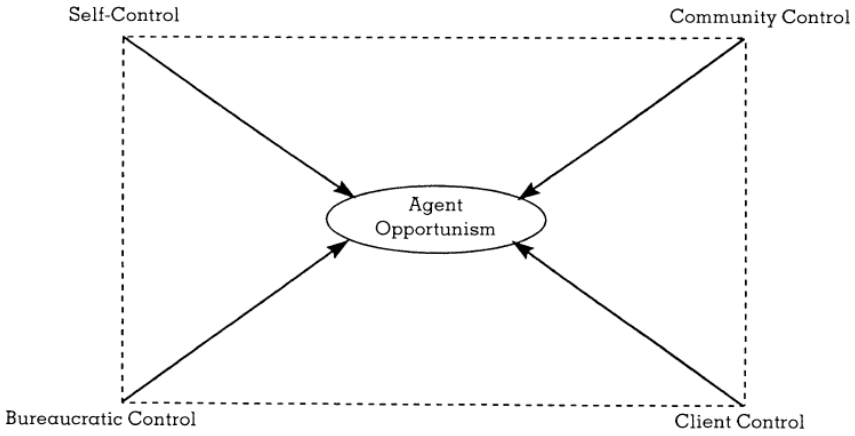
Dimension	Principal-Professional	Owner-Manager
Unit of analysis	Exchange between lay principal and professional agent	Contract between principal and agent
Problem domain	Relationship in which lay principal and professional agent engage in a knowledge-intensive task. The two parties have differing risk preferences and partly conflicting goals.	Relationship in which the principal and agent have partly differing goals and risk preferences.
Key idea	Principal-professional relationships should efficiently accommodate power asymmetry arising from knowledge gap in agent's favour.	Principal-agent relationships should reflect efficient organisation of information and risk-bearing costs.
Human assumptions	Mixed motive (altruism and self-interest) Bounded rationality Social embeddedness	Self-interest Bounded rationality Individual autonomy Risk aversion
Organisational assumptions	Partial goal conflict Efficiency as the effectiveness criterion Knowledge asymmetry Coproduction of services involving both principal and professional	Partial goal conflict Efficiency as the effectiveness criterion Information asymmetry Agent delegated the task by passive owner principal
Assumption about oversight	Community peers	Market (corporate control/ reputation)
Information assumptions	Incomplete market for esoteric knowledge - not a commodity	Information as a purchasable commodity
Contracting problems	Agency (indeterminacy and opacity of behaviour)	Agency (moral hazard and adverse selection)

Sharma, A. (1997). Professional as Agent: Knowledge Asymmetry in Agency Exchange. The Academy of Management Review, 22 (3), 774.

2.5.6. Restraints on Agent Opportunism

In Figure 2.1 below, Sharma (1997) illustrates four broad restraints on potential opportunistic behaviour specifically applicable to of professional agents.

Figure 2.1 Restraints on Agent Opportunism



Sharma, A. (1997). Professional as Agent: Knowledge Asymmetry in Agency Exchange. The Academy of Management Review, 22 (3), 775.

Self-Control: Sharma (1997) argues professional agents are driven by numerous motives that include not only self-preservation in the form of self-interest but also pride in their craft and a calling to serve the public.

Community Control: Sharma (1997) contends that community control, in the form of control by knowledgeable peers is often an effective deterrent to opportunistic inclinations of unscrupulous professionals.

Bureaucratic Control: Bureaucratic control as a restraint mechanism relies on the overseeing of professionals by their superordinates within the organisational hierarchy (Sharma, 1997).

Client Control: Client control is described as the governance mechanisms that the lay principals can implement to deter opportunism by professionals (Sharma, 1997).

In conclusion, when making the "make-or-buy" decision, organisations are required to make trade-offs between economic benefits of using alternative sourcing strategies, against the associated agency costs/ transaction costs incurred to achieve them.

Agency theory is rooted on the premise of the self-interested agent who will prioritise his interests over the principals for personal gain, requiring the principal to compare the relative cost of implementing mechanisms/ contracts to monitor the agent's behaviour to reduce information asymmetry between the principal and the agent, against the benefits of the improved efficiency of the agent. However, subsequent researchers have contested this view, arguing that it is too narrow and unrealistic, ignoring

labour demand fluctuations, taking for granted that the agent is able to diversify their employment and therefore they cannot be subject to the actions of a self-interested principal.

The comparatively newer concept of the professional agent, equipped with skill and knowledge has subverted the fundamental agency theory assumption of the purely self-interested “agent”, characterised by the typical agency relationship of principal-agent and the balance of power residing in the principal, most notably with the introduction of the principal-professional relationship, which although similar to agency relationships in nature (i.e. self-interest and bounded rationality), shifts the balance of power due to the knowledge asymmetry favouring professional agent.

2.6. Transaction Cost Theory

A common reason cited for implementing outsourcing is that it is felt that under certain circumstances, there are cost benefits that can be achieved by appointing an external party to undertake certain services or produce certain products (Alpar and Saharia, 1995). Although not the only factor in the decision, transaction cost theory (TCE) is commonly used to explain why outsourcing takes place i.e. why some organisations choose retain certain activities internally, while others choose to outsource the same function to external parties (Everaert et al, 2010), framing outsourcing as the setting of firm boundaries (Mosakowski, 1991).

The central paradigm of transactional cost theory is based on the notion of the self-interested agent (Oviatt, 1988), where in the pursuit of their interests, which at times may deviate from of the contracting organisation, the contracting organisation incurs costs in supervising, coordinating, and monitoring their activities, known as transaction costs.

Business organisations are considered ‘production functions’ in neoclassical economics, (Ang and Straub, 1998), driven by profit-maximization (Williamson, 1981). Providing products and services in markets where they have a cost advantage and simultaneously relying on the market for products and services where they have a comparative cost disadvantage (Ang and Straub, 1998), further elaborating that organisations acquiring products and services from the market place treat the economic “make or buy decision”, as a decision between internal production costs and the price offered in the market for the same products and services, "the higher the comparative production cost advantage offered through [outsourcing], the greater is the degree of outsourcing" (Ang and Straub, 1998: 537). As with any other organisation, the outsourcing of project management services introduces additional effort and costs in supervising, coordinating, and monitoring the activities of the external party (i.e. transaction costs) to the client organisation, that would otherwise not exist if the client organisation had chosen to retain these services in-house (Ang and Straub, 1998). Therefore, transaction cost can be seen to be inversely proportional to the likelihood of outsourcing, where the lower the transaction costs, the higher the likely degree of outsourcing will occur.

Similar to agency theory TCE is hinged on the idea of the self-interested agent, although highlighting different aspects (Oviatt, 1988) of this behaviour. The framework of TCE is based on the assumption that the parties to a transaction are intendedly, but rationally bounded, where some are opportunistic or

untrustworthy (Williamson 1985), where the measurement and equitable distribution of tasks and rewards to the different parties involved in the transaction is recognized as a pivotal issue (Maitland et al, 1985). Therefore, similar to agency costs in agency theory, the transaction costs of negotiating, monitoring, harmonizing, and enforcing contracts between the parties are incurred by each party, in their attempt to ensure that their interests are protected. Reducing transaction costs is therefore a major objective of every party. The problems of accomplishing this objective are similar to the problems highlighted by agency theory (Oviatt, 1988). In contrast however, TCE recognises the influence of authority relationships and goes against the agency theory premise of viewing organisations as simply a series of contracts between parties, instead recognising internal behavioural issues associated with organisations (Perrow, 1986).

In the field of TCE the term transaction cost refers to the cost incurred during an economic transaction. Jones, (1987) explains a transaction as an exchange of a good or service across a defined organisational /firm boundary, and it is the basic unit of organisational analysis in the theory. Transaction costs can then be narrowed down into three categories (Dahlman, 1979):

1. Search and information costs incurred in the process of searching for and gathering information on products i.e. establishing whether a product or service is available on the market.

2. Bargaining costs are the costs incurred in coming to an acceptable agreement with the other party, i.e. negotiating terms of a contract.

3. Policing and enforcement costs incurred in enforcing the terms of the contract i.e. legal action.

As per the definitions above Donaldson (1990), frames transaction costs as the costs resulting from the exchange of goods and services in scenarios of imperfect information, giving parties involved in the exchange opportunities to act opportunistically, where each party is then required to introduce mechanisms to most effectively handle the transaction, towards the aim of eliminating or at least minimising these costs.

Coase (1988) claimed "the existence of transactional cost leads those who wish to trade to engage in practices which bring about a reduction of transaction cost whenever the loss suffered in other ways from the adaptation of those practices is less than the transaction cost saved" (Walker, 2002: 51). Simplified this means, organisations will either trade with firms that already exist in the market or expand their own organisation to cope with the additional trade, depending on which option results in lower transaction costs i.e. an organisation will go to the market for the goods, services, etc.., it needs rather than provide them from within, when the transaction costs in doing so are lower, vice versa. (Walker 2002).

The sources of these transaction costs are the transaction difficulties that may occur during the exchange process (Klein et al, 1978). Jones and Hill (1988) summarise the six main factors producing transaction costs as:

1. *Bounded rationality* – Where rational behaviour is limited to one's ability to process information.

2. *Opportunism* - Self-interest seeking behaviour.

3. *Uncertainty and complexity* - Where uncertainty refers to changes in the environment that cannot be forecasted or controlled.

4. *Small numbers* – Talks to the phenomenon where once long-term contracts have been established between two contracting parties (i.e. supplier and customer), the normal market environment is disrupted. As the contracting parties are advantaged because they have more experience with the other party, as well as, more specialised resources to serve it, than those in the market.

5. *Information impactedness* - Talks to the issue that information pertaining to a transaction, or set of transactions, is often asymmetrically distributed between the parties to an exchange. Thus, one party might have more knowledge than another.

6. *Asset specificity* - This refers to investment in assets which are specific to the requirements of a particular exchange relationship. For example, by working for a firm in a certain functional position, specific skills may be developed, that job seekers outside the organisation would not have (i.e. specific assets), and this gives rise to bargaining power.

Simply put transaction costs arise as a result of the differing degree to which specific assets are involved (asset specificity), the degree of uncertainty about the future (environmental uncertainty), the amount of uncertainty about other parties' actions (behaviour uncertainty), and the frequency with which a given transaction occurs (Klein, 2005).

Exchange processes with the presence of different combinations of these factors results in various types of transaction costs. However, bounded rationality and opportunism are ever present factors, where bounded rationality creates a problem because of opportunism (Jones and Hill, 1988).

The imbalance in information/ knowledge between transacting parties allows opportunistic behaviour to take place (Perrow, 1986 and Donaldson, 1990), in the instance between the relationship between a client and the outsourced project manager, for example, the client is unable to easily ascertain the validity of the claim of the project manager that construction material problems delay deliveries and the client is unable to costlessly turn to another project manager. Such a situation could be theoretically prevented against by putting in place a comprehensive contingent claims contract signed by both parties, however, bounded rationality in an uncertain and complex world make this impossible or prohibitively expensive to achieve (Jones and Hill, 1988), such instances where transaction costs are

too high to implement are called "market failures", to try and prevent market failure situations, organisations can opt for in-house solutions; the rational being if the external firm is internalised it can be controlled; eliminating the opportunity for opportunistic behaviour, thus, reducing the requirement of associated contracts to prevent opportunistic behaviour, however incurring additional agency measuring costs (Perrow, 1986).

As such, it becomes apparent the firm boundary choice in TCE becomes of primary strategic importance and the theory has emerged as a predominant theoretical explanation of boundary choice (Poppo and Zenger, 1998), where boundary choices are determined by the ownership and composition of valuable, unique skills and resources (Collis and Montgomery, 1995), which give the organisation a competitive advantage (Chesbrough and Teece, 1996).

Everaert et al (2010) note as with the numerous empirical studies using the TCE framework that have investigated the outsourcing of production activities in firms and concluded that asset specificity plays a major role in the outsourcing decision, similarly in studies where the TCE framework was also used to explain the outsourcing of service oriented activities (although not as numerous as the former), such as in human resources, IT and accounting, not only were both asset specificity (human capital) and behavioural uncertainty significant in explaining entry mode (i.e. independent agent versus employees) but also transaction frequency. However, Vandaele et al. (2007) and Klien (2005) suggest in addition, to better understand the outsourcing decision of services, more emphasis should be placed on alternative theories of the firm such as firm capabilities.

2.6.1. Asset Specificity

Asset specificity, defined as the degree to which assets used in specific transactions can be reused in alternative transactions without loss of productive value (Williamson, 1991), can manifest in a number of variations, of which the most commonly observed are physical and human specificity (Grover and Malhotra, 2003). Physical asset specificity describes physical assets such as purpose made machinery, equipment and tools whose specificity is related to their physical features (Heide and John 1990). Whereas human asset specificity refers to “the learning-by-doing concept or the chronic problems of moving human assets” (Vandaele et al, 2007: 17), relating to the extent to which human attributes such as; knowledge, training, skill and experience are firm specific (Claro et al, 2003). In line with the increasing dominance of business services transactions in tertiary industries of modern economics, human asset specificity is becoming the more dominant type of asset specificity (Claro et al, 2003).

Proponents of TCE argue that it is supported by empirical evidence that indicates that boundary choices are largely driven by asset specificity, both when studied within a single industry and in cross- sectional studies (Everaert et al, 2010), which elicits opportunistic behaviour necessitating costly safeguards to deter, making in-sourcing the preferable sourcing strategy option (Poppo and Zenger, 1998). However, in recent years the TCE view, which emphasizes internalisation as an efficient strategy in protecting relationship specific investments and mitigating other potential conflicts under incomplete contracting (Everaert et al, 2010) has been questioned and alternative knowledge based theories such as the

capabilities approach have gained popularity, instead arguing that the link between asset specificity and boundary choice has little to do with opportunistic behaviour and market failures but instead of rather causing market failure, that an increase in firm specific activities, promotes the efficiency with which such activities are coordinated through internalisation (Grant, 1996).

Although both TCE and knowledge-based theories, such as capabilities approach are based on the assumption that for efficient production the firm needs specialised asset investments (physical and human), to reduce production costs and innovate (Poppo and Zenger, 1998), the two perspectives, however, diverge in their views of the effects of asset specificity. TCE sees asset specificity as the cause of market failures, as specific assets are of less value in alternative use, where the overall, net effect of specific assets in market exchanges is enhanced production efficiency but increased transaction costs, or as Vandaele et al (2007:18) put it, "a higher degree of asset specificity requires greater safeguards included in the exchange to guard against opportunistic behaviour. As a result, the exchange governance should move away from the market towards more specialised forms of governance because these minimize transaction costs". Whereas, knowledge-based theories view specific assets, especially human assets, as an integral component to the performance of the firm, as the source of invaluable knowledge, skills and capabilities (Barney, 1991) enhancing the governance efficiency, instead of increasing governance costs as theorised by TCE (Monteverde, 1995).

Therefore, although TCE and knowledge-based theories predict similar outcomes concerning boundary choice. Knowledge based theory predicts that the effect of asset specificity on organisational performance is positive. Whereas TCE suggests that the effects of asset specificity on performance of market exchanges will be negative.

2.6.2. Measurement Accuracy

TCE's focus on asset specificity has also been critiqued by agency theorists, who put forward that the firm boundary choice is instead based on measurement issues; arguing internalisation avoids costly measurement and contracting costs (Poppo and Zenger, 1998). When the productivity of an external supplier cannot be accurately determined, the required contracts, due to bounded rationality, uncertainty and complexity, will be costly (Milgrom and Roberts, 1992). Under these circumstances the purchasing party, has one of two options, the first is to either commit resources to improving performance measurement or alternatively accept the risk of lower performance due to their inability to accurately measure and reward performance, which is consistent with agency theory (Poppo and Zenger, 1998). However, that is not to say the internalisation of an activity completely negates the need to measure its performance. As Milgrom and Roberts (1992) argue, agency theory also suggests that the performance of an internalised activity still depends significantly on the ability to measure its performance accurately.

Viewed from this perspective, the choice of sourcing strategy implement becomes of little importance, if measurement difficulty damages the performance of both markets and firms (Fama, 1980) and measurement accuracy only relates to the performance of the organisational structure regardless of the

sourcing option implemented. As measurement accuracy will have similar effects on performance of both market and integrated transactions. However, Holmstrom and Milgrom (1994) highlighted distinct differences in the effects of measuring accuracy between market and internal transactions, arguing that measurement inefficiency has a more detrimental effect on the performance of markets than firms, because in firms when measurement accuracy becomes problematic, firms are to replace authority and behavioural monitoring systems, whereas markets lack this capacity. However, where efficient performance measuring is possible, markets are able to deliver incentives through prices where firms cannot, therefore in instances where performance measurement is highly accurate, markets are preferred (Poppo and Zenger, 1998).

In line with the predictions of agency theory's agency costs, the degree of difficulty in measurement accuracy is therefore also a determinant in both governance performance of both market and integrated transactions, where internal performance measurement difficulty typically results in lower internal performance assessments and even though firms, unlike the market, are able to centralise decision making and implement behavioural monitoring systems to mitigate measurement problems, these mitigation strategies fail as output measurement becomes more inaccurate (Poppo and Zenger, 1998).

2.6.3. Uncertainty

Uncertainty in TCE is strongly linked with behavioural and environmental factors (Rindfleisch and Heide, 1997), where behavioural uncertainty relates to the problems associated with monitoring and evaluating the performance or quality of service rendered (i.e. transaction costs) (Donaldson, 1990 and Cannon et al, 2000). Environment uncertainty is associated with transacting parties' inability to forecast changes in the external environment (i.e. market conditions (Joshi and Stump, 1999).

However, Vandaele et al (2007) highlight that behavioural and environmental have different effects on different types of transactions. Explaining that due to the people-oriented nature of services transactions, behavioural uncertainty tends to play a more significant role, as in these transactions accessing the standard of delivery of the other party tends to be much more difficult, and as such, service-oriented firms respond much more to behavioural uncertainty, than manufacturing-oriented firms would (Vandaele et al, 2007). On the other hand, because services-oriented firms are typically less investment intensive and therefore require comparatively less resources than manufacturing orientated firms (Erramilli and Rao, 1993), they tend to be less affected by technology and material related uncertainty than manufacturing-oriented firms (Brouthers and Brouthers 2003). Generally, uncertainty in TCE affects transactions in the presence of asset specificity, however, due the associated difficulties in evaluating the other parties' performance, coupled with less tangible and more people intensive nature of service oriented firms, behavioural uncertainty is expected to influence transactions beyond the asset specificity, whereas environmental uncertainty will be expected to increase transactional costs by increasing the cost of developing and implementing efficient contractual agreements (Vandaele et al, 2007).

The prevailing logic shift in TCE from manufacturing to services (Vargo and Lusch, 2004) has influenced the general understanding of transactions, particularly the role of asset specificity and uncertainty (Vandaele et al, 2007), whereby due to the increasing move towards tertiary industries, associated with specialised skill and knowledge, capabilities specific investments will have a greater impact on transactions in services oriented business settings like project management (Vandaele et al, 2007).

2.6.4. Production costs and economies of scale

The main trade-off that occurs in TCE when activities are internalised is between asset specificity and economies of scale or scope, where there is a strong correlation between the size of an organisational and the sourcing decision implemented (Lyons, 1995), where smaller organisations tended to find it harder to achieve economies of scale and therefore tended to keep activities in-house (Lacity and Hirschheim, 1995). Ang and Straub (1998) found in their study, looking into production and transaction costs associated with information systems in the banking industry, that outsourcing challenged organisations that were trying to keep their independence and retain their organisation's unique capabilities, while being cognisant of the fact that they at times need to form inter-organisational relationships to obtain the resources they need to remain competitive but also challenged both organisations and their service providers in realising the real costs and savings promised by outsourcing.

Both TCE and the knowledge-based theory acknowledge the role production cost differences play in determining boundary choices (Demsetz, 1988), where logic dictates that firms will produce internally the ‘things’ that they are able to produce efficiently, and the differences between different firms’ production efficiencies is the result of the difference in scale and production capabilities (Poppo and Zenger, 1998). Knowledge or capabilities-based reasoning suggests that firms chose to internalise activities in which their superior capabilities enable efficient production and outsource the activities where they lack superior capabilities, "decisions to internalise both facilitate such specialised investments and once capabilities are formed, protect them from appropriation by other firms" (Poppo and Zenger, 1998: 861). Whereas, TCE logic suggests that capabilities are simply the out-growth of firm specific investments (Argyres, 1996).

However, production efficiency in many cases is scale sensitive, where large internal scale increases the probability of efficient internal production and thereby encourages internalisation and small internal scale limits internal production efficiency and encourages outsourcing. Scale dependent production efficiency will also be influenced by the extent a specific skill set is required to perform an activity efficiently. The more complex the skill set, the less likely that there will be sufficient internal demand for it, to justify the continued internalisation of the skill set. Therefore, barring all other factors, as the skills required to perform an activity increase in complexity, the efficiency of the internally sourced activity will tend to decline (Poppo and Zenger, 1998). In addition, the incentive to keep up to date with escalating complexity of skill sets differ between internal and external suppliers; external firms have much stronger incentives motivating them to continuously update their skill sets in order to remain competitive, whereas, this does not necessarily apply to an internal provider, as they have captive demand (Poppo

and Zenger, 1998). Therefore, putting asset specificity to the side one can summarise the above as follows; the extent of the skill set required to efficiently carry out an activity is directly proportional to the improvement in the performance of the market transaction for the same activity because in market exchanges, increasing demand on a particular skill set is linked to the increased development in the skill set competencies. However, for internalised activities, this is less likely to be the case, and instead as the complexity of skills required increase this may lead to dissatisfaction with internal performance, because skill sets are viewed as increasingly outdated (Poppo and Zenger, 1998).

Therefore TCE, like agency theory, also ultimately acknowledges that it is too costly, or even impossible, for clients to completely protect their interests. Therefore, firms will only invest in transaction (or agency) costs encompassing the costs of negotiating, monitoring, and enforcing contracts that arise from opportunistic behaviour, against production costs and differences in scale or production capability, up to the point where these costs equal the value of protection gained against the opportunism of other parties and measuring difficulties of the goods or services being exchanged, with the ultimate aim of maximising performance through the minimisation of transaction and production costs (Poppo and Zenger, 1998).

2.6.5. Transaction Cost Theory & Project Management

Transaction cost theory is particularly useful when looking at the decision organisations make to either appoint a project manager from within the organisation or outsourcing the project management services from an external firm because the central aim of the theory is to explain how the characteristics of a transaction between two parties lead to the implementation of different organisational structures for managing the transaction. Although typically transaction cost theory looks at the transactional exchange between organisations, it can also be applied to transactions between clients and organisations (Jones, 1987).

In his study, Organisation-Client Transactions and Organisational Governance Structures, Jones (1987) central argument is that the characteristics of the client organisations affects the organisational structure of the organisation it is transacting with because to achieve efficiency organisations are required to manage and economise the transaction costs between themselves and the client. Citing a potential way for organisations to achieve this is by using an organisational governance mechanism that reduces the uncertainty surrounding transactions (Jones, 1987). Thompson (1967) highlighted that the main problem client organisations faced in managing transactions was managing the exchange process across organisational boundaries (Naoum, 2001). Where the organisational structure ultimately implemented was dependent on the uncertainty characteristics of the client-organisation relationship and the nature of the transaction (Jones, 1987). As such, transaction cost theory becomes directly applicable to understanding how different forms of organisational structures arise.

It is generally accepted that both parties engaged in a transaction need to benefit from a transaction for it to take place. In this context (Vandaele et al, 2007) highlighted the issue of transaction uncertainty and performance ambiguity as an additional two characteristics of transactions that lead to transaction

costs. Transaction uncertainty relates to the elements that incur a cost to the organisation involved in a transaction, which are proportionately linked to the riskiness (i.e. un-standardised/ unpredictability) of a transaction. There are three aspects of transaction uncertainty an organisation may experience; specificity, infrequency and duration (Williamson, 1991).

Transaction specificity is the degree to which one party has made a transaction specific investment with the other party, where an organisation must adapt their production to suit the needs of particular a client i.e. an architect designing a custom building. Specific investments increase the transaction uncertainty and in turn increase the transaction costs that the organisation will have to incur in the process of collecting the required information and knowledge to manage an exchange relationship and prevent opportunism (David and Han, 2004).

Transaction infrequency (small numbers) relates to how often transactions occur between the two parties, where the more frequent the transactions, the lower the uncertainty and costs of the exchanges. When exchanges between two parties are frequent, the parties become accustomed to transacting with each other based on their history, reducing the risk of opportunism. Whereas, the more infrequent transactions, the higher the transaction costs due to the unpredictability of the demands of the other party and the costs of negotiating and policing (Jones and Hill, 1988).

Transaction duration (related to information impactedness) relates to the amount of time required to finalise a transaction. When one party finds it difficult to assess the quality of the other parties output, or when extensive face-to-face interaction is required between the two parties, the conclusion of transactions will be prolonged, resulting in higher transaction costs due to the quantity of information and knowledge that must be exchanged to complete the transaction (Jones and Hill, 1988). Therefore, the more specific, infrequent and longer transactions occur, the higher the uncertainty and costs (Jones (1987).

Again, as with Agency theory, TCE, assumes the self-interested agent, is prone to opportunism with guile (Perrow, 1986) and in this context performance ambiguity relates to one party's ability to monitor and evaluate the other party's performance to ascertain the value of the exchange (also related to information impactedness), similar to the characteristic of the principal in a principal- agent relationship i.e. leading to transaction costs experienced by the principal (Jones (1987). As discussed in agency theory, it is often difficult for the principal to monitor and assess the quality of performance received from an agent, especially if the agent is a specialist (i.e. a professional) in the service or goods that they are providing. Under such conditions, the party lacking knowledge (i.e. the principal) would likely perceive a high level of uncertainty and risk in the exchange process. Resulting in higher transaction costs for both parties, as both parties would have to incur the information costs of ensuring equity in the transaction (Jones, 1987).

