



**THE INVESTMENT OF TIME AND PROFESSIONAL SKILL AT RISK IN
THE BUILT ENVIRONMENT IN SOUTH AFRICA:
AN EXPLORATORY STUDY**

RESEARCH REPORT

Submitted by

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Abstract

For a long period of time, most built private sector clients in South Africa have been procuring the services of built professional consultants at risk. The concept of working at risk is also referred to as speculative work. It is not known and clear when the practice started or how it originated in South Africa but the practice takes place and appears to becoming increasing prevalent. This study is an exploratory study that investigates the concept of working at risk in detail and establishes the relationship between non-remuneration, motivation and performance when working at risk.

The study was motivated by the fact that limited academic research has been done locally on the early phase of project delivery, which is considered a key stage of a project. Attention is generally drawn to the implementation phase and conclusions are drawn from this stage which could possibly impact on the early phase of the project. This study examines the general understanding of the concept by respondents and determines the relationship between payment, time and performance. Largely the academic research conducted on the implementation stage shows that the non-remuneration or non-payment of contractors affects their performance and existence. Similarities in general can be drawn from this. However, this study does not explore this approach as initial academic data on the subject is not readily available.

The study is an exploratory study that collects qualitative data from experienced professionals that undertake risk work for their clients. Interviews conducted with the professionals produced valuable qualitative data on the concept and key findings were drawn from this input.

The greater understanding of the practice can lead to a better understanding between parties, regulation of the practise, support for smaller firms and assist in building the economy of South Africa. The findings reveal that there is a common understanding of the concept and the non-payment of professionals over long periods whilst undertaking risk work does affect motivation levels and impedes performance, thereby supporting the findings of the literature.

Declaration

I, **Pride Ndlovu**, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Science Building in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Signed at

On the day of 2015

Dedication

I dedicate this to:

- God Almighty for granting me strength, wisdom and patience to complete this endeavour.

This work is also dedicated to:

- The construction industry in the hope that improvement, continuous learning and knowledge are enhanced in the industry.

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Glossary of Terms

TERM	DEFINITION
Risk	The probability of specific eventualities, which may occur at a future stage of the project (Kruger <i>et al.</i> , 2013: 425).
Working at risk	When a consultant performs certain work for, or on behalf of a client and payment of the fee for such work is deferred (partially or in full) until a specific agreed event(s) occurs (Adendorff <i>et al.</i> , 2013).
Long Periods	For the purposes of this research long periods are defined as periods longer than three months.
Short Periods	For the purposes of this research short periods are defined as periods shorter than three months.
Professional Consultants	For the purpose of this study professional consultants are experienced built professionals who provide expert knowledge for a fee.
Early phase	The phase that includes all activities from the time the idea is conceived, until the final decision to finance the project is made (Williams and Samset, 2010).
Fronnd-end phase	The phase that includes all activities from the time the idea is conceived, until the final decision to finance the project is made (Williams and Samset, 2010).

List of Abbreviations

BEE	Black Economic Empowerment
CESA	Consulting Engineers of South Africa
CSR	Corporate Social Responsibility
PROCSA	Professional Consultants of South Africa
SAACE	South African Association of Consulting Engineers
SASLL	The South African Society for Labour Law

1 INTRODUCTION

1.1 Purpose of the study

The purpose of the study is to investigate if the non-remuneration of consultants working at risk in the early phase of the project affects the quality of input, motivation and performance. The study aims to understand better the phenomenon of consultants working at risk. It seeks to establish if there is a compromise in quality of input in the early phase when performing work at risk.

1.2 Context of the study

The built environment professionals are responsible for the designs in the way people live, work and play. The entire infrastructure for the commercial, industrial, residential and leisure is carefully designed and constructed by skilled professionals in the built environment. The responsibility to deliver built projects is entrusted to built environment professionals to ensure that client requirements are met and deliverables are achieved within time, costs and quality specifications.

Built environment professionals are engaged right from the early phase of the project to translate the client requirements into conceptual and feasible schemes. The early phase of a project comprises the most uncertainty and project stakeholder influence which impacts on project performance. According to Kolltveit and Grønhaug (2004), time is spent translating the client requirements and engaging with stakeholders to get to a workable solution. This process especially in complex projects consumes an enormous amount of time as stakeholders have a significant role to play in this early phase. Kolltveit and Grønhaug (2004: 545-551) define stakeholders as individuals and/or organizations that are involved in or may be affected by the project activities, including the project client, project sponsor, project manager and the employees involved in the project. They further indicate that the various stakeholders have different interests in and ambitions for a project depending on the type of their involvement in the same, and they influence the project according to what role they play in relation to the project.

The early phase of the project is defined as “the process and activities that lead to, and immediately follow, the decision to undertake feasibility studies and to execute the main project” (Kolltveit and Grønhaug, 2004: 545-551). This means that the early phase starts before the decision to start the main project has been taken and lasts until the activities and processes immediately following the decision to execute the project are completed. It is well known from research that the most important project decisions have to be taken in the early phase, and that this stage of the project development is a time for conceptual innovation and creativity (Kolltveit and Grønhaug, 2004). Williams and Samset (2010 pp147-148) also define the early phase as the phase that includes all activities from the time the idea is conceived, until the final decision to finance the project is made.

In the context of projects, a “concept” is a mental construction meant to help solve a problem or satisfy a need (Williams and Samset, 2010). They further advocate that concepts should be generic, in the sense that several concepts could be envisioned as alternative solutions to the same problem - all essentially different, in that they are not merely variants of one specific solution to the problem. A major challenge in the early (front-end) phase is to find and appraise one or several viable concepts. The concept is, in many ways, concerned with the business case. This process takes time depending on the complexity of the project as the client may keep asking for several alternative solutions in trying to reach a decision and with a valid business case. The focus is usually on economic and societal, rather than technical aspects, while time and professional skill are invested at risk at this stage.

The commercial private sector engages the built professional skill at risk in South Africa. This risk is limited to the early phase. Consultants invest time and their professional skill to find workable conceptual solutions for their private sector clients at risk. Working at risk is defined as: the period through which consultants’ time and professional skill are invested without any remuneration (Adendorf *et al.*, 2013). The consultants get remunerated only when the project is a success. Kolltveit and Grønhaug (2004) emphasizes that the quality of the execution of the early project phases may dramatically influence the project performance. The early phase has the highest level of uncertainty and requires the most innovative and thought through solutions. However, consultants are not remunerated for their input in creating these workable solutions in

risk projects. Generally these projects are massive and complex retail projects with multiple tenants and stakeholder management. According to Kolltveit and Grønhaug (2004), the level in which the early phase of a project is managed and executed may dramatically influence the project's value generation. Improved insight into the project's early phase allows for better understanding of project value generation, stronger industrial involvement in the early phase, improved decisions, and thus better project execution. This implies that the early phase of a project development is the most important time for innovative activities and for planning a project execution that will optimise project value generation. Since the importance of the early phase is well known, also within the construction industry, it is important that stakeholders in the industry exploit the opportunities connected with the early project phase.

The contractual engagement of professional consultants in the built environment in South Africa is administered by a professional consultants services agreement document (PROCSA). This document defines the six stages of a project as follows:

- Stage 1 Inception,
- Stage 2 Concept and Viability,
- Stage 3 Design Development,
- Stage 4 Documentation and Procurement,
- Stage 5 Construction, and
- Stage 6 Close Out.

The early phase of the project is linked to the Inception and Concept and Viability (Stage 1 and 2). These are the two main stages that consultants are engaged at risk in the commercial private sector in South Africa prior to achieving project approval. Some clients have been known to include stage 3 as part of the risk period. No current remuneration model for consultants working at risk in South Africa is clearly defined (Adendorff *et al.*, 2013). The PROCSA document further outlines the respective deliverables per stage in a project which are linked to the remuneration in a percentage form of each discipline as per the gazetted fee structure. This tariff of fee structure is set by the council of each respective discipline and it gets reviewed and published annually in the government gazette. The fees are structured and paid based on the stage of work completed by the professionals. However, a number of professional consultants in

the built environment industry who are doing work for private clients are expected to finish stages of work at risk, for longer periods without any remuneration from the client. Consultants invest time and professional skill without any remuneration, for as long as it takes for a project to be a success.

1.3 Problem Statement, Research Questions and Objectives

1.3.1 Problem Statement

It is on record that relatively many major merger projects particularly where Government entities are involved fail to meet expectations in terms of cost, time and quality. Mufeez (2011) indicated that projects such as the British Library, the Scottish Parliament, the Channel Tunnel and the Wembley Stadium were highly criticised for its cost over-run and huge delay in final handing over which resulted in unfulfilled project objectives the stakeholder's expectation. Ngulen and Chileshe (2013) also affirm the failure of projects in the Vietnamese construction industry and provide critical factors causing project failure. They provide critical factors associated with project failure as knowledge and technical issue and the top five are listed as follows:

- Disregard of the significance of project planning process and poor project planning;
- Lack of experience in executing complicated projects;
- Poor design capacity and the frequent design changes;
- Lack of knowledge and ability in managing construction projects; and
- Lack of financial capacity of owner.

There are many other reasons attributed to the project failure which include skills shortages, financial shortages, politics and many other reasons. However, working at risk can be a significant factor that has negative effect on the progress of projects. This research therefore aims to investigate if the non-remuneration of consultants working at risk affects the quality of input, motivation and performance in the early stages of the project in the South African built environment in private sector.

1.3.2 Research Questions

The main research questions are:

- Do consultants understand the concept of working at risk?

- Does working at risk affect the quality of input, motivation and performance?
- Does the length of risk period have any effect on the quality of input, motivation and performance?

1.3.3 Research Objectives

The main research objectives are as follows:

- To establish whether consultants understand the concept of working at risk;
- To establish the longest period that consultants have experienced working on retail projects at risk;
- To understand whether the length of risk period has an effect on the quality of input, motivation and performance; and
- To understand the methods that consultants' working at risk employ to manage exposure to risk work.

1.4 Proposition

The length of risk period has a negative effect on the quality of input, motivation and performance of consultants working on projects at risk.

1.5 Significance of the study

The study is significant to project sponsors as it can assist in reviewing current practises on consultants working at risk in a way that is mutually beneficial to all parties involved. Providing effective solutions to problems affecting consultants working at risk can inherently improve the overall project performance (Kolltveit and Grønhaug, 2004). Hence, this helps to reduce the degree of project failures in terms of cost, time and quality expectations. The study will further provide insight to all stakeholders in the built environment on the impact of working at risk on performance of the entire project. It can also benefit industry role players in looking at the pros and cons of deferring payments to consultants after they have completed their contractual assignments. This study will again help highlight the extent of the practice of working at risk, difficulties experienced and propose practical solutions that may help in developing an effective model that benefits all stakeholders.

According to the researchers' experience, in the past few years clients have increasingly been procuring the professional services of consultants at risk for many reasons. This has brought a lot of new players starting to engage in risk work with a lot of these relationships ending up in serious disagreements. It is therefore the researcher's view that the concept is significant in the industry and warrants significance in the research arena to assist stakeholders to understand each other and find solutions.

1.6 Limitations and Scope

This research will only focus on the early phase of the project (stages 1 and 2) which includes inception, concept and viability. The study focuses on the early phase of the project since consultants who are the main subject of the study are heavily involved during these stages.

The study will target a population of consultants who have experience of at least 5 years working at risk in the private sector. This limitation of the sector was imposed to foster convergent perspectives among the respondents which would add to the strength of findings. Professionals from various consulting companies within Gauteng province of South Africa will be considered in the study. Consulting companies in this sector within Gauteng province are easily accessible to the researcher.

1.7 Assumptions

The study assumes that consultants working at risk are responsible for both stage 1 and stage 2 as described in the PROCSA document. The consultants complete stages 1 and 2 and only get remunerated when the project is a success.

The PROCSA document defines deliverables of Stage 1 and Stage 2 as follows:

Stage 1: Inception: Establish client requirements and preferences, assess user needs and options, appointment of necessary consultants, establish the project brief including project objectives, priorities, constraints, assumptions, aspirations and strategies

Stage 2: Concept and Viability: Prepare and finalise project concept in accordance with the brief including scope, scale, character, form, function and preliminary programme and viability of the project.

1.8 Research Design

This study will use a qualitative approach using an interview survey design. Qualitative research uses a naturalistic approach that seeks to understand phenomena in context-specific settings, such as real world setting [where] the researcher does not attempt to manipulate the phenomenon of interest (Patton, 2001) but let the phenomenon of interest unfolds naturally.

Qualitative research takes an interpretive, naturalistic approach to its subject matter and qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings that people bring to them. Qualitative research begins by accepting that there is a range of different ways of making sense of the world and is concerned with discovering the meanings seen by those who are being researched and with understanding their view of the world rather than that of the researcher (Lee, 1999).

The respondents are expected to give their own understanding of the concept and how the non-remuneration affects their performance. Interview respondents that meet the criteria will be carefully selected using purposive sampling method (see Leedy and Ormrod, 2014). The potential respondents (consultants) will be asked to confirm by email if they would like to take part in the study and confirm their availability for interviews. An interview schedules will be prepared in a way that suits the interviewees. Data gathering process will include the use of audio tapes to ensure the quality of data is not compromised.

1.9 Ethical issues in the study

The research will ensure that all respondents to the study give full consent to participate in the study. Effort will be made to ensure that interview sessions are done in a safe and secure environment where respondents feel comfortable. Ethical issues such as protection from harm, informed consent, right to privacy and confidentiality will be respected.

1.10 Structure of the research report

The research report will be structured as follows:

Chapter One: Introduction: This chapter will introduce the study topic giving a brief context of the study, the problem statement, purpose of the study, main problem, research questions, significance of the study, limitations of the scope and methodology.

Chapter Two: Literature review: This chapter will review literature on the early stage of the project. It will review what is known in the body of knowledge about the nature of professional services in the built, a look at the appraisal process to getting project approval from briefing stage, conceptualization, viability and decision making/approval or decline of project, the relationship between client and consultants, the risk, reward and motivation and other types of work or professional services offered by professionals without a guarantee of a fee or where expectation for a fee payment is nil.

Chapter Three: Research design and methodology: This section explains the methodology to be adopted in this study. The research design will cover research method, population, and sample and research instrument to be used. The data gathering procedures and the detail on how this data will be analysed and interpreted will also be described here. Validity and reliability issues will also be dealt with in this chapter.

