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Faculty of Engineering and the Built Environment

School of Construction Economics and Management

The relationship between organisational culture and employee job satisfaction within the Botswana construction industry

By

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This research report was submitted in partial fulfilment of the requirements for the degree of Master of Science (Building) in Project Management in the School of Construction Economics and Management at the University of the Witwatersrand.

Supervised by: Dr Oluwayomi Babatunde

Submitted in August 2017

Declaration

I declare that this thesis, presented for the degree of Master of Science (Building) in Project Management in the School of Construction Economics and Management at the University of the Witwatersrand, has been composed entirely and solely by myself. I further declare that the thesis has not been submitted, in whole or in part, for any other degree or professional qualification and that, except where stated otherwise by reference or acknowledgment, the work presented in this thesis is entirely my own.



…… 25 August 2017

Justice Mufson Mufanebadza …… Date

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My appreciation also goes to the organisations which participated in this study. Despite the economic hardships, they managed to accommodate my studies in their limited and scarce time resources. I thank you all.

Dedication

This page is dedicated to my wife and my two children. To my wife, thank you for your support, and to my two children, let this be your inspiration, you are only limited by the goals that you set for yourself.

Abstract

Problem Statement:

Organisational culture determines employee remuneration, opportunities for promotion, interaction between employees and their job in general. It has a potential to affect the degree to which employees are satisfied with their jobs. If the impact is negative, this will create a problem of low employee morale, reduced performance, and hence low production levels. If this effect is positive, this may boost the morale of employees and increase performance and production. It is, therefore, important to understand the relationship between organisational culture and employee job satisfaction to maximize the benefits and reduce the negative impact.

Purpose:

The aim of this research was to find out if the prevailing organisational culture has an influence on employee job satisfaction with specific reference to the Botswana construction industry. The objectives of the research were to establish the prevailing and preferred organisational cultures, establish employee job satisfaction, and determine the relationship between organisational culture and employee job satisfaction.

Methodology:

Focusing on the Botswana construction industry and using a cross sectional study, two concurrent surveys were conducted to collect quantitative data for organisational culture and employee job satisfaction from three construction organisations selected to represent small, medium, and large organisations.

Findings:

The prevailing organisational culture in all the three organisations was found to be the market culture. The clan culture was found to be the preferred organisational culture in two of the organisations (the medium and large). The hierarchy culture was found to be the preferred organisational culture in the small organisation. Despite employees preferring different cultures (clan and hierarchy) to the prevailing culture (market), employees were generally satisfied with their current jobs, suggesting that there might be no relationship between organisational culture and employee job satisfaction and pointing to the possible existence of a third variable.

Implications:

The market culture which was found to be prevailing in all the three organisations is characterised by aggressive competition and a focus on winning a share of the market. This indicated that the construction industry was reacting to the current harsh economic conditions by adopting an aggressive survival strategy. By rejecting the prevailing market culture, employees might have felt neglected since the market culture does not focus on employees. Employees remained satisfied with their current jobs despite rejecting the prevailing organisational culture and this might be an indication that jobs are not available leaving employees with no option but to like the only jobs which they have.

Key words:

Botswana, Construction Industry, Employee Job Satisfaction, Organisational Culture.

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List of Acronyms

CIS	Commonwealth of Independent States
CVF	Competing Values Framework
ESI	Employee Satisfaction Instrument
GDP	Gross Domestic Product
IPMS	Integrated Procurement Management System
JDI	Job Descriptive Index
MSQ	Minnesota Satisfaction Questionnaire
OCAI	Organisational Culture Assessment Instrument
OC	Opportunity Contractors
PPADB	Public Procurement and Assert Disposal Board
SPSS	Statistical Package for the Social Sciences

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CHAPTER 1: INTRODUCTION

This section introduces the main concepts involved in this study, which are: organisational culture and employee job satisfaction. The problem statement, aim and objectives, and the research questions are presented in this section. The chapter closes by giving justification for the study and introducing the participating organisations.

1.1 Organisational culture

Organisational culture is responsible for creating an environment that fosters employee job satisfaction plus commitment (Shepstone & Currie, 2008) and job satisfaction is enhanced by sympathetic organisational cultures (Hosseinkhanzadeh *et al.*, 2013).

Many authors have defined organisational culture from different perspectives but articulated the same basic principles. Notable in definitions by Belias & Koustelios (2014); Cameron & Quinn (2006); Claver *et al.* (2001); Daulatram (2003); Deshpande & Webster (1989); Schein (1984); and Schein (1996) is the fact that organisational culture is a set of values, meanings, behaviors, and attitudes unique to and held by members of an organisation. This sets apart one organisation from another in terms of functionality and survival strategy. Leaders in an organisation are tasked with ensuring that existing and new members (employees) are acquainted with the behaviors and attitudes that set the organisation apart and this perpetuates the organisation's culture (Schein 1984).

1.2 Employee job satisfaction

Employee job satisfaction has core elements in its definition and these elements can be easily identified from definitions by Belias *et al.* (2015); Belias & Koustelios (2014); Locke (1976); Rollinson (2005); and Schneider & Snyder (1975). Central to the definition of employee job satisfaction is the employee's perception of his/her working environment as he/she weighs what the job offers against his/her expectations. The working environment is generally an aggregate of association with peers, remuneration, supervision, nature of the job, opportunities for promotion and, career advancement.

1.3 Employee job satisfaction and organisational culture

The issues central to both organisational culture and employee job satisfaction, cannot be viewed in isolation since they exhibit a certain degree of interdependency when evaluated from the perspective of their definitions from literature. What employees perceive and evaluate as a measure of their expectations can be influenced by the values, behaviors, and attitudes that define organisational culture. Employees, while under the impression that they are evaluating conditions present in their jobs, are in fact evaluating the organisation's culture. There exists an intertwined relationship between organisational culture and employee job satisfaction and many authors, as referenced to in different sections of this study, have investigated this relationship as it pertains to different sectors of the economy and arrived at different conclusions. Such studies have not been carried out within the Botswana construction industry and this research aims to shed more light into the nature of this relationship within the context of the Botswana construction industry. This research is based on a study of the construction industry in Botswana and is centered on three organisations strategically selected to represent large, medium and small construction organisations.

Organisational culture has an impact on employee effectiveness and performance (Shepstone & Currie, 2008; Zhang & Li, 2013) and job satisfaction reflects the physiological impact of an organisation's culture on employees. Job satisfaction has strong links with employee performance and retention (Sabri *et al.,* 2011). The level of job satisfaction of employees enhances their performance and productivity and results in organisations being more effective (Belias *et al*., 2015). Since organisational culture and employee job satisfaction have an impact on employee performance and productivity, it is important to understand their relationship to maximize employee performance and productivity.

Employees are ranked among the most valuable asserts of an organization (Ehtesham *et al.,* 2011) and nurturing a satisfied and motivated workforce can be instrumental in achieving goals and improving employee retention. When employees are satisfied with their job, they are more likely to stay in the organization and contribute to its success (Hosseinkhanzadeh *et al.*, 2013). Job satisfaction maybe strongly linked to organisational culture and organisational culture maybe significantly influenced by employees. There may, therefore, exist a relationship between organisational culture and employee job satisfaction.

1.4 Problem statement

If organisational culture affects employee remuneration, opportunities for promotion, interaction between employees and their job in general, then organisational culture has a potential to affect the degree to which employees are satisfied with their jobs. If the impact is negative, this will create a problem of low employee morale, reduced performance, and hence low production levels. If the effect is positive, this may boost the morale of employees and increase performance and production.

Organisational culture cannot be divorced from employee job satisfaction, performance, and production levels. Since different organisational cultures affect employees differently, it is important for organisations to understand their current and preferred organisational cultures and gauge the level of employee satisfaction. This will assist organisations in mapping a course of action so that they can improve performance and production levels.

1.5 Research aim

The aim of this research was to find out if the prevailing organisational culture has an influence on the level of employee job satisfaction. The main research question is: does the prevailing organisational culture have an influence on employee job satisfaction in the context of the Botswana construction industry?

1.6 Research specific objectives

To answer the main research question and achieve the research aim, the research was directed by three objectives as follows:

1. To establish the current and preferred organisational cultures of three organisations operating in the Botswana construction industry.
2. To establish the level of employee job satisfaction in the three organisations under objective 1.
3. To determine the kind of relationship that exists between organisational culture and employee job satisfaction within the Botswana construction industry.