"Transaction uncertainty and performance ambiguity affect levels of transaction costs at organisational boundaries" (Jones, 1987: 202). When transaction uncertainty and performance ambiguity are low, the client organisation has little difficulty in evaluating the quality of the goods and services they receive, as

the costs of negotiating, monitoring, and enforcement are minimal. However, when transaction uncertainty or performance ambiguity is high, the client organisation experiences difficulty in evaluating the quality of the product or service they receive and in turn there is a proportionate increase in transaction costs (Vandaele et al, 2007). To control performance ambiguity, the agent organisation is required to provide the client organisation with more information and take steps to increase its visibility to the client organisation. In response to high transaction uncertainty and the unpredictability of a work process the agent organisation, to provide greater transparency to the client organisation, will have to employ specialised individuals (i.e. professionals), leading to increased agency costs to the client organisation. Therefore, increases in transaction uncertainty and/or performance ambiguity leads to the implementation of more complex organisational structural forms as organisations attempt to economise transaction costs (Donaldson, 1990).

2.6.6. Project Organisations, Project Management and Transaction Costs

As discussed in the preceding section, the variety of organisational structures is a result of the attempt of organisations to economise transactional costs. Which provides insight into why various organisational/ firm boundaries are used to manage construction projects by different client organisations. Although transaction cost theory has predominantly focused on firms, it can also be used to analyse the project organisation, as a temporary multi-disciplinary organisation (Cherns and Bryant, 1984), where the economy of its coordination function should determine its form.

Walker and Chau 1999 (Walker, 2002: 249) assert that project organisation theory and TCE are linked "through project organisation theory defining the type and nature of transaction costs by modelling the process, and transaction cost economics providing a framework for analysing the behaviour of the different parties to a construction project".

Coase (1991) argued that Transaction costs theory can be applied at three levels of a project organisation; first at the overall structure level of the project organisation, looking at how the operating parts are related to one another. Next at the operating parts level, looking at which activities should be performed in-house and which should be outsourced and why and finally at the human assets level, looking at the manner in which they are organised to match the internal governance structures of the organisation (Walker, 2002).

"The transaction costs involved in providing governance through the market will include the cost of drafting contracts, setting up the mechanism for obtaining tenders, preparing other contract documentation and for ensuring the subsequent execution of the contracts by consultants and contractors. These are practical manifestations of the more abstract project management activities of integration, maintenance and monitoring" (Walker, 2002: 249).

Although, clients are theoretically able to define, design and construct a building entirely in-house, internalising both production and transaction costs, they rarely embark on this strategy and will only consider doing so when the sum of both the production and transaction costs are lower than buying these activities from the market (Walker, 2002). Perrow (1986) however, counters that there are also

transaction costs within the firm, in addition to those between firms, arguing that markets are typically more efficient in establishing prices compared to hierarchies, where the allocation of costs to various units is difficult and a highly politicised process.

Perrow (1986) argues that not all transaction costs are counted TCE, highlighting that uncertainty affects integrated activities as severely as it affects independent firms in the market including; fluctuations in demand and supplies, labour problems, problems with competitors, which at times may be in fact more difficult to resolve in an integrated firm. Perrow (1986) further argues by internalising activities usually outsourced, incurs costs and risks normally borne by the external supplier that must be dealt with internally, despite the fact that internalising typically results in less flexibility in dealing with these issues, due to long-term commitments relating to asset specificity within the firm. Therefore, typically clients will decide in the type of building they require and the strategy for obtaining it and source the required design and construction services from the market, incurring transaction costs in the processes, including the procurement of the services of a project manager to act on behalf of the client, although alternative configuration options of the integration of the project management are available, from being a service provided entirely from within the client's organisation, to a client's representative or an external consultant project manager. Transaction cost economics puts forward that economization of these costs takes place to determine how such activities are organised within the project organisation (Walker, 2002).

As project management costs are completely transactional costs incurred by the client, the function of project management is therefore to minimize any additional transaction and production costs that would otherwise be incurred. As such, the choice of the project organisation structure to be adopted for a project should be, at least in part, governed by establishing the holistic cost of the project including their internal costs in setting up the project, the cost of consultants including the cost of an external project management services, as well as, the production costs of designing and constructing a project (Walker, 2002). As part of assessing and balancing the full project costs, the client is also required to take into consideration the extent that the project, once complete, will fulfil their requirements; aesthetically, functionally, financially, as reducing transaction costs at the expense of higher production costs is not desirable either. Ultimately the decision that faces the client becomes one of how much risk they are willing to accept, against incurring additional transaction costs to minimise the possibility of unexpected costs. Organisation structures which increase project management costs can therefore only be justified if design and construction costs are reduced by a greater amount and the effectiveness of the project is enhanced or, if design and construction costs are held constant, by improving the effectiveness of the project (Walker, 2002).

As such, it becomes apparent the firm boundary choice in TCE becomes of primary strategic importance and the theory has emerged as a predominant theoretical explanation of boundary choice (Poppo and Zenger, 1998), where boundary choices are determined by the ownership and composition of valuable, unique skills and resources (Collis and Montgomery, 1995), which give the organisation a competitive advantage (Chesbrough and Teece, 1996).

2.7. Organisational Capabilities Approach

Traditionally a company's technical core was seen as a resource to be protected (Mehta and Peters, 2007) however, today due to the increasingly competitive environment nature of modern world economies, requiring firms to develop new organisational configurations (Mehta and Peters, 2007), outsourcing represents the disaggregation of the firm's value chain, combining the interchange between comparative and competitive advantages in determining the optimal location of value chain activities along the firm boundary (Mudambi and Venzin, 2010). In essence the phenomenon of outsourcing is defining the extent of economic activity to be retained within the firm boundary (Mehta and Peters, 2007). However, the phenomenon of outsourcing has introduced new threats to the firm, such as the loss or hollowing out of critical organisational capabilities by "casting other firms (partners) for different parts of its overall system of activities" (Mehta and Peters, 2007: 3).

As with all organisational theories, ultimately OC also tries to answer one of the most fundamental questions in strategy research; how firms should draw their boundaries? i.e. which capabilities to retain internally and which to outsource? (Reitzig and Wagner, 2010). Barney and Hesterly (2006) suggest that this decision is dependent on a variety of factors such as; the nature of the activity, its value contribution to the firm, it rarity and imitability, as well as, its potential for knowledge leakage (Sampson, 2004) and transactions costs (Murray and Kotabe, 1999). Jacobides and Winter (2005) are recognised as integrating TCE and OC based logic to study organisational structure, by identifying that in actuality that using the market is essentially using the capabilities of other firms willing to sell their organisational capabilities.

In the context of TCE, the term disintegration refers to the re-organisation of the organisational structure by externalizing non-core competencies and increasing focus on core areas of organisational and customer value, becoming more streamlined and flexible, focusing predominantly on the firm's core competencies to stay competitive and responsive under competition (Jacobides, 2005).

In their seminal paper, Prahalad and Hamel (1990: 81) describe a core competency (or capabilities) as an area of specialised expertise, "harmonising streams of technology [and] the organisation of work and the delivery of value" or simplified "core competencies are the things that some companies know how to do uniquely well and that have the scope to provide them with a better-than-average degree of success over the long term" (Gallon et al, 1995: 20).

Organisations typically comprise of a grouping of distinct set of activities, skills and disciplines called primary capabilities, which if imagined in a hierarchical "Competency Pyramid", are the base level and are foundation for the development of core competencies (Gallon et al, 1995).

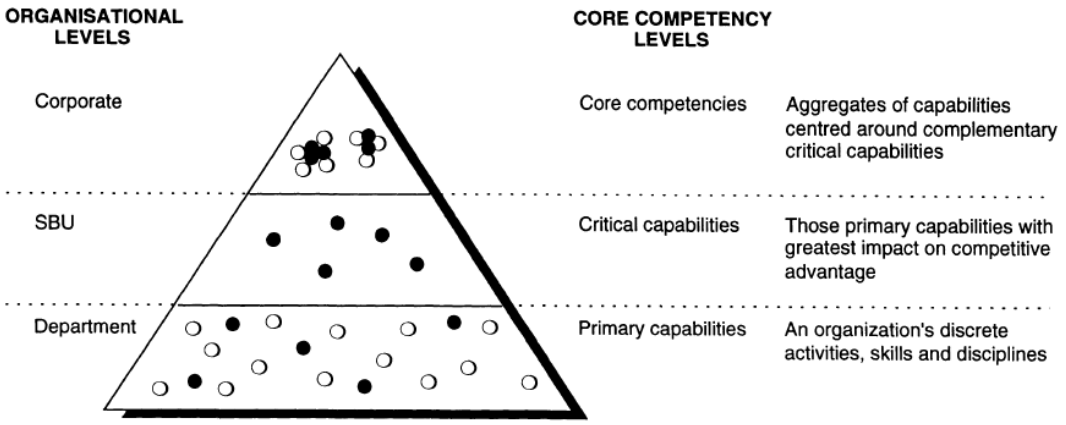


Figure 1—Core competency thinking involves a hierarchy.

Figure 2.2: The Competency Pyramid (Gallon et al, 1995: 21)

In this a hierarchical "Competency Pyramid" the second "level" of capabilities are called critical capabilities and are distinct from primary capabilities in that they directly influence the organisations competitiveness in their own right (Gallon et al, 1995). Then the final "level" of the "Competency Pyramid" are the core capabilities or core competencies, which are an aggregate of the critical capabilities below, "where synergy is created that has sustainable value and broad applicability" (Gallon et al, 1995: 21).

These core competencies or capabilities can be grouped under two general categories; core technical competencies (CTC's) where technology is the major determinant of uniqueness and core marketing competencies (CMC's) which relate to the critical skills associated with product management, pricing, communication, sales and distribution (Gallon et al, 1995). In this context the project management function in an organisation if developed to a point of excellence has the potential of becoming a CTC within the organisation, meeting all the requirements of a valid CTC, including:

1. Harmonising streams of critical technological capabilities to provide competitive advantage.
2. Its contribution translates into customer perceived value.
3. It is difficult to imitate.
4. It is extendable to new markets.

As discussed under TCE, outsourcing is a 'make-or-buy' decision in many organisations, however, outsourcing, in the short term, possess the risk of diluting the organisations internal capabilities and increasing transaction costs, while its long term effect is increasing competition against the firm by "diffusion of best knowledge, skills and competencies to other players in the field through the service companies" (Mehta and Peters, 2007 : 33) and as such, the benefits of outsourcing have to be weighed

up against the transaction costs of managing alliances, while ensuring that the organisations strategic interests are protected. Liesch et al (2012) argue the sourcing strategy option ultimately selected by an organisation is dependent on the following factors; the nature of the specific activity in question, its value contribution to the firm, uniqueness and imitability, its transactions costs, potential for knowledge leakage and its contribution versus overall costs borne by the organisation.

Kedia and Mukherjee (2009) distinguish outsourcing and in-sourcing as alternative approaches for completing specific transactions, where outsourcing of certain transactions generates economic value through the reduction of costs by accessing the capabilities of specialised suppliers, balanced against the transaction costs that arise from contracting with external parties. Where generally firms tend to prefer outsourcing non-core activities to external, independent suppliers when economic value of the relationship is seen to outweigh the costs and risks outsourcing introduces (Kenney et al. 2009).

The organisational capabilities (OC) approach when looking at the boundary choice decision argues that the relative capabilities of buyers and suppliers play an important role in determining which value-adding activities retained within the firm versus those that aren't (Argyres, 1996). Therefore, the logic of OC approach in this aspect is consistent with TCE logic, which argues that because different firms have different capabilities, they will typically carry out the same activity with different production costs, except in cases where explicit long-run decisions are taken to incur the costs of developing in-house capabilities (Kogut and Zander, 1992). Concurring, Langlois (1992) adds that as relative capabilities develop further, firm boundaries will be adjusted accordingly. Itami and Roehl (1987) who define firm capabilities as 'invisible assets', which develop cumulatively, as firms learn to perform routines over time (Nelson and Winter, 1982). However, because the development of these capabilities is difficult to teach and articulate, they therefore, are costly to transfer and tend to become firm specific (Teece, 1981).

However, Argyres (1996) also highlights that the contradictions between OC approach and TCE logic, pointing out that the capabilities approach, by suggesting that differential production costs play an important, independent role in the boundary decision, resulting from different firm specific capabilities rather than from scale economies, is in direct contradiction to TCE. Madhok (1996) takes this argument further, arguing that TCE, because of its pure incentive logic, based on the assumptions of opportunism; it is incapable of explaining the complete theory of the firm. Arguing instead, that the OC perspective provides an alternative, more realistic and complementary explanation for understanding firm boundary and governance decisions, placing less restrictive assumptions in trying to understand economic organisation and governance. Explaining that although OC, like TCE acknowledges the value of employing certain organisation forms depending on the nature of underlying resources, the environment and the specific attributes of the firm, without acknowledging the value of firm owned resources i.e. that the firms' governance choices are influenced by various firm and transaction level characteristics, TCE is necessarily incomplete. Concluding that indications are that due to the presence of unobserved variations between similar firms (i.e. organisational capabilities), operating within similar environments, by way of example IBM and Compaq in the personal computer industry who use distinctly different sourcing strategies, where Compaq outsources a number its component assembly processes, IBM

retains these activities internally (Madhok, 1996), leads to alternative boundary choices, based on their own internal specific requirements rather than on a random basis (Leiblein et al, 2002).

2.8. Summary of the Literature Review

Therefore, rather than viewing the firm as collection of transactions, ignoring the strategic importance of each individual firms unique set of skills, knowledge and procedural know how and not limiting the boundary choice decision to a simplistic and unrealistic comparison, between shirking costs and transacting costs only, OC provides a more holistic explanation of boundary choice, recognising capability constraints and the costs and benefits of alternative governance forms, taking into account the sum total of managing costs and internal production costs versus transacting costs and external production costs (Dietrich 1994), without needing to rely on the assumption of bounded rationality and opportunism (Conner, 1991).

"Capabilities are the dynamic element in the bundle which infuse resources with sustainable value through underlying routines. Capability accumulation is a dynamic process where the information management attributes of the firm, i.e., the firm's ability to acquire, evaluate, assimilate, integrate, diffuse, deploy and exploit knowledge, is critical. This refers to the largely gradual and idiosyncratic process by which a firm's knowledge base is developed and integrated into the functioning of the organisation, the value of current knowledge is enhanced through new combinations and its knowledge base is deployed in order to exploit its rent-earning potential. These information management capabilities are what make firms repositories of productive, specialised and embedded knowledge which underlies the production of a good or service" (Madhok, 1996: 580).

One of the characteristics of OC logic, similar to that of Agency Theory, is that as the firm develops more firm specific capabilities, by “developing, carrying out and exchanging information through the firm's human capital” (Amit and Schoemaker, 1993: 35), for example a team could be assembled to undertake certain tasks within a certain firm operational area, which over time would lead to specialisation in this specific task. This specialised knowledge would also start to create power asymmetry between the employer and employees, where like in the principle-agent relationship discussed earlier, would then become costly for the employer to learn all the routines in order to specify behaviour and cut down on shirking and monitoring costs (Peteraf, 1993).

However, by bring together certain skills and as various team members learn to work together, opportunities for synergies will present themselves (Madhok, 1996). Therefore, the historical aspect of a firm's activities is critical to the OC perspective, as it is the culmination of the firm's past experiences that form the basis of the routines that the firm operates with. Conversely, the firm undertaking activities it has no historical background to, is sure to incur higher costs in the acquisition of information, its interpretation, evaluation, absorption and diffusion. Therefore, due to their task specific nature, organisation capabilities are specialised to a particular firm and thus more valuable to the specific firm than other resources (Peteraf, 1993). However, beyond developing a particular set of valuable organisational capabilities, new firms entering a market also face the challenge of competition from

already existing and experienced firms, coming in at a disadvantage due to the incremental and evolving nature of the capabilities acquisition process. As such, organisational capabilities can act as not only as a competitive advantage but also as a constraint (Dierickx and Cool, 1989).

Although both TCE and knowledge-based theories, such as organisational capabilities approach are based on the assumption that for efficient production the firm needs specialised asset investments (physical and human), to reduce production costs and innovate (Poppo and Zenger, 1998), the two perspectives, however, diverge in their views of the effects of asset specificity. TCE sees asset specificity as the cause of market failures, as specific assets are of less value in alternative use, where the overall, net effect of specific assets in market exchanges is enhanced production efficiency but increased transaction costs, or as Vandaele et al (2007:18) put it, "a higher degree of asset specificity requires greater safeguards included in the exchange to guard against opportunistic behaviour. As a result, the exchange governance should move away from the market towards more specialised forms of governance because these minimize transaction costs". Whereas, OC views specific assets, especially human assets, as an integral component to the performance of the firm, as the source of invaluable knowledge, skills and capabilities (Barney, 1991) enhancing the governance efficiency, instead of increasing governance costs as theorised by TCE (Monteverde, 1995).

Therefore, although TCE and knowledge-based theories predict similar outcomes concerning boundary choice. OC predicts that the effect of asset specificity on organisational performance is positive. Whereas TCE suggests that the effects of asset specificity on performance of market exchanges will be negative.

OC, like TCE is sensitive to the hazards of selecting the wrong contracting partner, i.e. opportunism by the selected partner, however in OC these are only more exacerbated (Chi, 1994), as organisational capabilities are difficult to observe and assess and ultimately measure and price, they are also more difficult to transact without loss in value, increasing associated transaction costs (Ouchi, 1980). Therefore, any firm that has managed to develop their own specialised organisational capabilities is in an advantageous position as compared to their counterparts, who are unable to access the benefits of these specialised resources without exposing themselves to increased transactional costs (Dierickx and Cool, 1989). In light of the above, the decision to outsource a particular activity could therefore, simply be driven by the realisation that the outsourcee is more specialised and better organised for conducting the particular activity more productively (Madhok, 1996). As such, existing organisational capabilities of firms are "the most significant factor in determining what will be done by the firm and what in the market" (Chandler, 1992: 86).

As such, similar to TCE, the boundary choice from an OC based theory perspective is determined by holistic assessment of the benefits from specialisation i.e. the benefits from highly firm specific language and routines, against the stagnation of knowledge development. When valuable knowledge can be generated by the formation of firm specific language and routines, integration is preferred. However, when firm specific routines and language generate impediments to the creation of valuable knowledge, outsourcing is preferred (Poppo and Zenger, 1998).

2.9. Synthesis of the Literature

Generally, it has become commonly accepted that the appointment of competent project management services when building of large construction projects contributes to the overall success of the projects, where efficiency and effectiveness would suffer greatly without the contribution of the construction project manager (Howes, 2009). Project management plays an essential and pivotal role within the project organisation of construction projects in South Africa and throughout the world, as the leader of the project team, the project manager must integrate, coordinate, monitor and adapt the inputs of all contributors, and make decisions towards meeting the project and client's objectives (Walker, 2002; Burke, 2007), acting as the between the client and the various project contributors, ensuing that the project keeps within its predetermined parameters. As such, the project manager's selection and integration into the project organisation, can influence the outcome of a project significantly (Woodward, 1997), and his actions and decisions whether positive or negative have great influences on the overall success of the project and achieving the project and client organisation's objectives (Howes, 2009). Therefore, the manner in which the project manager manages a project, not only depends on the nature of the project (i.e. client's objectives), but also the position the project manager is placed within the project organisation to execute his responsibilities (Naoum, 2001).

Research indicates that an organisation's productivity and efficiency (which would include property development firms), as well as, the firm (organisation) boundary (i.e. between the organisation and its environment and between project and its organisation), are affected by both organisational structure, which influences the quality of decision making, the attitude and behaviour of the members working within the organisation and how theses members work with one another (Naoum, 2001), as well as, the external environment of the organisation, where changes in environmental conditions need to be adequately dealt with, as they have the potential of significantly impacting the organisation's productivity and efficiency (Naoum, 2001). The same applies to project organisation, including construction project organisations, and may be even more pronounced due to the temporary nature of construction project organisations, which are usually comprised of independent professional organisations/agents, external to the parent/principal organisation (Walker, 2002), bringing about additional distinct challenges associated with increased difficulty in monitoring and managing the performance of these external parties, including professional agents (Sharma, 1997), raising further issues relating agency and transaction costs (Walker, 2002; Freidson, 1983; Perrow, 1986).

One of the more difficult choices facing an organisation is making the firm boundary decision (Ruekert et al, 1985), of which activities should be kept in-house and which should be outsourced (Ahmad and Schroeder, 2011), in the case of a property development firms, one such choice would be the whether to outsource or retain the project management services in-house. As Burke (2007) explains, although organisations, like property development firms, make their organisational structure and sourcing decision for different reasons, however the role and extent of client involvement in a construction project generally correlates to their experience in construction (Woodward, 1997), where clients with limited experience (due to either inexperience or complexity or a combination of both) will most likely opt to

appoint a project manager in an executive capacity from outside the client's organisation (Walker, 2002), it is however, important that the decision ultimately selected by the client organisation responds to the requirements and nature of the work to be carried out (Frimpong, 2000).

Scholars over the years have sought to better understand why different firms operating in the same industry and environment, producing similar goods adopt different sourcing strategies (Steensma and Corley, 2001). Supported by Preker et al. (2000), who argued that, amongst others, agency theory and transaction cost economics provided some of the most relevant understanding of the advantages and disadvantages of different sourcing options of service orientated activities of the firm and Dietrich's (1994) contention that organisational capabilities provide a more holistic explanation of boundary choice, a literature review was conducted that looked into the three organisational economics perspectives; agency theory, transaction cost economics and organisational capabilities, to provide some insight into the factors that come into play when property development firms make the organisation boundary/ sourcing strategy decision to either retain or outsource project management services, in large scale commercial developments. Review of previous research using these theoretical perspectives provided insight into how the balance of threats of loss and higher costs versus opportunity for gain influences the sourcing decisions (Shapira, 1995), and while also highlighting the usefulness of each theory, each theory's limitations were also revealed.

Starting first with agency theory, its appeal lies in its simplicity (Ross, 1973) in establishing and explaining the basis of the balance of power between agents and principals, pinned on the two central problems of agency; moral hazard and information asymmetry due to contracting under uncertainty prevalent in the business environment and with incomplete information (Fogarty et al, 2009), which agency theorists argue provides a "rich theory of organisations" (Jensen and Meckling, 1976: 309), as well as, realism in explaining the relationships between individuals within the firm (Fontrodona and Sison, 2006), elevating the firm from a single, indivisible unit, to a nexus of a complex set of interactions between principals and agents (Shankman, 1999). Agency theory also deals with the issue of risk sharing, which arises when the principal and agent have different views on risk and will opt for different courses of actions, all variables being static (Shankman, 1999).

As such, agency theory is primarily concerned with developing safeguards that ensure an efficient alignment of the agent and principals objectives, with principals implementing contracts that protect and promote their interests, from the assumed morally corrupt, opportunistic, self-interested agent (Fontrodona and Sison, 2006), where moral behaviour on the part of the agent can only be expected if it provides greater reward for the agent (Bøhren, 1998).

However, detractors argue agency theory provides little explanatory power, while at the same time being insistent on rigid and somewhat unrealistic assumptions (Fogarty et al, 2009).

Some researchers have challenged agency theory's assumption of the opportunistic, self-interested agent, arguing that this view of the agent endorses moral skepticism and is limiting in the development of a system of applied ethics (Heath, 2009). Agency theory's assumption of viewing only the agent as

opportunistic and self-interested has also been challenged, with some researchers (Conner, 1991; Duska, 1992; Wright et al, 2001) arguing that the theory ignores cycles in demand for labour, taking for granted that the agent is able to diversify their employment and therefore cannot be subjected to an exploitive principal (Perrow, 1986). Hill and Jones (1992), also question this assumption that implies markets are in efficient equilibrium and quickly respond to environmental changes (Barney and Ouchi, 1986), as this again implies that principals and agents have the option of entering and exiting contractual relationships at will, ignoring the reality that better alternative employment opportunities are not always available. Whereas, in reality markets are not always efficient and alternative employment opportunities can therefore be limited, therefore the possible presence of power differentials between principals and agents (and vice versa) must be acknowledged in agency theory for it to become a holistic theory of the firm (Hill and Jones, 1992).

With the increasing use of independent contractors and employees of contracting companies to provide professional services to clients (Matusik and Hill, 1998), the concept of the principal- professional agent theory has emerged as an off-shoot of agency theory (Sharma, 1997), where the professional agent equipped with skill and knowledge can provide critical services to their principals that can significantly influence the organisation's performance both negatively and positively (Loughry and Elms, 2006). However, research in this area still has conflicting views on the degree professional agents differ from the typical agent envisioned in agency theory, particularly in terms of the professional agent's altruism and commitment to service versus the opportunistic, self-interested agent (Loughry and Elms, 2006).