Chapter Four: Presentation of the Results (Data Analysis): An in depth presentation of results from the interview sessions will be provided in this chapter. To analyse the qualitative data, the data will be categorised into themes which will, in turn, be coded and frequencies counted in order to make understanding of the concepts easier.

Chapter Five: Discussion of the Results: This chapter will compare the results of the study with theory from the literature review. Departure points will be identified and explained accordingly.

Chapter Six: Conclusion and Recommendations: Conclusions will be drawn in this chapter based on the findings. Recommendations, shortcomings and areas of further research will be highlighted as well.

2 LITERATURE REVIEW

2.1 Introduction

The built environment industry has many role-players that get involved in a variety of projects. One of the key role players in projects are professional consultants, often referred to as the professional team. The professional team/consultants are involved from the early stages of a project to completion stage in order to ensure delivery of projects to client's requirements. In South Africa, the professional consultants working for private sector clients are often asked to provide their time and professional skill at risk. The consultants take the risk of no remuneration if the project is not a success.

This study will review the main literature related to the early stage of the project where consultants work at risk. The nature of professional services in the built environment, appraisal process to getting project approval from the briefing stage, conceptualisation, estimating and decision making/approval or decline of project, the relationship between client and consultants, the risk, reward and motivation and other types of work or professional services offered by professionals without a guarantee of a fee or where expectation for a fee payment is nil will be covered in detail.

Consultants apply their intellectual property and time during project execution. The study seeks to understand the concept of risk in detail by looking at whether the length of time invested at risk affects the performance (quality of input) of the consultant on a particular job. Samset (2009) argues that the quality of input at entry, in the early stage has a major impact on the quality of decision for project success. The longer the consultant is engaged on a project at risk, without any compensation, could be de-motivating and affect consultant's performance (input) on a particular assignment.

2.2 The nature of professional services in the built environment

The built environment is a multidisciplinary field that relies on various professional skills set to address the concept, design, construction, management, control and maintenance of projects. Construction projects are complex and risky, and any clients who do not have a good understanding on the design and management of a project may suffer severe losses (Chow and

Ng, 2005). The complex nature of the built environment requires strong team leadership to ensure the coordination of the various disciplines to achieve set objectives. The professions have always been linked with a notion of 'service' (Vee and Skitmore, 2003). Thus, a profession has been described as a group of people organized to serve a body of specialized knowledge in the interest of society (Appelbaum and Lawton, 1990). A professional operates in a world of people such as colleagues, other specialists, people whom they serve, such as their clients and the public (Pressman, 1997).

The various role players in the built environment range from consulting engineers, quantity surveyors, architects, contractors, town planners, property developers, construction project managers, and health & safety specialist amongst others depending on the nature and size of the project and structure to be designed and built. Professionals in the built environment are expected to adhere to the code of conduct by their relevant local or international professional bodies. Professional codes of conduct have developed to reflect the parameters of normative behaviour within which members of the professions should operate (Bowen *et al.*, 2007). The professional bodies set the tone for professional conduct expected of the professionals. It is a sign of maturity and of professional pride when a professional group operates under a code of ethics (Strahlendorf, 2007).

Professionals engage themselves in certain activities, or occupation, for gain or compensation as a means of livelihood, such as permanent career, not as an amateur or pastime. They offer a service to their clients in order to earn income for their businesses. The service that consultants in the built environment trade to clients is time and professional skill.

In South Africa, most professional consultants enter into contracts with their clients in the private sector using the Professional Services Agreement Document (PROCSA, 2013). The PROCSA document outlines the different stages of services the consultants provide to clients. The stages of services are listed in their particular order from Stage 1 up to Stage 6. This study is conducted within the framework of the six stages of the projects outlined in the Professional Services Consultant Agreement (PROSCA, 2013). However, the focus of the study will be limited to early development phase which includes inception, concept and feasibility. The PROCSA document is

widely used by clients and professionals in the South African Construction industry and is also recommended for use in the rest of Africa. The six (6) stages of the project outlined in this document are delineated in their order as the following: Inception Stage, Concept and Viability Stage, Design Development Stage, Documentation and Procurement Stage, Construction Stage and Close-Out Stage (PROCESA, 2013). This document does not address the professional/client engagement at risk. No current remuneration model for consultants working at risk in South Africa is clearly defined (Adendorff *et al.*, 2013). The Consulting Engineers of South Africa (CESA) have to date drafted a document that addresses remuneration for consultants working at risk. This document is in review and has not been adopted.

2.3 The early development phase of a project

Kolltveit and Grønhaug (2004) defined the early stage as the process and activities that lead to, and immediately follow, the decision to undertake feasibility studies and to execute the main project. Consulting firms by their very nature need work and income to sustain themselves as businesses. Therefore, consultants always seek paying work and clients for future work in order to keep businesses afloat. Consultants sell time and professional skill to clients and are remunerated for it. Large and complex projects can require a great amount of skill and time to conceptualize. A huge investment is made by consultants upfront in the early stages of the project. This confirms the importance of the early stage of the project. This phase includes all activities from the time the idea is conceived, until the final decision to finance the project is made (Williams and Samset, 2010).

Williams and Samset (2010) indicate that the importance of this stage has been known for a long time, but development here has been very much slower than development of tactics for the execution phase. The importance of quality at entry has been emphasized in many studies, as noted in Morris (2009); Miller and Lessard (2001); Flyvbjerg *et al.* (2003); and Meier (2008). However, the merits of detailed strategic planning are disputed by Mintzberg (1994), Slevin and Pinto (1987), and Christensen and Kreiner (1991). They argue that, a long-term plan is less likely to be implemented without major change than a short-term plan.

The early stage commences by briefing of the consultant by the client for the first time on what client goals, objectives and requirements are. An effective client briefing process is crucial to the attainment of client objectives with respect to time, cost and quality for construction projects (Bowen *et al.*, 1997). The front-end phase commences when the initial idea is conceived and proceeds to generate information, consolidate stakeholders' views and positions, and arrive at the final decision as to whether or not to finance the project (Williams and Samset, 2010). This stage is crucial in order to understand what the client sets out to achieve in order to ensure that all the requirements are captured and addressed. It is an intricate process to translate the client requirements as some clients may not have a view of what is achievable and feasible. Some clients are not able to express themselves explicitly and may lack construction knowledge to engage better with consultants. This presents its own set of challenges for the consultant who is to work with this information from the client and translate it to a workable concept. The consultant takes the enormous task of translating the client requirements into preliminary sketches of possible solution the client requires. This stage can drag on and take enormous time and there could be numerous changes and reiterations with the client before a suitable solution is achieved. The quality of the execution of the early project phases may dramatically influence the project performance (Kolltveit and Grønhaug, 2004).

2.3.1 The Concept

In the context of projects, a “concept” is a mental construction meant to help solve a problem or satisfy a need (Williams and Samset, 2010: 38-49). They further suggest that there is a need for alignment between the project concept with overall corporate strategy and specific goals. However, Linehan and Kavanagh (2004) note that projects are complex, ambiguous, confusing phenomena wherein the idea of a single, clear goal is at odds with the reality.

Commensurate time is invested to get the requirements right and align the concept with corporate strategy. Williams and Samset (2005) note that asking for several alternatives, viable concepts, including the zero option, challenges creativity and help to avoid ending up with a concept that is inferior compared to the present situation. However, Samset (2009) also points out that the initial concept tends to remain largely unchallenged during the front-end phase and ends up as the chosen one regardless of how inept it might turn out to be.

Clear establishment of the initial scope of a project (or the completeness of the client's brief) is a critical factor in project success (Chritamara *et al.*, 2001). If the client requirements at the initiation of a project are not very explicit, it may result in longer and more costly tendering process as well as changes in client's requirements during design and construction (Ho *et al.*, 1996). According to Kolltveit and Grønhaug (2004) two factors in particular that affect project performance are uncertainty and the influence of the project stakeholders. During the early stage of developing a concept the uncertainty levels are extremely high.

2.3.2 The Viability (Costing)

The costing of the concept is the next step in determining feasibility of the project. According to Pilcher (1994), 80% of the construction costs are taken when the sketch design is formulated, and any design errors and omissions, if undetected or unresolved, could undoubtedly be the origins of serious claims and reworks once the construction begins. Viability costing can be affected by input quality. So, if working at risk is a contributing factor to input quality, it would follow that it might also affect viability costing.

Flyvbjerg *et al.* (2002) argued that the cost estimates used to decide whether such projects should be built are highly and systematically misleading. Olsson *et al.* (2004) suggest that “strategic budgeting” is a commonly used technique in major public projects. They found a systematic underestimation that could best be explained as strategic misrepresentation. This technique includes using a budget that only visualizes part of the total cost in order to initiate the project, and then exploit the fundamental logic that a project, when defined and planned, is less likely to be reversed or terminated. Nijkamp and Ubbels (1998) offer a similar explanation when investigating how reliable cost estimates are at the time of the decision to build in infrastructure projects. “One may safely assume that the costs of the project at that stage are as low as possible to ensure that the project will be executed. This suggests that the cost may be somewhat underestimated at the beginning of a project” (Nijkamp and Ubbels, 1998: 3). This issue is problematic because empirical evidence of such a practice is hard to establish. Moreover, it involves assumptions of not only the intentions but also the integrity of actors. Magnussen and Samset (2005) conclude that, since large changes during implementation is a major cause of cost escalation, it is necessary to stress the importance of the initial planning phases.

2.3.3 The Decision making (Project Approval or Decline)

At this stage, decision makers are required to make judgments for the future. Cooke-Davies (2005) shows that many companies have difficulty stating that projects are approved on the basis of a well-founded business case linking the benefits of the project to explicit organization goals (whether financial or not). It is generally agreed that effective management will require a broad perspective on a project, taking into account not only the strategy, but also its impact and coherence with needs and priorities of users and affected parties. It should have only minor negative unintended effects. Its objectives should be consistent with needs and priorities in society, and it should be viable in the sense that the intended long-term benefits resulting from the project are achieved (Samset, 2009).

Magnussen and Samset (2005) point out that in project evaluation, five analytical criteria are commonly used to provide a comprehensive yet simple picture of the status of a project. These are efficiency, effectiveness, impact, relevance, and sustainability. Taken together, and applied analytically on a project or process, they are meant to provide decision-makers with the essential information and clues to establish a precise diagnosis and make the right decision. The key performance measures used in projects are cost, time and quality. These are used to measure project delivery in an operational perspective. However, these are inadequate as measures of success. It requires that tactical and strategic perspectives are taken into consideration (Magnussen and Samset, 2005).

Magnussen and Samset (2005) further indicate that compliance to schedule, budget, and technical requirements are of secondary importance if the project does not perform well in terms of feasibility and long-term effects of capital expenditure (Magnussen and Samset, 2005).

Flyvbjerg *et al.* (2005) and Wachs (1990) explain that planners and promoters purposely spin scenarios of success and gloss over the potential for failure. Again, this results in the pursuit of ventures that are unlikely to come in on budget or on time, or to deliver the promised benefits, which is a working at risk situation. It becomes therefore critical to focus deeply in the early stage of the project and treat the problem at the source. No matter what interventions may be

applied at implementation stage as thoroughly researched, cost overruns and delays will perpetually persist if the problem is not treated at the source, the early stage.

2.4 Professional consultants working at risk in the built and other disciplines

Adendorff *et al.* (2013) define the concept of ‘working at risk’ as when a consultant performs certain work for or on behalf of a client and payment of the fee for such work is deferred (partially or in full) until a specific agreed event(s) occurs. This event is further defined as ‘success’. If success is not achieved (often by an agreed date), the client has no further liability or obligation to pay the deferred fee (Adendorff *et al.*, 2013).

In the South African built environment, according to the researchers participant observation, a lot of professionals in the built environment (in private sector) are engaging in risk work. There is no model that governs how these risk relationships between client and consultant are administered. Time and professional skill is invested at risk with no remuneration if project is not a success. Anecdotal evidence suggests that some consultants have spent longer periods, a period of ten years working at risk on a client’s project. The period it takes for consultants to get over the risk period is critical to the cashflow of consultants business. The longer the risk period, the greater the chance of compromised quality input in the early stage.

Chinyio (2011) suggests that developers and employers have a tendency to take a certain amount of advantage of this phenomenon. Various researchers also argue that clients use the work done by the consultant to some extent, but no payment is, however, made to the consultant in the long run, even though the client has found some form of personal enrichment (Clark, 2012). Consultants and consultancy firms are therefore incurring substantial loss of potential turnover due to work completed at risk never continuing to a stage of remuneration (Griffin, 2012). The early stage of the project is a stage when consultants are engaged at risk until a success event occurs. This stage may take many months before a success/failure is decided. Some projects have been reported to take approximately 36 months before success/failure is decided depending on the size and nature of the project. Consultants go for these long periods at risk without any remuneration. The question to answer is what does this do to the business, motivation and quality of input in the early stage?

Kometa *et al.* (1994) identified financial stability as an important attribute motivating consultants to embark on a client's project. This attribute ranked the highest in their study and was elucidated as that consulting firms are profit-seeking organizations in a predominantly economic world. Consultants who work at risk, without any pay for a longer period of time could end up with some difficulties.

The concept of 'risk work' may seem similar in some way to other forms of services offered by consultants without any remuneration. There are various other vehicles used where consultants engage their services to clients without remuneration.

According to Sambasivan and Wen Soon (2007), inadequate financial support is one of the main factors that are causing delays in construction industry in Malaysia, Singapore and Taiwan. Lack of financial capacity to finance construction projects affects a long chain in the construction process. Suppliers and consultants are one of the victims of such financial constraints. Due to this squeeze, large conglomerates find themselves defaulting on payments for services that have been rendered by a supplier or consultant. Sambasivan and Wen Soon (2007) further note that the delays in payments are not helping in motivating the service providers to offer a quality service as per the agreed specifications. The longer it takes before a payment is made to suppliers and consultants for a completed job, the greater the mistrust and the lower the motivation to continue with the project (Aibinu and Jagboro, 2005). This has dire consequences on the quality of input and performance of the project as a whole.

Money is not the only motivator and it is not the primary motivator for every business. However, there is overwhelming evidence that financial benefit is an important motivator for most businesses. The broad usefulness of money as well as its many symbolic meanings suggests that, far from being a mere low order motivator, pay can assist in obtaining virtually any level on Maslow's motivational hierarchy, including social esteem and self-actualisation (Gerhart and Rynes, 2007).