1.7 Research questions

Related to the preceding objectives, this research sought to provide answers to three secondary research questions:

1. What type of organisational culture(s) currently exists within the Botswana construction industry and which organisational culture(s) do employees prefer?
2. To what level are employees satisfied with their current jobs in the Botswana construction industry?
3. Is there a relationship between organisational culture and employee job satisfaction within the Botswana construction industry?

These research questions were used as the backbone for designing the research methodology that was adopted by the researcher.

1.8 Context and rationale of the study

1.8.1 Botswana

The economy of Botswana is mainly agrarian but diamonds also play a major part in the economy. The country has managed to transform itself from one of the poorest nations (at independence in 1966) to a middle-income economy with one of the highest sustained economic growth rates in the world. The country's National GDP stood at P85 400.9 million Pula (US$8 057 million) in 2015. Much of this has been invested in infrastructure development projects which include:

- National roads
- Major water supply projects
- Health facilities
- Educational facilities

This has resulted in the construction industry being ranked the third highest employer in the country (Statictics Botswana, 2016) and generated increased interest in studies relating to the construction industry.

1.8.2 Justification for the study

Many studies, as outlined in the literature review section, have been carried out in Botswana with regards to employee job satisfaction but this has mainly been in the fields of education and health. None of the studies reviewed investigated the relationship between organisational culture and employee job satisfaction and none of the studies were done in the Botswana construction industry. This study was important in the sense that it provided an insight into the relationship between organisational culture and employee job satisfaction in one of the most active economic sectors of Botswana. The findings will have potential benefits to project managers, the construction industry, and policy makers.

1.9 Participating organisations

To assist in answering the research questions and achieve the research aim, two questionnaires were used to determine organisational culture and employee job satisfaction. The questionnaires were distributed to three organisations (denoted as organisations A, B, and C) within the Botswana construction industry.

Organisation-A had more than 60 years' experience in heavy civil construction, buildings and civil engineering works, pipelines (oil, slurry, gas, and water), mechanical engineering, heavy and light industrial plants, marine works, offshore installations, and maintenance of both mechanical and underwater installations.

Organisation-B was a wholly Botswana owned organisation with no other interests outside Botswana. Locally, Organisation-B was considered as one of the biggest companies with interests in road and rail construction, building construction, sewerage and water reticulation, dams and bridges, and heavy civils.

Organisation-C was a partnership between locals and foreigners of Asian descent. The organisation was classified as a small company engaging in civil and electrical works, fencing, maintenance, and road ancillary works. The organisation had a small employee base in both management and in its labour force and was mainly involved in subcontract work.

1.10 Structure of the report

This research report is divided into five chapters. Chapter 1 introduces the main concepts of the study which are: organisational culture, employee job satisfaction and their relationship before presenting the research problem, questions, aim, and objectives. The chapter closes by defining the context of the study and introducing the participating organisations.

The second chapter is a review of work by other researchers who have already contributed to the field of organisational culture and employee job satisfaction. This allowed the researcher to establish where his study fits in relation to existing literature and provide justification for the study. Chapter 2 closes by developing hypotheses based on the existing literature.

Chapter 3 outlines the research methodology that was adopted by the researcher and details how the participating organisations were selected. The research instruments that were used are outlined in this chapter including issues of reliability and generalisability. The data analysis methods that were used in the research are also detailed in this chapter and the chapter concludes by giving an ethical guide that was used by the researcher to ensure compliance with ethical requirements.

Chapter 4 discusses the findings of the research for both organisational culture and employee job satisfaction. Results for organisational culture were first presented individually for the three participating organisations and later combined as a representation of the industry. Results for employee job satisfaction were also presented, first, individually and then combined. At the end of the chapter, a review of the research questions, aim, and objectives was done to ensure completeness.

The final chapter presents conclusions and recommendations for future studies. The chapter also outlines the major findings and the limitations of the research before making recommendations.

CHAPTER 2: REVIEW OF LITERATURE

This section gives a review of the existing literature that relates to organisational culture and employee job satisfaction. Relevant literature relating to Botswana will also be reviewed in this section. The review will consider work by other researchers which is relevant to this study and identify gaps in the literature to which this study can contribute. The section will close by developing hypotheses based on the existing literature.

2.1 Organisational culture

Many authors have come up with slight variations of the definition of organisational culture but a review of the available literature shows a general agreement on the core elements of what constitutes organisational culture. Despite the slight variations in the definition of organisational culture, the underlying principles are the same in all definitions. A few of these definitions are given below and the underpinning principles are outlined.

Schein (1984: 97) defined organisational culture as

> "the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration and that have worked well to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems".

Claver *et al.* (2001) defined organisational culture as that which members of a specific organisation consider to be of value and symbolic to the extent of being taken as rituals that define the way things are done in the organisation. Members of the organisation use these values, symbols, and rituals to tackle both internal and external problems of the organisation.

Deshpande & Webster (1989: 4) defined organisational culture as "the pattern of shared values and beliefs that help individuals understand organizational functioning and thus provide them norms for behavior in the organization"

Cameron & Quinn (2006: 16) under the section titled "The Meaning of Organisation Culture" do not give a precise definition of Organisational Culture but, instead, give the basic tenets of organisational culture. They list the basic tenets as:

i. It encompasses the taken-for-granted values, underlying assumptions, expectations, collective memories, and definitions present in an organization.
ii. It represents "how things are around here."
iii. It reflects the prevailing ideology that people carry inside their heads.
iv. An organization's culture is reflected by what is valued, the dominant leadership styles, the language and symbols, the procedures and routines, and the definitions of success that make an organization unique.

The rest of the definitions found in literature are either adaptations or variants of these four definitions. The concepts and principles that are important to take note of from these definitions are:

a) Organisational culture is evolutionary.
   Over long periods, organisations go through a learning curve until they find a "formula" which works and helps them achieve their objective. These formulae solve problems and yield the desired results in dealing with the organisation's clients, employees, customers (internal and external), suppliers and stakeholders in general. Such formulae can only be developed over long periods of time and will have gone through extensive tests and adjustments for them to be adopted as standards. Being evolutionary also mean that organisational culture is not static, though it will tend to stabilize. There will always be a need for minor adjustments to adapt to the ever-changing aspects of technology and business environment.
b) Organisational culture is unique to an organisation.
   Because organisations operate differently and have different goals and objectives, what works for one organisation might not work for the other since organisations might have different goals, strategies and, most importantly, different problems.
c) Organisational culture must be shared.
   As new members join the organisation, they must be taught "the way we do business here" because it's what works in that organisation. If new employees are not taught the culture, there is a risk that the culture will be diluted and might not yield the desired results.

In summary, organisational culture is a way of doing business which an organisation develops and adopts over time and subsequently teaches its new members to ensure uniformity.

In this definition, an organisation defines the way of doing things and employees adopt those values as a standard way of solving problems and dealing with stakeholders. In other words, organisations develop a culture and set up management structures whose duty is to enforce/impose the culture on newcomers. All newcomers then adopt the culture as a standard that defines their behavior and attitude in dealing with activities relating to that organisation. The fact that employees will adopt these attitudes and behaviors does not necessarily mean that they are in agreement or are happy with the way business is done in that organisation. A comparison between what organisational culture imposes on the employee and how that meets the employee's expectations is what yields employee job satisfaction. This become the subject of this research in the context of the Botswana construction industry. Employees are more likely to be satisfied with their job if the organisation's culture meets or exceeds their expectations and they are more likely to be dissatisfied if the organisation's culture ranks below their expectations.

There are four distinct types of organisational culture and each one has its own dominant characteristics. These dominant characteristics form the four culture types which are clan, adhocracy, market, and hierarchy (Cameron & Quinn, 2006).

Studies which link the four culture types (clan, adhocracy, market, and hierarchy) to organisational performance have been carried out by other researchers. Deshpande *et al.* (1993), in a study of Japanese firms, found out that organisational culture is directly related to the performance of the organisation. His findings ranked organisational culture in terms of performance with organisations holding a market culture ranking as best performers followed by those with adhocracy cultures. Clan and hierarchy cultures were associated with poor performance. Organisations holding a hierarchy culture being ranked as the worst performers. These findings were not linked to employee job satisfaction but research by Daulatram (2003) indicated that clan and adhocracy cultures are positively related to employee job satisfaction. Organisations are born to perform and if organisations with a market culture are the best performers, then it is possible that organisations might want to adopt a market culture. This would, if compared to the findings of Daulatram (2003), result in diverging interests between organisations and employees.