Research into the principal- professional agent theory, has mainly focused on the mechanism of control over the professional (Loughry and Elms, 2006), resulting from the shift in the balance of power favouring the professional agent due to the knowledge asymmetry (Sharma, 1997), these have included a genuine desire to serve others, control by professional peers inside and outside the firm, reputation within the community, self-control, client control and bureaucratic control (Hodgson, 2002), as well as, mandatory membership to professional associations which can be revoked, providing safeguards by mandating a code of ethics and minimum standards to exclude opportunistic or incompetent professional agents (Sharma, 1997). Although, as predicted using agency theory, Loughry and Elms (2006) found in their study of medical contractors versus member physicians that more stringent control mechanisms/ contracts are required in the principal - professional agent scenario due to the pronounced knowledge asymmetry that exists between the principal - professional agent relationships compared to principal - agent relationships and the resultant higher agency costs, they also found that client control in these relationships was also based on interpersonal relationships, including honour and trust than just objective assessment of performance. Tying-in with the findings of other research that found certain unique features characterise the outsourcing of intellectual activities, where because the external provider typically has more knowledge than the buyer, these experts may possibly regard themselves as highly trained 'elites' superior to their client's personnel and therefore cannot be guided by direct orders (Quinn, 1999). Principal - professional agency relationships are further complicated because in addition to the principal - professional agency relationship between the professional and the employing firm, a second relationship also exists between the professional and the client and contracts involving

professional agents must not only deal with curbing the typical self-interest behaviour of the professional agent but also the conflicts of interest that may arise between the employing firm and the client, as their objectives will not necessarily align (Flood and Fennell, 1995).

The literature review carried out also reviewed TCE theory of the firm, which has also come to be another dominant organisational economic theory attempting to explain why certain firms choose to outsource certain functions of their organisation, while retaining other functions internally. TCE attempts to explain how firms are organised, by comparing the cost of undertaking a specific activity in-house using its own employees versus the costs of appointing an external party to undertake the same activity externally (Everaert et al, 2010), arguing that organisation of economic activities in firms is predominantly driven by the minimisation of both production and transaction costs (Walker, 2002).

Similar to agency theory, the TCE perspective is also rooted in the behavioural assumption of bounded rationality and opportunism, where although transacting parties may not always act opportunistically, bounded rationality impedes the ability to distinguish firms that may behave opportunistically from those that won't (Williamson, 1985). As such, as with agency theory, the threat of possible opportunism and self-interested behaviour plays an important role in the sourcing decision ultimately taken and leads to the transaction costs associated in putting in place contractual safeguards and contract enforcement measures (Steensma and Corley, 2001). Therefore, it can generally be said that there is a positive relationship between perceived threat of opportunism and the probability that a firm will retain function internally.

Another important variable in TCE is project technical complexity, due to size, scope or technical novelty (Xia and Lee, 2004), as the complexity of a project increases two competing TCE perspectives emerge; on one hand, the required skills to manage the project increase, requiring more specialised expertise, motivating outsourcing, however, on the other hand, greater control may be seen as beneficial, leading to internalisation, as greater complexity requires higher levels of coordination between interdependent activities (Hardgrave et al, 2003), which makes it difficult to put in place effective contractual safeguards and contract enforcement measures (Tiwana and Bush, 2007). However, similar to Tiwana and Bush's (2007) argument, that IT applications are likely to require skills that are not part of the client's core competencies, it could also be reasoned that the same would also apply, where project management services are not considered a core competency in some property development firms. As complex construction projects can also be seen as fundamentally riskier and probability-wise more likely to fail, this would likely be enough incentive for the client to opt to outsource this function to a more specialised, external party (i.e. a project management firm). In line with this, from the TCE perspective, it can be anticipated that as a project's complexity increases, the perceived risk of using an external party will outweighed the perceived costs of resulting from loss of control (Tiwana and Bush, 2007).

Through the literature review process, the degree of asset specificity, uncertainty and transaction frequency were all also identified as being significant determinants in the sourcing decision (Poppo and Zenger, 1998). As stated by Klein (2005), transaction costs result from the varying degree in which specific assets, the degree of environmental and behaviour uncertainties are involved in a transaction

and the frequency with which a given transaction occurs. Exchange processes with the presence of different combinations of these factors results in various types of transaction costs. However, bounded rationality and opportunism are ever-present factors, where bounded rationality creates a problem because of opportunism (Jones and Hill, 1988).

However, following further developments made in organisational economics, researchers have begun shifting emphasis away from the underlying threat of opportunism, associated with agency theory and TCE, as the basis of explaining boundary decisions and looking at the effects of organisational capabilities in making this decision (Conner and Prahalad, 1996).

The third theory explored in the literature review was organisational capabilities, a relatively new theory that has emerged as a complementary theoretical perspective to TCE in the last two decades (Jacobides and Winter, 2012), and has proved valuable in addressing the question of firm boundaries. In recent years, numerous studies on organisational capabilities have investigated the question of why different firms operating in the same industry and environment, producing similar goods adopt different sourcing strategies (Steensma and Corley, 2001) and have found different firms when facing the same problem, their specific circumstances including available resources and perceived competencies guide their initial steps towards a solution (Jacobides and Winter, 2012).

OC logic predicts that firms will tend to internalise activities which they have a strategic advantage in and outsource activities in instances where they do not (Wolter and Velasco 2008). From the OC perspective a firm possessing a competitive advantage is one that is able to generate value in ways that competitors cannot. Where such an advantage is considered sustainable in instances where despite competitor's attempts to replicate the advantage, the firms advantage remains intact (Lippman and Rumelt, 1982).

Contrasting with agency theory and TCE logic, which focus on how threats of loss and incurred costs (agency and transactional) govern sourcing strategy based on the assumptions of opportunism (Madhok, 1996), OC logic instead focuses on the benefit gained from transactions (Steensma and Corley, 2001). In fact some researchers (Conner, 1991; Barney, 1991 and Madhok, 1996) argue that agency theory and TCE perspectives are limited by their view of the firms sourcing strategy as predominantly a decision based on avoidance of negative outcome, as suitable theories capable of explaining the complete theory of the firm, when compared to the OC, which contends that firms instead make this decision based on their exclusive access to their sustainable competitive advantages or capabilities that internalisation achieves over market transactions by exploiting asset interdependencies without exposure to increased transactional costs (Conner and Prahalad, 1996), resulting from the development firm specific languages and routines (Steensma and Corley, 2001).

The three theoretical perspectives reviewed, while revealing distinct differences, also highlight some similarities, in making the boundary decision. Perhaps one of the most prominent differences between these three perspectives relates to the degree they emphasis the threats of opportunism and loss and the opportunities for gain. Agency theory and TCE are rooted in the assumed threat of loss as a

consequence of opportunism. In contrast, OC shifts emphasis away from assumed opportunism and focuses on the sustainable competitive advantage associated with the development of core competencies. Overall, agency theory and TCE's assumed underlying threat of opportunism and OC's sustainable advantage promote internalisation (Steensma and Corley, 2001).

Individually the three theories shed light onto how threats of loss and opportunity for gain are factored into making the boundary choice decisions from different perspectives. However, by combining them together a more holistic explanation of the firm boundary choice is anticipated to be revealed (Shapira, 1995). However, Steensma and Corley (2001) caution that firms faced with making the boundary decision, under similar circumstances are often found to opt for different sourcing strategies, suggesting that different firms view the significance of various threats of loss and opportunities for gains differently.

From the literature review carried out the following key factors influencing the outsourcing decision were identified within each theoretical perspective: -

2.9.1. Agency Theory

Outcome Measurability - the extent to which an external agent's performance can be precisely evaluated using predefined criteria (Sharma, 1997; Tiwana and Bush, 2007). Typically, the higher the measurability of an agent's performance, the greater the likelihood of outsourcing.

Agent Behaviour Observability - the extent to which an agent's behaviour can readily be monitored (Fama and Jensen, 1983; Sharma, 1997; Eisenhardt, 1989). Typically, the higher the observability of an agent's behaviour, the greater the likelihood of outsourcing.

Threat of Opportunism – Self-interest seeking behaviour, the extent of uncertainty that an agent will honestly fulfil their obligations (Sharma, 1997; Denis et al, 1999). Typically, the greater the threat of perceived opportunism, the lower the likelihood of outsourcing.

Bounded Rationality – Where rational behaviour is limited to one's ability to process information. However, because bounded rationality is ever present factor in all transactions (Jones and Hill, 1988), it will be controlled for as per Tiwana and Bush (2007).

2.9.2. Transaction Cost Theory

Relative Cost Advantage – the anticipated overall cost savings from outsourcing versus internalization (Lyons, 1995; Lacity and Hirschheim, 1995; Ang and Straub, 1998). Typically, the higher the relative cost advantage an agent is perceived to have relative to the client's own costs of undertaking the activity internally, the higher the likelihood of outsourcing, given a competitive market.

Threat of Opportunism – Self-interest seeking behaviour, the extent of uncertainty that an agent will honestly fulfil their obligations (Oviatt, 1988). Typically, the greater the threat of perceived opportunism, the lower the likelihood of outsourcing.

Uncertainty and Technical Complexity - Where uncertainty refers to changes in the environment that cannot be forecasted or controlled (Klein et al, 1978). The complexity of a project due to its size, scope, or technical novelty (Tiwana and Bush, 2007). Typically, the higher the perceived technical complexity, the greater the likelihood of outsourcing.

Asset Specificity – the greater the investment in assets which are specific to the requirements of a particular exchange relationship, the greater their strategic importance to the firm (Joshi and Stump, 1999; Grover and Malhotra, 2003; Cannon et al, 2000). Typically, the higher the perceived strategic importance of the competency to the client firm's business, the lower the likelihood of outsourcing.

Bounded Rationality – Where rational behaviour is limited to one's ability to process information. However, because bounded rationality is ever present factor in all transactions (Jones and Hill, 1988), it will be controlled for as per Tiwana and Bush (2007).

Agent Behaviour Observability - the extent to which an agent's behaviour can readily be monitored (Maitland et al, 1985). Typically, the higher the observability of an agent's behaviour, the greater the likelihood of outsourcing.

Small Numbers – the extent that the contracting parties are familiar with each other, giving rise to an advantaged because they have more experience with the other party, as well as, more specialised resources to serve it, than those in the market (Klein, 1978; Jones and Hill, 1988). Typically, the higher the degree of small numbers, the greater the likelihood of outsourcing.

Information Impactedness – the extent of information asymmetrically distributed between the parties to an exchange. When the underlying circumstances relevant to the transaction are known to one or more parties (where one party may have more knowledge than another) but cannot be costlessly discerned by or displayed for others, making it difficult to ascertain the costs to information (Klein, 1978; Jones and Hill, 1988). Typically, the greater the extent of information impactedness, the lower the likelihood of outsourcing.

2.9.3. Organisational Capabilities

Core Capabilities – activities that a company does uniquely well that give them a strategic advantage over their competition (Mehta and Peters, 2007; Madhok, 1996). Typically, the higher the perceived strategic advantage provided by a core capability, the lower the likelihood of outsourcing.

Requirements Volatility - the extent and pace which the business requirements of a firm change over time (Tiwana and Bush, 2007; Jacobides, 2005). Typically, the higher the project requirements volatility, the greater the likelihood of outsourcing.

RESEARCH DESIGN AND METHODS

3.1. Research Choices

The overall method implemented in order to achieve the aims and objectives of an investigation is known as the research methodology (Holt 1998). The purpose of this chapter is to discuss and establish the research design and methods selected to investigate the research problem. Starting with an overview of alternative philosophical approaches, a review followed by justification of data analysis method was selected was the most appropriate. This was then followed by an in-depth analysis of the case study selected. The chapter then concludes with a review and summary of the reliability, validity and ethical considerations.

Saunders et al (2012) use the concept of the research "onion" to illustrate the holistic process of research methodology and design, as concentric layers of an onion representing different sequential stages in the research development. Where the outermost layers of the analogical research "onion" represent the first stages of research development, such as the choice of philosophical perspectives and research approach, with the third layer representing methodical choice, followed by strategy, then time horizon leading progressively to the inner most layer, representing techniques and procedures (Saunders et al, 2012: 108).

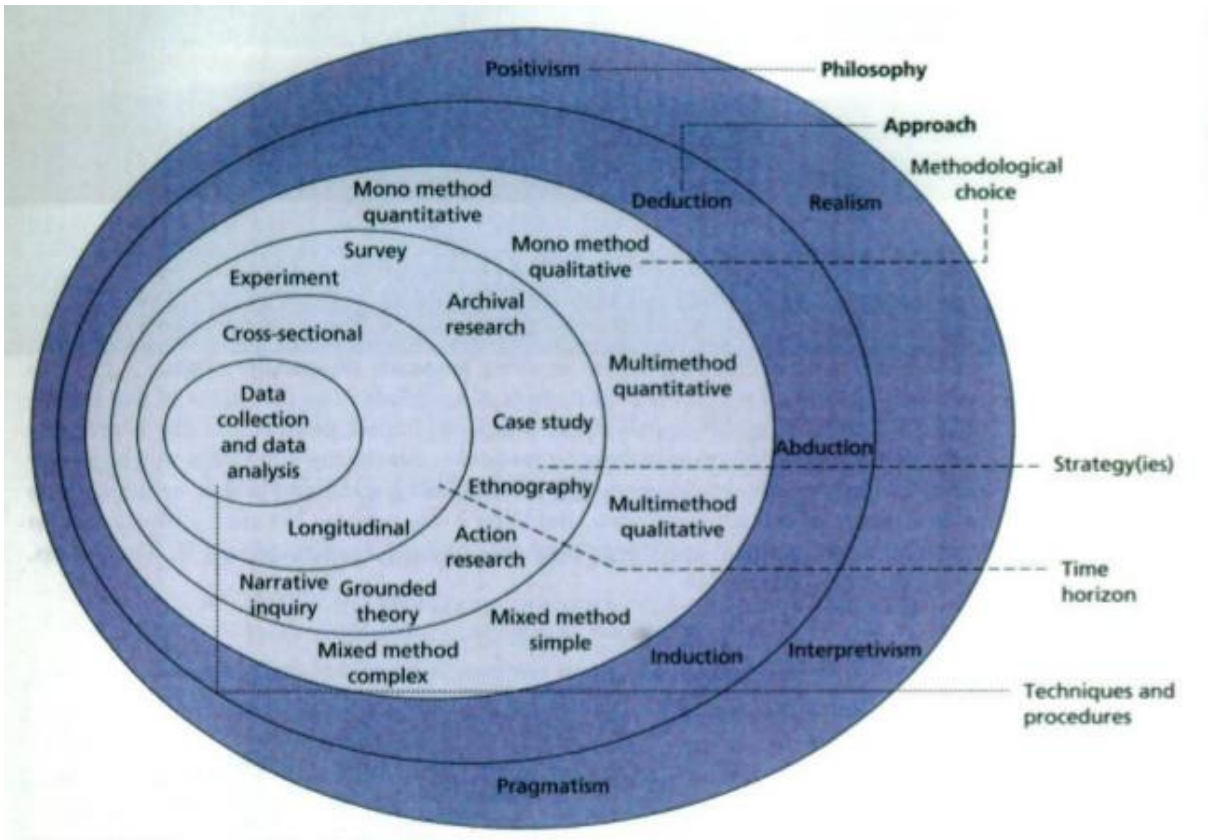


Figure 3.1. The Research Onion (Source: Saunders et al, 2012: 128)

The philosophical perspective of any research forms the research's foundation, assisting in the determination of the most appropriate research approach, influencing not only how the research question is understood and interpreted but also the way in which the research question is addressed in the research methodology and the way in which the findings of the data collection are interpreted (Saunders et al, 2012: 128).

3.2. Research Philosophy

Theoretically, research philosophical perspectives can be broadly defined under the following four overlapping categorisations:

1. The positivist perspective assumes that "reality" is a tangible, quantifiable and observable construct, which are independent of the observer and his/her instruments (Myers, 2009: 37), where based on data collection of observable phenomena, reliable data can be obtained (Saunders et al, 2012:134), which can then be used to formulate "law-like generalisations" from repetitive patterns and casual relationships (Saunders et al, 2012: 134).

2. The realism philosophical perspective is similar to positivism perspective, in that it assumes a scientific approach to data collection, based on the premise that reality is a measurable phenomenon i.e. what we sense; where objects exist independent of the human mind (Saunders et al, 2012: 136).

3. The philosophical perspective of interpretivism is centred on the premise that "reality" is a social construct, subjective to the individual observer, where the observer derives meaning based on the views and experiences of others (Merriam, 2009: 8).

4. The pragmatist philosophical perspective assumes that there is no one philosophical perspective that can completely encapsulate a reality (Saunders et al, 2012: 128). This however, does not necessarily imply that the use of multiple methods is essential from the pragmatism perspective, rather the use of the method that provides the most credible and relevant data should be used (Creswell, 2009: 28). For pragmatist the practical consequences are at the centre of research findings (Saunders et al, 2012: 128).

Within each research philosophical perspective, there are three main branches of philosophy that define the way in which one thinks about the research philosophical perspectives, providing differences that will guide the process of research (Saunders et al, 2012: 149):

1. Ontology refers to the branch of philosophy concerned with the nature of reality and its characteristics (Creswell, 2013: 20), and is further broken down into its two component positions, subjectivism and objectivism (Saunders et al, 2012: 150). Where subjectivism regards social phenomena as the result of the "perceptions and consequential actions of social

actors", while objectivists view, on the other hand, sees “social entities exist in reality external to and independent of social actors” (Saunders et al, 2012: 150).

2. Epistemology is the branch of philosophy concerned with derivation of knowledge, distinguishing justified theory from opinion, particularly with regard to its methods, validity, and scope (Saunders et al, 2012: 150).

3. The branch of philosophy that studies the nature, types, and criteria of values and of value judgments especially in ethics is called axiology (www.merriam-webster.com/dictionary).

3.3. Research Approach

The next inner layer of the research onion relates to research approaches. Research approach talks to the nature of the hypotheses made at the beginning of the research, that then contribute to the design of the research itself (Saunders et al, 2012: 143). Typically, research approaches are categorised under two main approaches:

1. The deductive approach, which test the validity of certain assumptions (i.e. a theory/ hypothesis).

2. The inductive approach, on the other hand, focuses on the formulation of new theory from data collection.

Saunders et al, (2012: 147), succinctly summarise the difference between the deductive approach and the inductive approach, as moving from theory to data and vice versa respectively.

3.4. Research Design

The inner four layers of the research onion; methodical choice, strategy, time horizon and techniques and procedures are the components of research design. Generally, research design can be seen as the mapping out of the details of how the research will be conducted and the research question answered (Saunders et al, 2012: 128).

In establishing a research design, perhaps one of the most important aspect is to identify and define the nature of the research question (Saunders et al, 2012: 128). Saunders et al (2012) state the nature of the research question can either be exploratory, descriptive or explanatory.

In instances where there is no clear idea of the subject being studied, where the problem is undefined and the researcher is unsure of the precise nature of the of the problem, exploratory research provides the research with the opportunity to understand and gain insight into a problem or phenomenon that was previously not very well understood (Cooper and Schindler, 2003). Descriptive research on the other hand, seeks to describe the characteristics of a population or phenomenon being studied or to look into possible correlations between phenomena. Descriptive research however, does not answer questions about how, when, why the characteristics or correlations occurred (Saunders et al, 2012).

Explanatory research can be said to be the converse of descriptive research, seeking to understand the how, when, why of characteristics of a population or phenomenon and the reasons for correlations between variables (Saunders et al, 2012).

3.5. Methodological Choices

Once an understanding of the nature of the research has been established, the third layer of the research onion, the methodological choice, will also start to become more apparent. Broadly speaking there are two methodological choice options to research; qualitative and quantitative. These two methodological choice options differ significantly and are determined by the nature of the research to be undertaken (Creswell, 2013). A simple, yet useful, distinction between qualitative and quantitative methodological choice, is that the quantitative methodological choice relates to research techniques and analysis that generate or apply numerical data. Whereas, the qualitative methodological choice refers to data collection techniques, analysis that produces non-numerical data (Saunders et al, 2012: 161).

The characteristics of each research methodological choice are explained in the Table 3.1 below:

Table 3.1: Differences between qualitative and quantitative research

Quantitative	**Qualitative**
Objective	Subjective
Research question: How many? Strength of association?	Research question: What? Why?
"Hard" science	"Soft" science
Literature review must be done early in study	Literature review may be done as study progresses or afterwards
Test theory	Develops
One reality: focus is concise and narrow	Multiple realities: focus is complex and broad
Facts are value-free and unbiased	Facts are value-laden and biased
Reduction, control, precision	Discovery, description, understanding, shared interpretation
Measurable	Interpretive
Mechanistic: parts equal the whole	Organismic: whole is greater than the parts
Reports statistical analysis	Reports rich narrative, individual; interpretation
Basic element of analysis is numbers	Basic element of analysis words/ ideas
Researcher is separate	Researcher is part of process
Subjects	Participants
Context-free	Context-dependent
Hypothesis	Research questions
Reasoning is logical and deductive	Reasoning is dialectic and inductive
Establishes relationships, causation	Describes meaning, discovery
Uses instruments	Uses communication and observation
Strives for generalisation Generalisations leading to prediction, explanation, and understanding	Strives for uniqueness Patterns and theories developed for understanding
Highly controlled setting: experimental setting (outcome-oriented)	Flexible approach: natural setting (process-oriented)
Sample size: n	Sample size is not a concern; seeks "informal rich" sample
"Counts the beans"	Provides information as to "which beans are worth counting"

Source: Sanghera (2009)

Yin (2009: 10) emphasises the importance of ascertaining the nature of the research in order to select the most appropriate research methodological choice. Concurring Creswell (2014: 20) stresses that specific research problems require a specific methodological choice. Expounding the qualitative approach is generally more suited for research of an exploratory nature, where characteristics or phenomenon need to be better understood, while the quantitative methodical choice is better applied to research seeking to identify causation and causality.

3.6. Selection of Methodological and Strategic Approach

The decision for applying a qualitative methodological approach to this research was mainly based on the inductive/ exploratory nature of the primary research question i.e. what are the factors/ considerations that influence large property development firms when making the organisation boundary/ sourcing strategy decision to either internalise or outsource project management services, in large scale commercial developments. As the fundamental objective of this research is to build concepts and theories (Merriam, 1998).

In addition the context of the research question frames the research in a subjective light, dependent on the individual perspective of the participants and how they view their environment, thus the qualitative approach in the context of this research provides the researcher with the opportunity to engage with participants and ask them initial questions, with further follow up questions to more accurately understand the participant's point of view and bring clarity to any ambiguities, therefore providing, in this instance, far more meaningful and richer data from which the researcher can develop a theoretical stand point. Furthermore, the qualitative approach lends itself to the identification of patterns and similarities in participant's responses, which will ideally facilitate the discovery of generalities, which can be used to develop an understanding of the phenomenon. As Leedy (1997) explains the advantage of using the qualitative approach is that it records observations and experiences, which can then be extrapolated into theory or trends within the population being studied.

In summary the qualitative methodological choice was found appropriate for the purposes of this research, as the qualitative approach is viewed as "a naturalistic, interpretative approach concerned with understanding the meanings which people attach to phenomena within their social worlds" Ritchie and Lewis (2003: 3), giving a complete picture from the perspective of the participant.

Table 3.2: Different types of qualitative research strategies

Design	Purpose	Focus	Methods of data Collection	Methods of data analysis
Case Study	To understand one person or situation (or perhaps a very small number) in great depth	One case of a few cases within its/ their natural setting	Observation Interviews Appropriate written documents and/or audio-visual material	Categorisation and interpretation of data in terms of common themes Synthesis into an overall portrait of the case(s)
Ethnography	To understand how behaviours, reflect the culture of a group	A specific field site in which a group of people share a common culture	Participant observation Structured or unstructured interviews with "informants" Artefact/ document collection	Identification of significant phenomena and underlying structures and beliefs Organisation of data into a logical whole (for example, chronology, typical day)
Phenomenological study	To understand an experience from participants' point of view	A particular phenomenon as it is typically lived and perceived by human beings	In-depth, unstructured interviews Purposeful sampling of 5 to 25 individuals	Search for "meaning units" that reflect various aspects of the experience Integration of the meaning units into a "typical" experience
Ground theory study	To derive a theory from data collected in a natural setting	A process, including human actions and interactions and how they result from and influence one another	Interviews Any other relevant data sources	Prescribed and systematic method of coding the data into categories and identifying interrelationships Construction of a theory from the categories and interrelationships
Content analysis	To identify the specific characteristics of a body of material	Any verbal, visual, or behavioural form of communication	Identification and possible sampling of the specific material to be analysed Coding of the material in terms of predetermined and precisely defined characteristics	Tabulation of the frequency of each characteristic Descriptive or inferential statistical analysis as needed to answer the research question

Source: Leedy and Ormrod (2005).

However, as per the table above, within the qualitative research methodological approach, there are still various options of qualitative research strategies that the researcher can apply to their research. According to Saunders et al. (2012) the choice of research strategy should then be ultimately selected on the basis of research question(s) and the research objectives.

After consideration, the case study research strategy was selected for this research because it allows for empirical enquiry that facilitates insight into contemporary phenomenon within real-life context, revealing boundaries between phenomenon and context that are not clearly understood (Yin, 2009). Saunders et al. (2012) explain that the case study research strategy is applicable to both explanatory and exploratory studies, providing possible explanations to phenomenon and revealing common aspects of within phenomenon respectively. The case study strategy further allows the researcher to support their argument with in-depth analysis of a group, an organisation project (Naoum, 2007).

Generally, case studies fall under one of the following three categorisations; interpretive, positivist or critical form (Saunders et al, 2012). Interpretive case studies seek to explain the existence of particular phenomena through the perspective of the participant in the context of their environment. The positivist case study strategy on the other hand attempts to test hypotheses or propositions in the context of the "real world". Critical form case study strategy seeks to test the validity of existing theory (Saunders et al, 2012).