2.4.1 Pro bono work

Pro bono work is an aged concept particularly popular in the legal profession. Professionals invest an amount of time and professional skill to assist society and the under privileged at no cost. No remuneration is expected by professional for services rendered. This is similar to community service or corporate social responsibility. Pro bono has emerged as the dominant means of dispensing free representation to poor and underserved clients, eclipsing state-sponsored legal services and other nongovernmental mechanisms in importance (Cummings, 2004).

The South African Society for Labour Law (SASLL) defines pro bono services as the delivery of legal advice and or assistance within the professional competence of a legal practitioner to facilitate access to justice. Pro bono services are designed to address the needs of persons with limited needs, or of non-profit organizations where the payment of legal fees will deplete the organizations economic resources and affect their ability to carry out charitable or public interest work. More role players are seen engaging and investing their time and professional skill to assist communities at no cost, under the banner of corporate social responsibility.

Corporate Social Responsibility (CSR) refers to the generally voluntary involvement, or investment of companies in social projects that help advance the society/the community in which they operate in areas such as health care, housing, education, safety, and the environment, among others. More companies are gradually taking a larger role, actively participating in social and community projects under the concept of CSR (Flores-Araoz, 2011).

According to research, not all CSR efforts in South Africa result from voluntary or indirect business decisions; some of them are the product of corporate compliance with the Black Economic Empowerment (BEE) legislation. The BEE Act forces South African-based companies to consider all stakeholders when performing their internal and external operations in an effort to eradicate social and economic inequalities inherited from the Apartheid days and to help previously discriminated groups to actively participate in the country's economy. Companies that refrain from complying with the BEE scorecard can obtain negative ratings, therefore complicating their ability to operate in the country (Flores-Araoz, 2011).

2.4.2 No win no fee work

This practice is also popular in the legal profession where attorneys take on cases usually for medical negligence claims and personal injury claims for their clients under the banner of no win no fee. The attorney takes the risk that no remuneration will be payable if case is not won in court. This practice is also referred to as a contingent fee which is described as any services provided where the fee is payable only if there is a favourable result. A case which is not won in court the client is not liable for payment of legal fees but only when the case is won, fees are payable. The attorney takes the risk and only when a win is achieved, a fee covering the risk is payable. This concept is similar to the “risk work” concept in the built profession where if the agreed event is not achieved, and success not obtained, the client has no obligation to remunerate the consultant (Griffin, 2012).

2.4.3 Voluntary work

Voluntary work is generally considered an unselfish activity and is intended to promote good or improve human life. In return this activity can produce a feeling of self-worth and respect. There is no financial gain involved. Volunteering is also renowned for skill development, socialization and fun. It is also intended to make contacts for possible employment. Many volunteers are specifically trained in the areas they work such as medicine, education or emergency rescue. Others serve on a need basis, such as in response to a natural disaster (Bova, 1995).

2.4.4 Speculative work

Speculative work is defined as any kind of creative work rendered and submitted, either partial or completed, by a designer to a prospective client/ employer before taking steps to secure both their work and an equitable fee (Thompson and Perry, 2006). Under these conditions, a designer will often be requested to submit work under the banner of either a contest or an entry exam on actual, existing jobs as a “test” of their skill. In addition, the designer normally unwittingly loses all rights to their creative work because they failed to protect themselves by means of a signed binding contract or agreement. The client/employer often uses this freely gained work as they see fit without fear of legal repercussion.

Spec has become the short form for any work done on a speculative basis. In other words, any requested work for which a fair and reasonable fee has not been agreed upon, preferably in writing. Spec requires the designer to invest time and resources with no guarantee of payment (NOSPEC!, 2013). This trend is popular in the graphic design industry. Organizations against spec work argue that the profession is about creating custom solutions for clients and not cookie cutter concept.

Kennedy (2013) raises issues that spec work competitions devalue design as they employ minors and offer unfair competition. They can result in lawsuits and can lead to a host of unethical practices by clients, competition hosts and designers themselves. Design is primarily problem solving and visual design should start only after extensive communication between client and designer, in which turn should clarify precisely what problems need to be solved. When designers deal with clients they build relationships. Any contest that expects a designer to work for free encourages the undervaluing of a designers labour, which ultimately undermines the quality of any professional workplace.

Would one work for free with the hope of possibly being properly compensated? In many cases, spec work has been rejected, only for the client to publish startlingly similar design work, produced by another cheaper designer at a later stage and lawsuits often follow. Spec work competitions could be seen as amateur economies masquerading as professional, with terms of engagement that are considered both ethical and potentially illegal. Instead of participating in spec work initiatives, critics advocate pro bono work, donating professional expertise, or undertaking professional work, in full knowledge that no payment will be received (in contrast to spec work where respondents hope to be paid). Pro bono work is proposed as the more ethical alternative to spec work (Kennedy, 2013).

Another observer stated that there is no need for established professional designers to fear competition from inexperienced amateurs in crowd sourced contests because talent always wins. However it is argued that talent alone is not sufficient to make it in the creative world. Intelligent design solutions take time, research, and lots of hard work. Professional designers are usually

paid to design and develop products that solve communication problems. The problems associated with spec work competitions are mirrored in the wider cultural and creative industries.

The built environment is not immune to this. Clients do run design competitions, selecting usually three designers to submit a concept. Only one designer usually gets selected and contracted. Other designers are often just thanked for their participation. All these designers invest time and professional skill to provide a solution for the client. This in some way is similar to speculative work often seen in the graphic design industry. Designers do not get compensated for time and skill invested. Similar concept to professionals working at risk, who also do not get compensated for time and professional skill if there is no success achieved (Griffin, 2012)

Tendering for work and working at risk are two different concepts. Tendering for work is competing for work in a formal setting. When tendering, one company is usually awarded the contract and an agreement is concluded with all the terms and conditions known upfront. This approach generally spells out the scope, cost and programme implications of the contract, which makes parties to the contract clear about expectations whereas working at risk presents a lot of unknowns and uncertainties. This research is limited to design professionals and therefore does not look at the tendering process for contractors and subcontractors.

2.5 The professional relationship between client and consultant

It is important for clients to understand the operating model consultants use to run their businesses and vice versa. If consultants are in business to make money and have to sustain their businesses, constant cash flow is required to achieve this. At any given point, a consultant trades time and professional skill in order to earn income and make a living. Consulting firms by their nature are profit seeking organization and income is the driving factor in their businesses. Working at risk potentially impedes business growth and sustainability.

Management consulting is an advisory service contracted for and provided to organizations by specially trained and qualified persons who assist, in an objective and independent manner, the client organization to identify management problems, analyse such problems, and help, when requested, in the implementation of solutions (Greiner and Metzger, 1983).

Drucker (1979) suggests management consultancy is an extraordinary and indeed truly unique phenomenon. He suggests two reasons why the industry exists. First, management skills, techniques and knowledge are best learned through exposure to and experience with many different companies in many different industries. Empirical research confirms that clients turn to outside consultants primarily for new ideas, proficiency, and impartiality or objectivity (Gattiker and Larwood, 1985). They further indicate that until the late 1970s, consultants tended to work more as suppliers to the client. Increasingly relationships in consulting engagements have evolved to build more of a partnership of mutual respect aimed at fundamentally improving the client's effectiveness.

Turner (1982) argued that until the late 1970s, consultants tended to work more as suppliers to the client. Increasingly relationships in consulting engagements have evolved to build more of a partnership of mutual respect aimed at fundamentally improving the client's effectiveness.

In discussing consultancy, it is important to clarify the concept of client. Schein (1997) points out that any helping or change process always has a target or a client. Vogl (1999) found that clients look for new ideas and an objective perspective. Appelbaum and Steed (2005) indicated that consultants are expensive. Also, many respondents in Appelbaum and Steed (2005) identified concerns regarding their own employees and a potential backlash to the fees paid to consultants. However, Canback's (1999) opinion is that external consultants can be cost effective, available, and adept at understanding their client's problems and circumstances.

Carucci and Tetenbaum (2000) describe a model of three destructive roles that consultants can assume the messiah, the dependency-builder, and the colluder. These roles can emerge when consultants are motivated by self-interest or have inflated egos that interfere with properly assessing the client's capabilities.

Other issues to consider include those highlighted in a study by Fullerton and West (1996), including up-front work, getting to learn the organization and avoiding cookie-cutter solutions (Fullerton and West, 1996). Clients require consultants to appreciate the client's situation, and that they take into consideration not being overly theoretical. Finally, clients want tailor made

solutions, which reflect the challenges they face, not formulas applied as universal panaceas. The provision of tailor made solution requires extensive research undertaken to understand clients' problem. Consultants spend extensive time and professional skill at risk to produce these unique solutions.

De Cesare (in Walton, 2010) stresses that the interaction between client and consultant is best when “both parties are crystal-clear about their vision, vocal about their underlying needs, honest about their competencies, aligned around how they will fulfil an assignment and signed up for the long haul. To get to this point, consultants should build a strong relationship with the client.

Clients for their part need to carefully define the scope of the work required. It is important to confirm the match between the job to be done and the talent being hired. The meaningful engagement of all the stakeholders in the project conversation is crucial. Senior management should be kept up-to-date on the general direction and progress of work. Finally, both parties should regard each other with respect, aware of the essential and specific contributions each makes to the success of any undertaking.

2.6 Risk, Reward and Motivation

Risk is defined as an event that has a probability of occurring and could have either a positive or negative impact to a project should that risk occur (Kruger *et al.*, 2013: 425). Risk refers to uncertainty about outcomes (Sitkin and Pablo, 1992) and by definition pay for performance systems involve uncertain outcomes for employees. Employees tend to be risk averse concerning pay because they have no way of minimizing their income risk through diversification as investors are able to do with their stock portfolios.

In the context of the study, it refers to a success or failure of a project. Consulting Engineers of South Africa (CESA, 2004), provides reasons for performing work at risk as typically falling within the following broad category:

- A requirement to align the interests of the consultant with those of the client through risk sharing;
- A mechanism utilized by clients to manage their own cash flow and risk profiles;

- A mechanism employed by clients to protect themselves against overoptimistic estimates, forecasts and projections of consultants;
- A marketing mechanism utilized by consultants to make proposals more attractive to clients through risk sharing (CESA, 2004).

The early stage of the project has extremely high level of uncertainties qualifies for a high level of risk undertaken by consultant without any guarantee for payment. Extensive time and professional skill inputs are required at this early stage.

Risk management represents a process by which a business is protected against internal and external threats (SAACE, 2007). There are many things that could pose risk to a business. Consultants that take work at risk need to determine the level of risk involved and decide if risk is acceptable. SAACE (2007) indicates steps to take in risk management. These are as follows:

- Establishing the context;
- Identifying the Risk;
- Analysing the Risk;
- Evaluating the Risk;
- Treating the Risk;
- Monitoring the effectiveness of treatment; and
- Communicating findings.

A reward is an appetitive stimulus given to a human or some other animal to alter its behaviour. Rewards typically serve as reinforcers. A reinforcer is something that, when presented after a behaviour, causes the probability of that behaviour's occurrence to increase (Blaukopf and DiGirolamo, 2007). A reward can only be defined as reinforcer if its delivery increases the probability of behaviour.

Reward or reinforcement is an objective way to describe the positive value an individual ascribes to an object, behavioural act or an internal physical state. Primary rewards include those that are necessary for the survival of species, such as food, sexual contact, or successful aggression. Secondary rewards derive their value from primary rewards. Money is a good example.

Rewards (of whatever kind) need to be delivered as close as possible to the demonstration of the behaviour for them to be effective. If no reward occurs over a period of time then the behaviour ceases and the person seeks other ways of feeling fulfilled (Encinosa, 1997).

Motivation is a principle that compensates for performance. This principle involves providing monetary rewards through carefully designed compensation systems that base pay on measured performance within the control of respondents (Flyvberg *et al.*, 2003). However, before performance can be measured, there is a need to develop a business model based on what drives the business after which goals can be set at the various levels of the organization and determinations made about what will be rewarded. Without a business model (or with the wrong one), management risks setting goals and rewarding employees for the wrong things and finding its employees doing those wrong things very efficiently to the organization's detriment. According to Zerbe and Pitt (2001), motivation refers to reasons that underlie behaviour that is characterized by willingness and volition. Intrinsic motivation is animated by personal enjoyment, interest, or pleasure, whereas extrinsic motivation is governed by reinforcement contingencies.

According to Akinici and Fischer (2005), there are also many risks associated with financing of large-scale investments, both by private and public organizations. Every project requires financial means, regardless of whether it is a public, public-private or a privately-funded venture and investors are often afraid of making decisions due to lack of full knowledge in the field of financing methods and their associated risks.

Bova (1995) argues that one needs an edge over competitors who are also exposed to that same risk, and there are five possible sources. One is having more timely and reliable information when confronted with a crisis, allowing an individual business to map out a superior plan of action in response. A second is the speed of the response to the risk, since not all firms, even when provided with the same information, are equally effective at acting quickly and appropriately. A third advantage may arise from experience weathering similar crises in the past. The institutional memories as well as the individual experiences of how the crises unfolded may provide an advantage over competitors who are new to the risk. A fourth advantage is grounded

in resources, since firms with access to capital markets or large cash balances, superior technology and better trained personnel can survive risks better than their competitors. Finally, firms that have more operating, production or financial flexibility built into their responses, as a result of choices made in earlier periods, will be able to adjust better than their more rigid compatriots.

The objectives of risk management according to Thompson and Perry (2006) are to ensure the rapid identification of risks within the business and to establish a structured financial risk management strategy framework that will:

- Identify, assess and estimate the risk;
- Allocate the risk (who takes the responsibility based on the financial model and contractual ownership structure; and
- Develop the risk mitigation strategy.

In addition, it is important that focus and attention is given to the identification of opportunities as this will enable effective decision making to ensure that:

- Business opportunities can be quickly assessed at an appropriate level in order to decide whether and how it might proceed with such opportunities;
- Threats to the project or other parts of the company's operations can be eliminated or at least reduced to an acceptable level; and
- All decisions take account of contributing to sustainable shareholder value.

The underlying principle is that key risks and the appropriate control measures are kept under regular review and reported to project respondents, project sponsors and key client representatives.