In the broader African context, Wambugu (2014) noted that studies of organisational culture have mainly been carried out in the developed world but very little has been done in the developing world. Wambugu (2014)'s research was carried out in Kenya to shed more light on organisational culture and employee performance. This study, carried out in Botswana, will

contribute towards the phenomenon of organisational culture and employee job satisfaction in the developing world.

2.2 The Competing Values Framework

Cameron & Quinn (2006) developed the concept of organisational culture based on the Competing Values Framework.

The competing values framework is based on two dimensions, each with two opposing/contradicting extremes as indicated in Figure 2.1. The first dimension deals with effectiveness criteria. One extreme (North) emphasises flexibility, discretion, and dynamism (organisations that are effective if they are dynamic and adapting). The opposing side (South) emphasises stability, order, and control (organisations which are effective if they are stable and predictable). The second dimension also deals with effectiveness criteria. One extreme (East) emphasises external orientation, differentiation, and rivalry (organisations that are effective if they are interacting and competing with others outside their spheres of influence). The opposing side (West) consists of organisations that are internally focused and emphasises integration (organisations which are effective if they have harmonious internal characteristics).

The two dimensions can be viewed as yielding two continuums. The first continuum (North-South) spans the range from flexibility and pliancy to organisational sturdiness and resilience. The second continuum (East-West) spans the continuum from organisational liberation and separation to organisational cohesion and harmony. By putting together these two dimensions, Cameron & Quinn (2006) came up with four quadrants as shown in Figure 2.1.

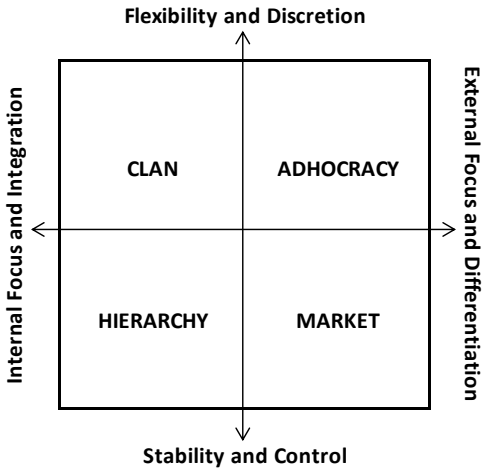


Figure 2.1 :The Competing Values Framework
Source: Cameron & Quinn (2006)

Each quadrant depicts a unique organisational effectiveness pointer. These pointers then became the four organisational culture types which represent the way business is done in an organisation. Judgements about an organisation's culture are made based on these four distinct quadrants. The quadrants which are diagonally opposite present values which are opposite or competing and this gave the framework its signature name "The Competing Values Framework".

Each quadrant has its own characteristics and the most noticeable characteristics were used to label the four quadrants as clan (NW), adhocracy (NE), market (SE), and hierarchy (SW). Each of the four names represents the elementary assumptions, values and orientations of an organisation and these four are the basic tenets of organisational culture.

Since the organisational cultures of the three organisations under study were established based on the competing values framework, shown in Figure 2.2, it was imperative to present a brief description of the four theoretical organisational culture based on Cameron & Quinn (2006), the developers of OCAI. Figure 2.2 gives a comprehensive summary of the four cultures.

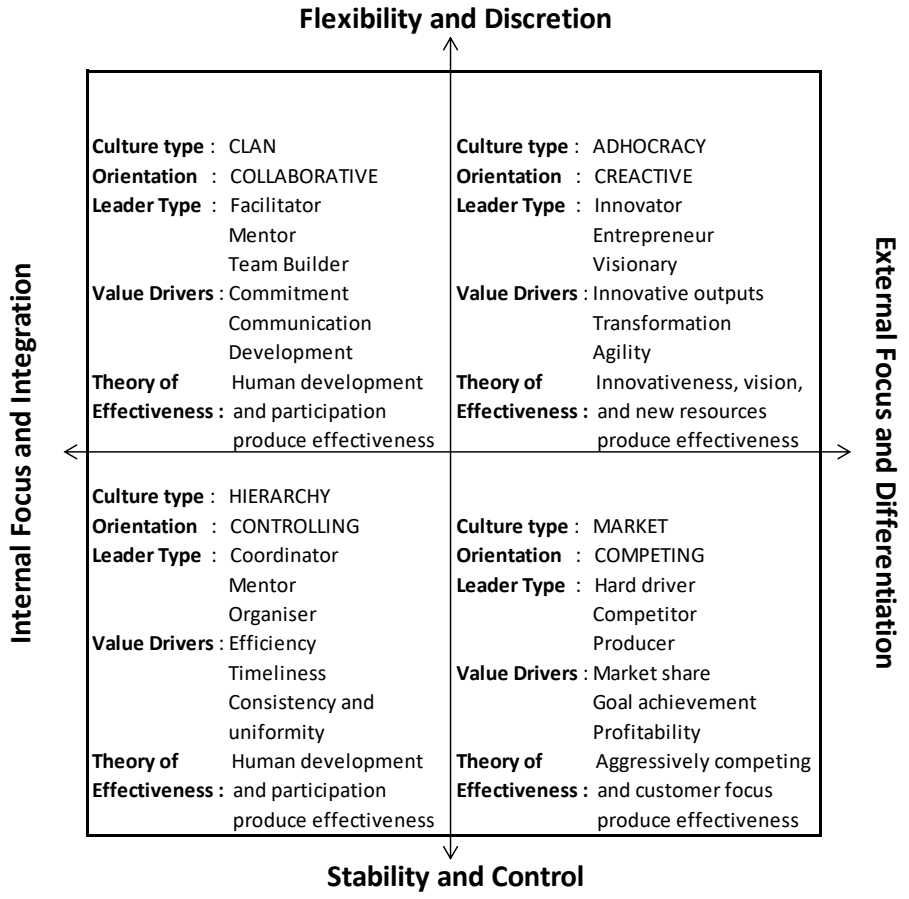


Figure 2.2: The Competing Values of Leadership, Effectiveness, and Organisational Theory
Source: Cameron & Quinn (2006)

The four quadrants were reproduced by Cameron & Quinn (2006) to give more details about orientation, leader type, value drivers, and the theory of effectiveness which applies to each organisational culture.

2.3 Employee job satisfaction

Employee satisfaction and employee job satisfaction have been used interchangeably throughout research but with the same meaning. What qualifies a person to be called an employee is the job. For this research, employee satisfaction is considered a short form of employee job satisfaction but both hold the same meaning.

According to Locke (1976) employee job satisfaction is defined as a pleasurable or positive emotional state which is a result of evaluating the relationship between what one anticipates from a job and what one considers as being offered by the job.

An employee, while evaluating his/her level of job satisfaction, would consider and evaluate, among many other things, their working environment, remuneration, interaction with their colleagues, opportunities for promotion, and carrier advancement. This job satisfaction is also a reflection of the psychological state of the employee (Zhang & Li, 2013).

Authors like Schein (1984) argued that organisational culture is thrust upon employees and is, therefore, something that employees cannot choose. Schein (1984: 10) stated that

> "Because culture serves the function of stabilizing the external and internal environment for an organisation, it must be taught to new members. It would not serve its function if every generation of new members could introduce new perceptions, languages, thinking patterns and rules of interaction. For culture to serve its function, it must be perceived as correct and valid, and if it is perceived that way, it automatically follows that it must be taught to newcomers".

While organisational culture is perceived as correct and valid and must be taught to newcomers (Schein, 1984), it does not necessarily mean that the newcomers will readily accept and perceive the organisational culture as meeting their expectations. An evaluation of the elements constituting organisational culture, among other things, is the only way to determine if the employee is satisfied or not.

Employees can leave an organisation if the organisational culture does not meet their expectations thus increasing employee turnover. It is not possible for organisations to keep changing their culture to meet employee expectation since organisations must maintain certain aspects which sets them apart or give them an advantage over their competitors. A balance must be achieved between maintaining the status quo in an organisation and accommodating employee expectations, which define employee job satisfaction.

2.4 Organisational culture and construction management

Schein (1984) defined organisational culture as a collection of basic assumptions that a given organisation has invented, discovered, or developed in the course of learning how to deal with problems that are both external and internal to the organisation. These basic assumptions will have worked well to be considered valid and, therefore, must be taught to new members as the appropriate way to perceive, comprehend, and act in relation to the organisation's problems. This definition implies that construction management practitioners, upon joining an organisation, are taught how to deal with problems in a manner that the organisation considers to be valid. The Project Management Institute (2013) defined 'organisational process assets' as the plans, processes, policies, and knowledge bases specific to and used by the performing organisation to perform or govern a project. These elements form part of an organisation's culture and have a strong influence on the project's ability to meet its objectives (The Project Management Institute, 2013).