The case study research approach is suitable in studies where an in-depth understanding of the perspective of the individual in their environment, where contextualising the phenomenon under study is being sought (Leedy and Ormrod, 2005). In addition, the case study approach facilitates “more detail, richness, completeness and variance” of the phenomenon being investigated Flyvbjerg (2011). As Yin (2011) advises, the case study research strategy is especially applicable to research that is more exploratory in nature seeking to address “how”, "what" and “why” questions. In the instance of this specific research, the interpretive case study strategy was therefore found appropriate because the primary research question seeks to establish the cause of a phenomenon from the perspective of the respondents in relation to their environment.

Saunders et al. (2012), citing Yin (2011), advise that the sphere of case study research can be defined under four distinct categorisations on the basis of the following two aspects:

1. Single case versus multiple cases

2. Holistic case versus embedded case.

Saunders et al. (2012) state that single case studies are most appropriate in instances where the study "represents a critical case or, alternatively, and extreme or unique case", while explaining further that a single case study may be implemented alternatively in the instance where the study represents a common phenomenon or the case study delves into an area of research not significantly investigated previously. On the other hand, multiple case studies are typically used to illustrate to replicate

similarities (literal replication) or differences (theoretical replication) across different cases of a similar nature, towards developing evidence to support a theoretical proposition.

The second aspect of case study research, holistic versus embedded cases studies, relates to the unit of analysis to be used in the study Saunders et al. (2012), where a holistic case study approach is where the subject is investigated as single entity, unlike in an embedded case study where the subject is investigated through the examination of the various sub-groups of the larger entity.

It is therefore, essential that the nature of the research is thoroughly interrogated in order to ensure that the appropriate aspect is used.

For all the benefits of the case study method, several limitations with this strategy have also been highlighted by researchers. One of the most often cited limitations of the case study strategy is that generalisations cannot be reached through this research strategy and therefore has limited application to scientific knowledge. Another commonly noted disadvantage of case study research is that because the data generated is typically context dependent, mostly suited for developing hypothesis, rather than context independent which is more suitable for the development and testing of theory (Flyvebjerg, 2006).

Below is a summarised list of common issues encountered with case study research, as well as, possible remedies to address these concerns (Yin, 2011):

1. Lack of rigour in not following a systematic approach - However, systematic approaches to case studies do exist and it is the researcher's responsibility to report without bias.

2. Provide little basis for scientific generalisation - With the use multiple-case studies, it is rationalised that this conflict can be resolved.

3. Typically, long and incoherent in terms of overburden of data - With modern techniques, quicker and more concise methods have been developed.

4. Unable to establish casual relationships between variables, i.e., cause and effect and extent thereof - Case studies when combined or used in conjunction with other research methods have been found particularly invaluable.

Having reviewed the various case study options available and their associated limitations, in conjunction to the nature of the research and in order to provide a more balanced understanding of the contrasting factors that influence the selection of either sourcing decision, i.e. to retain construction project management services in-house as opposed to outsourcing these services, this research paper has adopted a multiple, holistic case study approach (i.e. a “two tail” case study) to investigate the primary research question; i.e. what are the factors/ considerations that influence large property development firms when making the organisation boundary/ sourcing strategy decision to either vertically integrate or outsource project management services, in large scale commercial developments? As the “two tail”,

multiple case study approach, amongst other qualities is able to “predict contrasting results but for anticipatable reasons” (Yin, 2009: 54).

The decision to adopt the “two tail” multiple, holistic case study strategy was taken in large due to appropriateness in relation to the exploratory nature of the research, combined with the fact that research seeks to establish some of the factors that influence to property developers in making the decision and not to exhaust the spectrum of all possible consideration, the two case, holistic case study was felt to be able to give adequate insight into the research problem as it would represent alternative views of a commonly occurring phenomenon within the property development industry. Furthermore, Yin (2009: 59) highlights that the “two tail” multiple case study allows for two cases from either side of the theoretical condition spectrum to be deliberately selected, representing the two extreme but important alternative perspectives of a phenomenon.

3.7. Time Horizon

There are two options available with regard to the time horizon of research; cross-sectional and longitudinal research (Saunders et al, 2012). Cross-sectional research is the study of particular phenomenon at a specific point in time, typically with the aim of explaining the incidence or factors relating to particular phenomena. Alternatively, longitudinal research is the study of phenomena over a period of time. One of the benefits of longitudinal research is its ability to study the change and development in phenomena over time (Saunders et al, 2012).

As evident from the above description the time horizon available to the research plays a significant role in the type of research design adopted. As with most academic research projects, time was a major consideration in selecting the research design adopted (Saunders et al, 2012) and due to the limited amount of time available for the completion of this research the cross-sectional approach was found to be the most practically appropriate and was thus adopted.

3.8. Data Collection & Instruments

As with research methodological choice, research data collection techniques are mainly influenced by the nature of the research question. This section of the research paper aims to look at a few of the most common research techniques typically available to researchers, these include:

3.8.1. Questionnaires

The questionnaire data collection technique is frequently used in qualitative research, best suited for explanatory and descriptive research approaches, where relationships can be examined between variables or people’s opinion or perception about a certain area of obtained. Typically, questionnaires are aimed at answering "who", "what" and "how" questions (Saunders et al, 2012). A questionnaire is a structured primary data collection technique, consisting of a series of written questions to which each respondent is asked to respond (Fellow and Liu, 2003; Saunders et al, 2012).

There are numerous advantages of using the questionnaire as a data collection technique including; as it is an affordable method and does not require much effort from the respondents (Naoum, 2007), as well as, it's versatility in allowing for the questions to be self-completed or alternatively interviewer-completed and their ability to collect data from a sizeable population within a limited time frame (Saunders et al, 2012). In addition, due to the standardised question format of questionnaires, respondent's answers are easier to compile, compare and analyse.

However, for all the benefits, the down side of questionnaires is their potential for a low response rate from suitable respondents, which can compromise the credibility of the research (Fowler, 2009) and it is for this reason questionnaires are used as a supplementary data collection technique in conjunction with an alternative data collection technique, to obtain reliable, credible data (Saunders et al, 2012).

3.8.2. Observation

Generally observational studies can be categorised into either direct or indirect observational studies (Rugg and Petre, 2007). Where direct observational studies consist of the direct, actual, observation of a phenomena, whereas, indirect observational studies involve the observation of factors and the environment in which phenomena occur, in order to make inferences about the phenomena itself.

Either observational method can further be sub-divided into the following two categories participant and non-participant observations (Rugg and Petre, 2007). In participant observational studies the researcher observes from within the subject group being observed, while in non-participant observational studies the research observes the phenomena being studied from outside the group being observed.

The advantages of the observational study method are that because of the first-hand nature of the data collection of this method, the authenticity of the research is enhanced (Yin, 2011), providing rich, interesting and valid data (Rugg and Petre, 2007). However, the counter argument against the benefits of the observational study method is that the data collected can be tainted by the observer's perspective and bias and is often found difficult to analyse (Saunders et al, 2012).

3.8.3. Interviews

The interview data collection method usually consists of a two-way conversation between two or more people where the interviewer (researcher) engages with the interviewee (research subject) on a research topic to obtain information on that specific topic (Cooper and Schindler, 1998). The interview data collection method is considered an effective data collection tool in determining and exploring respondent's (interviewee's) perspective, thoughts, feelings related to a specific subject matter (Gillham, 2000).

Nevertheless, as with other data collection techniques, there are distinct advantages, as well as, disadvantages to the interview data collection method. Cooper and Schindler (1998) argue major advantage if the interview data collection technique is in the depth of information and detail that can be

obtained from this method. As the interview method is flexible enough to allow the interview to take into account the conditions of the interview, clarifying any misunderstanding or misinterpretation of questions and to probe the interviewee with further additional questions. Interviews also provide more control to the interviewer than other techniques, where the interviewer is able to pre-screen respondents, ensuring information is being gathered from the correct respondent, as well as, allowing the interviewer to setup the most conducive interviewing conditions Cooper and Schindler (1998).

The major disadvantage of the interview method as a data collection method has been cited as the associated costs of interviews both in time and money. Costs can be found especially prohibitive for studies that cover a large geographical area or have stringent sampling requirements Cooper and Schindler (1998).

Other disadvantages of the interview data collection method are that a respondent's responses are largely opinion based and not necessarily grounded in fact and are subject to the respondent's knowledge and understanding of the matter and also the respondent's temperament and mood (Fellows and Liu, 2003).

Cooper and Schindler (1998) outline the following broad criteria as essential for the successful interview:

1. Availability of the required information from the interviewee;

2. The respondent understanding their role;

3. Motivation for the respondent to cooperate.

Within the broader interview data collection method, there are three types of interview methodical choices available to the interviewer; unstructured, semi-structured and structured interviews, each with its own characteristics (Saunders et al, 2012).

3.8.4. Unstructured Interviews

The unstructured interview method allows for considerable flexibility within the interview, where although pre-prepared open-ended questions are implemented they are only used as a general reference to guide the direct the interview. Thus, giving the interviewee wide latitude in the way they answer the questions, requiring the interviewer to develop new questions as the interview progress, depending on the responses received from the interviewee (Naoum, 2007). This interviewing strategy is commonly implemented under circumstances where the information being sought cannot be anticipated ahead of time. Consequently, the data collected is typically voluminous and challenging to interpret and analyse (Naoum, 2007).

3.8.5. Semi-Structured Interviews

In contrast to unstructured interviews, semi-structured interviews consist of both closed and open ended pre-prepared questions, where the interviewer asks the questions in a pre-determined sequence, to best capture respondent's feedback on a specific subject matter, without leading the respondent to a preconceived hypothesis (Naoum, 2007). This interviewing strategy is noted by Gillford (2000) as suitable for collecting data on a particular phenomenon or subject matter, where respondents are known to have information on the particular subject matter and the feedback required is centred around the respondent's unique individual experiences regarding the phenomenon under study.

3.8.6. Structured Interviews

Structured interviews on the other hand can almost be seen as the antithesis of unstructured interviews, where the interviewer through pre-prepared questions exerts full control over the proceedings (Naoum, 2007). Unlike the two previously discussed strategies, this strategy is rigid and inflexible, limiting the respondent's answers to a list of pre-selected options. This option of interviewing technique is invariably used in instances where, rather than seeking to get the respondents individual opinion, the aim is to achieve consensus of general opinion to defined questions (Naoum, 2007). Due to this type of interview's non-exploratory nature this option is usually more suitable in reinforcing pre-existing theories and opinions.

3.8.7. Data Collection Method Selection

After critically reviewing the advantages and disadvantages of the various data collection methods researched, the interview data collection method was ultimately selected as the primary data collection method, in large due to the studies exploratory nature (Boyce and Neale, 2006) and the interview data collection method's discovery-oriented biased ability to allow the interviewer to ask open ended questions, deeply exploring the respondent's point of view, feelings, thoughts, and perspectives on a specific subject matter (Guion, 2001). As Gillham (2005) highlights the interview data collection method provided the interviewer with the ability to garner a deep level of understanding of the issues at play, allowing the research to contextualise and identify the factors that influence the phenomena being studied.

In addition, a self-administered questionnaire survey data collection method was also used at the end of each semi-interview structured interview as secondary, supplementary data collection method. However, as highlighted by Saunders et al (2012), while the questionnaire survey data collection method was able garner further, more contextualised data from the respondents, regarding the relative importance value of each identified factor influencing the phenomena being studied, allowing further comparison and cross-analysis of the responses received from the semi-structured interviews. The questionnaire survey, particularly in this case due to the small sample size, could not be used as the primary data collection method without compromising the credibility of the research (Fowler, 2009).

3.8.8. Why Semi-Structured Interviews

The semi-structured interview data gathering method has been cited as particularly applicable to exploratory research by numerous researchers including Boyce and Neale, 2006; Guion, 2001, as they facilitate flowing, extended discussion beyond the parameters of the listed themes and questions initially envisaged by the interviewer, allowing in-depth understanding of context, as expressed by each individual respondent from their unique perspective as the issue is explored. Garnering rich, quality data, as Wright (1996) states the contextualisation of information enriches that data.

Ritchie and Lewis (2003), highlight five key factors that make semi-structure interview method particularly relevant for exploratory research; the interactive nature of the method, its facilitation of probing for further clarity and elaboration, the combining of structure and flexibility, its ability to generate "new" knowledge, as well as, the face to face engagement, allowing the interviewer to note reactions to questions such as body language, facial expressions, voice intonation.

Again, emanating from the exploratory nature of the research question, the semi-structured interview data collection method was found to be the most appropriate interviewing method in understanding the factors/ considerations that influence large property development firms when making the organisation boundary/ sourcing strategy decision to either vertically integrate or outsource project management services, in large scale commercial developments.

The semi-structure interview method was found to be the ideal middle ground between the unstructured, unconstrained, interviews and the rigidity of structured interviews, allowing fluidity and adaptability in the interviewers questioning approach depending on responses received, giving the interviewee the chance to further “explain, or build on, their response” (Saunders et al, 2012), allowing for greater engagement and understanding of issues, while still retaining the required level of structure and focus to lead to fruitful insights being sought.

3.9. Case Study Selection Process

The case study selection process emerged from the research documented in the review of literature, as well as, the work experience of the researcher. The researcher has been fortunate enough to work within the Johannesburg construction industry on various commercial construction projects, in which the client role was fulfilled by a large commercial property development firm. The combination of the review of literature and the own researcher’s work experience framed the selection of the commercial property developers for review in this document. Two firms were selected for this study:

3.9.1. Property Development Firm A (Firm A)

Firm A is a 27-year-old property development company with its head office based in Johannesburg, South Africa, primarily focused on the development/ redevelopment of retail, commercial and industrial property in sub-Saharan property market, with established offices in the following major South Africa cities, including Johannesburg, Cape Town, Durban, Pretoria and Bloemfontein.

In addition, Firm A offers clients, both in the private and public sector, the following other related property services, property management, leasing and investment brokering, facilities management, asset management, trading and investment, retail services, property advisory services and valuations. However, Firm A outsources all of its required construction project management services.

Firm A has completed numerous property development projects throughout sub-Saharan Africa region in the last 5 years ranging in size and cost from just over R100 million to just under R2 Billion.

3.9.2. Property Development Firm B (Firm B)

Similarly, Firm B is a 30-year-old property development company with its head office based in Johannesburg, South Africa, mainly focused on the development/ re-development of commercial, retail, industrial, and mixed-use property in sub-Saharan property market, with established offices in the following major South Africa cities, Johannesburg, Cape Town, Pretoria and Durban.

Firm B on the other hand, in addition to a fully integrated property development firm, including tenant coordination and project management services, also provides asset management and property management service.

3.10. Population Selection

The targeted population of this study was large commercial property development firms operating within, but not limited to, Johannesburg city. As an exploratory research investigation, the case studies selected are believed to be able to adequately provide possible reasons why other large property development firms operating within Johannesburg city made similar choices in determining their organisational boundary in deciding to either outsource versus internalise their construction project management services, in large scale commercial developments. Ease of access, to conduct the required data gathering also played a pivotal role in selecting the case studies, as the main method of gaining access to the targeted population was achieved through the use of the professional contacts the researcher had established working in the construction industry.

3.11. Sampling Approach and Size

Rosendal (2010) asserts that case selection is typically more rational than random selection. In line with this the researcher selected a non-probability, purposive, extreme case sampling technique to select the case studies. Purposive, extreme case sampling is a logical and effective sampling method that allows for relatively small samples to be selected purposefully, particularly suited in selecting cases studies in instances “where it is considered that they will throw a particularly strong light on the phenomenon of interest” (Robson, 2002: 276). The decision to select only two cases for the research, was based on the combination of the investigation being exploratory nature and its intention is only to

shed light on some of the factors that influence to property developers to make either sourcing decision by focusing on either extreme and not to exhaust the spectrum of all possible considerations, as well as, the expectation that this would allow for far more in-depth exploration of the cases, providing valuable insight into the factors that motivate this decision… information rich cases are cases where the researcher "…can learn a great deal about issues of central importance to the purpose of the research" (Patton, 1990: 169). This view is supported by (Saunders et al, 2012) who similarly concur that in certain instances focus on a small number of case studies allows for information rich case studies, facilitating deeper exploration and understanding of phenomenon.

An appropriate sample size in non-probability sampling remains quite subjective and there are no hard and fast rules with selection of sample size largely dependent on the nature of the research question and objectives (Saunders et al, 2012: 283).

In light of the above, and based on the nature of the research, the sample size for the research was selected on a pragmatic basis; in which the research was required to balance the number and maintain the quality of case studies required to sufficiently address the primary research question and objectives and provide meaningful insight into the phenomenon being investigated, against opposing considerations relating to access to information, costs and time.

3.12. Data Collection Protocols

Yin (2009) states that case studies may focus on single or multiple cases and can be used to achieve a variety of objectives: descriptive, theory testing or theory generating (Jensen and Rodgers, 2001). The two case studies selected seek to examine why property development firms choose to either outsource or retain project management services internally and contrast them with existing theory, rather than generate new theories. The following methodology as suggested by Yin (2009) was implemented:

1. Selecting, describing and conceptualising of the object of study.

2. Establishing the various alternative explanations for the facts observed.

3. Discussion and the formulation of a conclusion based on explanations that seem more consistent with the facts.

Yin (2009) states that the data collection methodology implemented should be influenced by the research question and design. Where in case studies data collection typically combines data collection methods such as archives, interviews, questionnaires, and observations, as this triangulated method enhances the validity of findings. Although, it must be noted, ultimately the selection of the data collection methods is also dictated by time constraints, resources, and access.

The collection of data for the study from the two property development firms consisted primarily of semi-structured interviews with development managers employed by the firms, as well as, secondary sources

such as company publications, reports and website, industry publications and news in the media. This data collection approach is in line with Eisenhardt's (1989) prescribed method of data collection for case studies involving archives, interviews, questionnaires and observations. The semi-structure interviews constituted one of the most important and valuable sources of information sought to understand first-hand the reasons property developers make alternative boundary choice decision under similar circumstances.

3.12.1. Data Sources

Primary data sources consisted of key informants for each case study. Secondary data sources mainly company publications and reports, industry publications and news in the media. The secondary data not only covered different sources and assisted in the preparation for the interviews but also proved to be a valuable tool in cross-checking information and providing both historical and contemporary information about the case studies, as well as, providing supplementary information allowing for further exploration of particular responses during the interviews.

The use of multiple sources of data also enabled the coverage of a broader range of views and issues and facilitated triangulation of sources to reveal as much depth as possible while enhancing confirmation validity.

3.12.2. Selection of Respondents and Sample Size

The purpose of this study was to identify the factors that influenced large scale commercial property developers in making the firm boundary choice of either outsourcing project management services or retaining them internally using two case studies; one a property development firm that retained project management services internally and the second a firm that outsourced the services. To this end a non-probabilistic purposeful sampling strategy was used to select respondents for the interviews. This sample selection method was chosen because it allowed the researcher to actively select respondents who were expected to be able to provide the most valuable information and insight towards answering the research question (Leedy and Ormrod, 2005).

Unlike quantitative research, the number of respondents (i.e. sample size) is not as significant a factor, as qualitative studies do not generally attempt to establish frequency, estimates, or representation but rather seek to garner rich, quality data providing meaning and understanding of the phenomenon being investigated, as with this research. As such in comparison to quantitative studies the sample size are typically much smaller (Merriam, 2009; Ritchie and Lewis, 2003). The above approach was adopted in this research due to its ability to illicit rich, quality information from the selected respondents first-hand experience with the subject matter. Access to respondents was also a determining factor in the final sample sizes.

The respondents were selected primarily based on their relevance to the study questions rather than their representativeness. The selected respondents were selected based on the expectation that they would be knowledgeable about the study topic due to their experience in working in large scale commercial property development firms. This rationale was seen as a way to understand and provide insight into the factors explaining why property developers chose either sourcing strategy. As such, the respondents were selected mainly based on the fact that they worked for a large property development firm. The researcher attempted to select a diverse array of respondents in terms of age and position, although these factors did not form the criterion of selection, they were recorded to see if these factors had any bearing on their responses.

The initial respondents were selected from the researchers existing network, being fortunate enough to work in the construction industry in Johannesburg. However, from there the network or snowball sampling technique (Merriam, 1998) was used, where at the end of the interviews with the initial participants they were asked if they would be able to suggest other colleagues within their firms that the researcher could approach for additional interviews, which was carried out until this approach was exhausted, allowing for a pluralistic view of the phenomenon being investigated (Pettigrew, 1990).

The above selection process also tied-in with Glick et al. (1990) view that it is beneficial using multiple respondents, as the validity of information provided by one informant can be cross checked against that provided by other respondents, allowing the research to resolve discrepancies between the different respondent's responses, enhancing the validity of the data.

3.12.3. Justification for Selected Data Collection Method

Numerous researchers (Merriam, 1998, 2009 and Yin, 2009) have praised the face-to-face detailed in-depth interview as a commonly preferred source of quality data in qualitative case studies. Naoum (2007) further highlights that interviews are particularly useful as a data collection method in exploratory studies where limited knowledge of the topic under investigation is available, such as in the study being undertaken. Saunders et al. (2012) concur, agreeing interviews are able to provide valuable insight in explanatory studies looking into a phenomenon in order to explain the relationships between variables, providing the researcher with opportunity to get a better understanding of the main factors involved in their study.

The semi-structure interview was selected as the data collection method for this research due to the open ended questions, it allows the interviewer flexibility to capture the uniqueness and complexity of the issues at hand (Rule and John, 2011), allowing the interviewer to steer the interview in the desired direction, while providing the interviewer with the opportunity to probe the respondents answers and ask follow up question, by inviting the respondent to further "explain, or build on, their response" (Saunders et al, 2012: 378). Saunders et al. (2012) further praise semi-structured interviews ability to "test the applicability of existing theory" and explain any deviances.

3.12.4. Semi-Structured Interview Questionnaire Development

Literature reviews have been used extensively by researchers to contextualise issues surrounding a particular phenomenon under investigation (Merriam, 1998). Through this study's literature review the three theories; agency theory, transaction cost economics and the organisational capabilities approach, were identified as popular theories used to explain the firm boundary decision (Steensma and Corley, 2001). These were used to provide alternative, yet complementary general themes/factors that influence the boundary decision made by property development firms in sourcing construction project management services. These themes were then used to develop the interview questionnaire.

In developing an interview questionnaire there are three main steps in formulating the main questions, first work out what to ask on one's own knowledge, then use the literature review to guide you to the main questions, then finally undertake preliminary research to formulate the main questions (Rubin and Rubin, 2012).

As per the process above, a questionnaire comprised of open ended questions was formulated as the primary research data collection instrument. Open ended questions were found appropriate for this study because of its explanatory nature, they allowed the respondents interviewed to provide as much detail as required in response to questions, allowing them to express their unique individual perspectives, feelings and points of view on the subject matter (Guion, 2001), which the researcher may have not considered. In addition, the use of opened ended questions allowed the research to ask further follow up questions when required, to get further clarity on issues.

Simple "yes or no" questions were avoided, as they tend to provide very limited information that gives little to no context of what is being enquired about and thus, would not satisfy the qualitative nature of this study, which seeks to understand the respondent's personal interpretation of their environment. The use of leading questions was also limited, as well as, as they posed the risk of revealing the researcher's bias/ assumptions that may not necessarily be shared by the respondent and skew the respondent's feedback (Merriam, 2009).

3.12.5. Semi-Structured Interview: Planning and execution

The data collection for this study was conducted using a standard repetitive protocol to ensure that the interviews provided reliable, valid data consistent with the study's objectives.

Semi-Structured Interviews using the questionnaire as the data collection instrument, comprising of a list of predetermined open-ended questions as an interview guide was used for data collection. The questionnaire comprised of main questions formulated out of the findings/ themes of the literature review (refer to Appendix 3: semi-structured interview questionnaire), to guide the interview towards satisfying the study objective, however, respondents were also asked additional follow up questions when required for further information or clarification of a response.

Permission to conduct interviews was sought from both organisations and once clearance was obtained, potential respondents were identified and communication was established and an information sheet (Refer to Appendices 1 and 2) was sent to the potential respondents, introducing the researcher,

providing the researchers contact details, explaining the purpose of the study and confirming their right to end participation at any time during the interview without repercussions, how long the interview will take, how confidentiality will be assured. Following confirmation of willingness and availability to participate, appointments were set up with respondents to conduct the interviews. The interviews were conducted between 6 December 2017 and 18 December 2017.

An hour was allocated to conduct each interview. Interviews were scheduled directly with the respondent well in advance to ensure that they scheduled a suitable and convenient setting and time for the respondents. Permission to record the interviews on a Dictaphone was also sought from the respondents directly when scheduling the interviews and confirmed once again at the beginning of the interview. Confidentiality of the identities of the respondents was emphasis and prioritised in the undertaking of the study and was communicated to the respondents when scheduling the interviews and confirmed once again at the beginning of the interview, to quell any concerns or fears the respondent may have about participating in the study.

The beginning of the interviews were used to introduce and give background information about the researcher, to establish rapport and trust (Patton, 1980) and discuss the purpose of the study, the format and process of the interview (i.e. semi-structured interview), reconfirm permission to record the interviews, as well as, discuss protection of confidentiality and their right to withdraw from the study at any time and also answer any other questions the respondents had, in order to create an atmosphere of trust. Respondents were then requested to sign consent forms (Refer to Appendix 2) confirming that they understood that a report from the findings of the research, using data obtained from all participants would be published. However, confidentiality and anonymity would be protected and it would not be possible to identify the participants of the research from any publications.