2.7 Summary

Most private sector clients in South Africa are engaging built professional consultants to do work at risk. No current remuneration model for consultants working at risk in South Africa is clearly defined (Adendorff *et al.*, 2013). Professionals continue investing their time and skill at risk. Consultants invest their intellect and time during the most critical early development phase.

During this stage a lot of conceptual development and feasibility is undertaken which becomes the backbone of the project and can lead to a success or failure. The initial idea is transformed into the choice of concept. This may take years, even decades in some large public investment projects. It is during this stage that consultants are at risk, without any remuneration for their invaluable contribution to projects. Fees are deferred to a later date when the project becomes a success. If project is not a success the risk of non-payment for invested time and intellectual property is a reality. This exploratory research aimed to investigate if the non-remuneration of consultants working at risk affects the quality of input, motivation and performance in the early stages of the project in the South African built environment in private sector. Perceptions from consultants with experiences of working at risk were collected to reach some generalisations on the issue. Once this research question is answered, further research will then have to be done to try to build a remuneration model for consultants working at risk in South Africa.

3 RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides a detailed account of the method adopted in undertaking this study. Specific focus will be given to the approach, population, sample, sampling technique and research instrument to be used. The data gathering procedures and the detail on how this data will be analysed and interpreted will also be provided in detail. The research methodology section will be concluded by a discussion of the limitations as well as validity and reliability.

3.2 Research approach

3.2.1 Quantitative and qualitative approaches

There are two main approaches to a research problem, namely, quantitative and qualitative research. Qualitative researchers aim to gather an in-depth understanding of human behaviour and the reasons that govern such behaviour. In qualitative research, smaller but focused samples are more often needed, rather than large random samples, purposive sampling is normally used to have key informants in the sample and data analysis use non-statistical methods and approaches to analysis are holistic and contextual. The qualitative researcher is immersed in the phenomenon to be studied, gathering data which provide a detailed description of events, situations and interactions between people and things, providing depth and detail. It is often used for theory generation. A qualitative researcher seeks to prove a proposition by disqualifying competing propositions - elimination method. The focus is on understanding and interpreting.

Table 3.1: Quantitative versus qualitative approaches (see Outa, 2011; Cooper and Schindler, 2008):

Quantitative	Qualitative
Structured interviews and focus on numeric information	In-depth interviews, focus groups and reviews of documents are some of the procedures used
Deductive process used to test pre-specified concepts, constructs and hypotheses that make up a theory	Inductive process used to formulate theory or propositions and hypotheses

More objective: provide observed effects (interpreted by researchers) of a program on a problem or condition	It is generally more subjective and describes a problem or condition from the point of view of those experiencing them
Less in-depth but more breadth of information across a large number of cases	More in-depth information on a few cases
Fixed response options	Unstructured or semi-structured response options
Number based and statistical tests are used for analysis	Text based and no statistical tests
Large response base	Small sample base

The table above illustrates the fundamental differences between the two methods; qualitative and quantitative methodology which led the researcher to a methodology of choice for the research conducted. The below outlines the thought process applied to select the appropriate methodology for this research.

3.2.2 Choice of research methodology

For qualitative methods, Marshall and Rossman (1989) state that the questions one should ask oneself are:

- Is it important for the researcher to understand the in-depth processes that operate within the organization or industry?
- Do the research issues involve poorly understood organizational phenomena or systems?
- Is the researcher interested in the differences between stated organizational policies and their actual implementation?
- Does the researcher want to study ill-structured linkages within organizational entities?
- Does the study involve variables that do not lend themselves to experiments for practical or ethical reasons?
- Is the point of the study to discover new and thus for unspecified variables?

If the answer to these questions is 'yes' then one should use the qualitative methodology.

If the purpose is exploratory in nature (e.g., to investigate poorly understood phenomena to generate preliminary hypotheses) qualitative methodology should be used. This is why qualitative research is often regarded as a precursor to quantitative research, in that it is often used to generate possible leads and ideas, which can be used to formulate a realistic and testable hypothesis. The hypothesis can then be comprehensively tested and mathematically analyzed, with standard quantitative research methods. It is also important to choose a research method, which is within the limits of what the researcher can do. Time, money, feasibility, ethics and availability of tools to measure the phenomenon correctly are issues that constrain the research. Exploratory research involves qualitative studies (observation, interviews, and content analysis) whereas other types of research such as explanatory research normally involve quantitative studies and hypothesis testing.

The most appropriate approach for the study was a qualitative research because the study was exploratory and the most appropriate design was the phenomenological design. However, because of time and budget constraints, the concurrent mixed methods approach was adopted, whereby both the qualitative and quantitative methodologies were used. According to Mouton (2008) qualitative research studies are not dependent on the sample size but are designed to look deeply into behaviour within specific social setting rather than at broader populations. Qualitative research studies are flexible, highly-focused, and are designed to be completed quickly (Leedy and Ormrod, 2005). Results from a qualitative study are often laden with insightful information unobtainable from quantitative research techniques. The survey design and phenomenological design were used in this study. The survey design was used because of time and budget constraints. Phenomenological study refers to a person's perception of the meaning of an event. The researcher attempts to understand people's perceptions, perspectives and understandings of a particular situation. By looking at multiple perspectives, on the same situation the researcher can make some generalisation. Normally, carefully selected samples of participants are used and lengthy interview for example, one or two hours and often much unstructured interviewing is used. Semi-structured interviews with an interview schedule consisting of 16 open-ended questions were used to collect data in this study.

For the purpose of the study, the researcher aimed to investigate if the non-remuneration of consultants working at risk in the early phase of the project affects the quality of input and performance from the perspective of consultants within the built environment in and around Gauteng Province in South Africa. This type of research relies on qualitative data collected in words expressing respondents' views on non-remuneration of consultants working at risk in a holistic manner (Delpont, 2005) but coded and analysed quantitatively. When seeking consultants' inputs on the subject matter of the study, it was crucial to interact with them and establish their views in their own words. This made the qualitative research approach the most convenient for this study.

Conducting a qualitative research enabled the researcher to gain an understanding of the non-remuneration of consultants working at risk in the early phase of the project affects the quality of input and performance based on the views of the consultants. The flexibility, openness offered by qualitative research and an opportunity to have in-depth insights provided a strong reason for the researcher to apply it (qualitative research) in this study. Qualitative research also explores experiences, feelings and perceptions in order to identify and describe themes from the information gathered from respondents (Kumar, 2005). The intended study explores the experiences of consultants regarding the effect of non-remuneration on the quality of input and performance.

3.3 Research design and methods

The overview of the research design and methodology employed is discussed in detail below.

3.3.1 Research design

According to Kumar (2005), a research design is a general plan of investigation a researcher adopts in carrying out a research study. This approach takes into account the strategy to be employed, the framework and how the study is going to be carried out. Coldwell and Herbst (2004) state that the research design is used to structure the research to show how all of the major parts of the research study samples or groups, programs and methods, work together in an attempt to address the central research question. Coldwell and Herbst (2004) further emphasise

that it is imperative for a researcher to always take into account the nature of the data that will be collected when selecting a research design.

For data collection, qualitative researchers use strategies such as grounded theory, ethnography and phenomenology, and methods like observation, interviewing, focus group discussion, pictures and other materials.

Qualitative research uses subjective information and participant observation or nonparticipant observation to describe the context, or natural setting, of the variables under consideration, as well as the interactions of the different variables in the context. Qualitative researchers often categorize data into themes and patterns as the primary basis for organizing, interpreting and reporting results. A major disadvantage of the qualitative approach is that it is normally affected by subjectivity and it is not easy not to bias the results by the investigator's biases and opinions on the issue being investigated. Qualitative research produces in-depth and comprehensive information about a phenomenon. It uses subjective information and participant observation or nonparticipant observation to describe the context, or natural setting, of the variables under consideration, as well as the interactions of the different variables in the context. It seeks a wide and deep understanding of the entire situation. The very subjectivity of the inquiry leads to difficulties in establishing the reliability and validity of the strategies and information. It is very difficult to prevent or detect researcher-induced bias. Its scope is limited due to the in-depth and comprehensive data gathering approaches required. There are several different strategies such as case study design, grounded theory design, ethnographic design and phenomenological design, that can be used but they all focus on phenomena in their natural settings in the real world and involve studying the phenomena in all their complexities, multifaceted and all their dimensions. The researcher must keep his or her perceptions, impressions and biases to him or herself. What matters is to get the truth.

On the other hand, quantitative researchers use scientific experiments or surveys to collect primary data or use already collected (and processed) data called secondary data in their studies. The quantitative researcher attempts precise measurement of something such as measurement of consumer behaviour, knowledge, opinion, or attitudes and answer questions related to how

much, how often, when and who. Quantitative research often used for theory testing - focusing on describing, explaining and predicting. Mathematics and statistical methods are used to study phenomena. It is often used to study relationships between variables or phenomena and to predict, and uses statistical methods to test hypotheses. It is more objective than the qualitative approach and its designs are mostly: experiments, and research surveys. Quantitative studies normally use large sample sizes, randomly selected subjects and representative samples. Randomization of any experimental groups is essential, and a control group is included, wherever possible. A sound quantitative design should only manipulate one variable at a time, or statistical analysis becomes difficult and open to question. A major disadvantage of the quantitative approach is that it tends to leave gaps in the information it obtains due to the fact that the researcher collects data in terms of numbers. It is used only in situations where the issue or phenomenon being investigated is not contextual.

The most suitable design for this study was a qualitative survey design that takes the form of an interview. Interviews were preferred for the reason that they are open, flexible and help a researcher to have an in-depth understanding of a social issue within a specific setting and time frame (Fouche, 2005). The researcher intended to:

- Establish the longest period that respondents have experienced working on projects at risk;
- Understand whether the length of risk period has an effect on the quality of input, motivation and performance; and
- Understand methods that consultants working at risk employ to manage exposure to risk work.

Inductive logical reasoning was used to analyse and interpret the qualitative data. Inductive reasoning is the logical process of establishing a general proposition on the basis of observations of particular facts. To analyse the data, the following steps were taken to identify common themes:

- Identify statements that relate to the topic;
- Break the information into small segments (eg, phrases or sentences) so that each reflects a single, specific thought;

- Group statements into ‘meaning units’ – categories;
- Seek divergent perspectives;
- Construct a composite; and
- Develop an overall description of the phenomenon or people’s experience.

The focus is on common themes. To ease the interpretation, the themes were coded and frequencies were counted.

3.3.2 Research population, sample and sampling method

According to Burns and Grove (2003), the population includes all elements that meet certain criteria for the study. Population represents a group that the researcher wishes to generalize the research to and is normally defined in terms of demography, geography, occupation and time. Population objects may include individuals, groups, organisations, human products and events (Burns and Grove, 2003). Polit and Hungler (1999) distinguish between a target population and an accessible population. A target population includes all cases about which the researcher would like to make a generalization. The accessible population comprises all the cases that conform to the designated criteria and are accessible to the researcher as a pool of subject for the study. For the purpose of this study the target population included registered built professional consultants working in the commercial private sector in Gauteng Province, South Africa.

The size of the population usually makes it impractical and uneconomical to involve all the members of the population in a research project. For this reason a population sample is often used. A sample is defined as a subset of population selected to participate in a research study so as to understand the population as a whole (Polit and Hungler, 1999). The sample in this study consisted of 15 professional consultants working in the commercial private sector in Gauteng Province, South Africa. The 15 professional consultants that were interviewed came from 15 different organisations (out of 18 organisations which had been shortlisted for the study) in order to have a good understanding of the experiences and perceptions of working at risk within the sector. The researcher believed that the intention was not to generalise to the entire population but to gain an understanding if non-remuneration of consultants working at risk in the early phase of the project affects the quality of input and performance. The respondents were also

chosen based on the eligibility criteria that: the consultants should have done some risk work for commercial private clients in the past and possess at least five years of experience in the built environment. These criteria were established based on the conviction that consultants with these characteristics would possess the information the researcher needed in order to be able to address the research problem.

The non-probability sampling method of purposive sampling was used in this study. Delpont (2005) affirms that in purposive sampling, respondents are chosen based on some features or characteristics of interest to the study. Using the purposive method, the researcher selected the respondents on the basis of her own judgement, knowledge of the population, eligibility criteria (of having done some risk work for commercial private clients in the past and possessing at least five years of experience in the built environment) and the purpose of the study.

3.4 The research instrument

In the academic field a research instrument is a mechanism that measures a given phenomenon. This could be a questionnaire, an interview, a research tool, or a set of guidelines for an observation (Leedy and Ormrod, 2005). Semi-structured interviews with an interview schedule were used as an instrument for gathering data from the consultants on the subject matter of the study.

3.5 Data collection

In this study, semi-structured interviews (Annexure B) were used as data gathering instrument in order to understand if non-remuneration of consultants working at risk in the early phase of the project affects the quality of input and performance. Semi-structured interviews were used to gather data from consultants working in the commercial private sector in Gauteng Province. According to Greef (2005), qualitative interviews are an attempt to understand a phenomenon from the participant's point of view. The researcher ensured that there was room for flexibility during interviews sessions. This allowed the respondents to freely express themselves and share their own ideas and experiences naturally.

Semi-structured interviews are perceived to be time consuming and intense, nevertheless, the researcher made it a point that the respondents felt secure and comfortable during interview sessions. The purpose of the study was clearly explained to the respondents and their priceless inputs were acknowledged in advance. In order to have privacy during interview sessions, secure offices were used. Interviews lasted for 45 minutes to an hour to allow all respondents to respond appropriately. A total of 15 respondents were interviewed.

After its design, the interview schedule was first piloted to three preferred but knowledgeable professional consultants who were not part of the main study but represented the same population as the one in the main study. The researcher conducted the pilot test under similar conditions as those of the main study. Pilot interviews ensured that shortcomings were identified early and rectified before the tool was used in the main study.

3.6 Data analysis

Data analysis is a mechanism for reducing and organizing data to produce findings that require interpretation by the researcher (Burns and Grove, 2003). According to DeVos (2002), data analysis is a challenging process that requires a lot of creativity in order to transform raw data to useful information that can be used for decision-making. There are a variety of ways in which people can approach data analysis. However, it is important to pay attention when data is analysed and to think critically about conclusions that will be drawn. Data analysis for qualitative research consists of a number of steps which involves recording of data, preliminary analysis, reading and writing memos and generating themes and patterns.