Belassi (2013) believed that organisational culture must be recognised first if different results are to be achieved in project success. Belassi (2013) stated that organisations tend to maintain the same culture and way of doing business and expect to achieve better results by changing project specific variables. Changes in organisational culture will result in changes in organisational process assets and this might produce different results for management practitioners (Belassi, 2013).

Egbu *et al.* (2001) stated that teamwork is important if organisations are to address important cultural implications. Teamwork is associated with the clan culture as shown in the competing values framework in Figure 2.2. The orientation of a clan culture is collaboration and the leader is a mentor and team builder. "If the culture of the organization isn't 'team-oriented', then it is likely that teamworking initiatives or processes will not work well and may even fail" (Egbu

et al., 2001: 96). This suggests that an organisation which, for example, holds a market culture and is trying to implement team building, is likely to fail. Success will only be achieved if cultural aspects are first addressed before implementing structural changes (Egbu *et al.*, 2001).

Most organisations have set selection criteria for the appointment of project managers. These criteria are based on the organisation's procedures which form part of the organisation's culture. Abdulsamad *et al.* (2011) in a study of the factors influencing project success in Egypt, concluded that the poor selection of project managers was at the top of factors influencing project success. Since the selection of project managers in the performing organisation is based on the organisation's culture, influencing the outcome of a project can be enhanced by changing the organisation's culture.

To improve performance, productivity, and profit margins, construction organisations must understand and communicate their organisational cultures to their employees (Alnasseri *et al.,* 2013). Performance and effectiveness are directly related to organisational culture and a strong organisational culture is essential for effective organisational performance (Alnasseri *et al.,* 2013). The significance of organisational culture to effectiveness and performance has given rise to increased interest in the study of organisational culture in the past two decades (Alnasseri *et al.,* 2013).

"In a changing and competitive environment, an organisation will seek to maintain a competitive advantage in order to survive and remain profitable" (Egbu & Bernard, 2000: 131). The need to maintain a competitive advantage means that a company must adopt a market type of organisational culture. The competing values framework (Cameron & Quinn, 2006) shows that the market culture is driven by goal achievement, profitability, and the need to win a share of the market. Organisations must, therefore, choose between teamwork and staying competitive. This requires an organisation to choose between the clan and the market culture because teamwork is associated with the clan culture while competitiveness is associated with the market culture (Cameron & Quinn, 2006).

A study by Faizatul *et al.* (2010) examined the role of organisational culture in Joint Ventures. While the aspect of joint ventures is outside the scope of this research, the study by Faizatul *et al.* (2010) highlighted the importance of having similar organisational cultures in joint venture partners if the joint venture is to achieve success. Faizatul *et al.* (2010) stated that the construction industry is not giving attention to the role of organisational culture in the success of joint ventures. Differences in organisational culture can result in limited project success but

the differences can foster sharing of ideas and encourage innovation. Faizatul *et al.* (2010) believed that there is a need to develop a framework that will formulate a common organisational culture for joint ventures.

2.5 Organisational culture and employee job satisfaction – the relationship

It is important to understand the relationship between organisational culture and employee job satisfaction as this is instrumental in creating an efficient and motivated employee base which helps organisations achieve their goals (Hosseinkhanzadeh *et al.,* 2013). In order to understand why employees leave their job and devise measures to retain employees, most organisations have turned to employee job satisfaction surveys (Martins & Coetzee, 2007). This has resulted in increased research in the field of employee job satisfaction and organisational culture.

Daulatram (2003), in a study of marketing firms, examined the impact of the type of organisational culture on job satisfaction and found that clan and adhocracy cultures are positively related to job satisfaction while market and hierarchy cultures are negatively related to job satisfaction.

A study in Greece by Belias *et al.* (2015) revealed that, due to economic recession, employee earnings have dropped resulting in employees being stressed, feeling anxious, wanting to quit their jobs and developing high levels of disappointment and generally becoming less committed to their jobs. This stresses the need for studies like this one so that management practitioners are better prepared to deal with the situation when it arises.

The global economic down-turn has resulted in increased psychological pressure on employees which has seen a rise in strike actions and lower job performance (Belias *et al.,* 2015). Employee job satisfaction has gained increased recognition and researchers have turned to organisational characteristics, including organisational culture to see how it affects employee job satisfaction (Belias *et al.,* 2015).

Sempane *et al.* (2002) found the existence of significant positive correlation between organisational culture and employee job satisfaction and stated that job satisfaction can be used to gauge employee perception of organisational culture. The definitions of organisational culture and employee job satisfaction set the stage for two constructs which are closely related

and exhibit an intertwined relationship. Understanding this relationship can prove beneficial to construction project management practitioners (Zhang & Li, 2013).

2.6 Studies relating to Botswana

Very little research, if any, has been carried out in Botswana to shed light into the relationship between organisational culture and employee job satisfaction. Most of the literature that exist relate to job satisfaction in the education and health sectors but does not establish a relationship with Organisational Culture (Badubi *et al.*, 2014; Fako *et al.*, 2014; Isaiah & Nenty, 2012; Kelepile, 2015; Moeti-Lysson *et al.*, 2015; Monyatsi, 2012; Nkomazana *et al.*, 2015; Sithole & Solomon, 2014). Despite this bias, the existing literature provides a valuable insight into one aspect related to this research i.e. employee job satisfaction, albeit, in other economic sectors of Botswana.

Monyatsi (2012) concluded that teachers in Botswana are generally satisfied with their job. Interesting to note in Monyatsi (2012)'s study are the following points within the Botswana education sector: males are more satisfied than females, the oldest employees are 100% satisfied with their jobs, education level brings more job satisfaction only when accompanied by higher positions, more experienced employees are more satisfied and employees are generally satisfied with their rank. The operation of the construction industry is different from the education sector where the same rules and regulations apply to all schools. Construction is carried out by different companies with different organisational cultures, hence different rules and modes of operation apply to each company. It will, however, be interesting to compare the results of Monyatsi (2012) to those in the construction industry. Monyatsi (2012) also found limited opportunities of promotion, satisfaction with supervisors and unhappiness with pay scale at lower positions but satisfaction at higher positions. All the factors observed by Monyatsi (2012) can yield different results when observed in a different industry and hence organisational culture. It is, therefore, important to first establish organisational culture when these factors are observed in any context including the construction industry.

Other studies carried out to establish employee job satisfaction within the context of Botswana include Badubi *et al.* (2014); Fako *et al*. (2014); Isaiah & Nenty (2012); Moeti-Lysson *et al.* (2015); and Sithole & Solomon (2014). The areas of concern identified in previous studies within Botswana include inadequate participation in decision making, lack of opportunities to

further employees' studies, poor living conditions, low salary packages, and inadequate resources to carry out responsibilities.

Closely related to this study is a study by Moeti-Lysson *et al.* (2015). The study investigated employee perception of job security in the Botswana construction industry. This is the only study relating to the construction industry in the context of Botswana that was found in the reviewed literature. Studies have shown that job security forms part of elements that define employee job satisfaction and therefore the study by Moeti-Lysson *et al.* (2015), closely relates to this study. Moeti-Lysson *et al.* (2015) found a strong positive relationship between the temporary nature of construction work and the perception of job security in both domestic and Chinese-owned companies. Moeti-Lysson *et al.* (2015) stated that, within the construction industry, better management of people can result in improved employee job satisfaction which will result in better project delivery. Moeti-Lysson *et al.* (2015) were, however, concerned that very little study has gone into the Botswana construction industry to address employee job satisfaction. While their study did not establish organisational culture, it investigated the effect of ownership (domestic and Chinese) on employees' perception of job security with employees in Chinese owned companies feeling more insecure than employees in domestic companies. Organisational culture is closely linked to ownership and establishing organisational culture can provide a better understanding of the findings by Moeti-Lysson *et al.* (2015).

Organisational culture has received very little attention in Botswana and none in the Botswana construction industry. A study by Kelepile (2015) considered organisational culture and its impact on productivity and quality management. Productivity and performance are strongly linked to employee job satisfaction (Belias *et al.,* 2015; Kelepile, 2015; Zhang & Li, 2013). While the study by Kelepile (2015) was carried out in the diamond industry, it is of significance to this study since it examined similar aspects to this study – organisational culture and productivity (productivity being closely linked to job satisfaction). It should, however, be kept in mind that most mining operations are semi-permanent in nature while construction is mainly temporary in nature. The study by Kelepile (2015) portrayed employee preference towards achievement, support and role cultures. These cultures were not found in the Diamond Operations Unit of the Diamond Trading Company of Botswana. Employees were found to value trust and open communication and most important is that Kelepile (2015) found that organisational culture had a significant impact on productivity and productivity is linked to employee job satisfaction. It can, therefore, be inferred from Kelepile (2015) that organisational culture has an influence on employee job satisfaction.