All interviews were recorded from beginning to end using a Dictaphone. During the course of the interview notes of the discussion were also taken by the researcher to reference later to track key points and ideas. Once the interviewing process was completed the recordings were transcribed, to facilitate easier, quicker and more efficient review and analysis of the collected data (Saunders et al. 2012). Also, creating a reliable complete record of the interview, limiting the effects of the researcher's possible pre-assumed views and bias (Rubin and Rubin, 2012). To further ensure accuracy, the researcher reviewed each transcript while listening to the audio recording.

Overall, 6 respondents participated in this research, 3 from Firm A and 3 from Firm B. For convenience all interviews were held in respondents' offices. The semi-structured interviews were conducted with the three respondents from Firm A, respondent A1, A2 and A3 on 6 December 2017, 7 December 2017 and 18 December 2017 respectively, at the offices of Firm A in Johannesburg. The length of each interviews varied between 30 minutes to an hour in duration to complete. The semi-structured interviews were conducted with the three respondents from Firm B, respondent B1, B2 and B3 on 12 December 2017, 15 December 2017 and 13 December 2017, respectively at the offices of Firm B in Johannesburg. The length of each interviews varied between 30 minutes to an hour in duration to complete.

Due to the sensitive and strategic nature of the subject being discussed in the interviews, an undertaking by the researcher was made not to reveal the names of the property development firms or the identities of the respondents and a coded identification system was used to identify each respondent in the study.

3.13. Data Reliability and Validity

A common concern faced by all researchers when conducting any research is ensuring the reliability and validity of their research, through the incorporation of appropriate mechanisms to maintain the integrity of the research, its process and its findings and ensure the researches credibility (Kvale, 2007).

Miles and Huberman (1994) state that issues regarding reliability and validity of data are more accentuated in qualitative research, where the researcher typically works alone in the field and can often tend to be more focused on reporting on their findings rather that describing how the results were reached. Furthermore, qualitative research usually involves the researcher taking an active role in the collection and interpretation of others inputs, therefore requires the researcher to avoid introducing personal bias, assumptions and narrow thinking (Stake, 1995). Similar to Kvale (2007), Stake (1995: 109), recommends implementing protocols that fall under the broad categorisation of "triangulation" to reduce threats to the reliability and validity of the research.

The researcher used recommended strategies recommended by renowned qualitative researchers to decrease threats to the validity of the research (Lincoln and Guba, 1985), such as triangulation of data (Merriam, 2009; Prasad, 2005; Yin, 2009), through the use of multiple sources of data to confirm emerging findings, as well as, peer (colleague) review of findings as they emerged (Merriam, 2009).

In addition to triangulation and peer review, the researcher also followed the following guidelines as recommended by Merriam (2009) to decrease threats to the reliability and validity of the research findings:

1. An 'audit trail' as recommended by Merriam (2009), that provides a detailed explanation of the data collection and analysis method and how decisions were made is included in Chapter 3.

2. 'Rich, thick description' was further implemented providing enough rich, thick description to contextualise the research, so that readers will be able to determine the extent to which other situations matches the research context.

3. 'Engagement' whereby adequate time was allocated to collect data, such that it became saturated.

4. 'Reflexivity' where the researcher engaged in critical self-reflection regarding possible assumptions and bias that may affect the research.

3.14. Generalisation

“Generalization, which is an act of reasoning that involves drawing broad inferences from particular observations, is widely-acknowledged as a quality standard in quantitative research, but is more controversial in qualitative research. The goal of most qualitative studies is not to generalize but rather to provide a rich, contextualized understanding of some aspect of human experience through the intensive study of particular cases” (Polit and Beck, 2010: 1451).

Due to the qualitative, exploratory nature of the research and its intention is only to shed light on some of the factors that influence to property developers to make either sourcing decision by focusing on either extreme and not to exhaust the spectrum of all possible considerations, as well as, the expectation that this would allow for far more in-depth exploration of the cases, it was decided to only undertake two case studies, with a limited number of respondents, as unlike quantitative research, the number of respondents (i.e. sample size) is not as significant a factor, as qualitative studies do not generally attempt to establish frequency, estimates, or representation but rather seek to garner rich, quality data providing meaning and understanding of the phenomenon being investigated, as with this research (Merriam, 2009; Ritchie and Lewis, 2003).

While generalisations based on larger sample sizes provide data that is generally more transferrable than smaller sample sizes, this research while falling into the latter, is still able to provide useful data that can generalised, as although it does not reveal the frequency of the occurrence of either sourcing choice, it does succeed in identifying possible reasons why either sourcing option is selected by different property development firms, establishing a basis for further research in this field and allowing for high level, broad generalisation of property development firms and their choice of sourcing option.

The generalisation of data and transferability was further enhanced in this research by the use of mixed method of collection, analysis, and integration of qualitative and quantitative data through the use of semi-structured interviews and questionnaire surveys. Which allowed respondents, not only to provide the importance they gave each specific identified factor compared to another factors, in influencing the sourcing decision, but also a comparison of how each respondent viewed the importance of the identified factors in influencing the sourcing decision, relative to the importance attributed to the same factor by other respondents.

DATA PRESENTATION AND ANALYSIS

4.1. Introduction

The goal of data analysis is to make sense out of the data collected, by consolidating, reducing and interpreting what people have said and what the researcher has read, giving meaning to the data (Merriam, 2009).

Although the specifics of undertaking qualitative data analysis differ from researcher to researcher, most researchers agree that the process of data analysis consists of five overlapping stages (Creswell and Poth, 2018):

1. Managing and organising the data
2. Reading and memoing emergent ideas
3. Describing and classifying codes into themes
4. Developing and assessing interpretations
5. Representing and visualising the data

Where the first stage “managing and organising the data” consists of sorting through data and arranging into a systematic filing system (Creswell and Poth, 2018). Where for this research this process involved transcribing the recordings of the semi-structured interviews conducted with the participants of the research. Saunders et al. (2012) recommend that the researcher carries out the transcribing themselves, fully immersing themselves in the data, picking up not only exactly what was said but nuances in tone and inflection. However, due to time constraints, the researcher relied on a professional transcriber to undertake this activity.

The second stage “reading and memoing emergent ideas” typically consists of reviewing the data (Creswell and Poth, 2018), which in this instance of thesis research consisted of reading through the transcripts several times, to familiarise the researcher with the details of each interview, making notes of important points. Where this process of making notes while reading through the transcripts, as recommended by Creswell and Poth (2018), helps the researcher form an overall picture of the contents of the data as whole.

This stage is then typically followed by what Creswell and Poth (2018) call “describing and classifying codes into themes”, which is the core of qualitative data analysis. Where coding simply means “assigning some sort of shorthand designation to various aspects of your data so that you can easily retrieve specific pieces of the data” (Merriam, 2009: 173), or described differently, coding is the process of assigning codes to concepts and themes, in order to assess the frequency in which they appear or are referenced in the interview data (Remenyi, 2012).

The fourth stage, “developing and assessing interpretations” is the process of engaging with the data to theorise the meaning of patterns, themes and codes developed through the analysis of the data (Grbich, 2012).

Qualitative Content Analysis (QCA) was used by the researcher for this purpose to reduce and make sense of the voluminous data collected to find consistencies and meaning (Patton, 2002), i.e. patterns and themes, which were then organised into more manageable and meaningful categories through coding, allowing comparisons between the case studies to be explored and interpreted to form conclusions.

In this research the coding categories used emerged from the literature review undertaken and were as follows:

1. Outcome Measurability
2. Agent Behaviour Observability
3. Threat of Opportunism
4. Relative Cost Advantage
5. Uncertainty and Technical Complexity
6. Asset Specificity
7. Agent Behaviour Observability
8. Small numbers
9. Information impactedness
10. Core Capabilities
11. Requirements Volatility

Refer to Appendix 4: Coding Frame

The final stage of qualitative data analysis, involves the researcher deciding in what format to present the analysed data (Creswell and Poth, 2018).

4.2. Profile of respondents

The profile of the respondents in the two cases are summarised in Table 4.1 below:

Table 4.1: Profile of Respondents

	Job Title	Duration of Employment at Current Firm	Prior Work Experience
Respondent A1	Development Manager	2 years	3 years in property finance for a large commercial bank
Respondent A2	Development Manager	1 year, 6 months	20 years in property development and marketing
Respondent A3	Development Manager	just over 2 years	6 years in property development
Respondent B1	Precinct Manager	2 years, 6 months	16 years in property development
Respondent B2	Development Manager	just over 2 years	22 years in property development
Respondent B3	Development Manager	5 years, 6 months	none

4.3. Analysis of Firm A Semi-Structured Interviews

Below are the consolidated responses received from Firm A's respondents (A1, A2 and A3) in the semi-structured interviews.

4.3.1. Q1. Other than property development what other functional areas of the property/construction industry is your company active in?

There was general consensus amongst all 3 interviewees that Firm A was a multi-discipline property-oriented company, "*Okay, so, we're a services integrated company, specialising in property management and management facilities, management trading and investment and property finance, as well*" (Respondent A3). However, that main business focus of the company was property development.

4.3.2. Q2. What various types of property developments does your company specialise in?

Again, there was general consensus amongst the respondents, who all concurred that Firm A mainly specialised in commercial and retail property developments, "*Okay, so, Firm A's main focus is the commercial space, specifically office blocks, there's also a huge lean towards retail…" (Respondent*

A1), and occasionally was involved in industrial developments, *"…I mean we have done some, but very little*" (Respondent A2).

All three respondents also highlighted that in recent years Firm A was moving into the student accommodation and residential property, development space as well, *"… there's also a huge drive in student accommodation and residential at the moment…*" (Respondent A1).

4.3.3. Q3. How many permanent employees does your company employ?

The three respondents again agreed that the overall size of Firm A's total workforce was between approximately 200 to 350 people and that there were approximately between 10 to 20 development managers employed by Firm A in different offices throughout the country.

4.3.4. Q4. What is the average size of your projects? Cost wise ranges?

Although Respondent A1 confirmed that Firm A would occasionally undertake projects as small as between R 10 million and R15 million, this was only very seldom and all three respondents agreed that generally the smallest projects Firm A typically undertook were of a Rand value of between R100 million to R250 million but could be as large as R2 billion to R3 billion.

Respondent A3 further advised, "*ideally we wouldn't like to do projects less than two hundred million as a benchmark, and the reason is quite simple, we found that the amount of time we spend on generating work whether it's fifty million, two hundred million or you find yourself spending more or less the same amount of time to manage the risk on a project. As an upper limit, there isn't really an upper limit, we do third party work as well, so like we've done on one or two projects in Sandton, the values might be up to three billion and the funding doesn't necessarily come from Firm A's pocket*".

4.3.5. Q5. How many projects are ongoing at this time? Would you say this is typical?

There was a bit of variation received in the responses from the three respondents to this question. While Respondent A1 estimated that there were about 4 projects currently in construction, he also acknowledged that this was not typical and usually there would be at least double that number.

Respondent A2, on the other hand, advised that he thought there were 7 projects currently in construction and Respondent A3 thought that there were between 8 and 15 but both agreed that this figure was typical.

However, both Respondent A1 and A3 highlighted that for Firm A, the focus was not necessarily on the number of projects undertaken but rather the value of the projects undertaken. Where Respondent A1 advised, *"…also the type of developments that are going up. So as an example, the "Development X's" fee alone is enough to sustain the business because it's a big project… But if you have 25 small projects, you're pretty much the same, you know, better off, but you still have uhm, like you have 25 active but it's really benefiting you*". Similarly, Respondent A3 commented that, "*we look more at what kind of values we're sitting at per year, and every year we sit between three and a half to four and a half billion*

Rand's worth of work in the ground", adding "*we're sitting with projects we're working with in background, so we've got a monthly strategy session between our development team, where we assess the different projects and we give feedback on where we are with those. We sit with anywhere between 80 and 120 projects*".

4.3.6. Q6. How would you describe your company's property development experience in terms of exposure to construction? i.e. How often do you build? How important is it for your company to be involved in the building process?

While there was consensus that Firm A was very experienced in its exposure to construction, Respondents A1 and A2 felt that it was important to get personally involved, "*I think from the development side it's critical that the development managers are involved hands on… So even though we have a professional team that reports in for us, the development manager is the ultimate custodian of the project, and the ultimate point of responsibility. And he needs to be informed at any given moment of what's happening on site. Are there any issues? and report back to management. It is non-negotiable, it has to happen, it is extremely critical that it happens that way*" (Respondent A1).

Respondent A1 further clarified that because Firm A underwrites and guarantees the cost of all the projects it undertakes for its, where in the instance that there is a cost overrun, Firm A then has to pay for the overrun directly themselves, *"… so it's very critical that we're involved every step of the way*", in order to better manage the associated risk. Further going on to highlight this service, as a unique core competency, "*other developers… they don't offer that service, so they will form a normal construction project, JBCC contract, get a contractor and a team and they will run it by remote control where they will rely a lot on the project managers and the team. So, we're a bit unique in the sense that we, because of the risk that we have going into it… It's a unique service that is offered and we're trying to get it out in the market as well because no one else offers that*".

Interestingly, however, Respondent A3, had a completely opposing view, where he relied much more on the project manager to deal with site issues, "*our drive and focus is on generating new work, and not doing the PM work, there's more value for us, in understanding of what's going on in the market… and looking for new projects, looking for new sites and that's where we kind of want to spend 90% of our time and that's why we employ project managers and that vision for us isn't going to change in the future*".

4.3.7. Q7. How influential is the contribution of the project manager towards the successful completion of a project? Please explain why?

Respondents A2 and A3 agreed that on smaller projects the services of a project manager were not necessarily essential. Respondent A2 advising that project management services would likely be undertaken in-house on smaller projects. While Respondent A3 advised on smaller projects the role of the project manager would be delegated to one of the other project team consultants, *"So we don't do PM work in our office at all, on very simple projects… we wouldn't do the PM work, we'd get the architect maybe, to do the PM services there*".

However, for large scale projects there was agreement amongst all three respondents that project management services were indispensable toward the successful completion of a project, "*look the project manager in our view is the most important professional because not only does he bring the rest of the team together, but he is the point of call between ourselves and the team and the main contractors, so we don't really deal with five consultants all in all, we focus on the project manager and he will relay. So, it's critical that he knows exactly what's going on. As well as, he's got the soft skills, you know, being able to bring people together and communicate well, so the importance of the project manager on our projects is paramount*" (Respondent A1). "*PM's are, you know, massively important in the success of our projects and you know one thing we say to each other and it's something I carry around with me, is to employ the best people you can, uhm, you give a clear directive and you kind of take the back seat to see where the project is going and you only get involved when you need to, but it's definitely not our focus to be involved in day to day management basis*".

Interestingly all three Respondents highlighted trust in the specific individual project manager as critical element in appointing a project manager, as well as, the theme of small numbers, the extent that the contracting parties are familiar with each other, giving rise to an advantaged because they have more experience with the other party, "*we make sure that when we appoint project management companies as well, that we know who's being appointed, we don't just appoint a company, we appoint a person… the project manager is the individual, the personality that you hire*" (Respondent A1). Concurring Respondent A3 advised, "*I don't sit in front of a program roll-out, procurement dates, and actually evaluate whether they do their work or not and I mean that's the amount of trust that we put in our project managers to deliver on the goals that we've set out at the start for them*".

4.3.8. Q8. Are there benefits to having an in-house PM? Please explain.

Respondent A1 cited an increased level of trust, *"[you would] generally have a relationship that's been built over a number of years on previous projects, so it's the devil you know, rather than the devil you don't know"* and the building of project management institutional knowledge as the benefits of having an in-house project manager, "… *because then you build like a bedrock of information and knowledge that can be passed on"*.

In addition, Respondent A1 included relative cost advantage as another benefit of having an in-house project manager, *"because they will be an employee, they will be a salaried employee as opposed to a gazetted provision fee, so it would be a lot cheaper to have someone like that"*, as well as, accessibility and communication, *"the other benefit would be probably the accessibility to them is a lot easier in terms of getting the information…"*

Respondent A2 concurred with respondent A1 with regard to relative cost advantage being a benefit of having an in-house project manager, *"cost"* but still felt that for a company the size of Firm A, the relative cost advantage was superseded by requirements volatility, *"... I think because especially companies this size, it's surely beneficial to have outsourced because you're busy with so many projects, so you*

never know what you're going to need, you might need one, you might need five… You never know the type and the amount of work that you're actually going to be busy with".

Respondent A3 also cited accessibility and communication as potential benefits, however, felt that due to his view of the necessary trust and small numbers contracting inherent in appointing a project manager, there was no real value in having in-house project management services and the retaining of project management services internally did not cater for requirements volatility, *"I don't really see the value in having one, it would be better for us to outsource that work… it's just redundant work if you're outsourcing the work and anyway you trust the people… it's the risk of having an extra overhead… if you don't have work?"*

4.3.9. Q9. Are there challenges/ risks of having an in-house PM? Please explain.

Due to Respondent A2 and A3's answers to the previous question, the research decided not to ask them this question as their previous answers covered this question.

Respondent A1 however, cited lack of independence and objectivity as a major concern in retaining project management services in-house, "*the biggest risk in my mind is independence, because like any professional in the business, they are meant to be an ethical individual… and they can't be having a conflict of interest with the employer, so as an example, if [the contractor submits] an extension of time [claim] on site, he needs to adjudicate the extension of time. Independent of what his boss is saying…*"

4.3.10. Q10. Are there benefits of having an outsourced PM? Please explain.

Respondent A1 again highlighted that independence and objectivity as a major benefit in opting to outsource project management services. Adding that another benefit in utilising outsourced project management services was that it also allowed for the selection of specific project managers or project management firms for specific types of projects, in which they were felt to be more specialised or more experienced in, than other project managers or project management firms. Whereas, in the instance that the project management services were retained internally, the extent of the project management expertise is limited to the extent of the internal project managers exposure to different types of projects that the development firm has previously embarked on, *"you can't be in a situation where you don't have touch with the market or what everyone else is doing…"*

Again, the researcher felt that it was not necessary to ask the Respondents A2 and A3 as their answer to a previous question sufficiently answered this question as well.

4.3.11. Q11. Are there challenges/ risks of having an outsourced PM? Please explain.

To this question Respondent A1 cited loss of the relative cost advantage as a challenge of outsourcing project management services, as well as, accessibility issues, *"…their accessibility like again, you're not in touch with them as often as you would like…"* However, went on to further clarify that he did not think even these challenges were a significant enough to warrant the need to integrate project management services within the frim boundary, when compared to the benefits associated with

outsourcing them, "*but I don't really think there's anything that's a deal breaker for having a project manager that's outsourced. There are more benefits in our view than [keeping this service in house]*".

Again, Respondent A2 was not asked this question due to his response to a previous question sufficiently answered this question as well.

Respondent A3, highlighted the issue of trust as possible issue that may arise by outsourcing project management services. However, went on to say that due to the small numbers strategy employed by Firm A, he did not believe this was a major deterrent from using outsourced project management services, "*Uhm, I guess it's... for me mostly it would be trust issues, you now if you're not close enough to your project managers and you don't have full confidence in who they are but then in the same breath you're employing incorrect project managers to do the job, so luckily for where we are, sitting now and thinking about and other project managers that have been used elsewhere, we've worked with the guys for fifty, twenty, thirty years, so there's a massive amount of trust there, it's been built over time and like I said earlier you try to surround yourself with the best people to make sure they understand what your goals are*".

4.3.12. Q12. Do you think either decision has any implications, cost, quality, programme, communication or otherwise? Please explain.

As per previous answers to earlier questions Respondent A1 reiterated that the main benefit of using in-house project management services was the relative cost advantage and relatively easier access, however, felt that the flexibility of adjusting to requirements volatility, impartialness and the ability to choose the most suitable project manager for a specific type of project from the market associated with outsourcing the services outweighed the benefits of utilising in-house project management services.

With regard to quality and programme Respondent A1 didn't think the choice of either sourcing strategy played as significant role.

Respondent A2 on the other hand felt that the choice of implementing either sourcing strategy had negligible impact on cost, quality, programme or communication and felt that the experience of the project manager played a more significant role, "it *depends on the PM but no, not if you've got a good PM… not necessarily, I don't think it really affects anything because you've got guys that you deal with and you're comfortable with…*".

Respondent A3 concurred with Respondent A2, that that the choice of implementing either sourcing strategy was negligible on project outcome, "*no, not really to be honest, like, uhm, no*".

4.3.13. Q13. What is the sourcing strategy of project management services in your company, is it in-house or outsourced?

All respondents agreed that the project management sourcing strategy employed by Firm A was outsourcing and also all agreed that outsourcing was the more advantageous sourcing option for the firm.

Respondents A1 and A3 agreed that one of the reasons Firm A opted for this strategy was related to the firm's core competencies, "*from our, Firm A's, perspective none of us are project managers, we don't have the skill or the expertise to be able to run a project…*" (Respondent A1). *"…a DM is not a PM… Our DM section here works on finding new work, spending time on actually creating value and income stream versus spending time on a project if you can actually outsource the job*".

Respondent A1 gave relative cost advantage as other reasons he felt Firm A opted to outsource project management services, "*that would then mean bringing in a project manager, who would have add a cost to us, another head…*", as well as, requirements volatility and flexibility, "*I think there is a lot more benefit to having them outsourced and also you have the option of changing your project manager easier, because in-house you're stuck with the guy for the next 15, 20 [years], who knows how long?... You can't just fire him. Now if he's outsourced, he has a contract which he has to abide by which you can keep him on a leash with, and if he doesn't perform you can say guy, I'm holding back your fee or I'm gonna get someone else… now dealing with an employee, from an HR perspective, might not be ideal, in fact you wouldn't be able to…*"

Respondent A2 on the other hand agreed that relative cost advantage was likely a contributing factor as to why Firm A had selected the strategy of outsourcing project management services but felt that the flexibility outsourcing provided, allowing the selection of the most appropriate project manager, in terms of skill for a specific project, was a more important contributing factor, "*price but also your skill, your skill*".

4.3.14. Q14. Do you feel that the contracts used sufficiently protect your interests and resolve contractual issues that may arise to your satisfaction?

All three respondents stated that they felt that the contracts Firm A uses to appoint external project managers sufficiently protected their interests from threats of opportunism and facilitated outcome measurability, as the bespoke contracts were drafted by an in-house legal department tailor-made to their specific requirements. "*we don't use PROCSA agreements for that very reason, we don't feel that it correctly looks after the interest of the client, and for that reason we draft our own letters of appointment, that's internally as a Firm A template that gets issued to each consultant… the letters of appointment goes into like 20, 30 pages at times cause it has a detailed scope, of what they will need to do, on what days, or what they're going to be hired for, what their fee is going to be, uhm, a dispute mechanism if there're something they're not happy with… So, it covers all the aspects that a normal PROCSA would, but it also takes into account the certain things that the PROCSA doesn't look out for in terms of errors. So, as an example, we've got a forfeit fee clause; where in the event that they don't reach Practical Completion on a project in time, then they're giving up a percentage of their fee… So, what it does, is it keeps the guys honest, so it says; okay guys, you can't just come willy nilly giving VO's on site every day, because that's going to affect the time and cost of a project*" (Respondent A1). "*I think really we've got that covered, you know, that's something we really look at in a corporate environment like that, so we've got an in-house legal team that looks at everything in terms of risk, so there's very little… It's not a major concern, you know, we've been through it a thousand times*"

(Respondent A2). "*We've gone through numerous exercises in-house to make sure our documentation covers as much as we possibly can from a risk perspective between us and the consultant*" (Respondent A3).

Respondent A3 eluded to the fact that Firm A's use of small number strategy also provide additional security that their interests were protected, "*contracts are only in place for when something goes dramatically wrong, so, we don't like to manage by contract but we do feel like contracts cover the essence of what is meant to be in that relationship*".

4.3.15. Q15. How important is it for you to understand and know exactly what the project manager is doing on a project?

Behavioural observability was not rated as very important by any of the respondents, with all three respondents citing trust stemming from Firm A's small numbers approach to appointing project managers and confidence in outcome measurability as the main reasons, "*I wouldn't say we are on the extreme of leaving him to his own devices, or for calling him up every-day, where are you, uhm that's why it's very important to at the beginning when you screen the guy and get to know him, that's why we appoint the individual and not the company, so you know what you're in for and on most of our active projects like I don't call my project manager every single day, and if something he will email, or call if it's something important but there's days where I call him once a week, but it's not a where are you now, come and meet me here, I'm on site, it's not like that, I mean the guy has got his own job to do*" (Respondent A1). "*How they run their organisation or their business or their PM services in the background is really not applicable to us as long as we know we're getting the right information at the right time, and it's being managed properly*" (Respondent A2). "*From my side, and I mean, it gets down to management's leadership style, so for me I'd like to be involved as little as possible, and to be honest I don't really care what my PM does on a day to day basis, it's got nothing to do with me, if we sit on our once every second week, once every month in our management meetings, we get an overview of where the project is, and that's enough, I mean if we understand the project is being steered in a good direction then I will stand back, I won't do anything, if there is pressure then you get slightly more involved so you can work through those pressures to get back on track, but if everything is going well, and there's trust and the reporting is working, then there needs to be zero involvement from my side*" (Respondent A3).

4.3.16. Q16. Do you find it easy obtaining, understanding and make decisions based on information received from your project managers?

All three Respondents confirmed that they had no issues in obtaining and understanding information from their outsourced project managers and confirmed that they felt confident making decisions on the basis of the information received.

4.3.17. What would you describe as your company's core competencies? Do you consider project management one of them?

There was unanimity from all three respondents that Firm A's core competency was development management and project management was not a core competency of the firm.

4.4. Analysis of Firm A Survey

Following the semi-structured interview session, the three respondents were asked to complete a survey (refer to Appendix 3) rating the key factors, identified in the literature review, on a scale between 1 to 10 (where 1 being not important at all and 10 being very important) in how important they believed each one was in influencing their Firm's decision to outsource project management services.