According to Strauss and Corbin (1990:20) and Miles and Huberman (1984), there are different types of data analysis technique, which include:

- Grounded theory
- Ethnography
- Phenomenological approach
- Life histories
- Conversational analysis

There are also a variety of beliefs or interpretation strategies as follows:

- The researcher takes whatever the interviewee tells him/her for granted. He/she does not analyse the data. This in a way helps to avoid the researcher's bias. It is the type of analysis used in the ethnographic strategy of doing research (see Strauss and Corbin 1990:20, Miles and Huberman 1984). This kind of interpretation strategy was not considered suitable for this research.
- The researcher analyses the data. This involves the presentation of accurate findings where the data needs to be reduced and therefore an element of the researcher's interpretation and judgment must be considered part of the process. This is the interpretation technique which was used in this study.
- Building theory - the development of theoretically informed interpretations (Blumer 1969).

In this study's data analysis, there was an element of this kind of interpretation strategy.

According to Root (2000), the latter two beliefs are similar, and that within these two generalised positions, the method of analysis of case study data generated through semi- and unstructured interviews tends to split between content analysis and grounded theory, which relies on intuitive analysis to develop themes or patterns for further analysis or interpretation.

Grounded Theory Method (GT) is a systematic methodology that involves the discovery of theory through the analysis of data. This is a research method which operates almost in a reverse fashion from traditional social science research; rather than beginning with a hypothesis, the first step is data collection, through a variety of methods.

For grounded theory methodology, data analysis is an integral part of the interview as conversation in an iterative process. According to Easterby-Smith *et al.* (1991), this methodology involves various stages at which the researcher tries out ideas followed by a period of reflection in a linear fashion over the length of the research process. However, the linearity of such an approach is a simplification of the more complex synthesis through analysis of dealing with wicked problems (Rittel and Webber 1973). Root (2000:144) states that "the interview is a

microcosm of the learning cycles that are the foundation of grounded theory such that the phenomenologist should not attempt to separate data from analysis. The very act of data collection in the asking of questions is based on a constant reappraisal of the researcher's perceptions". The author argues that in this case, data is not completely independent of the researcher since the questions that are asked are influenced by the responses given up to that point which does not happen in quantitative research when structured interviews with fixed questions and pre-set logic of the interviews is used. In qualitative research, a variety of interpretive techniques "seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world" (Van Maanen 1983:9).

The dominant modes are allied to helping solve the problems of internal and external validity and according to Yin (1984) the modes include Time Series Analysis, Explanation Building and Pattern Matching. According to Root (2000), in 'Time Series Analysis' the objective is to examine "relevant how and why questions about the relationship of events over time" (Yin 1984:120). Similar to a scientific experimental approach this matches and compares the trends of data with a predetermined theoretical trend, as well as rival trends or any trends which might be based on external influences that could affect internal validity (Yin 1984, Kratochwill 1978). This study was of a cross-sectional type, so this approach was not suitable for it.

According to Yin (1984), Pattern Matching is considered to be one of the most desirable strategies as it compares the empirically based pattern with that predicted or generated through a theoretical proposition. The coincidence of the patterns is what provides the internal validity. The procedure does not provide precise comparisons in the matching of theory and reality and so Yin (1984: 113) recommends the selection of case studies where "the outcomes are likely to lead to gross matches or mismatches, and in which even an 'eyeballing' technique is sufficiently convincing to draw a conclusion". He also states that a more complex version of Pattern Matching is Explanation Building where "the goal is to analyse the case study data by building an explanation about the case" (Yin, 1984: 113). This involves the gradual building of an explanation through an iterative process where the data or evidence is examined to review the initial theoretical positions and re-examined again from this revised theoretical position.

In practice, therefore, the concept discovery phase uses elements of explanation building and pattern matching as a means of movement across levels of abstraction (Yin, 1984).

3.6.1 Coding

Sometimes, it helps to interpret the data by organising the data and providing a means to introduce the interpretations of it into certain quantitative methods. During the activity of developing themes, the researcher coded the qualitative data (see Terre Blanche *et al.*, 2006), which resulted in frequency counts (Lee, 1999). According to Terre Blanche *et al.* (2006: 324): ‘this entails marking different sections of the data as being instances of, or relevant to, one or more of your themes. You can for example code a phrase, a line, a sentence, or a paragraph, identifying these textual ‘bits’ by virtue of their containing material that pertains to the themes under considerations’. In this study, coding was used to ease the interpretation of the qualitative data. The criticism of the coding method however, is that coding seeks to transform qualitative data into quantitative data, thereby reducing the detail (i.e. its variety, richness and individual character). Careful definition of the codes and linking them to the underlying data can address this concern.

In this study, within the transcripts, the incidents which ranged from a single line of a comment made in passing to lengthy anecdotes describing previous experiences of the interviewee were individually numbered to form codes. Two types of coding were used, namely open coding and selective coding. Open coding or substantive coding is conceptualizing on the first level of abstraction. Written data from transcripts are conceptualized line by line. In the beginning, everything is coded in order to find out about the problem and how it is being resolved. This phase tends to be tedious since you are conceptualizing all the incidents in the data, which might yield many concepts. These are compared as you code more data, and merged into new concepts, and eventually renamed and modified. So the researcher goes back and forth (ie, iterative process) while comparing data, constantly modifying, and sharpening the growing proposition or theory. Selective coding was done after having found the core variable or what is thought to be the core, the tentative core, which explains the behavior of a participant in resolving a concern. After having chosen a core variable the researcher selectively coded data with the core guiding her coding, not bothering about concepts with little importance to the core and its subcores. Also,

she then selectively sampled another transcript with the core in mind, which is normally termed theoretical sampling.

The incident numbers were then transferred to 'post-it' notes and each post-it note labeled representing the 'pattern matching' element of the analysis. Ultimately, the concepts that are generated would be independent but at this early intuitive stage, the multiple labeling of the transcripts prevents early elimination of options and encourages the formation of linkages between the various labels/conceptual categories.

The numbering of the transcript incidents then allowed the process to be repeated to develop further levels of abstraction to arise in order to develop a substantive proposition (Glaser and Strauss, 1967).

3.6.2 Recording of data

According to De Vos (2005), the first step in analysing qualitative data is to plan for recording of information. In line with this, the researcher used an interview schedule to gain an understanding of the experiences and ideas of consultants working at risk. The respondents were asked for permission to use a tape recorder to ensure accuracy of information. Additionally, during interview sessions, the researcher took some notes.

3.6.3 Preliminary analysis

De Vos (2005) states that the interaction between data collection and analysis is a distinguishing feature of qualitative research. De Vos (2005) further emphasises that at this stage the researcher is guided by initial concepts and developing understanding but shifts and modifies them as the information is gathered and analysed. The researcher in this study collected data from consultants working at risk while provisionally formulating meanings in terms of if the non-remuneration of consultants working at risk in the early phase of the project affects the quality of input and performance. This provided an opportunity for the researcher to seek further clarity when it was necessary by interviewing respondents again to enrich descriptions of their understanding on the subject matter.

3.6.4 Reading and writing memos

According to De Vos (2005) writing memos in the margins of the transcripts helps in classifying and interpreting of data. Such memos are often short phrases, ideas or key concepts that can occur to the reader. In order to capture all the ideas from the respondents, the researcher took notes after reading the data several times. This helped in identifying patterns and themes that were unfolding.

3.6.5 Generating themes and patterns

After completing the process of reading and writing memos, categories, themes and patterns were generated, which were coded to create frequency distributions. This process involved identifying salient themes, recurring ideas and patterns. This was further analysed by classifying the information into groups reflecting various meanings of the phenomenon. Common themes were carefully identified along with trends. The researcher further noted common expressions used by consultants (respondents) in recognising what they expected from the projects that they worked with. The last step involved searching for alternative explanations through considering various ways in which the consultants viewed the concept of working at risk. The final focus was on identifying common themes that should be considered in addressing issues related to consultants working at risk. In summary, the various stages of data analysis were as follows:

Stage	Purpose
<i>Codes</i>	Identifying anchors that allow the key points of the data to be gathered
<i>Concepts</i>	Collections of codes of similar content that allows the data to be grouped into a concept
<i>Categories</i>	Broad groups of similar concepts that are used to generate a proposition or <i>theory</i>
<i>Proposition</i>	A collection of categories that detail the subject of the research

An example of a pictorial representation of the whole process is shown in Figure 3.1. Each label of a concept represents a node linking together the transcript incidents although the initial nodes may not exist at the same level within the hierarchy of abstraction. As the level of

abstraction/generalisation increases from codes, concepts, and categories it becomes more apparent that the core concepts begin to emerge.

Levels of abstraction

4. Proposition

3. Categories

2. Concepts

1. Codes

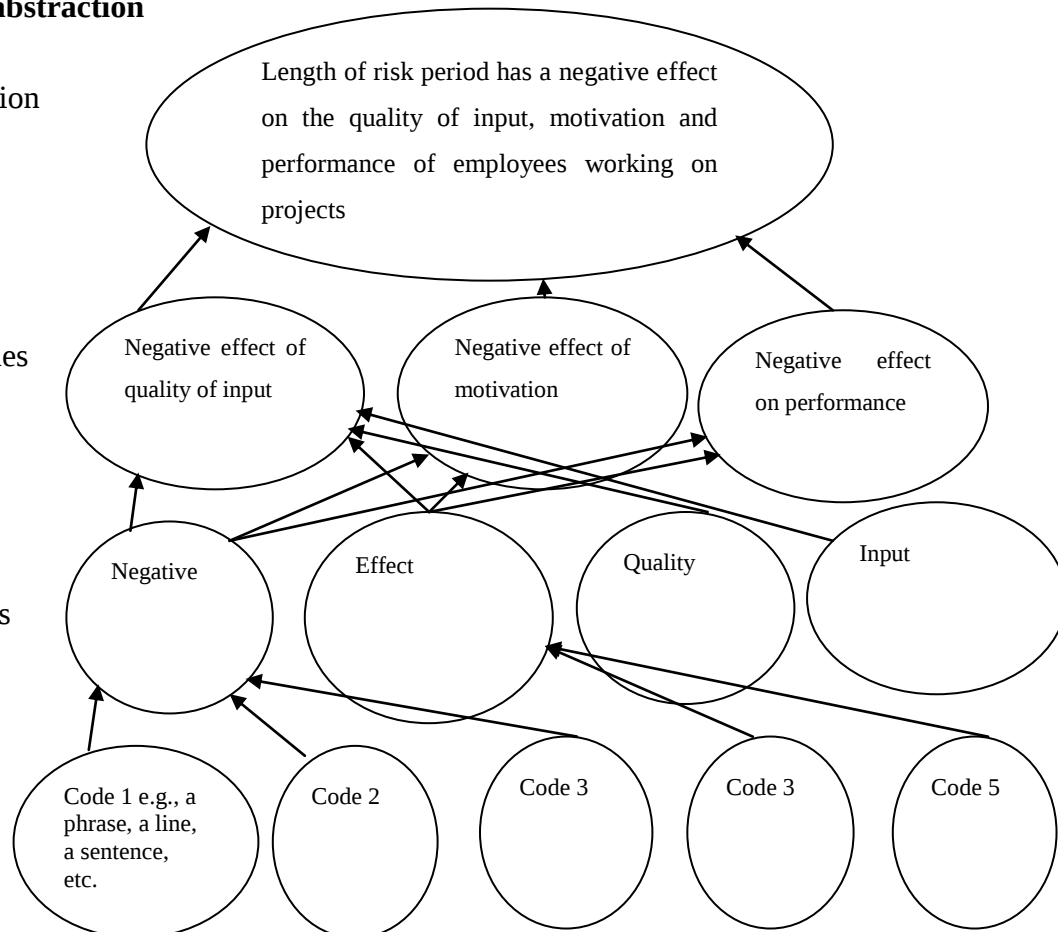


Figure 3.1 Development of analysis structure from the levels of abstraction or generalisation stages (Concept discovery)

Inherent within the concept discovery and labeling is the concept definition and elaboration of theory (i.e., the ‘explanation building’ element of the analysis). The practical approach of this is to group the transcript incidents together and form a common theme. The evolution of the conceptual label and their descriptions is arbitrary since some concepts are discarded and others retained. This analysis goes through its iterative process in developing a proposition or a theory (Martin and Turner, 1986). In case studies, once concepts are generated, they need to be checked

for applicability across cases. In this study, as usual, this meant taking labels or concepts generated from one data set associated with a case (i.e., a professional consultant) and introducing them to another case to see if they can be identified with (Glaser and Struass, 1967). The final stage was reviewing the concept descriptions and tying these into the existing literature. Thus concepts were used to support and explain the products of concept discovery and further inform the concept description stage in the explanation building process.

From the data collected, the key points were marked with a series of codes, which were extracted from the transcripts. These codes were grouped into similar concepts in order to make the data more workable. From these concepts, categories were formed, which were the basis for the creation of a proposition or explanation building.

3.7 Validity and reliability

According to Leedy and Ormrod (2001), validity is concerned with the accuracy, meaningfulness and credibility of the research project as a whole. To ensure validity, a research instrument must measure what it is supposed to measure (Gray, 2006). There is internal and external validity which are covered in detail below.

3.7.1 External validity

Leedy and Ormrod (2005) refer to external validity of a research study as the extent to which its results apply to situations beyond the study itself - in other words, the extent to which the conclusions drawn can be generalized to other contexts. Leedy and Ormrod (2005) further illustrates that where the study is cross-sectional and the respondents were interviewed only once, the research findings cannot claim validity across time, as the data collected are ephemeral (short lived) and are likely to change in future. Since this study was qualitative in nature, what is more of a concern is its transferability that is its applicability to similar environments (see Miles and Huberman, 1994; Denzin and Lincoln, 2003).

3.7.2 Internal validity

Leedy and Ormrod (2001) define internal validity as the extent to which its design and the data it yields allows the researcher to draw accurate conclusion about the cause and effect and other

relationships within the data. The researcher made an effort to ensure that the interview guide was constructed using simple language to the benefit of respondents. Efforts were also made to ensure that the interview was clear without any ambiguity and that it answers the objectives of the research study as well as to make sure that the findings and conclusions drawn were credible and authentic.

3.8 Reliability

Reliability is defined by Leedy and Ormord (2001) as the extent to which the same study can be replicated and yield the same result. Due to the nature of the study that it depends on perceptions, attitudes and experiences of individuals, the study is not likely to yield the same result when replicated. However, respondents who are knowledgeable and experienced about study objectives were involved in this study in order to improve the dependability of the results.