2.7 Hypotheses

Null Hypothesis (H_0):

There is a relationship between organisational culture and employee job satisfaction within the Botswana construction industry.

Alternative Hypothesis (H_1):

There is no relationship between organisational culture and employee job satisfaction.

CHAPTER 3: RESEARCH PHILOSOPHY AND METHODOLOGY

This section covers the research methodology that was adopted by the researcher. The research methods, design, and approach will also be discussed including time horizons. Other elements discussed in this section include sampling strategy, data collection techniques, and the research instruments that were used. The methods used for data analysis are also presented. The chapter closes with a discussion on ethical considerations.

Figure 3.1 presents a summarised view of the research methodology.

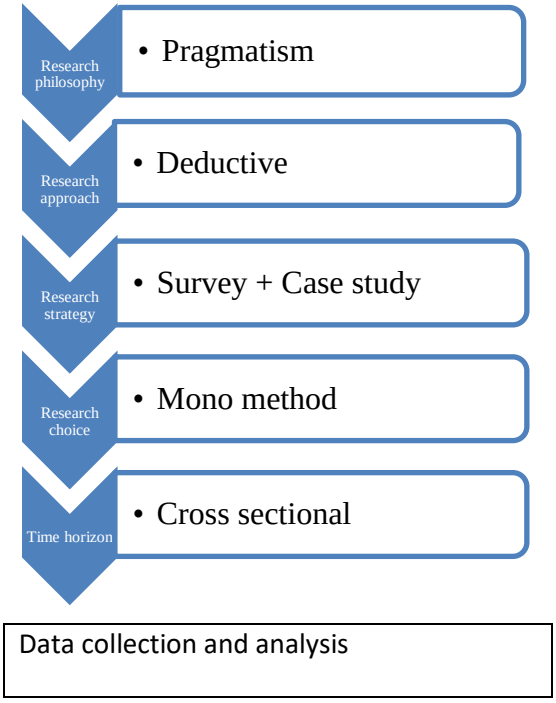


Figure 3.1: Research methodology

3.1 Research Philosophy

Research, by nature, involves the collection of secondary and primary data which allows the researcher to answer the research questions. This process results in the development of knowledge.

Research philosophy deals with the source, nature, and development of knowledge. By articulating the research philosophy, the researcher is formulating his beliefs and assumptions. It is, therefore, imperative that the research philosophy is explained first, before the research methods, approach, and design can be presented. Subsequent sections of the research methodology sections are based on the choice of research philosophy.

According to Bajpai (2011), the main research philosophies in business studies are positivism, realism, interpretivism, and pragmatism. These philosophies are set apart by differences in ontology, epistemology, axiology, and data collection techniques (Saunders *et al.*, 2009).

The essence of positivism is that science is the only way to learn about the truth and positivism subscribe to the view that only empirical evidence obtained through observation and measurement is trustworthy (Bryman & Bell, 2007). This is like the stance of a natural scientist but working with an observable social aspect in a manner that produces measurable data with results like those produced in a scientific observation (Saunders *et al*., 2009). The positivist philosophy asserts that real events can be observed empirically and explanations drawn through logical analysis of data (Saunders *et al.,* 2009). The role of the researcher in a positivist philosophy is limited to data collection and interpretation and common sense is not allowed to bias the outcome.

Realism is based on the philosophical principle that what the senses show us is, indeed, the truth (Saunders *et al.,* 2009). Realism can be divided into direct realism and critical realism. Direct realism states that the experience we get through our senses portrays the world accurately. Critical realism assumes that our experiences are sensations and images of the real world, not the things themselves (Saunders *et al*., 2009).

The interpretivist philosophy argues that it is important for researchers to understand differences between humans in our role as social actors because humans interpret social roles based on the meaning they give those roles (Saunders *et al.,* 2009). The researcher must, therefore, enter the social world of his/her research subjects and understand their world from their perspective (Saunders *et al.,* 2009). The main disadvantage of this philosophy is the potential bias since the data is tainted with personal view points and values. This undermines the reliability of the data and makes it difficult to generalise the results.

Pragmatism propagates a view which is diametrically opposed to positivism by asserting that no single opinion can portray the entire picture and that your research question determines the

epistemology, ontology, and axiology that you adopt (Saunders *et al.,* 2009). A pragmatist will, therefore, use a combination of methods to answer the research question.

Dewey (1938) propagated the concept of inquiry which is central to the pragmatist approach in research. According to Dewey (1938: 108) inquiry "is the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituents, distinctions and relations as to convert the elements of original situation into a unified whole". Cronen (2001: 20) defined an inquiry as "a natural part of life aimed at improving our condition by adaptation accommodations in the world". This can be interpreted to mean that an inquiry is an investigation into some reality with the aim of creating knowledge that can be used to change the status quo of that reality. Pragmatism is mainly associated with inquiry as the most common mode of investigation (Klein & Myers, 1999).

This research made an inquiry into the relationship between organisational culture and employee job satisfaction using a sample of three organisations. The research, thus, adopted a pragmatist approach.

3.2 Research Methodology

3.2.1 Research Methods

Research methods are generally classified into quantitative and qualitative methods. Quantitative methods infer, describe, and answer questions using numbers. Qualitative research methods are bases on feelings, emotions, sounds, and other non-numerical and unquantifiable aspects. Qualitative methods cannot, therefore, be analysed using mathematical techniques (Herbst & Coldwell, 2004).

To achieve the research objectives and answer the research question, the study employed a single data collection technique (survey) and a single data analysis technique (quantitative). The survey, therefore, employed the mono method. When a researcher uses a single data collection method and single data analysis technique, the method is referred to as mono method (Saunders *et al.,* 2009).

The survey strategy makes it possible to collect sizable amounts of quantitative data using questionnaires. It also allows the researcher to analyse the data collected using descriptive and

inferential statistics. The reason for the relationship between variables can also be explained using results of data analysis from the surveys. The advantages of using surveys is that the researcher gains control over the process and, with proper sampling, the results can be generalised over the whole population (Saunders *et al*., 2009).

This research collected data on two fronts, with a goal to meet the research objectives. To determine employee job satisfaction, the JDI questionnaire, presented in Appendix B, was administered on employees in the Botswana construction industry. Only employees working within the organization whose Organisational Culture was under study participated to give a direct relationship between the organization's culture and its employees' job satisfaction. The quantitative data collected were analysed using descriptive and inferential statistics.

A second questionnaire, OCAI presented in Appendix A, was administered on people who are in managerial or decision-making positions of organisations to establish the organisational cultures of the organisations under study. The quantitative data collected were also analysed using descriptive and inferential statistics. The two questionnaires were administered concurrently on each organisation to save time and reduce disruptions on the participating organisations.

Questionnaires are viewed as a quick and reliable means of getting information within a limited time space. This study employed self-reporting questionnaires to measure organisational culture and employee job satisfaction. Self-reporting questionnaires can produce quantitative data which helps in data analysis. Self-reporting questionnaires have validity challenges as participants tend to exaggerate or under report to stress personal preferences and desired states of affairs. Despite these challenges, self-report questionnaires remain popular and are perceived to be the best tool for the task (Taras *et al.,* 2009).

The questionnaires were distributed manually and electronically using SurveyMonkey©. The electronic distribution was found to be convenient for employees with access to the internet.

3.2.2 Research Approach

Based on the positivist philosophy adopted by the researcher, which is like a scientific research involving the development and testing of theories, this research adopted a deductive approach. Saunders *et al.* (2009) defined deductive approach as involving the development and testing of

a theory. This research formulated and tested hypotheses to evaluate the relationship between organisational culture and employee job satisfaction. To this end, the research lends itself and adopts a deductive approach.

In a deductive approach, quantitative data is collected to evaluate hypotheses resulting in the confirmation and/or rejection of the hypotheses that were developed. This contrasts with the inductive method in which data is collected to explore a phenomenon or identify patterns with the aim of creating a conceptual framework and generate a theory (Bajpai, 2011). Unlike the inductive approach, in which known premises are used to develop untested conclusions, the deductive approach employed in this research works on the ideology that if the premises are true, the conclusions must also be true (Bajpai, 2011).