Below are the results of the survey responses received from Firm A's respondents:

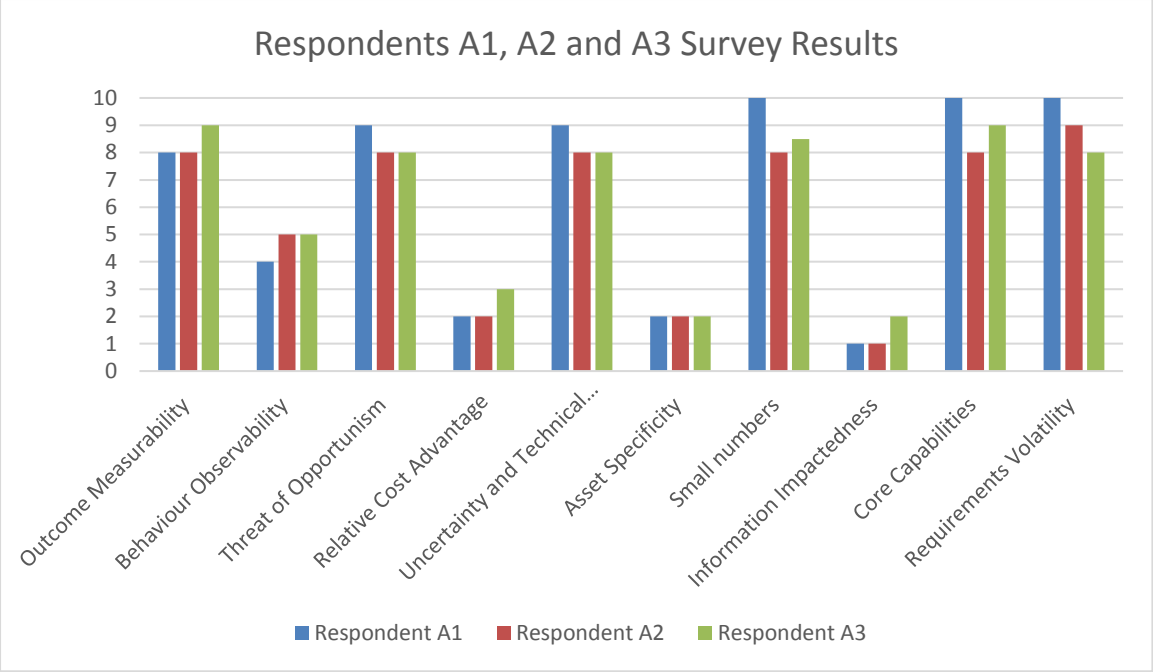


Figure 4.1: Individual Rating of Factors – Firm A

The results of the surveys undertaken with the three respondents were then aggregated to get a firm level rating of the various factors and their relative importance in making the decision to outsource project management services.

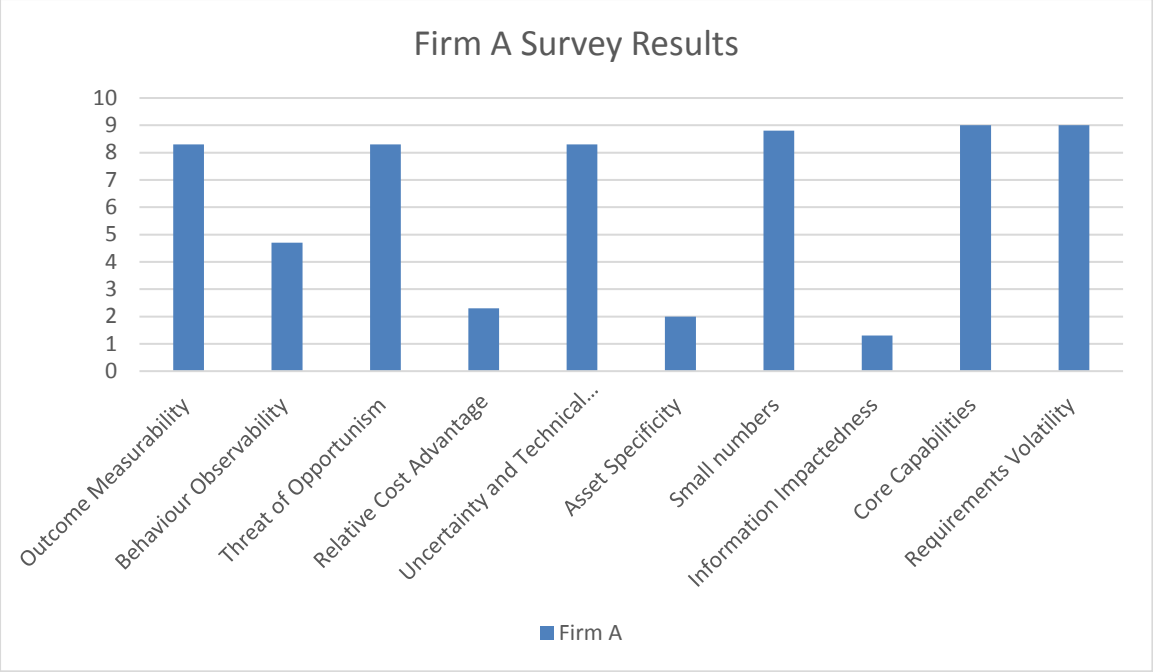


Figure 4.2: Firm Rating of Factors – Firm A

4.4.1. Outcome Measurability

In line with the feedback received from the semi-structured interviews, all three respondents rated the importance of outcome measurability highly in influencing Firm A in make the decision to outsource project management services, with Respondents A1, A2 and A3 giving this factor scores of 8, 8 and 9 respectively (aggregated firm level rating 8.33).

4.4.2. Agent Behaviour Observability

In the surveys carried out agent behaviour observability was found to be a slight but not a very important factor in the deciding to outsource project management services, with Respondents A1, A2 and A3 giving this factor scores of 4, 5 and 5 respectively (aggregated firm level rating 4.67).

4.4.3. Threat of Opportunism

According to the results of the survey, the threat of opportunism was found to be not very a very important factor in the deciding to outsource project management services, with Respondents A1, A2 and A3 giving this factor scores of 2, 3 and 3 respectively (aggregated firm level rating 2.67).

4.4.4. Relative Cost Advantage

The feedback from the respondents on the relative importance of relative cost advantage factor in deciding to outsource project management services was found to be not very a very important factor in the decision. Respondents A1, A2 and A3 giving this factor scores of 2, 2 and 3 respectively (aggregated firm level rating 2.33).

4.4.5. Uncertainty and Technical Complexity

In line with the feedback received from the semi-structured interviews, all three respondents rated the importance of uncertainty and technical complexity highly in influencing Firm A in making the decision to outsource project management services, with Respondents A1, A2 and A3 giving this factor scores of 9, 8 and 8 respectively (aggregated firm level rating 8.33).

4.4.6. Asset Specificity

All three respondents rated the importance of asset specificity very low in influencing the decision for Firm A to outsource project management services, with Respondents A1, A2 and A3 all giving this factor a score of 2 (aggregated firm level rating 2).

4.4.7. Small numbers

In line with the feedback received from the semi-structured interviews, all three respondents rated the importance of small numbers highly in influencing Firm A in making the decision to outsource project management services, with Respondents A1, A2 and A3 giving this factor scores of 10, 8 and 8.5 respectively (aggregated firm level rating 8.83).

4.4.8. Information impactedness

All three respondents rated the importance of information impactedness in influencing the decision for Firm A to outsource project management services as low, with Respondents A1, A2 and A3 giving this factor a score of 1, 1 and 2 respectively (aggregated firm level rating 1.33).

4.4.9. Core Capabilities

In line with the feedback received from the semi-structured interviews, all three respondents rated the importance of small numbers highly in influencing Firm A in making the decision to outsource project management services, with Respondents A1, A2 and A3 giving this factor scores of 10, 8 and 9 respectively (aggregated firm level rating 9).

4.4.10. Requirements Volatility

In line with the feedback received from the semi-structured interviews, all three respondents rated the importance of requirements volatility highly in influencing Firm A in making the decision to outsource project management services, with Respondents A1, A2 and A3 giving this factor scores of 10, 9 and 8 respectively (aggregated firm level rating 9).

4.5. Analysis of Firm B Semi-structured interviews

Below are the consolidated responses received from Firm A's respondents (B1, B2 and B3) in the semi-structured interviews.

4.5.1. Q1. Other than property development what other functional areas of the property/construction industry is your company active in?

There was general consensus amongst all 3 interviewees that Firm B was a multi-discipline property-oriented company, "*this company does a whole lot of subsidiary work, we've got a fund that holds all the properties, we've got a managing agent company that runs all the properties, we've got a residential side that builds, constructs, we've got a residential side that leases and sells, you know, we've got a marketing side that does all the graphics and the marketing, and from our side we've got a financial side where there's lending involved, in-house lending, financial services…"* (Respondent B2). All respondents, however, confirmed that the property development department of the company was Firm B's biggest and most predominant department.

4.5.2. Q2. What various types of property developments does your company specialise in?

There was general agreement amongst the three respondents, that Firm B specialised in a range of different property development types including; commercial, industrial, retail and residential, "*all of them, it's very mixed use, you'll do commercial, industrial, retail, residential… we really go any way*" (Respondent B1).

4.5.3. Q3. How many permanent employees does your company employ?

The three respondents again agreed that the overall size of Firm B's total workforce was between approximately 200 to 250 people and that there were approximately between 10 to 12 development managers employed by Firm B and between 6 to 10 project managers in different offices throughout the country.

4.5.4. Q4. What is the average size of your projects? Cost wise ranges?

Again, there was general consensus amongst all three respondents that generally the smallest projects Firm B would undertake were of a Rand value of between R80 million to R100 million but could be as large as R4 billion. However, Respondent B2 advised at times projects smaller then this were sometimes undertaken, "*It varies, hey, like if I look at my own basket of projects, the smallest project I've got is R65 million… So, there is a big range*".

"*I mean we definitely wouldn't say no to smaller projects… I mean, if a nice opportunity comes along and it has a good return, we'll place it somewhere..."* (Respondent B3).

Respondent B1 in agreement clarified further, *"listen you get your commercial developments, like Project A or Project B, or Project C… those will generally be in the billions. It's anything between one*

or four billion… your industrial development, generally what we will get involved in… from about R100 to probably about R400 million… your retail centres are roughly similar, like I said, your commercial stuff will go into the billions. Yeah, so yeah, it's quite… also diverse".

4.5.5. Q5. How many projects are ongoing at this time? Would you say this is typical?

Again, all three respondents agreed that there were between 15 and 22 projects currently in construction, all acknowledging that this was more than normal, especially under the current economic climate. "*So, I think that'll probably run in, in the 50's, the projects that we're busy looking at and doing feasibilities on, but on the ground, you know, physically building, and working on… I think it's probably between 15-20, in that region, thereabouts… I think it's very good. Actually, in the current economic climate, it is very good. Firm B is very fortunate…*" (Respondent B1).

Respondent B3 further advised that for Firm B, the value of the project was also factored in, not necessarily just the number of the projects undertaken, "*but yeah, again you know when we get a mega project, you know a big one that would come online and that would carry us…*"

4.5.6. Q6. How would you describe your company's property development experience in terms of exposure to construction? i.e. How often do you build? How important is it for your company to be involved in the building process?

Again, although there was consensus that Firm B was very experienced in its exposure to construction and it was very important to be as involved as possible, all the respondents also agreed that due to the fact that they had in-house project managers, they generally left the actual monitoring of construction to their project managers, *"very important to be hands on because that's why we have the whole PM division… we take that role 100% in-house and we look after it because that's where your brand [reputation] is coming out and where projects go wrong"* (Respondent B2).

"Yeah, I think you… I, definitely do step back a little bit because my PM steps in… I mean, that's his job… but we are actually quite involved… also, on the design side, before you actually get building, we don't leave it up to our consultants, we're very weary of doing that… I do know some other guys and they are not anywhere nearly as involved as we are, or specifically on the construction side of things. And I think we've also got that approach because we've got in-house project management. You know we want to be in control of that… it largely has to do with how we structure our projects from a financial point of view… we do turn key developments, so we do fixed priced contract developments… the budget then sits with Firm B… so we take the risk if we overrun the cost… we have to absorb that, if we save on that cost it's our good will and it's effectively... call it our profits on the projects. So, because we have that structure, it's really important to look after that and you really have to control your professional team extremely closely, they don't know what you're doing internally in terms of budgeting, so our rules with our professionals are very strict in terms of variation orders, site instructions, anything with financial implications they may not do without our consent. And that's largely why we do project management in-house… we have to protect those budgets extremely carefully and make sure that we're making

decisions… whereas if it was an external guy running our budgets, trying to make us money, it doesn't work for our business model" (Respondent B3).

4.5.7. Q7. How influential is the contribution of the project manager towards the successful completion of a project? Please explain why?

All three respondents confirmed that they considered the role of the project manager extremely important towards the successful completion of a project, advising that this was why they made sure that their in-house project managers filled this role in every development project Firm B undertook, ensuring that Firm B's brand reputation was never compromised, "*for me there's essentially a gazillion skills and technical stuff, but there's one skill a project manager must have, to start off with, and that is the ability to have all of the people around the table, from various different backgrounds and various different disciplines going in the same direction with the same goal. So, the project manager must bring everybody, the architect, the contractor, subbies, whoever else who is involved, on the same page, with the same goal. That for me is the essential bit of the project manager. If we all look into the same direction, and the same goal, all the other things will fall into place, the program, the budget, the quality, everything else will fall into place because we all want to deliver a quality product, within time, within the budget, then there's no issue. If your project manager can manage to do that, and say okay let's all work towards that, he… will have succeeded in being a good project manager… we put a lot of pressure on our project managers… because they are our eyes and ears on the ground, they must have that skill… because it's a massive investment… if that's badly managed, it can cost the company money, it can cost the company reputational damage, so PM's in Firm B are absolutely essential... So, to answer your question, they are essential the success of a project*" (Respondent B2).

4.5.8. Q8. Are there benefits to having an in-house PM? Please explain.

Respondent B1 stated the understanding and standardisation of company specific business culture, internal processes and understanding and maintaining the firm brand as some of the benefits of having in-house project managers, "*in a company like Firm B, it's absolutely essential for us to have in-house PM's, because of various things; our payment systems, our budgetary monitoring system, our status feedbacks… it's people who must understand how Firm B works, and… everybody works through the same system… must buy into the culture of this business, you know where we pride ourselves in being cutting edge… we challenge everything, so you need that person to come in and have the same, to be on the same page as the business. And not just say I'm here to manage the programme… when people see the Firm B name, there's a certain expectation that comes with it. So, when you know you're going to be dealing with Firm B, people expect more... it's one of the things that I believe gives us the competitive edge… [the property] development industry is cut throat, people change quickly, you stuff up one development, they walk away from you… so a lot of our success, I think, is from having in-house PM's… and the way those guys buy into the culture*".

Respondent B2 on the other hand saw the benefit of having in-house project management services as accessibility, communication and efficiency, "*communication, efficiency… a group that follows your*

standard 100%... you've got ownership of that resource 24/7… you get a lot more out of that person, and also you, feedback-wise and also just works-wise… [the project manager interacts] with the DM, so you start to build a strong core team", as well as, the relative cost savings, "a controlled overhead, so you know what your overheads are, it's not going to run away with you. It's salary…"

Similar to Respondent B1, Respondent B2 also felt an additional advantage of having an in-house project manager was having someone you can trust to take care of the interests of the company brand, *"…and there's a loyalty because you're with that brand… Protecting your brand, protecting your product that comes out of the ground". Responding to the researchers follow up question about bias, Respondent B2 advised that the adjudication of claims was done by the quantity surveyor, an external consultant, "yeah the way we do it, we deal with that is by our QS, which is supposed to be independent… if your professional says well you know this is fair, and this is what it is, you will, unless you find that there is something really wrong, you will find that we follow the recommendation of our professional… so if they come back and say this is a fair plan, we might not like it, but if it's a fair plan. It's a fair plan*".

While Respondent B3 also cited a deeper understanding of the firm's processes, structure and deliverables, as a benefit of having and in-house project management service, *"because of our project structures, where [projects] are fixed price contracts… it's really important that we manage that… but it's also [being able to understanding] what we're trying to achieve on the development side so it's quite a bit of a blended role".*

Respondent B3 in addition, cited the relative cost advantaged gained by retaining project management services internally, highlighting, "*the in-house PM benefit, is it's an income generator for us because we charge a PM fee… basically in our feasibilities we have a PM fee built-in which effectively comes to Firm B… it's a cost saver but also it produces income for the business. So, generally in our developments, we charge a development fee… and then we charge a PM fee so then both those fees are then turned in to Firm B*".

4.5.9. Q9. Are there challenges/ risks of having an in-house PM? Please explain.

Respondents B1 and B2 cited requirements volatility as one of the disadvantages of having in-house project management services, "*every month that person will get a salary, so if there's a job on the go or not or whatever, where your, if you get an external PM it's a varying variable, you won't get that person if there's not a job… Sometimes it's the work load… sometimes you find that you are very stretched on the ground and you need to get somebody in, but I mean that is in the exceptional, sort of outlying cases, where we will get somebody [external]…*"

Respondent B3 did not provide an answer to this question.

4.5.10. Q10. Are there benefits of having an outsourced PM? Please explain.

Respondents B1 and B2 stated flexibility in responding to requirements volatility and changes in the environment as a benefit of using outsourced project management services compared to in-house, *"if it goes quiet, then you've got a big staff compliment… that would be a challenge of having any permanent employee*" (Respondent B1). "*The benefit of outsourcing is obviously when times are tough you can go lean. That's obviously the benefit as well*" (Respondent B2).

Respondent B1 also highlighted that their in-house project managers, as employees of Firm B, did not have professional indemnity in their personal capacity, therefore, in the instance there was a claim against one of their in-house project managers, Firm B would be held responsible.

Due to Respondent B3's answers to previous questions, the research decided not to ask them this question as their previous answers covered this question.

4.5.11. Q11. Are there challenges/ risks of having an outsourced PM? Please explain.

Due to the Respondent's answers to previous questions, the research decided not to ask them this question as their previous answers covered this question.

4.5.12. Q12. Do you think either decision has any implications, cost, quality, programme, communication or otherwise? Please explain.

Due to the Respondent B1 and B2's answers to previous questions, the research decided not to ask them this question as their previous answers covered this question.

Respondent B3 however, advised that the decision definitely had cost implications, eluding to a lack of trust and the threat of opportunism relating to outsourced project management services, *"… I think it's just, they cannot have your best interest at heart as you would if you were controlling it yourself…"*

4.5.13. Q13. What is the sourcing strategy of project management services in your company, is it in-house or outsourced?

All respondents concurred that the project management sourcing strategy employed by Firm B was in-house and also all agreed that outsourcing was the more advantageous sourcing option for the firm.

With all respondents further agreeing that the main reason Firm B choose the sourcing strategy was that it allowed for closer monitoring and control, "*we do turn key developments, so we do fixed priced contract developments… the budget then sits with Firm B… so we take the risk if we overrun the cost… we have to absorb that, if we save on that cost it's our good will and it's effectively... call it our profits on the projects. So, because we have that structure, it's really important to look after that and you really have to control your professional team extremely closely, they don't know what you're doing internally in terms of budgeting, so our rules with our professionals are very strict in terms of variation orders, site instructions, anything with financial implications they may not do without our consent. And that's largely why we do project management in-house… we have to protect those budgets extremely carefully and*

make sure that we're making decisions… whereas if it was an external guy running our budgets, trying to make us money, it doesn't work for our business model" (Respondent B3).

4.5.14. Q14. Do you feel that the contracts used sufficiently protect your interests and resolve contractual issues that may arise to your satisfaction?

All three respondents confirmed that Firm B's in-house project managers were hired using standard employer-employee work contracts, *"they're employees of the company"* (Respondent B3).

The respondents further advised that although the in-house project manager would be involved in the contractual side of things, typically the architect would be appointed the principle agent and would be responsible for administering the contract, "*he's an architect, he's also the principle agent, so he will be very involved in the contractual side of things… together with the PM but ultimately the principle agent is the responsible party… so dispute, resolution and those types of things… generally they just listen to what we say but obviously [the principle agent will] need to make a fair judgement on it…*" (Respondent B3).

Responding to the researchers follow up question, regarding possible lack of independence and objectivity in this method of administering the contract, Respondent B3 replied, "*of course, also with your contractor side of things, we're also picky with which contractors we work with because it's a cut throat industry, it's commercial development. When a tenant needs to be in, I don't want to hear that you had rain last week and you can't… you know, the date is the date guys… if we get a scenario where we have a claim conscious contractor it's unlikely that we'll use them again… so we've also wilted that out. There's a nice group of contractors that we have good relationships with… so you know these contractual issues come up, obviously there's a scenario where it's unreasonable and unfair and that's just how it is…*"

4.5.15. Q15. How important is it for you to understand and know exactly what the project manager is doing on a project?

All three respondents agreed that understanding what the project manager was doing on a project was relatively important and in line with this they all agreed that they were sufficiently kept informed with "*bi-weekly feedbacks… meetings twice in a month with the line manager… monthly status meetings… where you give feedback on your project how you're doing on program, we've got monthly budget meetings how you're doing with budget… so those systems are all there, where the PM must own up and you know and step up, this is my project, I'm responsible so there's various means and ways to have feedback sessions…*" (Respondent B1).

In addition, respondent B1 advised that bi-annual performance appraisals were conducted to monitor and assess Firm B's in-house project managers, *"so, yeah and then… we've got performance appraisals every six months where [the project manager] sits with [his] line manager and he goes through to say well we're happy, we're not happy, work on this, work on that, just a very personal thing,*

so yeah, again it's not a personal criticism, it's your project but it's a nice one on one, an open frank discussion, so it becomes [constructive criticism]".

4.5.16. Q16. Do you find it easy obtaining, understanding and make decisions based on information received from your project managers?

All three Respondents confirmed that they had no issues in obtaining and understanding information from their outsourced project managers and confirmed that they felt confident making decisions on the basis of the information received.

"Exactly, that's exactly what those meetings are for" (Respondent B2).

"You know exactly [where the project is], you might not know the intimate details, of everything but you will know if a project is doing well or not and obviously the projects that is not doing well gets more attention… and when I say more attention, it can be daily, to say okay how do we get out of this, maybe the program is laying because of something let's deal with it…" (Respondent B1).

4.5.17. Q17. What would you describe as your company's core competencies? Do you consider project management one of them?

In addition to development management services, there was unanimity from all three respondents that project management was also a core competency of Firm B.

"I do expect more from a project manager working for Firm B than I would from any of our competitors" (Respondent B1).

"I think in a nutshell just with the PM… which is very different to most developers is the turn key scenario development… that's our bread and butter, that's how Firm B makes its money… we fix the price and then we must beat the price to make money for ourselves, whereas a lot of property developers don't do that, they're more focused on the end product, where they are creating an asset and the asset produces income or they sell it.. and that's how they employ a PM to do it for them… whereas your Firm B is way more hands on that…" (Respondent B3).

4.6. Analysis of Firm B Survey

Following the semi-structured interview session, the three respondents were asked to complete a survey (refer to Appendix 3) rating the key factors, identified in the literature review, on a scale between 1 to 10 (where 1 being not important at all and 10 being very important) in how important they believed each one was in influencing their Firm's decision to retain project management services in-house.

Below are the results of the survey responses received from Firm A's respondents:

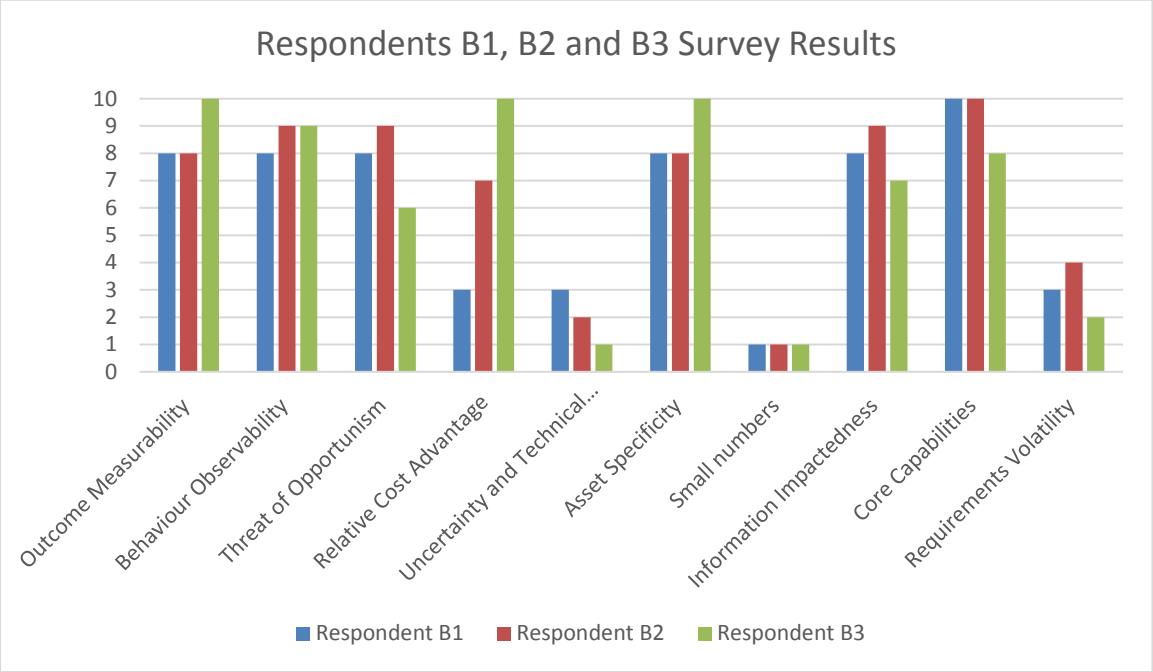


Figure 4.3: Individual Rating of Factors – Firm B

The results of the surveys undertaken with the three respondents were then aggregated to get a firm level rating of the various factors and their relative importance in making the decision to retain project management services in-house.