3.9 Conclusion

This chapter dealt with the research approach, design (which is the overall plan for relating the conceptual problem to relevant empirical research), population, and sample, sampling method, instrument, data collection and analysis. The chapter gave a highlight on reliability and validity. The detailed description of the research design and methodology provides a clear framework for the researcher to effectively conduct the research. The next chapter presents the data analysis and interpretation.

4 PRESENTATION OF RESULTS

4.1 Introduction

The purpose of this study was to derive insight into the phenomenon of consultants taking work at risk for private sector clients in South Africa. The study aimed to understand the practise better and determine if there is relationship between the length of the risk period and the quality of input, motivation and performance level in the early phase of the project.

This was an exploratory study which sought to gather data on the phenomenon, analyse it and answer the research questions formulated in chapter 1. The objectives were:

- To establish whether consultants understand the concept of working at risk;
- To establish the longest period that respondents have experienced working on retail projects at risk;
- To understand whether the length of risk period has an effect on quality of input, motivation and performance; and
- To understand the methods that a consultant working at risk employ to manage exposure to risk work.

4.2 Demographic profile of respondents

Figure 4.1 shows the distribution of respondents according to discipline. Out of 18 respondents that were invited to take part, 15 experienced professionals in risk work responded. All the 15 professionals were directors and owners of consulting firms. Out of the 15 professional directors that were interviewed, 6 were into quantity surveying while 4 were specialists in architect. Three (3) of the respondents were specialising in Project Management while specialists in Fire Engineering and Structural Engineering contributed one (1) apiece to the total.

The respondents were not taking part in the study on behalf of their firms hence no mention of firms has been referred to in the study. Neither projects nor clients have been mentioned in the study as the study seeks to understand the individuals experience and understanding of the practise. The respondents chosen for the study were professionals based in Gauteng only for ease of accessibility to the researcher.

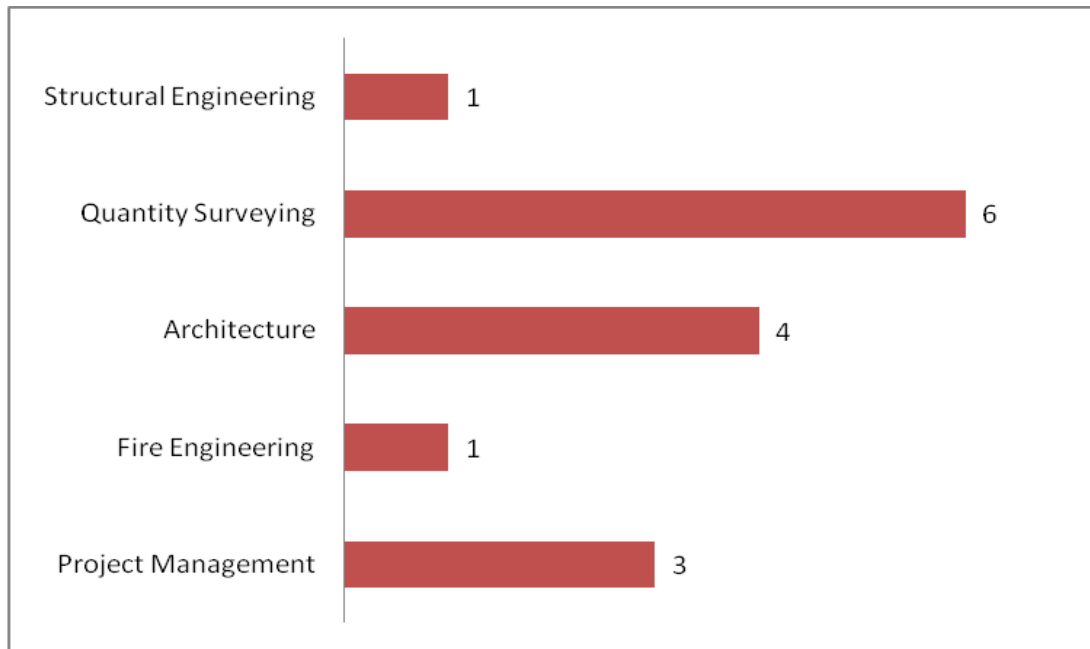


Figure 4.1: Distribution of respondents by discipline

4.3 Results on the understanding of the concept of working at risk

Table 4.1 below presents responses from respondents on their understanding of the concept of working at risk in South Africa. Based on the responses from the respondents, there is a general understanding that the concept of working at risk involves offering of professional skill and time to the client to assist the process of getting a project to a viable state. Consultants working at risk do not receive fees during this time until the project is feasible and funds are approved. This gestation period of getting a project to be viable may take several months and years depending on the nature and size of the job. The table provides the direct quotes of the exact words the respondents used while explaining their understanding of the concept of working at risk.

Table 4.4: General understanding of the concept of working at risk

Company	Discipline	Understanding of the concept of working at risk
A	Project Management	Respondent A said, “Payment of consultants' fees are deferred until job is viable”.
B	Project Management	Respondent B said, “Work on a project knowing funding is not yet in place”.
C	Fire Engineering	Respondent C said, “Work on a project while fees are deferred until project approval”.
D	Architecture	Respondent D said, “Fees are deferred, there is no confirmed method of payment”.
E	Quantity Surveying	Respondent E said, “Taking risk that is dependent on the clients financial ability”.
F	Architecture	Respondent F said, “Working without any project funding structure approved”.
G	Quantity Surveying	“Work on a project without immediate cash flows to support”, said respondent G.
H	Quantity Surveying	Respondent H said, “Working with a chance that payment might not happen”.
I	Quantity Surveying	Respondent I said, “Working without guarantee of remuneration”.
J	Quantity Surveying	Respondent J said, “Taking risk with developer, hope for a positive outcome”.
K	Project Management	Respondent K said, “Assist the developer until confirmation of project viability”.
L	Architecture	Respondent L said, “Help the client for free until project approval”.
M	Quantity Surveying	Respondent M said, “Assist project to be viable without being paid”.
N	Structural Engineering	Respondent N said, “Work on a project without immediate cash flows to support”.
O	Architecture	Respondent O said, “Provide a proposal to the client without getting paid for it”.

4.4 Results on the longest period that respondents have worked on projects at risk

Table 4.2 below indicates responses from respondents on the longest period that they have worked on projects at risk. Based on the information provided by respondents, it is adequate to conclude that the average longest period of working on retail project at risk before securing funds and obtaining approval to proceed with the project is 4.3 years. However, this average period is not continuous and does not take into account the size of the project and turnaround time on decision-making from clients and other factors.

Table 4.2: Responses on the longest period working on projects at risk

Company	Discipline	Longest period of work at risk (in years)
A	Project Management	2.5
B	Project Management	2
C	Fire Engineering	4
D	Architecture	3
E	Quantity Surveying	6
F	Architecture	10
G	Quantity Surveying	5
H	Quantity Surveying	3
I	Quantity Surveying	1
J	Quantity Surveying	5
K	Project Management	2
L	Architecture	7
M	Quantity Surveying	2
N	Structural Engineering	7
O	Architecture	5
Average		4.3

The average period calculated here is largely dependent on the type, size of the project and the client process amongst other things. In complex retail projects gestation period may take even longer due to additional consideration including tenant reiterations and negotiations amongst multiple other factors. It is common practise that work at risk is carried out without any conclusion of contracts. Engagement between parties is largely informal and strong reliance on trust and good faith is placed to conduct business. The terms of engagement can vary from a verbal assurance for work from the client to a letter of assurance through to a full letter of

appointment that is not conclusive and complete when it comes to a business contract. The ‘work at risk’ phenomenon is, in most instances, based on the leveraging of professional networks and is typically volunteering risk work based on the strength of a personal relationship with the client or the degree of sense that the project makes.

4.5 Results on whether the length of risk period has an effect on quality of input, motivation and performance

Figure 4.2 below indicates responses from respondents on whether the length of risk period has an effect on quality of input, motivation and performance. The majority (11) of the respondents were of the view that the length of the period has a negative effect on the cash flow of the company, quality of input, motivation and performance while the remaining 4 suggested that the length of the period has no effect on quality of the input, motivation and performance.

Of the total number of people who took part in this study, 3 were of the opinion that the length of risk period negatively affects the company cash flow, motivation and performance while the other 3 were of the view that the length of the period negatively affects quality of work and motivation of employees in the early phase as consultant tend to guard themselves on what information to provide and what not to. Three (3) of the 15 respondents were of the opinion that the length of the period negatively affects motivation only. There was no mention of the effect of the length of the period on the company cash flow and quality of work.

However, one (1) of the respondents suggested that the length of the risk period has no effect on motivation and performance only while one (1) was of the view that the length of the risk period has no effect on performance only as this is standardised and monitored within each consulting company. There was no mention of the effect of the length of the risk period on motivation and performance. One (1) of the respondents was of the opinion that length of the risk period does not have much effect on the performance while another suggested that the length of the risk period has no effect on quality of input, motivation and performance as long as proper mechanism to manage inherent risk in such project is put in place. This analysis indicates that 14 out of 15 respondents were of the opinion that length of the risk period has a negative effect on quality of input, motivation and performance.

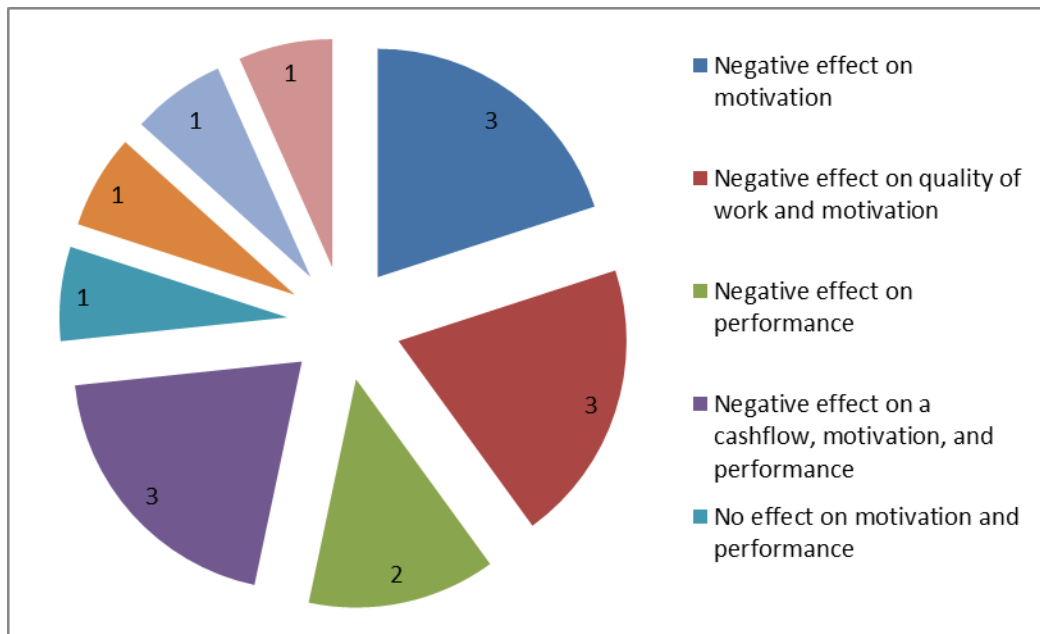


Figure 4.2: Response on the effect of the length of risk period on quality of input, motivation and performance

4.6 Results on the methods that consultants working at risk employ to manage exposure to risk work

Since risk work does not have clear remuneration terms articulated upfront, this is the main risk that consultants undertake in their business. The risk of not being compensated for the work done using your own resources and time is high on these projects. In order to sustain their businesses while doing risk work, various methods are employed to alleviate and minimise the risk for losses. Table 4.3 below shows a variety of methods that consultants working at risk employ to manage exposure to risk work as suggested by respondents.

Respondents indicated that they do minimal work for clients, some put risk budgets upfront annually and treat resources they deploy on risk work as overheads while other try to keep overheads for the business as low as possible. Others seem to classify clients and accept risk work from some clients that they are used to and not others. Other respondents indicated that they use paying projects to pay non-paying projects while creating future work. Some respondents suggested that the longer the job takes the less experienced resources are deployed on the project. Other suggested methods include diversification of project portfolio, rejection of work where there is no promise of remuneration and allocation of minimum time on risky

project. The table provides the direct quotes of the exact words the respondents used while suggesting the methods that are employed to manage risk work.

Table 4.5: Suggested methods that are employed to manage risk work

Company	Discipline	Methods used to manage exposure to risk work
A	Project Management	Respondent A said, “Allocate minimum resources to risk project”.
A	Project Management	Respondent A said, “Work with experienced clients”.
B	Project Management	Respondent B said, “Reject work where there is no promise of remuneration”.
C	Fire Engineering	Respondent C said, “Provide minimal information to clients”.
C	Fire Engineering	Respondent C said, “No acceptance of liability prior to appointment”.
D	Architecture	Respondent D said, “Difficult”.
E	Quantity Surveying	Respondent E said, “Diversify project portfolio”.
E	Quantity Surveying	Respondent E said, “Allocate minimum resources to risk project”.
F	Architecture	Respondent F said, “Use paying project to pay for non-paying project”.
G	Quantity Surveying	Respondent G said, “Accurately quantify risk before starting project”.
H	Quantity Surveying	Respondent H said, “Include risky project in annual budgets”.
I	Quantity Surveying	Respondent I said, “Minimise overhead costs for work at risk”.
J	Quantity Surveying	Respondent J said, “Good relationship with client”.
K	Project Management	Respondent K said, “Allocate minimum time on risky project”.
K	Project Management	Respondent K said, “Use paying project to pay for non-paying project”.
L	Architecture	Respondent L said, “Budget for risky projects”.
M	Quantity Surveying	Respondent M said, “Retrench, cut bonuses and overheads”.
N	Structural Engineering	Respondent N said, “Be informed by cost calculations when to stop giving information”.
O	Architecture	Respondent O said, “Minimise work on risky project”.

It was found that the main strategies that consultants employ to minimise and manage their exposure to risk are as follows:

- Working with an experienced team;
- Good relationship with the client;
- Budgets are done for the year to include risk work;
- Some consultants keep overhead costs as low as possible as you don't know when project will get off the ground;
- Reject risk work where client and project does not show remuneration potential;
- Provide minimal resources and minimal information to client until formalities are in place;
- Limit your time on non-paying projects, use paying projects to pay for non-paying projects and find a balance whilst creating future pipeline with non-paying work;
- You should not take work from all and sundry;
- Retrench, cut back on cost, increases and bonuses; and
- Generally take risk work where the long term benefits are higher.