3.2.3 Research design

The general plan about what the researcher will do to answer the research questions is referred to as the research design. The research design can be exploratory or conclusive (Saunders *et al.,* 2009).

An exploratory research design aims to 'explore' a specific element of the research field without giving final and conclusive answers to the questions. The recommendations are tentative and the study is normally followed by a further exploratory and conclusive research. The sample size is usually small and non-representative but selected to maximize generalisation of the insight. The data required is usually vague and the source is ill defined. It employs open ended data collection means which are normally rough and do not conform to any set procedures. Data analysis is informal and qualitative and results only give an insight into the situation (Pride & Ferrel, 2007).

A conclusive research is designed to produce results that are far reaching, conclusive, and helpful in selecting a course of action. The design employs rigid and formal procedures that normally produce quantitative data. Sample sizes are large and representative to allow generalisation of findings. A conclusive research is very clear on the type of data that is required and the source is well defined. Data collection employs well-structured formats to collect quantitative data that can be analysed by employing mathematical techniques (Pride & Ferrel, 2007).

This research is classified as exploratory. The study gives an insight into the relationship between organisational culture and employee job satisfaction in the context of the Botswana construction industry. Further studies, employing larger sample sizes, are required to confirm the findings of this study and improve generalisability.

3.3 Time Horizons

This study was Cross-Sectional in nature as it sought to establish the relationship between two variables (organisational culture and employee job satisfaction) at a point in time (Saunders *et al.*, 2009). There were three main reasons for choosing the cross-sectional time horizon. First was the time constraint associated with the limited nature of both the course and the research study. A longitudinal study would have required more time than allocated for this research. Second was the fact that both organisational culture and employee job satisfaction can be observed and quantified at any point in time. Findings at a point in time can be used to explain some phenomena. The third reason was that, as stated by Easterby-Smith *et al.* (2008), cross-sectional studies often employ the survey strategy. The survey strategy is what was adopted by the researcher.

Other researchers, however, disagree with cross sectional studies and are proponents of longitudinal studies. Schein (1996) concluded that the reason why researchers have failed to understand organisational culture is because of their tendency to measure culture rather than observe it. Schein (1996) supported ethnographic and clinical observations as opposed to measuring culture. While the researcher agrees with Schein (1996), this requires more time than the researcher had for the current study.

3.4 Sampling strategy and data collection technique

Because of time and financial limitations, it was impossible to sample all the organisations in the Botswana construction industry to establish both employee job satisfaction and organisational culture. A sample had to be established that was going to be representative of the whole construction industry in Botswana. The final selection gives an insight into large, medium, and small organisations within the Botswana construction industry.

Organisational culture is developed over long periods of time and it was expected that experienced organisations will have mature cultures as compared to inexperienced

organisations. This made it necessary to consider small, medium and large organisations in selecting the appropriate sample. Because the population had strata which could potentially influence the results, the researcher elected to use stratified random sampling.

Stratified random sampling is defined by Saunders *et al.* (2009: 228) as "sampling in which you divide the population into two or more relevant and significant strata based on one or a number of attributes". This ensures that each category in the population is represented resulting in a more representative sample of the population.

The Public Procurement and Asset Disposal Board (PPADB) is an entity that was established through an act of parliament and is mandated by law to register all contractors who wish to do business with the Botswana government. The PPADB registers companies in four main categories namely services, supplies, consultants, and works contractors. The works contractors' category is the one that was of interest to this study because all contractors doing construction work for the government are registered under this category. Details will be provided only for the works category. For details on other categories, readers are referred to www.ppadb.co.bw .

The researcher utilized the PPADB registration system to select organisations that would participate in the study, subject to their acceptance of the invitations.

A search on the PPADB's Integrated Procurement Management System (IPMS) revealed the organisations that were registered with the PPADB. Fourteen organisations were identified as potential participants and invitations, accompanied by introduction letters and participant information sheets, were sent out to the fourteen organisations. Out of the fourteen invitations which were sent, four organisations agreed to take part in the survey, five declined to participate and five did not respond. Follow-ups were made to the five organisations which did not respond but all were non-committal, giving reasons ranging from unavailability of authorizing person to a simple "not interested".

Some of the organisations which responded but declined to take part cited the lack of projects as the main reason. The organisations did not have work and therefore had retrenched most of their workforce leaving only the core personnel.

From the four organisations which agreed to take part in the survey, two were selected to represent large and medium sized organisations. There was no small organisation among the four organisations and the researcher had to look outside the PPADB system for the third organisation to represent small organisations.

Registration codes for two of the three participating organisations (registered with the PPADB) and their approved grades are given in Table 3.1. The two organisations are registered for code 03 (civil engineering) and code 10 (Water Engineering Services). Their approved grades were used to determine the size of the organisation.

Table 3.1: PPADB works categories

		Organisation	
Code 03 – Civil Engineering		**A**	**B**
	Sub code	**Approved Grade**	
	01–Roads – Paved	E	E
	02-Roads – Unpaved	E	D
	03– Re-graveling	E	D
	04– Road Surfacing (removed)	E	
	05– Bridges	E	E
	06– Road Drainage/Culvert	E	E
	07 –		
	08 –		
	09 –		
	10– Infrastructure – Macro	E	E
	11– Sewage Plants	E	
	12– Railways		
	13 –		
	14 –		
	15– Airfields – Unpaved	E	D
	16– Aerodromes – Paved	E	D
	17 –		
	18 –		
	19 –		
	20– Dams		
	21– Irrigation		
	22– River works		
	23– Water Supplies – Major		E
	24– Water Treatment Plants		
Code 10 – Water Engineering Services			
	01– Village Water And Sanitation Works	E	E
	02– Storage Tanks	E	
	03– Borehole Equipping		
	04– Photovoltaic Pumping Systems		
	05– Radio/Telemetry		

The PPADB currently registers works contractors under six grades which are Opportunity Contractors (OC), A, B, C, D, and E. These grades are determined by the ceiling value of the work that the contractor can tender. Table 3.2 shows the ceiling values for the civil engineering code 03 category.

Table 3.2: PPADB Grade ceiling values for civil engineering code 03

Grade	**OC**	**Grade A**	**Grade B**	**Grade C**	**Grade D**	**Grade E**
Ceiling value	P5,000,000	P10,000,000	P20,000,000	P60,000,000	P120,000,000	Unlimited
Grouping	Small		Medium		Large	

Based on the PPADB grading system, the researcher grouped the grades onto small, medium, and large.

Opportunity Contractors (OC) is the entry level and in the case of code 03 (Civil Engineering), OC has a ceiling value of P5 million (US $471 698) and the highest grade is E which is unlimited in terms of contract value.

The selected organisations can be described as follows:

a) Organisation A originates from the Middle East and has got operations throughout the Middle East, Africa, Europe (including Russia), CIS countries, the Caribbean, Australia and Papua New Guinea. The organisation has a combined workforce of more than 130 000 throughout the world. Over the past 15 years, Organisation-A has been ranked between number 13 and 22 in the world in terms of revenue and is one of the biggest construction companies in world.

   Organization A is a large international organisation selected to represent both international organisations and large organisations. This is evidenced by the fact that organisation A is registered in 12 sub codes and is approved for grade E (unlimited) for all 12 registered grades. Approval for a grade is based on experience and growth of the applying organisation. Within the context of Botswana, organisation A carries out projects ranging from P400 million to P1.5 billion. Organisation A was chosen as it was considered to rank among the top organisations in the country in terms of experience and growth. The organisation was, therefore, considered as a large organisation based on the PPADB grading system.

b) On an average project, organisation B will have a total of 150 employees. The organisation has more than 20 years' experience in construction within Botswana. In terms of capacity, organisation B can be categorized as a medium sized organisation. Organisation-B is a local organisation registered with the PPADB under 10 sub codes. Four of the registered sub codes are approved for grade D which is limited to P120 million (US$11.3 million) and six sub codes are approved for grade E (unlimited). Organisation B is mainly engaged in projects ranging from P50 million to P300 million. Organisation B was thus selected to represent medium to large organisations and local (citizen owned) organisations.

c) Organisation-C is a small organisation owned jointly by locals and foreigners of Asian descent. The organisation is not registered with the PPADB and is mostly involved in subcontract work sourced from large organisations that are registered with the PPADB. The organisation was selected to represent small industry players which are not regulated by the PPADB. Organisation C has an average of 30 employees per project and is mainly engaged in projects ranging from P1 million to P20 Million.