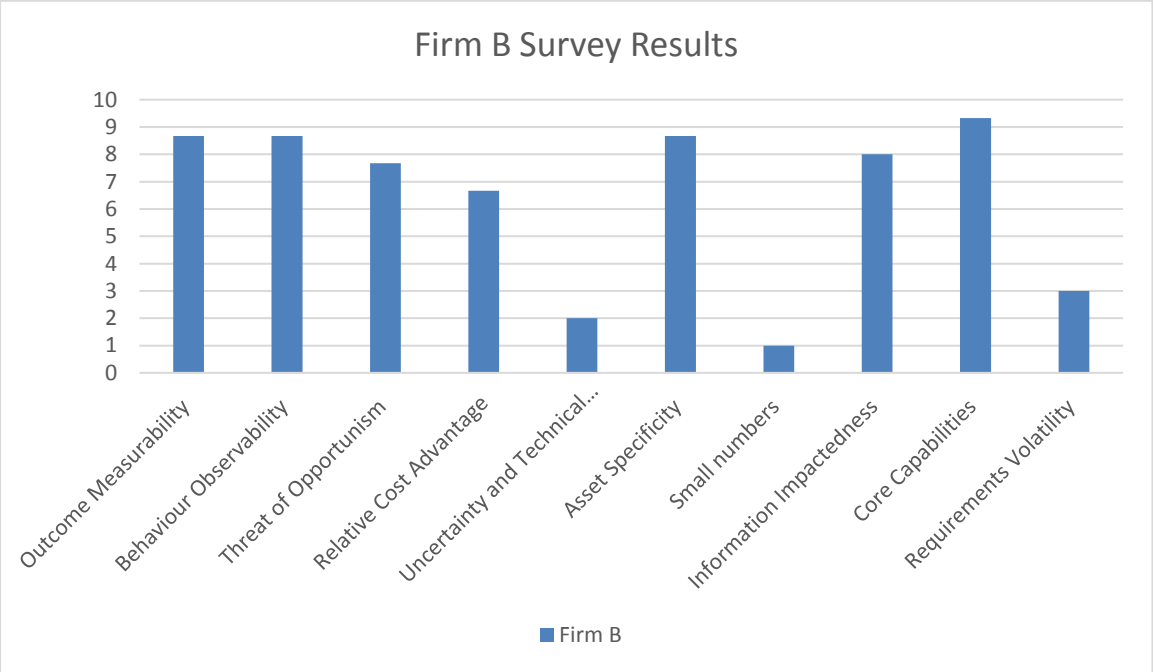


Figure 4.4: Firm Rating of Factors – Firm B

4.6.1. Outcome Measurability

In line with the feedback received from the semi-structured interviews, all three respondents rated the importance of outcome measurability highly in influencing Firm B in make the decision to use in-house project management services, with Respondents B1, B2 and B3 giving this factor scores of 8, 8 and 10 respectively (aggregated firm level rating 8.67).

4.6.2. Agent Behaviour Observability

In line with the feedback received from the semi-structured interviews, all three respondents rated the importance of outcome measurability highly in influencing Firm B in make the decision to use in-house project management services, with Respondents B1, B2 and B3 giving this factor scores of 8, 9 and 9 respectively (aggregated firm level rating 8.67).

4.6.3. Threat of Opportunism

According to the results of the survey, the threat of opportunism was found to also be an important factor in the deciding to use in-house project management services, with Respondents B1, B2 and B3 giving this factor scores of 8, 9 and 6 respectively (aggregated firm level rating 7.67).

4.6.4. Relative Cost Advantage

The feedback from the respondents on the importance of the relative cost advantage factor in the deciding to use in-house project management services was found to be fairly important. Respondents B1, B2 and B3 giving this factor scores of 3, 7 and 10 respectively (aggregated firm level rating 6.67).

4.6.5. Uncertainty and Technical Complexity

According to the results of the survey, uncertainty and technical complexity was found not to be a very important factor in the deciding to use in-house project management services, with Respondents B1, B2 and B3 giving this factor scores of 3, 2 and 1 respectively (aggregated firm level rating 2).

4.6.6. Asset Specificity

According to the results of the survey, asset specificity was found to be a quite important factor in the deciding to use in-house project management services, with Respondents B1, B2 and B3 giving this factor scores of 8, 8 and 10 respectively (aggregated firm level rating 8.67).

4.6.7. Small numbers

According to the results of the survey, small numbers was found not to be a very important factor in the deciding to use in-house project management services, with Respondents B1, B2 and B3 giving this factor all scores of 1 (aggregated firm level rating 1).

4.6.8. Information impactedness

In line with the feedback received from the semi-structured interviews, all three respondents rated the importance of information impactedness highly in influencing Firm B in make the decision to use in-house project management services, with Respondents B1, B2 and B3 giving this factor scores of 8, 9 and 7 respectively (aggregated firm level rating 8).

4.6.9. Core Capabilities

In line with the feedback received from the semi-structured interviews, all three respondents rated the importance of core capabilities highly in influencing Firm B in make the decision to use in-house project management services, with Respondents B1, B2 and B3 giving this factor scores of 10, 10 and 8 respectively (aggregated firm level rating 9.33).

4.6.10. Requirements Volatility

According to the results of the survey, small numbers was found not to be a very important factor in the deciding to use in-house project management services, with Respondents B1, B2 and B3 giving this factor scores of 3, 4 and 2 respectively (aggregated firm level rating 3).

4.7. Cross Case Analysis and Discussion

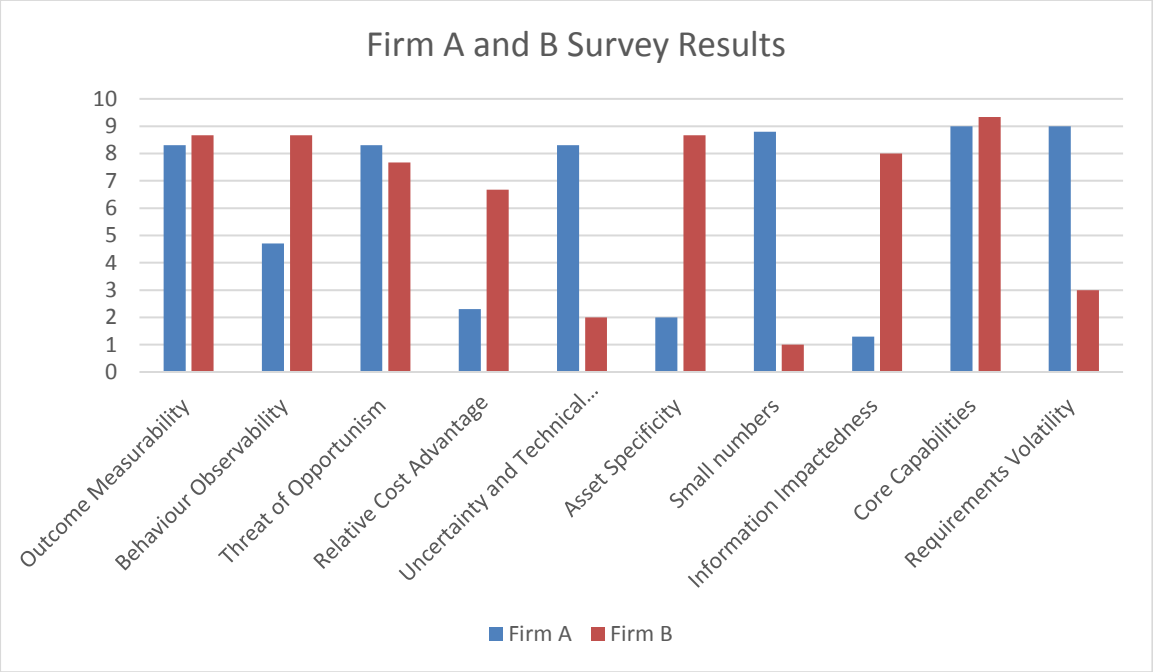


Figure 4.5: Comparison of Survey Results

4.7.1. Outcome Measurability

Firm A and B both rated the outcome measurability factor as very important in influencing their sourcing strategy, with Firm A and Firm B giving this factor aggregated ratings of 8.33 and 8.67 respectively.

While there was unanimity amongst Firm A's respondents that the bespoke appointment contracts drafted by Firm A's in-house legal department provided sufficient protection to Firm A and allowed sufficient outcome measurability of their external project managers, by detailing the specific role, responsibilities and deliverable outcomes, with further incentives such as penalty clauses if requirements were not met to further encourage compliance.

This finding is supported by established principal- agent theory, which states in instances where the agent's behaviour is difficult to monitor, as confirmed by the respondents in the semi-structured interviews, who stated that they felt little need to interfere and monitor the day to day role of the project manager, as he was appointed for his expertise which they did not have, the principle can instead implement a solution that focuses on the agent's actual performance, measured by the outcome of relative expectations (Sharma, 1997).

For firm A the trust built between themselves and their selected group of project managers over the years, by using the small numbers strategy in appointing project managers, was also an important factor relating to outcome measurability. As the respondents all agreed that a level of trust had been established with their select group of project managers over the years, where their project managers understood the standard and level of quality that was expected from them in rendering their services and delivering the final product.

On the other hand, although there was also unanimity amongst Firm B's respondents, they felt that with the mechanisms put in place, such as reporting to numerous supervisory roles, as well as, constant reporting and feedback via regularly scheduled meetings, reviews and performance appraisals allowed them to access outcome measurability of their in-house project managers performance.

This finding also ties-in with existing agency theory, where Firm B, as the principal, has implemented mechanisms to monitor the in-house agent's behaviour, by implementing a supervisory role to monitor the in-house project managers behaviour, as well as, regular feedback sessions, meetings and performance appraisals, to ensure that the agent is actually doing what he/ she is supposed to be doing.

It can therefore, be deduced that Firm B has found that the improved efficiency of their in-house project managers and the overall benefit to the firm, justifies the additional agency costs incurred by opting to retain their project management services internally.

Respondent B3 explained, as opposed to most development firms, Firm B primarily undertook turnkey development projects with fixed prices which were then sold on, to their property fund, where any cost overruns would have to be absorbed by the firm itself and similarly any savings would also be credited to the firm, therefore, as a means of maintaining their brand reputation in the market, it was essential for them to keep a close eye on their project managers, to be able to exert more control over them in

decision making relating to costs, time and quality ensuring that the final product was delivered to their precise standards, which firm B did not believe could be undertaken with the same level of diligence by an external party.

This need for control over the agent, in this case, the in-house project manager is a fundamental theme of agency theory, where the principal in the typical agency theory scenario has the power to influence the terms of the exchange. White (1985) writes, "control remains the purpose of agency" (1985: 187), "meaning assuring that the principal's actions and work get done among and by people" (1985: 189). He continues, "control needs engender in the construction and use of agency relations ... and the root source of agency is the desire of authority to enlarge the reach of its full control" (1985: 204, 208).

It is also worthwhile noting that the principal-agent relationship between Firm A and Firm B respectively with their project managers, differs slightly from other principal-agent relationships such as attorney-client or doctor-patient, where the skilled agent serves a less-skilled and knowledgeable principal, creating a large gap in information asymmetry between the principal and the agent, due to Firm A and B's extensive experience in the property/ construction industry (27 and 30 years respectively) they would both be considered, using Masterman and Gameson's (1994) categorisation of client types, Primary - Experienced clients (i.e. clients whose main business and primary income is derived from constructing buildings and have recent experience of constructing buildings, with established access to construction expertise either in-house or externally), thus mitigating the extent of the information asymmetry typical found in principal-agent relationships.

Therefore, in summary, while Firm A felt that the trust established between themselves and their project managers, as well as, the trust in the effectiveness of their bespoke contracts in the instance of a failure in the relationship, sufficiently dealt with outcome measurability issues. Firm B, relied on the close monitoring of their project managers through supervisory roles and frequent engagement sessions to exert control over decision making and deal with the issue of outcome measurability.

4.7.2. Agent Behaviour Observability

Firm A rated the agent behavioural observability factor as slight but not very important factor in influencing their sourcing strategy, giving this factor an aggregated rating of 4.67. While firm B rated the same factor as being very important in influencing their sourcing strategy, giving it an aggregated rating of 8.67.

The findings of the survey of Firm A's respondents is consistent with the responses received from the respondents in the semi-structured interviews, who due to using the strategy of small numbers in appointing external project managers, felt that a significant amount of trust and understanding of the job requirements had been cultivated between themselves and their external project managers. Thus, reducing their perceived need to monitor the external project manager's behaviour closely.

For Firm A, due to the trust developed between themselves and their external project managers through employing the use of the small numbers strategy, the transactional costs required to appoint external

project managers were perceived to be less costly than the agency costs of implementing mechanisms to identify and deal with the risk of undesired agent behaviour (shirking) in the instance that the project management services were in-house.

Similarly, the survey results of Firm B's respondents are in line with their responses to the semi-structured interview and again consistent with established agency theory, this hinges on the premise that agents are self-interested and given the opportunity will prioritise their interests over those of their principals (Denis et al, 1999). Agency theory highlights that transaction costs do not simply disappear when firms choose in-sourcing over outsourcing but rather these transaction costs instead manifest themselves in detecting and dealing with the risk of agent opportunism (shirking), which comes about when the principal delegates authority to an agent (Jones, Hill, 1988), as this still involves some degree of control loss, as the delegation of authority to subordinates provides them with the opportunity to prioritise their interests over those of the firm (Leibowitz and Tollison, 1980).

For Firm B the perceived overall benefit of being able to exert close control over the decision-making process in the execution of their fixed cost, turnkey development business model, ensuring that the product is delivered to their exacting standards by keeping strict budgetary, programme and quality control and oversight, is felt to warrant the additional agency cost of implementing behavioural observability mechanisms to monitor their in-house project managers.

4.7.3. Threat of Opportunism

Firm A rated the threat of opportunism as unimportant in influencing their sourcing strategy, giving this factor an aggregated rating of 2.67. While firm B rated the same factor as being relatively important in influencing their sourcing strategy, giving it an aggregated rating of 7.67.

Again the survey results from Firm A's respondents are in line with their feedback from the semi-structured interviews; where for Firm A, due to the trust developed between themselves and their external project managers through employing the use of the small numbers strategy, the transactional costs required to appoint external project managers were perceived to be less costly than the agency costs of implementing mechanisms to identify and deal with the risk of undesired agent behaviour (shirking) in the instance that the project management services were in-house.

In addition, Respondent A1 highlighted that there was additional trust imbued by the fact project managers are recognised professionals, governed by an overseeing professional regulatory body, SACPCMP, and as professionals *"they are meant to be an ethical individual"*, dispelling the image of the autonomous agent prone to maximizing their own interest at the expense of principals. A view that is supported by the principal-professional relationship theory which sees professionals as being "embedded in the community of their respective professional bodies" (Sharma, 1997: 759).

The survey results from Firm B's respondents and the feedback obtained in their semi-structured interviews is also consistent, where all the respondents due to Firm B's abovementioned business strategy, all believed that the close monitoring of their internal project manager's behaviour towards the

meeting of their deliverables was essential in preventing any self-interested behaviour or deviation from the firm's objectives by their internal project managers, to ensure that their business competitiveness was not compromised.

Therefore, it can be concluded that Firm B perceives the overall benefit to the firm of being able to execute their turnkey development business model efficiently using their in-house project management services, justified the additional agency costs required to implement mechanisms that deter or minimise the threat of agent opportunism.

Therefore, it can be surmised, that for Firm B, the ability to closely monitor the activities of their in-house project managers, in the execution of their fixed cost, turnkey development business model, ensuring that the product is delivered to their exacting standards, is felt to warrant the additional agency cost of implementing behavioural observability mechanisms to monitor their in-house project managers.

4.7.4. Relative Cost Advantage

Firm A rated relative cost advantage as unimportant in influencing their sourcing strategy, giving this factor an aggregated rating of 2.33. While firm B rated the same factor as being relatively important in influencing their sourcing strategy, giving it an aggregated rating of 6.67.

This survey results relating to this factor were again in line with the responses received from the respondents of Firm A semi-structured interviews, and all the respondents agreed that due to uncertainty of the dynamic environment in terms of future work rollout, the potential savings accrued by paying salaried employee instead of external consultant fees, was felt not to be a compelling enough reason to take on the risk of carrying additional overhead costs of surplus resources in the event of work shortage. Opting instead to acquire project management services on an as required basis from the market.

Tying-in with neo-classical economic theory, which states, firms procuring services look at the decision of whether to retain services in-house or outsource from the point of view "the higher the comparative production cost advantage offered through [outsourcing], the greater is the degree of outsourcing" (Ang and Straub, 1998: 537). The outsourcing of project management services introduces additional transactional costs in to the client organisation, that would otherwise not exist if the client organisation had chosen to retain these services in-house (Ang and Straub, 1998). Therefore, transaction costs can be seen as inversely proportional to the likelihood of the occurrence of outsourcing, where the lower the transaction costs, the higher the likely degree of outsourcing will occur.

Therefore, for Firm A it can be said due to the trust developed between themselves and their external project managers through employing the use of the small numbers strategy, the transactional costs required to appoint external project managers are perceived to be less costly to the firm than the agency costs associated with retaining the project management services internally.

While, for Firm B, both Respondent B1 and B2 acknowledge that having in-house project managers did not allow Firm B at times the flexibility to respond readily to requirements volatility relating to fluctuations

in work rollout. Where in instances there was a shortage of new work coming in, Firm B would be required to pay the salaries of their unused or under-utilised project managers. While, alternatively, in times of increased work coming into the company they would either have to overburden their existing project management staff complement with additional work or at times even use outsourced project managers. "e*very month that person will get a salary, so if there's a job on the go or not or whatever, where, if you get an external PM it's a varying variable, you won't get that person if there's not a job…"* (Respondent B2).

While Respondent B1 felt this made the relative cost advantage not a significant factor in Firm B' s decision to use in-house project managers, thus only rating it 3 in importance. Respondent B2, on the other hand, despite this still felt that the relative cost advantage was very significant in making the decision to use in-house project managers. Citing that Firm B took great time and care in projecting future work rollout to ensure that they managed their project management resources accordingly and therefore, shortages or under used resources was unusual *"…sometimes you find that you are very stretched on the ground and you need to get somebody in, but I mean that is in the exceptional…*" (Respondent B2), and superseded by the costs savings benefit of having "*a controlled overhead, so you know what your overheads are, it's not going to run away with you. It's salary…"*

Respondent B3, also felt the relative cost advantage factor was important in Firm B taking the decision to retain project management services in-house, explaining that having project services in-house allowed Firm B to charge full project management fees in their project feasibilities, while only having to pay their project managers a fixed monthly salary. Which could be used as extra income or when necessary offset any cost overruns.

As such, it can be said that Firm B perceives the risk associated with the inflexibility of responding to external environmental factors minimal, as compared to the cost benefits associated with having in-house project managers.

4.7.5. Uncertainty and Technical Complexity

Firm A rated relative uncertainty and technical complexity as very important in influencing their sourcing strategy, giving this factor an aggregated rating of 8.33. While firm B rated the same factor as being unimportant in influencing their sourcing strategy, giving it an aggregated rating of 2.

For firm A, uncertainty and technical complexity was rated as very important in influencing the firm in using out sourced project management skills, where this was linked to the issue of upscaling and downscaling resource requirements in line with business requirements changes as the changed over time r (i.e. fluctuations in the economy). In addition, Respondent A2 highlighted that outsourcing also provided the flexibility in allowing the development manager to choose a specific project manager to undertake specific types of projects, that he was perceived to be more competent in, *"…each building has its own thing. So, you would source somebody that's done that sort of stuff before"*. Dynamic environments are unpredictable, with a high degree of uncertainty with regard to future events. As such,

organisations operating in dynamic environments need to have strategies in place to adapt to environmental forces in order to stay in business (Naoum, 2001).

On the other hand, the survey results of Firm B's respondents, consistent with the responses received from the respondents in the semi-structured interviews, uncertainty and technical complexity was not mentioned by any of the respondents at all, as playing any significant role in influencing the decision for Firm B to use in-house project management services and was rated unimportant.

4.7.6. Asset Specificity

Firm A rated asset specificity as unimportant in influencing their sourcing strategy, giving this factor an aggregated rating of 2. While firm B rated the same factor as being very important in influencing their sourcing strategy, giving it an aggregated rating of 8.67.

Firm A's survey results were found to be consistent with Firm A Respondent's feedback in the semi-structured interviews; where asset specificity not seen as playing any significant role in the decision to outsource project management services and was not mention at all by any of the respondents at all as playing any role.

Whereas, for firm B the survey results tied in with the feedback received from the respondents in the semi-structured interviews, where all respondents highlighted the importance of the project manager conforming to the company culture and standards and maintaining the brand identity and reputation as a key factor in selecting project managers, and as such, Firm B invested significantly in acquiring, teaching and retaining the *"right type"* of project managers that fitted into and understood the company ethos and business strategy.

Due to the unique and specific requirements Firm B demands of its project managers, the firm's project management skill set can be seen as a core competency or capability and because the development of these capabilities is difficult to teach and articulate, they therefore, are costly to transfer and tend to become firm specific (Teece, 1981). Therefore, in line with this, existing organisational capabilities of firms are "the most significant factor in determining what will be done by the firm and what in the market" (Chandler, 1992: 86). Where generally firms tend to prefer internalising core capabilities that rely on highly firm specific language and routines.

4.7.7. Small Numbers

Firm A rated small numbers as very important in influencing their sourcing strategy, giving this factor an aggregated rating of 8.83. While firm B rated the same factor as being unimportant in influencing their sourcing strategy, giving it an aggregated rating of 1.

Consistent with the responses received from the respondents of Firm A in both the survey and semi-structured interviews, where a high level of trust was seen as one of the most important factors in appointing external project managers. All three respondents agreed that through the use of small numbers, strong trust relationships had been built with specific project managers, to the extent that the

project management firm that they worked for was almost irrelevant in comparison to the specific individual person.

Whereas, or Firm B, in both the semi-structured interviews and survey, small was found not to play any role in Firm B's decision to retain their project management services internally and this factor was not mentioned by any of the respondents at all as playing any role.

4.7.8. Information Impactedness

Firm A rated information impactedness as unimportant in influencing their sourcing strategy, giving this factor an aggregated rating of 1.33. While firm B rated the same factor as being very important in influencing their sourcing strategy, giving it an aggregated rating of 8.

Information impactedness was not mentioned by any of Firm A's respondents at all, as playing any role in influencing the decision for Firm A to outsource project management services. This outcome is supported by the fact that the principal-agent relationship between Firm A and their outsourced project managers, differs from typical principal-agent relationships such as attorney-client or doctor-patient, where skilled agents serve a less-skilled and knowledgeable principal, creating a large gap in information asymmetry between the principal and the agent.

Where, according to using Masterman and Gameson's (1994) categorisation of client types, Firm A, with 27 years in the property development industry, would be considered primary experienced clients, thus minimising the extent of the information asymmetry typically found in principal-agent relationships.

While on the other hand, also falling into Masterman and Gameson's (1994) categorisation of client type of primary experienced clients, the findings of Firm B's survey and responses in the semi-structured interviews, revealed all respondents placed a very high importance on having easy and immediate access to information and a direct line of communication to their project managers to discuss issues.

It can therefore, be said that Firm B sees the decision to use in-house project management services as resulting in reduced transactional costs associated with information impactedness between their development managers and project managers by having them work in the same office, providing easy access to one another on a daily basis.

4.7.9. Core Capabilities

Firm A and Firm B both rated the core capabilities as very important in influencing their sourcing strategy, with Firm A and Firm B giving this factor aggregated ratings of 9 and 9.33 respectively.

Consistent with the responses received from the respondents in the semi-structured interviews and survey, the respondents all agreed as a property development firm project management was not a core competency of Firm A and as such, their competitive advantage in the market lay in development management related skills and felt that in order not to maintain this advantage their energies should be invested in this skill rather than try to develop project management as a core competency.

This view ties-in with TCE which posits, that as the complexity of a project increases two competing perspectives emerge; one, the required skills to manage the project increase, requiring more specialised expertise, motivating outsourcing, the other, greater control may be seen as beneficial, leading to internalisation, as greater complexity requires higher levels of coordination between interdependent activities (Hardgrave et al, 2003), which makes it difficult to put in place effective contractual safeguards and contract enforcement measures (Tiwana and Bush, 2007).

As complex construction projects can also be seen as fundamentally riskier and probability-wise more likely to fail, this often motivates the development firm to outsource the project management services to a more specialised, external party, *"…if you're coming from a private organisation where you're in a small development of 40 - 50 million, on your own, off your own bat, effectively you do your own project management. So, you try keep that in-house and as part of your team… but in a bigger project, [outsourcing project management services is] crucial"* (Respondent A2). In line with this rational, as a large commercial property development firm, Firm A, would regularly undertake complex, largescale developments as part of their normal line of business, therefore the perceived benefit of outsourcing project management will likely outweigh the associated risk of agency costs.

In line with OC theory, Firm A's decision to outsource project management services, is based on the fact that project management services are not seen as a core competency of the firm and it has been accepted by the firm that external organisations are more specialised and better organised for conducting the particular activity more productively (Madhok, 1996).