From the above strategies employed by consultants, it appears that consultants constantly assess their risk situation and make decisions on how best to balance running a business and minimising exposure to their business.

4.7 Proposition

Based on the results in Figure 4.2, it can be observed that 14 out of the 15 respondents were of the view that the length of risk period has a negative effect on the quality of input, motivation and performance of employees working on projects at risk. Therefore, the proposition that the length of risk period has a negative effect on the quality of input, motivation and performance of consultants working on projects at risk is true.

4.8 Summary of the results

There was a general common understanding of the concept of working at risk. Respondents generally suggested that consultants are prepared to work and get remunerated when the project is feasible and funds are made available. Based on the respondents' experiences working at risk,

the longest average period that the respondents have worked at risk was calculated to be 4.3 years. This is a long time considering that the consulting company will not be having any cash inflows for the work done and associated costs. The majority of the respondents further suggested that the length of the risk period has a negative effect on the quality of the input, motivation and the company cash flow.

5 DISCUSSION OF THE RESULTS

5.1 Introduction

This chapter discusses the results of the study. In these discussions, reference will be made to the literature review with the intention of drawing comparisons between the results of this study and the associated available literature. The chapter on the discussion of results ends with a conclusion.

5.2 Discussion of the results

5.2.1 Understanding of the concept of working at risk

The results of the study indicate that there is a general understanding of the concept of working at risk within the built environment and how it is practised in the South African commercial private sector. The general view point of respondents suggested that the concept of working at risk involves offering of professional skill and time to the client to assist the process of getting a project to a viable state. The respondents further pointed out that consultants working at risk do not receive fees during this time until the project is feasible and funds are approved. These results correspond well with theory which defines the concept of ‘working at risk’ as when a consultant performs certain work for or on behalf of a client and payment of the fee for such work is deferred (partially or in full) until a specific agreed event(s) occurs (Adendorff *et al.*, 2013).

5.2.2 Longest period that respondents have worked on projects at risk

The results suggest that different individuals have experienced varied amount of time working on projects at risk. The experiences vary between 2 to 7 years with an average of 4.3 years. However, this period is not on a continuous basis. The various reasons given by respondents that result in a long risk period vary. These reasons range from the following:

- *Site exposed to EIA and this takes time to complete:* The process to complete the Environmental Impact Assessment (EIA) is indicated as a laborious process requiring approvals from various authorities and this can be extensive.
- *Indecision from client:* There are various reasons given that can be attributed to a client being indecisive. These include but are not limited to; changes in client structure or

approval process, inexperienced client, investment margins, political and economic uncertainties.

- *Decisions take longer with co-owners and big organisations:* In projects with multiple decision makers, decisions tend to take longer to reach due to the lack of availability of stakeholders, disagreements between parties, political reasons amongst others.
- *No project funds secured:* This is the main risk on projects proceeding. Securing funds is a lengthy process and different borrowing institutions and investors have various extensive requirements to be adhered to.
- *Interested and affected parties:* Objections from interested and affected parties may cause serious delays in project approvals. These are to be managed and concluded for projects to proceed smoothly.
- *Land, legal issues and electricity:* Availability of electricity, land ownership clarity and any other additional legal matters and or disputes may take time to resolve and contribute to extended time delays.
- *New board:* Changes in the leadership of the organisation present delays in project approvals. There could be a change in the strategy direction in a company and these could impact on the approval process. The new team may prioritise other projects and not view current project as a priority.
- *Revisiting of scheme a number of times (several reiterations):* Lack of or unclear briefing may lead to several reiterations of the scheme.
- *New player:* A new player in competition with the proposed scheme may cause uncertainty, this may require a bit more time to investigate and assess possible future impact before a decision to proceed is taken.
- *Tenancing, tenant revisions and requests (pre-let conditions):* Various design changes and proposals from tenant require time to be assessed and carried out for tenancing purposes.
- *Changes in the economy:* Economical uncertainties contribute negatively to project spending.
- *Licence issues and sectional approvals:* Licence requirements e.g., hospital licence, mining licence may take time to secure from relevant authorities.

- *Land title, rights and zoning:* Town planning approvals and relaxations approvals require time.

The reasons given above vary from project to project depending on unique circumstances each project faces. The period to resolve these also differs from project to project. There is no time frame that can be given to address each of the above as there are always unique circumstances surrounding each challenge.

Not much theory exists in literature on the longest period that people have worked on projects at risk. However, Kwon (2010) from the University of Illinois developed a model for the management of project contracts with delayed or deferred payments. His model was only limited up to 12 months, suggesting that it is high unlikely to go beyond a year without a payment for the services rendered within the American market. The average long period that consulting companies experience without payment in the South African market is a cause of concern that needs proper understanding and management for the survival of the construction industry. The variance between the theory and the results that were obtained in the study can be explained in terms of differences in business, economic and political climates.

5.2.3 Impact of risk work on the quality of input, motivation and performance levels

According to Sambasivan and Wen Soon (2007), the delays in payments are not helping in motivating the service providers to offer a quality service as per the agreed specifications. The longer it takes before a payment is made to suppliers and consultants for a completed job, the greater the mistrust and the lower the motivation to continue with the project. Aibinu and Jagboro (2005) further point out that the deferment or delay in payment for whatever reason has dire consequences on the quality of input and performance of the project as a whole.

This theory is in line with the results of the study which point out that the length of the risk period (gestation period) has an effect on the quality of input, motivation and performance levels of the consultant in the early phase of the project. Respondents in the study expressed that the gestation period that runs longer than twelve months is at risk of being affected by project fatigue. The risk periods are generally a start and stop scenarios until funding/approval is secured. This start and stop period has a potential of affecting project negatively, by way of

doing things differently or forgetting reasons certain decisions were made and plain demotivation as the period drags on.

5.2.4 Methods employed by consultants working at risk to manage exposure to risk work

In order to sustain consultants' business while doing risk work, various methods are employed to alleviate the potential for financial losses. According to the results of the study, the mechanisms that are employed by consulting companies differ depending on the risk profile of each company. Some of the strategies that are employed to minimise and manage their exposure to risk are as follows:

- *Working with an experienced team:* According to the respondent, they believe this lessens the risk period tremendously as parties are experienced enough to quickly pick up what works and what doesn't. The risk is therefore reduced tremendously.
- *Good relationship with the client:* Respondent A indicated that personalities differ in teams that you work with but having a good relationship with a client goes a long way. The respondent indicated that 'A good, honest relationship with the client is half the battle won'. It becomes easier to raise all sorts of issues including financial as the job drags on longer.
- *Budgets are done for the year to include risk work:* Respondent B indicated that since they get involved in a lot of risk work they have resorted to budget for it annually and take off costs of two top resources as overheads and depend on the rest of the resources to bring revenue.
- *Minimise overheads:* Others keep overhead costs as low as possible as you don't know when project will get off the ground.
- *Reject risk work where client and project does not show remuneration potential:* It's important to follow where your cash flow is, classify clients and choose the one with whom you will have longevity.
- *Minimise inputs:* Provide minimal resources and minimal information to client until formalities are in place.
- *Minimise time spent on unpaid work:* Limit your time on non-paying projects, use paying projects to pay for non-paying projects and find a balance whilst creating future pipeline

with non-paying work. Also you cannot do non-paying job half-heartedly as you are still marketing yourself for future work.

- *Carefully select or grade your clients:* ‘Do not take work from all and sundry’ (Respondent C). He went on to say that clients are graded according to their experience amongst other factors, and that ‘the criteria of rating client is key in what level of attention each project receives’.
- *Cost management mechanisms:* Retrench, cut back on increases and bonuses.
- *Subsidize non paying work with paying job:* ‘It’s an attitude thing’, Respondent D said. He continued to say, ‘you concentrate on a paying job and subsidize the non-paying job, unless the non-paying job is with same client. But even if so, the paying job always takes priority’.
- *Resource Management:* Cut back on cost and put a least experienced resource to minimise your own costs until remuneration potential is realised.
- *Grade client potential:* Generally take risk work where the long term benefits are higher.

Even though the results of the study do not contradict theory, the risk mitigation methods employed by consulting firms in the construction industry in South Africa seem to be haphazard. The objectives of risk management according to Thompson and Perry (2006) are to establish a structured financial risk management strategy framework that will:

- Identify, assess and estimate risk;
- Allocate risk (who takes the responsibility based on the financial model and contractual ownership structure; and
- Develop risk mitigation strategy.

The underlying principle is that key risks and appropriate control measures are kept under regular review and reported to the respondents, project sponsors and key client representatives.

5.3 Summary of the chapter

Almost all the results from the study save for the average gestation in South African market are in conformity with the existing literature. Theory and the results of the study are in agreement on the understanding of the concept of working at risk, the impact of risk work on quality of input,

motivation and performance levels and to some extent the methods that consultant working at risk employ to manage exposure to risk work. However, the average gestation period experienced by consultants in construction industry in South Africa were in variance to the existing theory largely as a results of differences in economic, political and business climates.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

Chapter 5 presented and interpreted the data. Chapter 6 gives the conclusions in section 6.1 and recommendations in section 6.2 resulting from the findings and finally suggests areas for further research. This study was set to answer the following questions:

- Do consultants understand the concept of working at risk?
- Does working at risk affect the quality of input, motivation and performance?
- Does the length of risk period have any effect on the quality of input, motivation and performance?

It was aimed to:

- Establish whether consultants understand the concept of working at risk;
- Establish the longest period that respondents have experienced working on retail projects at risk;
- Understand whether the length of risk period has an effect on quality of input, motivation and performance; and
- Understand methods that consultant working at risk employ to manage exposure to risk work.

Relevant information was solicited from professional consultants working at risk in the commercial private sector in South Africa. Professional consultants' inputs on work at risk were gathered to provide a view on the status quo of the practise and how it impacts on the quality of input, motivation and performance in the early phase of the project. Interviews were conducted with 15 professional consultants and qualitative data was analysed by categorising it into themes, which were coded to facilitate easy interpretation - in order to answer the research questions.

6.2 Objectives of the study

The objectives of the study were achieved as follows:

6.2.1 To establish whether consultants understand the concept of working at risk

Based on the results of the study, there is a general consensus that the concept of working at risk involves offering of professional skill and time to the client to assist the process of getting a project to a viable state. Consultants working at risk do not receive fees during this time until the project is feasible and funds are approved.

6.2.2 To establish the longest period that consultants have experienced working on retail projects at risk

The findings suggest that working at risk affects the quality of input, motivation and performance of consultants in the early phase of the project. The length of the risk period is the key determining factor that impacts negatively to the performance and business sustainability. The longer the risk period drags, the propensity for poor work increases. The results also point to that on average longest period of working on retail project at risk before securing funds and obtaining approval to proceed with the project is 4.3 years. However, this average period is not continuous and does not take into account the size of the project and turnaround time on decision-making from clients and other factors.

6.2.3 To understand whether the length of risk period has an effect on the quality of input, motivation and performance

The link between non-remuneration of a consultant or business, the length of the risk period and the performance of a consultant on a project in the early phase has not been proven. More research is needed to be able to make a conclusive statement. Firms are profit seeking organisations who cannot engage in non-income producing ventures for longer periods. This might therefore have a negative impact on firms' bottom line, especially small and new entrants in the market.

6.2.4 To understand the methods that consultants working at risk employ to manage exposure to risk work

According to the results of the study, the mechanisms that are employed by consulting companies differ depending on the risk profile of each company. Some of the strategies that are employed to minimise and manage their exposure to risk include working with an experienced team, good relationship with the client, keeping overhead costs as low as possible, rejecting risk work where client and project does not show remuneration and limiting time on non-paying projects.

Based on the above, all the research questions that were formulated in this study were answered satisfactorily. Therefore, the study concludes that risk work is extensive in the industry and the length of the risk period does have a negative effect on the quality of input, motivation and performance of consultants working at risk. More research work is necessary to unpack and understand the concept better.

6.3 Recommendations

This study proposes that decision makers invest time in order to understand the concept of working at risk. This will help in mitigating its impact on the quality of input, motivation and performance. Below are the main recommendations or propositions of the study that should be considered:

- Multibillion rand organisations (clients) to invest money to fund conceptual development of schemes in the early phases of projects. Risk work budget and or seed capital budget to be set aside for research, speculative work and risk work.
- Parameters should be set for risk work, such that it does not hinder growth, quality and performance of small businesses. The regulation of risk work is recommended, in order that it ceases to be viewed as anti-competitive behaviour by some.
- More research should be undertaken in the early development phase of retail business projects to test the study proposition.
- A forum should be created for open and honest engagements between clients and professionals to discuss these and other challenges faced by industry.

- Research on at-risk work practices should be encouraged. This could be championed via Institutions of Higher learning (Universities) and South African Property Owners' Property Development Courses and other various development courses.

6.4 Suggestions for further research

The following are suggested research studies that can be explored further:

- Establish the extent of the prevalence of the practise of working at risk in the South African industry relative to international counterparts.
- Assess if quality is compromised due to no payment by client for projects at risk and its implications on the insurance cover for such business.
- Establish the consultants' attitudes working at risk and how they can be motivated to achieve the project goals.
- Determine if there are businesses (firms) that have collapsed or have severely been affected by risk work in South Africa.
- Establish if discounts given by firms and risk work practice in the South African built environment industry, advocate an anti-competitive behaviour practice and how this can be averted/ managed, in a commercial environment.
- Establish whether challenges experienced during the implementation phase could be averted by improving the quality of decisions taken at the early phase.
- Investigate the relationship between decisions taken at the early phase and the impact it has on the implementation phase and how these can be improved.

6.5 Reflections

In order to understand the effect of work at risk to all the consultants, it could have been prudent to consider interviewing a bit more of them across different disciplines and positions within the retail business in the private sector. This would have provided an understanding of the extent of the effect of working at risk on different consultants at different levels. Other provinces also needed to be included in the study in order to understand whether this problem of working at risk is not localised to Gauteng province. It could have been interesting to understand the reasons

behind this concept of working at risk and whether both sides (client and consultant) are comfortable with its existence and its benefits to both parties.