The selected organisations were representative of most organisations that are operating in the Botswana construction industry. The categorization is based on project value and each organisation represents a bracket of project value.

To determine organisational culture, four categories/classes were targeted in each organisation - top management, middle management, lower management and non–managerial employees. This was done to give a balanced view of how organisational culture is viewed by employees occupying different positions in the organisations. The targeted sample size was three in each category of top, middle, lower management, and non-managerial giving a sample size of twelve per organization. The total targeted sample size was 36 (3x4x3). The OCAI questionnaire, Appendix A, was used to achieve this goal.

Employee job satisfaction was targeting 10 employees in each of middle management, lower management and the non-managerial brackets giving a total of 30 (10x3) in each organisation. The target for the JDI questionnaire was, therefore, 30 employees per organization giving a target sample size of 90 for the 3 organisations. Based on discussions with the assigned gatekeepers, the sample size in top management was too small to be representative of employee job satisfaction since most of the organisations had very few people in top management. Even

Organisation A, which is a large company, indicated that most of its top management was domiciled in the Middle-East, where its headquarters is located. They only had 3 people in top management in Botswana. Top management was, therefore, not targeted by the JDI. Employees were initially identified with the assistance of the human resources department, after which snowballing was used to identify more participants in the same category. To achieve this goal, a questionnaire, the JDI, presented in Appendix B, was used to collect data.

3.5 Research instruments

No single instrument is ideal for all cultural explorations (Jung *et al.*, 2009). The degree to which any instrument is deemed to be 'fit for purpose' depends on the purpose of the study and its success is measured by the extent to which the instrument fulfills the desired purpose. Studies of organisational culture can be applied to departments, divisions, companies or countries and are, therefore, ubiquitous (Sarros *et al.*, 2005). This has resulted in the development of an array of instruments (Jung *et al.*, 2009).

Instruments for measuring organisational culture and employee job satisfaction require a lot of validation which can be time consuming (Belias & Koustelios, 2014). The researcher took advantage of existing instruments which are widely used in these fields and whose validity has already been tested and proved. Two instruments, OCAI presented in Appendix A and the JDI presented in Appendix B, were used in this study and both were adaptations of existing instruments (Cameron & Quinn, 2006; Smith *et al*., 1969). The following sections give a brief insight into the two instruments.

3.5.1 Organisational Assessment Instrument (OCAI)

The OCAI (Appendix A) was developed by Cameron & Quinn (2006) as an instrument for diagnosing organisational culture specifically for managers and change agents who have an interest in identifying culture and proposing changes. The instrument is also suitable for students interested in investigating organisational culture using quantitative methods. The main purpose of OCAI is to identify an organisation's current and preferred cultures by assessing six key dimensions of organisational culture.

This section, which is meant to give an understanding of the OCAI, is based on a study by Cameron & Quinn (2006). The section also looks at other instruments that were used in organisational culture studies but were not employed in this study.

The theoretical framework upon which OCAI is based is known as the Competing Values Framework (CVF) which was also developed by Cameron & Quinn (2006). Four types of organisational culture (clan, adhocracy, market, and hierarchy) were derived from the competing values framework.

This section also outlines the concept of the competing values framework and the six key dimensions that the instrument assesses to determine an organisation's culture. The competing values framework contains four quadrants with four main organisational culture types (clan, adhocracy, market, and hierarchy). OCAI assesses six dimensions of organisational culture. These dimensions are: Dominant Characteristics, Organizational Leadership, Management of Employees, Organization Glue, Strategic Emphases, and Criteria of Success. The OCAI also provides an assessment for both the current and preferred organisational culture. Values obtained from the assessment of the six dimensions are plotted on the CVF to determine the culture that is currently dominant in an organisation. OCAI gives a quantifiable image of the overall organisational culture which is crucial in making comparisons with employee job satisfaction.

Many instruments have been developed over the years to measure organisational culture. Taras (2013) catalogued 157 publicly available instruments that were developed to measure culture. While there is diversity, an instrument must be selected to suit the purpose of the study. The Organisational Culture Inventory (Cooke & Lafferty, 1987) is one of the widely used instruments for measuring organisational culture. The Organisational Culture Inventory (OCI) consists of two forms: OCI, which measures the current culture, and OCI-Ideal which measures the preferred culture. Participants are required to complete two separate forms as opposed to OCAI which assesses both the current and the preferred cultures in one form. OCI consists of 96 elements (40 for the reduced version) as opposed to OCAI which contains 24 elements. OCAI was preferred for this study because its short, concise, and produces similar results.

O'Reilly *et al.* (1991) developed another instrument called the Organisational Culture Profile (OCP). The OCP was specifically developed to assess person-organisation fit or congruency. Employees in an organisation are assessed to see how they fit into the culture of the organisation. This is a slightly different objective to the one pursued in this study. This study

sought to establish an organisation's current and preferred cultures and OCP was not suitable because it does not establish an organisation's preferred culture. Sarros *et al.* (2005) revised OCP to 27 elements but the instrument still does not establish the preferred organisational culture. Establishing the preference of employees brings in a third dimension and makes it easier to determine the relationship between organisational culture and employee job satisfaction.

The Perceived Work Context was developed by Reynolds (1986) and is mainly concerned with the context of the work. The concept behind the Perceived Work Context is to establish organisational culture as perceived from different industries and as perceived by people in different positions. This study was mainly interested in the organisational culture as perceived by those in the construction industry and, for this reason, the Perceived Work Context was found to be unsuitable.

Many more instruments are available for measuring organisational culture. These include, but not limited to: The Organizational Culture Scale by Harrison & Stokes (1992), the Organisational Culture Scale by Robert & Wasti (2002), the Organisational Culture Survey by Symlog (2006). The selection of the best instrument is entirely dependent on the application area. OCAI was selected because it was best suited for application in this study.

3.5.2 The Job Descriptive Index (JDI)

The existing literature revealed many instruments that have been used to measure employee job satisfaction ever since it gained momentum. Several models have been developed in a bid to understand the concept of employee job satisfaction. The most notable instruments are the Job Descriptive Index (JDI) by Smith *et al.* (1969), the Employee Satisfaction Inventory (ESI) by Koustelios & Bagiatis (1997), and the Minnesota Satisfaction Questionnaire (MSQ) by Weiss *et al.* (1967). A review by Gkolia *et al.* (2014) revealed that these three are the most trustworthy instruments for measuring employee job satisfaction with satisfactory psychometric properties including good validity and reliability and are therefore widely acknowledged in job satisfaction research.

The JDI (Appendix B) was preferred for this study because it is shorter and the language used is simpler. Smith *et al.* (1969) identified three major characteristics of the JDI which the researcher found appealing and this also gave the JDI an added advantage over the other

instruments. First, the JDI is specific about the area of satisfaction e.g. pay, supervision, co-workers etc. and is not global in its approach. This gives a better understanding of the areas that are of concern to the employees and it is an advantage for those who want to use results for administrative purposes. Secondly, the JDI used very simple language. A large percentage of employees in the construction industry do not possess high level educational qualifications and the JDI's simplicity gave it an added advantage over the MSQ as employees found the JDI easy to complete. Lastly the JDI does not ask employees how satisfied they are with their job, but rather asks them to describe their work. The JDI, therefore, refers more to the job rather than the individual. The validity and reliability of the JDI has been proved by many authors and it has been used in many job satisfaction surveys. Crites (1985) contended that no instrument has been used in job satisfaction surveys more than the JDI.

The JDI assesses job satisfaction on six aspects namely People on Your Present Job, Job in General, Work on Present Job, Pay, Opportunities for Promotion, and Supervision as indicated in section B of Appendix B. Each aspect has either nine or eighteen elements to be evaluated giving a total of 90 elements. JDI was chosen as the preferred instrument for measuring employee job satisfaction in this study because it is more detailed and has an additional aspect (Job In General – JIG) which gives it more depth and relevance to the study. The JDI has been the instrument of choice for many researchers and has been proven to produce reliable results (Gkolia *et al.,* 2014). Its validity and reliability is also well documented (Pennington & Riley, 1991).

3.6 Data analysis and statistical approach

3.6.1 Organisational Culture Assessment Instrument (OCAI)

OCAI (Appendix A) assesses six dimensions which are characteristic to all organisations. Each of these six dimensions has four alternatives (A, B, C, and D) as shown in the attached sample questionnaire in Appendix A. In every one of the six dimensions, these four alternatives represent the four organisational cultures outlined section 3.5.1 (A = Clan, B = Adhocracy, C = Market, and D = Hierarchy). Participants were asked to distribute 100 points between options A, B, C, and D under "NOW" and then repeat the same procedure under "PREFERRED". Participants gave more points to situations/options that were more like their organisation.