For Firm B, also consistent with the responses received from the respondents in the semi-structured interviews and survey, the respondents all agreed project management was a core competency of Firm B that had been developed to specifically suit the specific requirements of Firm B, providing Firm B with a unique competitive advantage in the property development industry. Therefore, to retain this competitive advantage it was placed in-house allowing Firm B to accumulate resources necessary to maintain a long term competitive advantage.

In line with OC theory, it is therefore, essential for Firm B, especially as a service orientated firm, pursuing innovation growth, that the advantage obtained through superior quality internal capabilities, is maintained in-house, not only for control and quality purposes but also to ensure the retention of such expertise (Kakabadse and Kakabadse, 2000).

4.7.10. Requirements Volatility

Firm A rated requirements volatility as very important in influencing their sourcing strategy, giving this factor an aggregated rating of 9. While firm B rated the same factor as not being very important in influencing their sourcing strategy, giving it an aggregated rating of 3.

This is again consistent with the responses received from the respondents in the semi-structured interviews and the survey, Firm A rated this factor as very important in outsourcing project management skills, where all the of Firm A's respondents agreed that in dynamic environments, like the property/

construction industry, which are unpredictable due to the uncertainty caused by fluctuating work rollout and other environmental factors, the ability to quickly adapt to change, as well as, providing the development manager with the ability to choose specific project managers to undertake specific types of projects was indispensable.

Whereas the responses from Firm B's respondents in the semi-structured interviews and survey indicated that this factor was not considered to particularly important, where, although, both Respondent B1 and B2 acknowledge that having in-house project managers did not allow Firm B at times the flexibility to respond to requirements volatility relating to a fluctuating work rollout. Where in instances where there was a shortage of new work coming in, Firm B would be required to pay the salaries of their unused or under-utilised project managers. While, alternatively, in times of increased work coming into the company they would either have to overburden their existing project management staff complete with additional work or at times even use outsourced project managers. "*Every month that person will get a salary, so if there's a job on the go or not or whatever, where your, if you get an external PM it's a varying variable, you won't get that person if there's not a job…*" (Respondent B2)

Respondent B2 further advised that Firm B took great care in projecting future workload rollout and ensuring that they managed their project management resources accordingly and therefore, shortages or under used resources was rare *"…sometimes you find that you are very stretched on the ground and you need to get somebody in, but I mean that is in the exceptional…"*

Therefore, it can be said that Firm B perceives the risk associated with the inflexibility of responding to requirements volatility and other environmental factors minimal compared to the cost benefits associated with having in-house project managers.

CONCLUSION AND RECOMMENDATIONS

5.1. Summary of the Study

The aim of this study was to determine factors/ considerations that influence large property development firms, when making the organisation boundary/ sourcing strategy decision to either vertically integrate or outsource project management services, in large scale commercial developments. Two case studies were investigated. The methods used for the collection of data addressed the qualitative nature of the research question.

Qualitative Content Analysis (QCA) was used to analyse the data collected from the semi-structured interviews. Followed by a cross-case analysis to compare and contrast the similarities and differences between the two cases.

The questions used to guide the flow of conversation in the semi-structured interviews were developed based on the key factors identified in the literature review carried out of factors influencing organisational boundaries.

5.2. Summary of Key Findings

The analysis and review of the case studies has led to important insights into the factors/ considerations that influence large property development firms, when making the organisation boundary/ sourcing strategy decision to either vertically integrate or outsource project management services, in large scale commercial developments.

This research was motivated by the limited information available using various boundary choice theoretical perspectives to explore development manager's choice of outsourcing versus retaining project management services in-house. The primary objective was therefore to understand the influence and importance that development managers assign to various factors from the three complementary theories, agency theory, TCE and OC of the firm, in their project management services outsourcing decision.

The key findings of the study are summarised below:

5.2.1. Outcome Measurability

Both Firm A and B rated outcome measurability factor as very important in influencing their sourcing strategy (8.33 and 8.67 respectively).

Firm A believed the trust established between themselves and their project managers, as well as, in the effectiveness of their bespoke contracts, sufficiently dealt with outcome measurability issues. Contrasting, Firm B relied on the close monitoring of their project managers to keep control of decision making and deal with outcome measurability issues.

5.2.2. Agent Behaviour Observability

Firm A rated the agent behavioural observability as not very important in influencing their sourcing strategy (4.67), while firm B rated it as being very important (8.67).

For Firm A, due to the trust developed between themselves and their external project managers through the use of small numbers strategy, the transactional costs to outsource project managers were perceived to be less costly, than the agency costs associated with retaining the service in-house. For Firm B the perceived overall benefit of being able to monitor and retain close control over decision making was felt to warrant the additional agency cost of implementing behavioural observability mechanisms to monitor their in-house project managers.

5.2.3. Threat of Opportunism

Firm A rated the threat of opportunism as unimportant in influencing their sourcing strategy (2.67), while firm B rated the same factor as being relatively important (7.67).

Again, for Firm A, due to the trust developed between themselves and their external project managers through the use of the small numbers strategy, the transactional costs to outsource project managers were perceived to be less costly than the agency costs with retaining the service in-house. Similarly, for Firm B, again, the ability to closely monitor their in-house project managers was felt to warrant the additional agency cost of implementing additional mechanisms to monitor their in-house project managers.

5.2.4. Relative Cost Advantage

Firm A rated relative cost advantage as unimportant in influencing their sourcing strategy (2.33), while firm B rated the same factor as being relatively important (6.67).

For Firm A, due to uncertainty in the dynamic environment, the potential saving of paying salaried employee instead of external consultant fees, was felt not to be a compelling enough reason to take on the risk of carrying additional overhead costs. Opting instead, to acquire project management services on an ‘as required basis’ from the market. However, for Firm B, the risk associated with inflexibility in responding to environmental factors was viewed as minimal, compared to the cost benefits associated with having in-house project managers.

5.2.5. Uncertainty and Technical Complexity

Firm A rated relative uncertainty and technical complexity as very important in influencing their sourcing strategy (8.33), while firm B rated the same factor as being unimportant (2).

Firm A, considered the flexibility to upscale and down scale resources in line with changing business requirements, as well as, the ability to choose specific project managers for specific projects, where they were seen to be more competent, as very important. Whereas, Firm B did not consider this factor as playing any significant role in influencing their sourcing strategy.

5.2.6. Asset Specificity

Firm A rated asset specificity as unimportant in influencing their sourcing strategy (2), while Firm B rated the same factor as being very important (8.67).

While Firm A did not consider this factor as playing any significant role in influencing their sourcing strategy. For Firm B, their project management skills were seen as a core capability of the firm, that provided them with a competitive advantage in the market.

5.2.7. Small Numbers

Firm A rated small numbers as very important in influencing their sourcing strategy (8.83), while firm B rated the same factor as being unimportant (1).

For Firm A, a high level of trust was seen as one of the most important factors in appointing external project managers. Where through the use of small numbers, strong trust relationships had been built with specific project managers over the years, to the extent that the project managers that they appointed were seen as an extension of the firm. Whereas, for Firm B, small numbers was found not to play any role in their sourcing decision.

5.2.8. Information Impactedness

Firm A rated information impactedness as unimportant in influencing their sourcing strategy (1.33), while Firm B rated the same factor as being very important (8).

For Firm A, information impactedness was found not to play any role in their sourcing decision. Whereas, Firm B viewed in-house project management services as reducing transactional costs associated with information impactedness between their development managers and project managers with them work side by side, allowing easy access and communication to one another.

5.2.9. Core Capabilities

Firm A and Firm B both rated the core capabilities as very important in influencing their sourcing strategy (9 and 9.33 respectively).

While for Firm A because project management is not viewed as a core competency of the firm, it was felt that in order not to maintain their advantage in their core competency, development management, their energies should be invested in it instead. Whereas, Firm B viewed their project management competency as a core capability of the firm, that provided them with a competitive advantage.

5.2.10. Requirements Volatility

Firm A rated requirements volatility as very important in influencing their sourcing strategy (9), while firm B rated the same factor as not being very important (3).

Firm A rated this factor as very important in outsourcing project management skills, where due to uncertainty caused external environmental factors, the ability to quickly adapt to change, as well as, providing the development manager with the ability to choose specific project managers to undertake specific types of projects was indispensable. Whereas, Firm B viewed the risks associated with the inflexibility in responding to requirements volatility and other environmental factors minimal, compared to the cost savings associated with having salaried in-house project managers.

5.3. Review of Firm A's Sourcing Decision

The research has shown based on the three theoretical perspectives, agency theory, TCE and OC that in development firms that choose to outsource their project management services from the market place, a high degree of importance is placed on the flexibility afforded by outsourcing to upscale and downscale project management resources, as and when required, in response to changes in environmental factors/ requirements volatility and varying project management skills required, according to uncertainty and technical complexity. Where fundamentally project management was not seen as a core capability of the firm and therefore, in line with the OC perspective, it was felt more advantageous to source this requirement out to external vendors, to allow focus to remain on their core competency; development management.

It was however noted, that although firms like Firm A, would outsource project management services from the market, by employing small numbers, a small group of project managers had been identified and long-standing trust relationships had been built between the firm and these external vendors. Where the threat of agent opportunism was mitigated by a common understanding of the job requirements and required deliverables, through the trust that had been fostered over the years, different from just any other external project management service provider. Where fundamentally, through the trust built the external project manager could be seen as being imbued with the company's culture and standards, making them an extension of the firm itself.

Through the research, while outcome measurability and the threat of opportunism were rated as important factors in Firm A's decision to outsource project management services, behaviour observability was not considered a very important factor and it was revealed that this was based on Firm A's ability to draft bespoke contracts that clearly outlined the project managers scope of work and required deliverables, as well as, punitive clauses to incentives compliance which were felt to adequately deal with the issues of outcome measurability, the threat of opportunism and behavioural observability.

While, relative cost advantage, asset specificity and information impactedness were also considered not to play a significant role in the outsourcing decision.

5.4. Review of Firm B's Sourcing Decision

For Firm B, the research results have shown similarly based on the three theoretical perspectives, agency theory, TCE and OC that development firms that choose to internalise their project management

services, placed a high degree of importance on being able to exert control and monitor the activities of their project managers, limiting the extent of information impactedness between the development managers and project managers, to ensure delivery of the finished product to required specifications. Where in this instance, project management was seen as a core capability of the firm and therefore, in line with the OC perspective, it was felt more advantageous to retain this capability internally, to allow further development of this competency and to protect proprietary knowledge associated with it to retain their competitive advantage in the market. The importance of asset specificity was also found to be important as well, linked to the fact that Firm B invested significantly in acquiring, teaching and retaining the "right" type of project managers that fit into and understood the company ethos and business strategy. However, as a result of gaining this control or oversight over their project managers, Firm B incurred, agency costs in implementing mechanisms to monitor outcome measurability, the threat of opportunism and behavioural observability, which were rated as important factors in Firm B opting to use in-house project managers.

The relative cost advantages of in-house project managers was also highlighted as an important factor for Firm B making the decision to internalise project management services, where they benefited from paying a monthly salary instead of paying consultant fees. However, it was acknowledged that due to this benefit, a trade-off would have to be made with the firm's flexibility in terms of adapting to changes in environmental factors/ requirements volatility and changing project management needs according to uncertainty and technical complexity.

While, small numbers and requirements volatility were considered not to play a significant role in the outsourcing decision.

5.5. Conclusions of the Study

The research findings indicate that the choice of sourcing strategy implemented by different property development firms is mainly dependent on two main factors; trust and organisational capabilities.

The findings of the research reflect that one of the fundamental factors that influence property development firms that outsource their project management services, represented by Firm A, and those that retain these services internally, represented by Firm B, in their choice of sourcing strategy, is the level of trust that each has in their project managers ability to honestly and diligently perform their duties towards successfully completing their goals and objectives.

Where in instances that a high degree of trust has been established between the property development firm and the project management services vendor, typically through a successful long-standing history of working together (small numbers), as in the case of Firm A, through familiarity of working together, the external vendor would have come to intimately understand the job requirements and required deliverables, expected of him by the property developer, allowing him to develop more specialised resources to meet the firms expectations and requirements, than those typically found in the market . Where, in essence, through this trust built between the two parties, the external project manager is seen as being imbued with the firm's culture and standards, making them an extension of the property

development firm itself. Allowing, the property development firm to relinquish a certain extent of control and monitoring over the project manager, at the cost of additional transaction costs related to the drafting of required bespoke contracts and the possible cost of enforce them.

Where on the other hand, when the property development firm lacks confidence or trust in external vendors ability to deliver the required project deliverables unsupervised, the property developer will opt to internalise the service in order to gain greater oversight and control over their project managers and their decision making, better ensuring that the project deliverables are successfully met, in line with the firm's culture and standards. Through this incurring additional agency costs related to the implementation of additional monitoring and control mechanism to monitor and control their internal project managers.

The second key deciding factor identified in the research influencing property development firms in making the boundary decision to either retain them internally or outsource them from the market was whether the property development firm considered the competency are firm core capability or not.

In the instance that the property development firm does not regard project management as a core competency of the firm, as was found with Firm A, the firm, in line with TCE and OC theory will externalise this activity, outsourcing it to external vendors who are more specialised and better organised to undertake it more efficiently and effectively. Allowing the firm, to become more streamlined and flexible, and increase focus on the firm's recognised core competencies to stay competitive and responsive under competition.

However, in the instance, like was found the case with Firm B, that the development firm considers the project management competency an integral part of their business strategy, providing a competitive advantage, and as such, is recognised as a core capability of the firm that can be used to generate value in ways that its competitors cannot, the property development firm will tend to internalise activity. Allowing further development of this competency and to protect proprietary knowledge associated with it, to retain their competitive advantage in the market. Linked to this, due to project management's service-oriented nature, asset specificity was also identified as contributing factor, in line with OC theory, where property development firms, like Firm B, who internalise project management services, invest significantly in acquiring, teaching and retaining of this competency, in pursuit of innovation growth and the advantage obtained through superior quality internal capabilities.

In conclusion, the research findings indicate that the likelihood of a large property development firm retaining construction project management services in-house, rather than sourcing the same services externally from the market, is directly proportional to the perceived extent of related organisational capabilities the firm currently has in-house and at the same time is inversely proportional to the degree of trust the firm has established between itself and the project management services vendor.

5.6. Recommendations for Future Research

The following recommendations for future research are based upon findings and conclusions of the research.

1. Further research should be conducted on a larger sample of property development firms in South Africa to explore the factors/ considerations that influence large property development firms, when making the organisation boundary/ sourcing strategy decision to either vertically integrate or outsource project management services, in large scale commercial developments.

2. Further research should be conducted to compare the factors/ considerations that influence large property development firms, when making the organisation boundary/ sourcing strategy decision to either vertically integrate or outsource project management services, in large scale commercial developments in South Africa across various provinces (i.e. Gauteng, Free State, Kwa-Zulu Natal etc.);

3. Further research should be conducted to compare the factors/ considerations that influence large property development firms, when making the organisation boundary/ sourcing strategy decision to either vertically integrate or outsource project management services, in large scale commercial developments in South Africa across various sectors (i.e. commercial, residential, industrial and retail);

4. A quantitative research study on the impact of either sourcing strategy on a company's bottom-line;

5. Further research should be conducted to compare the relative importance developers place on the various factors influencing large property development firms, when making the organisation boundary/ sourcing strategy decision to either vertically integrate or outsource project management services, in large scale commercial developments compared to one another; and

6. In analysis of the collected interview data, there is a chance to use some demographic data instead of descriptive analysis of data given.

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Appendix 1:

Request Letter to Carry out Semi-Structured Interviews for Research Report

Dear Sir/ Madam,

My name is Ahaka Tseki, I am a registered student at the University of the Witwatersrand, School of Construction Economics and Management, in the Masters of Building Science (Project Management) programme. I am in the process of conducting academic research investigating factors that lead to some property development firms opting to retain project management services internally, while others choose to outsource this service. The aim of the research is to add to the body of knowledge of this important area of study.

The purpose of this letter is to request permission to conduct interviews with the development managers employed in your company, as part of my requirement to complete and submit an academic research report in the given field, to fulfil the requirements of the degree.

The study is entitled “An Investigation into The Implementation of In-House Versus Outsourcing Project Management Services in Property Development Firms in South Africa”. Attached herewith are the questions that would form the basis of the interview for this study.

The interviews are expected to take about one hour and would be arranged at a time convenient to the development managers that agree to participate. Participation in this research is completely voluntary and there are no known or anticipated risks associated with participation in this study, to either your company or the individual participants. All information provided will be kept confidential. The names of both your company and the respondents will not be disclosed and will not appear in any publications resulting from this study to ensure confidentiality, however, anonymous quotations may be used for reporting purposes. Both the identities of your company and the individual respondents will be coded (i.e. Firm A – Respondent 1) in the report as not to reveal their identities.

Should you wish to know about the findings of the research, the information will gladly be sent to you in a summary of the results. If you would be interested in greater detail, an electronic copy (e.g. PDF) of the entire research report will be made available to you.

If you agree, kindly sign below acknowledging your consent and permission for me to conduct this research and return a scanned copy of the signed letter via email.

Your approval to conduct this research will greatly appreciated. Thank you in advance for your interest and assistance with this research.

Sincerely,

Ahaka Tseki.

If you have any questions or concerns please contact myself or my research supervisor. Our contact details are provided below.

Researcher Contact Details	Research Supervisor Contact Details
Researcher Name: Ahaka Tseki	Research Supervisor Name: Prof. David Root
Email Address: 0209xxxw@students.wits.ac.za	Email Address: david.xxxx@wits.ac.za
Cell phone Number: +27 72 539 XXXX	Telephone Number: +27 11 717 XXXX

Approved by (print name) …….

Signature ……..

Date …….

Appendix 2:

Semi-structured Interview Participation Consent Form/ Information Sheet

Title of Research

An Investigation into The Implementation of In-House Versus Outsourcing Project Management Services in Property Development Firms in South Africa.

Name of Researcher: Ahaka Tseki

Dear Participant,

My name is Ahaka Tseki, I am a registered student at the University of the Witwatersrand, School of Construction Economics and Management, in the Masters of Building Science (Project Management) programme. I am in the process of conducting academic research investigating factors that lead to some property development firms opting to retain project management services internally, while others choose to outsource this service. The aim of the research is to add to the body of knowledge of this important area of study.

The study is entitled “An Investigation into The Implementation of In-House Versus Outsourcing Project Management Services in Property Development Firms in South Africa”.

The purpose of this letter is to request your assistance as a practitioner involved in property development to be a participant in the interview process of the research. Your input in this regard, based on your experience on the subject matter, will certainly assist in adding value to our research. The interview questions are designed to gain more knowledge on this subject matter. I would therefore truly appreciate your assistance in availing yourself for an interview.

Our interview is expected to take approximately one hour. Your participation in this research is voluntary and you may at your discretion withdraw from the interview at any time without penalty. All information you provide will be kept confidential. With your permission, the interview will be recorded to facilitate the collection of information. The recording of the interview will thereafter be transcribed for analysis purposes. Your name will not appear in any report or publication resulting from this study to ensure confidentiality, however, anonymous quotations may be used for reporting purposes.

Should you wish to know about the findings of the research, the information will gladly be sent to you in a summary of the results. If you would be interested in greater detail, an electronic copy (e.g. PDF) of the entire research report will be made available to you.

If you agree, kindly sign below acknowledging your consent to participate in this research and return a scanned copy of the signed letter via email.

Your approval to conduct this research will greatly appreciated. Thank you in advance for your interest and assistance with this research.

Sincerely,

Ahaka Tseki.

If you have any questions or concerns please contact myself or my research supervisor. Our contact details are provided below.

Researcher Contact Details	Research Supervisor Contact Details
Researcher Name: Ahaka Tseki	Research Supervisor Name: Prof. David Root
Email Address: 0209xxxw@students.wits.ac.za	Email Address: david.xxxx@wits.ac.za
Cell phone Number: +27 72 539 XXXX	Telephone Number: +27 11 717 XXXX

I …….. agree to participate in this research project. The research has been explained to me and I understand what my participation will involve.

I agree that my participation will remain anonymous	YES	NO	(please circle)
I agree that the researcher may use anonymous quotes in his research report	YES	NO	(please circle)
I agree that the interview may be audio recorded	YES	NO	(please circle)
I have been advised that my participation is voluntary and I have been advised of my right to withdraw from the interview proceedings at any time without giving reason	YES	NO	(please circle)

Participant name ……

Participant Signature ……

Date ……

Appendix 3:

Research Instruments

Semi-Structured Interview Questions

Section 1

1. How long have you been practicing in the property development industry?
2. How long have you been employed at this company?
3. What is your current position in the company?
4. How long have you been in this position?
5. Other than property development what other functional areas of the property/construction industry is your company active in?
6. What various types of property developments does your company specialise in?
7. How many permanent employees does your company employ?
8. What is the average size of your projects? Cost wise ranges?
9. How many projects are ongoing at this time? Would you say this is typical?
10. How would you describe your company's property development experience in terms of exposure to construction? i.e. How often do you build? How important is it for your company to be involved in the building process?
11. How influential is the contribution of the project manager towards the successful completion of a project? Please explain why?
12. Are there benefits to having an in-house PM? Please explain.
13. Are there challenges/ risks of having an in-house PM? Please explain.
14. Are there benefits of having an outsourced PM? Please explain.
15. Are there challenges/ risks of having an outsourced PM? Please explain.
16. Do you think either decision has any implications, cost, quality, programme, communication or otherwise? Please explain.
17. What is the sourcing strategy of project management services in your company, is it in-house or outsourced?

- Why do you think of this?
- Do you think it matters? Explain why?
- Is this a benefit or a challenge? Explain Why?

18. In the instance that project management services are sourced externally from the company, do you feel that the contracts used sufficiently protect your interests and resolve contractual issues that may arise to your satisfaction?
19. How important is it for you to understand and know exactly what the project manager is doing on a project?
20. Do you find it easy obtaining, understanding and make decisions based on information received from your project managers?
21. What would you describe as your company's core competencies? Do you consider project management one of them?

Section 2 - Of the criteria influencing outsourcing listed below, please rate each using a scale between 1 to 10 of how important each one is when choosing project managers (1 being not important and 10 being very important):

	Factors Influencing the Firm Boundary Decision of Project Management Services	Importance									
1.	**Outcome Measurability** The extent to which the project manager's performance can be precisely evaluated.	1	2	3	4	5	6	7	8	9	10
2.	**Behaviour Observability** The extent to which the project manager's behaviour can readily be monitored.	1	2	3	4	5	6	7	8	9	10
3.	**Threat of Opportunism** Self-interest seeking behaviour, the extent of uncertainty that the project manager will honestly fulfil their obligations.	1	2	3	4	5	6	7	8	9	10
4.	**Relative Cost Advantage** The anticipated overall cost savings from outsourcing versus internalization.	1	2	3	4	5	6	7	8	9	10
5.	**Uncertainty and Technical Complexity** Where uncertainty refers to changes in the environment that cannot be forecasted or controlled. The complexity of a project due to its size, scope, or technical novelty.	1	2	3	4	5	6	7	8	9	10
6.	**Asset Specificity** The greater the investment in assets which are specific to the requirements of a particular exchange relationship, the greater their strategic importance to the firm.	1	2	3	4	5	6	7	8	9	10
7.	**Small numbers** The extent that the contracting parties are familiar with each other, giving rise to an advantaged because they have more experience with the other party, as well as, more specialised resources to serve it, than those in the market.	1	2	3	4	5	6	7	8	9	10
8.	**Information Impactedness** The extent of information asymmetrically distributed between the parties to an exchange.	1	2	3	4	5	6	7	8	9	10
9.	**Core Capabilities** Activities that a company does uniquely well that give them a strategic advantage over their competition.	1	2	3	4	5	6	7	8	9	10
10.	**Requirements Volatility** The extent and pace which the business requirements of a firm change over time.	1	2	3	4	5	6	7	8	9	10

Discuss reasons for above ratings. Are there other criteria not listed above that you consider important when selecting a project manager?

Appendix 4:

Coding Framework for Qualitative Content Analysis

	Coding Category Description
1.	**Outcome Measurability** The unit of coding that investigates the extent to which the project manager's performance can be precisely evaluated, influences the firms sourcing strategy of project management services.
2.	**Behaviour Observability** The unit of coding that investigates the extent to which the project manager's behaviour can readily be monitored, influences the firms sourcing strategy of project management services.
3.	**Threat of Opportunism** The unit of coding that investigates the extent of uncertainty that the project manager will honestly fulfil their obligations, influences the firms sourcing strategy of project management services.
4.	**Relative Cost Advantage** The unit of coding that investigates the extent the anticipated overall cost savings, influences the firms sourcing strategy of project management services.
5.	**Uncertainty and Technical Complexity** The unit of coding that investigates the role the complexity of a project due to its size, scope, or technical novelty, influences the firms sourcing strategy of project management services.
6.	**Asset Specificity** The unit of coding that investigates the role asset specificity, influences the firms sourcing strategy of project management services.
7.	**Small numbers** The unit of coding that investigates the extent of how familiar the contracting parties are with each other, influences the firms sourcing strategy of project management services.
8.	**Information Impactedness** The unit of coding that investigates the extent information asymmetrically distributed between the parties to an exchange, influences the firms sourcing strategy of project management services.
9.	**Core Capabilities** The unit of coding that investigates the role the core capabilities, influences the firms sourcing strategy of project management services.
10.	**Requirements Volatility** The unit of coding that investigates the extent and pace of which the business requirements of the firm change over time influences the firms sourcing strategy of project management services.