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ANNEXURE A: INTERVIEW INVITATION LETTER



**UNIVERSITY OF THE WITWATERSRAND
FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT
SCHOOL OF CONSTRUCTION ECONOMICS AND MANAGEMENT**

The investment of time and professional skill at risk in the built environment in South Africa: an exploratory study

Dear Consultant,

I am a student enrolled for the Master of Science (MSc) Building, at the University of the Witwatersrand, Johannesburg. Students are required to undertake field work as part of the (thesis) research project in order to fulfil the requirements of the degree. The thesis component of my studies is on the built professional consultants that undertake work at risk. The study seeks to understand the phenomenon of consultants working at risk for commercial private sector clients.

To successfully complete this thesis, your expertise and experience is required, and I would like to arrange a session to meet with you to discuss certain questions at your earliest convenience. A guideline of questions for discussion is attached. The session will be recorded for ease of reference when analysing data and compiling a final report after which the audio recording will be destroyed. A copy of the final report will be made available at your request.

Kindly note that this research is for academic purposes only, and confidentiality will be observed throughout the thesis process and final report. I would also like to highlight that your experience

and expertise as a practitioner is valued and the session is meant to assist in contributing towards building a body of knowledge on this phenomenon. I kindly request that the session circumvents using any company or people's names if possible.

I will be available to meet with you at a location and time of your convenience. Please confirm on email if you are able to take part and contribute to this research.

Thanking you for your kind assistance.

Yours sincerely,

Pride Ndlovu (Ms.)

083 681 1240

ANNEXURE B: QUALITATIVE QUESTIONS – EXPLORATORY STUDY

1. What is your understanding of the phenomenon of working at risk?
2. How do you understand terms of engagement governing work performed at risk, if any and how does engagement come about?
3. In your experience, what is your understanding of the relationship (or is there a relationship that exists) when performing work at risk/ Does a contractual relationship exists when performing work at risk?
4. If yes above, what do you understand to be the rights of a consultant when performing work at risk?
5. What in your experience is the longest period you have worked at risk?
6. In your experience, does the length of risk period affect your quality of input, motivation and performance?
7. What do you think a difference in performance would be, between a paid consultant and a consultant performing work at risk?
8. In your opinion/ experience, what is the difference in performance between consultant performing work at risk over short period (say, 3 months) and another performing work at risk over longer periods (over 12 months)?
9. In your experience, what is the maximum risk/ maximum time you can work at risk?
10. Why did you/ your company initially take projects at risk and why do you continue doing it?
11. How do you manage your exposure to risk work?
12. In your opinion, do you think that clients that want work undertaken at risk understand the impact (operating model of business), that non-remuneration has on firms/businesses? Why?
13. Do you belong to a professional body? If so, do they have a position on taking work at risk? What is their position?
14. Have you ever had a breakdown with client whilst doing work at risk and how did you resolve it?
15. What is your view on discounts?
16. Is there anything else you would like to share, which we can learn from, in your experience whilst working at risk?

ANNEXURE C: SCHEDULE OF INTERVIEWS AND EXAMPLES OF TRANSCRIPTS

Schedule of Interviews

	Date	Interviewee(s)
1	24/09/2013	Consultant Project Manager
2	26/09/2013	Consultant Project Manager
3	27/09/2013	Consultant Fire Engineer
4	30/09/2013	Consultant Architect
5	30/09/2013	Consultant Quantity Surveyor
6	30/09/2013	Consultant Architect
7	03/10/2013	Consultant Quantity Surveyor
8	04/10/2013	Consultant Quantity Surveyor
9	04/10/2013	Consultant Quantity Surveyor
10	07/10/2013	Consultant Quantity Surveyor
11	07/10/2013	Consultant Project Manager
12	09/10/2013	Consultant Architect
13	10/10/2013	Consultant Quantity Surveyor
14	11/10/2013	Consultant Structural Engineer
15	14/10/2013	Consultant Architect

Interview 1

1. What is your understanding of the phenomenon of working at risk?

The 'working at risk' phenomenon (as it is applied in the built environment) is a practice where professionals are prepared to undertake work on a project knowing that the securing of the project or funding towards a project is not yet in place. The professionals that work on risk are volunteering work towards a project in the hope of gaining remuneration later or when the project is secured and or funded.

2. How do you understand terms of engagement governing work performed at risk, if any and how does engagement come about?

The terms of engagement can vary from a verbal assurance for work from the developer or development manager to a letter of assurance through to a full letter of appointment that is 'suspensive' upon the project proceeding. The 'work at risk' phenomenon is, in most instances, based on the leveraging of professional networks that the developer and or development manager has and the risk professional is usually volunteering risk work based in their strength of personal relationship with the developer/development manager or the degree of sense that the project makes.

In some instances the 'risk professional' is made part developer in a process of responding to a tender or a speculative development in which they are rewarded if success happens.

3. In your experience, what is your understanding of the relationship (or is there a relationship that exists) when performing work at risk/ Does a contractual relationship exists when performing work at risk?

Although not often tested legally, there is in my view a contractual relationship that exists between the developer and the risk professional even though such request for risk work is performed based on a verbal agreement and understanding.

4. If yes above, what do you understand to be the rights of a consultant when performing work at risk?

The rights of the consultant would depend on the degree of legal 'essentialia' that exist at the time of contracting risk work. For example, unless the rate of professional fee is agreed at the time of risk work being agreed to, the risk professional, who is not in control of the project, may not have much leverage to insist on the payment of full tariff fees if the discounting of fees is what is required to make a project derive project funding.

I would suppose the that the bear minimum rights is for the risk professional to be provided the first option of performing the work, should the project proceed.

5. What in your experience is the longest period you have worked at risk?

Two years.

6. In your experience, does the length of risk period affects your quality of input, motivation and performance?

Yes, very much so. The longer the risk period the propensity for poor or half-hearted work grows as well as the probability for poor quality work, abortive effort and less motivation to the project. There is a direct correlation between quality of work input in a project and the demonstrable and immediate remuneration to that project.

7. What do you think a difference in performance would be, between a paid consultant and a consultant performing work at risk?

Initially not much, but the difference in work effort and quality grows over risk time. This is not necessarily personality based but more often company based, as the company tends to put the least experienced person on risk work.

8. In your opinion/ experience, what is the difference in performance between consultant

performing work at risk over short period (say, 3 months) and another performing work at risk over longer periods (over 12 months)?

There is a great degree of performance difference even if it is the same individual.

9. In your experience, what is the maximum risk/ maximum time you can work at risk?

This would depend on the size and balance sheet of a company and or an individual. There are some complex projects, such as complex base-load power projects where the lead risk effort can be many years.

For a single professional with a limited balance sheet, this professional is forced to limit the quantum of non-paying risk work or eliminate it completely. I would say that there is a ratio of paying to risk work of 75%/25% which means that a single professional cannot afford to spend more than about 3 months undertaking risk work per year, depending on the individual's cash flow.

10. Why did you/ your company initially take projects at risk and why do you continue doing it?

For the following reasons:

- For the hope of winning the work;
- The work may be worth the potential value and or prestige;
- To get work in a competitive environment;
- To keep a potential pipeline of work;

I only continue to work at risk where I think the client and or the project warrants it. It is a judgement call at each instant.

11. How do you manage your exposure to risk work?

Well, for me I am forced to reject risk work where the client and or the type of work does not show remuneration promise.

12. In your opinion, do you think that clients that want work undertaken at risk understand the impact (operating model of business), that non-remuneration has on firms/businesses? Why?

I would say most clients do not understand. They or the key personnel have not seen the risk work impact on a small company's balance sheet.

13. Do you belong to a professional body? If so, do they have a position on taking work at risk? What is their position?

Yes I do. The issue of working at risk has been raised before and there is some sensitivity around it. But a decision taken at ACPM, being a voluntary organization was that giving discounts is a commercial decision a firm makes and we can't have control over that. With SACPCMP it becomes a somewhat competitive issue and we don't wanna go there (sits back, fold arms, smiles and shakes head).....Pride, maybe it does warrant some further research work and looking into I don't know, there's a lot of opinions here.

14. Have you ever had a breakdown with client whilst doing work at risk and how did you resolve it?

Yes. I have walked away in some instances and in one instant it went to court, where as a result of court action the client has proceeded to pay.

15. Is there anything else you would like to share, which we can learn from, in your experience whilst working at risk?

While it may seem ideal to try eliminate risk work completely, as a seasoned built environment professional, I have seen in many instances how the wrong choice of professionals can cause projects to remain un-bankable and how issues of competition and market cycles influence the amount of risk work.

I suppose in an ideal world there would be no 'abortive' work and every ounce of professional work is captured and remunerate accordingly but this is not the case. In

some instances you have bad clients/owners/developers and in other instances you have bad professionals.

The need to make a judgment call at each instant, either by the client or the professional, will remain. The better developers and professionals become the ones that make better judgment calls, thereby reducing the requirement for risk work.

Interview 2

1. What is your understanding of the phenomenon of working at risk? And do you take work at risk?

Yes I do take work at risk. Risk work is where you provide professional input and there's a chance a project might not happen and that payment might not happen. We usually work until stage 3 including value engineering reiterations. It is the 'modus operandi' for doing work in South Africa, you must just have the cashflow to support it however long it takes.

2. How do you understand terms of engagement governing work performed at risk, if any and how does engagement come about?

Engagement is majorly informal; it could be through a telephone call, email -hardly any letter of appointment. It is a relationship based on trust. We generally classify our clients between long standing clients and walk in - long standing clients good faith relationship exist between parties. Walk ins are a bit more circumspect and engagement on risk letter is required.

3. In your experience, what is your understanding of the relationship (or is there a relationship that exists) when performing work at risk/ Does a contractual relationship exist when performing work at risk?

Without the appointment letter, it is difficult to prove appointment in a court of law but common law applies. You can still show the professional input received by your client, if it comes to that, so some sort of relationship surely exists. It's just that some clients abuse

this thing because they think they can get it done for free. They think that if you can get the milk for free why do you have to pay for the cow? This attitude therefore affects the quality of input from consultants. The quality we get from consultants is deteriorating year in and year out and contractors are also falling due to training, price, discounts etc. We are doing bigger and bigger projects in less and less time.

4. If yes above, what do you understand to be the rights of a consultant when performing work at risk?

If I give a service I have a right to be paid for it. But its not always as simple as that with risk work.

Tell me why is it not as simple as that (shrugging shoulders)? Well Pride there's a lot of factors that come to play, that you have to weigh before going guns blazing. You know the industry is reputationally dependant, so it depends who the client is, what the cost vs. benefit to pursue this is, what the relationship is like, is there more work that might come from this place or not etc.

5. What in your experience is the longest period you have worked at risk?

5 years I think....., but I don't think it comes down to a period of time as opposed to the number of reiteration done. You can't come and ask for a 10 000m2 block of office scheme and then later ask for a 20 000m2 retail plus a hotel. It changes things. It boils down to a proper brief where a client is honest about what they seek to do, what their maximum spent is, rental requirements, yield and irr required. You don't want to be messed about, that's why we prefer working with experienced clients/ developers, they generally know what they want and make quick decisions.

6. In your experience, does the length of risk period affect your quality of input, motivation and performance?

Most definitely, once you move past six month you lose interest, well just like with anything in life. The longer the client takes to make decisions you start seeing cracks falling through, less experienced resources are brought in, people struggle to keep up and

remember why certain changes were made in the scheme as more and more changes are made. We don't wanna go on a way finding mission, we don't like to be messed about.

7. What do you think a difference in performance would be, between a paid consultant and a consultant performing work at risk?

There's a saying that.... 'you get what you pay for'. If you pay peanuts that's exactly what you get.

Clients have to understand that they too are risk partners; they are not there to abuse the relationship. A lot of stories have been heard about this in the industry. You need to manage your client, your business and your workflow. You shouldn't allow clients to abuse you at all. You have got to be awake; we live in a country with lots of entrepreneurs, everyone trying to make a big buck off someone..... (shakes head and smiles)

8. In your opinion/ experience, what is the difference in performance between consultant performing work at risk over short period (say, 3 months) and another performing work at risk over longer periods (over 12 months)?

With long risk period, you become demotivated. The quality of work deteriorates because less experienced resources are brought in and more experienced resources are sent on to paying jobs. Therefore the quality of input diminishes. The industry is reputationally dependant so consultants are careful of the service they provide but longer gestation periods don't make it easy to run the business hence the quality of input is compromised by bringing less experienced resources on board.

9. In your experience, what is the maximum risk/ maximum time you can work at risk?

Six months, well because that's what my cash flow can take realistically. Remember, we are in business and you can't loo sight of that..... (smiles, nods and open hands) yes I'm being honest.

10. Why did you/ your company initially take projects at risk and why do you continue doing it?

It's simple, it's about paying bills. If we don't take it someone else will. We are fortunate to have good clients but we can't rest on our laurels because things change all the time. We take it because that's what the market expects it's not a choice it's a necessity. You know what Pride, it doesn't concern us that we do risk work it's not an issue at all, it only concerns us and becomes an issue when we get messed around. We see ourselves as a risk partner; we put a scheme together and take the risk just as you do. I'm not adverse to risk work I just have a problem being messed about.

11. How do you manage your exposure to risk work?

It's a matter of choosing your clients. When you work with experienced developers who know what they are doing you minimize your risk. Choosing your clients becomes key. We are a big company, we are from the "school of hard knocks" so we've been burnt a few times.....(smiles) and learned the hard way. We have extensive experience to see what's gonna work and not. We are not afraid to tell our clients what will work and what will not. Essentially we don't waste our resources and time on things that aren't working.

12. In your opinion, do you think that clients that want work undertaken at risk understand the impact (operating model of business), that non-remuneration has on firms/businesses? Why?

Some do and some don't. Some care and some don't. You have got to be the judge. You run a business and you know your limits.

13. Do you belong to a professional body? If so, do they have a position on taking work at risk? What is their position?

Yes, but some of these things including discounts are frowned upon. But there is not solid position taken.

14. Have you ever had a breakdown with client whilst doing work at risk and how did you resolve it?

Yes I have, ended in court where we sue for a stipend agreed upon and won.

15. What is your view on discounts?

In a commercial setting, you need to make a scheme work therefore discounts are necessary. There is also a maximum you can discount as a business, only you know.

16. Is there anything else you would like to share, which we can learn from, in your experience whilst working at risk?

Clients have to understand that they too are risk partners in these schemes and act in the best interest of all concerned to move the scheme to a bankable state.