Under “NOW” the participants were assessing the organisational culture as it was at that particular time and under “PREFERRED” the participants were assessing the organisation’s culture based on their preferred status of the organisation in five years’ time.

The process of determining the organisation’s culture, under section B of the OCAI questionnaire, was the same for the “NOW” option and the “PREFERRED” option and scores for each organisation were dealt with separately. As an example, in one organisation, all the participants’ scores for item 1(A) were added and averaged. This became the score for item 1(A) for that organisation. The same was done for 2(A), 3(A), 4(A), 5(A), and 6(A). The results of this process were then added and a mean was calculated. This mean then becomes the score for the clan culture for that organisation. It should be kept in mind that all the A elements fall under the same (clan) culture and by getting the average score of all the A elements from all participants, the clan culture was determined. This process was repeated for the “NOW” and the “PREFERRED” options for elements B, C, and D.

Mean scores were also obtained for all the B responses to determine the adhocracy culture. The same was done for the C elements to determine the market culture and D elements to determine the hierarchy culture. Once all the mean scores were determined for the now and the preferred options, they were both plotted on a radar chart to give a graphical representation of the dominant culture. The culture with the highest mean score became the dominant culture. Each organisation’s culture was assessed in the same manner and the results of the different organisations were plotted and compared as detailed in Appendix J, Appendix K, and Appendix L.

The OCAI in its original format does not have a demographics section and the researcher modified the questionnaire and added section A which sought demographic information to determine age, gender, nationality, experience, length of service, position, and origin of the organisation. No changes were made to Section B, which collects information used to determine organisational culture. Changes to section B would have compromised the reliability of the instrument.

3.6.2 The Job Descriptive Index (JDI)

The demographic section of the questionnaire was a simple tabulation which only required the calculation of percentages to determine trends such as gender, age, and experience.

The JDI (Appendix B) was designed to assess six scales which are directly related to the employee's job and these are:

1. People on your job (18 elements)
2. Job in general (18 elements)
3. Work on present job (18 elements)
4. Pay (9 elements)
5. Opportunities for promotion (9 elements)
6. Supervision (18 elements)

For each of the scales above, participants were presented with words or short phrases such as Good, Boring, Useful, Bad, Hard to please etc. Besides each word or phrase, participants were requested to write "Y" if the word or phrase described the scale in question, "N" if it didn't describe it or "?" if they could not decide.

To make the scales comparable, the two scales consisting of 9 elements (Pay and Opportunities for promotion) had their raw totals doubled so that the scores were in line with, and comparable to the 18 element scales. The scoring system adopted in this study was developed by Smith *et al.* (1969) and the scores were weighted in accordance with the revised scoring weights as shown in Table 3.3.

Table 3.3: JDI revised scoring weights

Response		**Weight**	**Interpretation**
When	**Gets**		
A positive item	Yes "Y"	3	Satisfied
A positive item	No "N"	0	Dissatisfied
A negative Item	Yes "Y"	0	Dissatisfied
A negative Item	No "N"	3	Satisfied
Any Item	?	1	Undecided but inclined to be dissatisfied

According to Smith *et al.* (1969) a person giving an undecided "?" response is more inclined to be dissatisfied than satisfied and for that reason, the "?" response was given a weight of 1.

Giving a positive response "Y" to a positive question shows that the employee is satisfied hence the weight of 3. A negative "N" response to a positive question shows that the employee is dissatisfied and the response gets a weight of zero.

If an employee gives a positive response "Y" to a negative question it means that the employee is dissatisfied and the response gets a zero weight and if a negative question gets a negative response, this shows that the employee is satisfied and that response will get a weight of 3.

For the 18 element scales, the highest possible score is 54 (18x3) and for the 9 element scales, the highest possible score is 27 (9x3).

The job descriptive index in its original format does not have a demographics section and the researcher modified the questionnaire and added section A which collected demographic data to determine age, gender, nationality, experience, length of service, position, and origin of the organisation. Section B, which collects information used for the determination of employee job satisfaction was not changed. Changes to section B would have compromised the reliability of the instrument.

3.7 Reliability, validity and generalizability

The researcher adopted instruments that have been widely used in social science research and whose validity and reliability has been tested by other researchers. A review by Gkolia *et al.* (2014), concluded that the Job Descriptive Index (JDI) is the most widely used instrument to measure employee job satisfaction and stated that its validity and reliability has been thoroughly tested. The internal reliability of the instrument was also checked in this study using SPSS as presented in Table 4.16.

The research was based on three organisations representing small, medium, and large organisations operating within the Botswana construction industry. This was done to get a good representation of the different sizes of organisations within the construction industry. The researcher believes that the sample size was a limiting factor regarding the extent of generalisability. The findings of this research can, subject to further validation using a larger sample, be posited as being applicable to the whole of the Botswana construction industry.

3.8 Ethical Considerations

Research ethics relate to questions about how we establish and define our research topic, formulate our research, gain access, gather data, process and store our data, synthesize, and present our research findings in a morally acceptable way (Saunders *et al.*, 2009). From this

definition, it was imperative that research ethics should be part of every stage of the research process from formulating the research topic to presenting the research results.

In line with the university's regulations, an application was submitted to the school of Construction Economics and Management's research ethics committee to obtain ethics clearance to conduct the research. The clearance was granted under certificate number CEM/16/08/MJ/MSC on the 16th of August 2016. Data collection only started after the ethics clearance was granted.

To avoid physical, psychological and social harm to the participants, the researcher and the university at large, the researcher adhered to the ethical considerations as outlined in Section 3.8.1.

3.8.1 Researcher's Ethics guide and commitment

The following sources were consulted in preparing the researcher's ethics guide: (Bhattacherjee, 2012; David & Resnik, 2015; Saunders *et al*., 2009; Smith, 2003).

- **Access:** Physical and continuing access to organisations was sought and granted in writing by the management of the organisations. The request for physical access was accompanied by participant information sheets to allow organisations to make informed decisions.
- **Informed Consent:** Individuals' informed consent was sought from participants and individuals participated voluntarily without coercion. Consent by the participants was required even though physical access was granted by management. Each questionnaire had a participant information sheet as its first page. The following steps were followed to ensure informed consent:
    - The aim and objectives of the research were explained to the participants.
    - The degree of confidentiality was explained to the participants.
    - The voluntary nature of participation and freedom to withdraw was explained to the participants.
    - The potential benefits of the research were outlined to the participants.
    - Contact details were provided in case participants wanted to contact the school or the researcher to verify any aspect of the research.

- **Respect for the privacy of participants:** The privacy of participants was respected especially while collecting data. This required the researcher to seek consent first and not to send repetitive reminder that would have constituted invasion of privacy.
- **Voluntary participation:** Participants were informed that they can opt out of the survey, fully or partially, if they elect to do so. Where this was the case, participants were not coerced to provide any further information unless they voluntarily elect to continue participating. Participants, who did not indicate their desire to stop participating in the survey but did not return the questionnaires, were sent a single reminder and a second one, in some cases.
- **Confidentiality, anonymity, and non-disclosure:** This was guaranteed and maintained for both individual participants and organisations. To address issues of confidentiality and anonymity the questionnaires were designed to be non-intrusive by not requesting personal information about participants like their names, religious or political inclination, identification or addresses. Results were presented in a group format and individuals are referred to only by codes.
- **Rewards and inducements:** No rewards or inducements were employed in this research, however, organisations were offered a summary of the research results even though none of the participating organisations took up the offer.
- **Data storage and access:** Data collected will be kept for the duration of the research. Once the research is completed and assessed by the school, the data collected will be scanned and stored on a password protected computer and the hard copies will be destroyed.
- **Dealing with humans:** While this research did not involve experiments on humans, the researcher, at all stages of the research, ensured that the participants were not embarrassed, humiliated, stressed, provoked or offended in any way while collecting, storing and publishing the information that was collected. The study:
    - Did not discriminate people on the grounds of race, sex, religion, education, disability etc.
    - Did not involve vulnerable groups like children, prisoners and the aged.
- **Honesty and integrity:** the researcher strived to be honest in all aspects of the research including, and during research design, data collection, data analysis and report presentation. Information was not falsified, manipulated or altered and no deception was employed. The researcher did not stretch the truth to gain academic mileage.

- **Bias:** Objectivity guided the researcher at all stages of the research. The researcher did not interfere with the results of the study nether was he influenced by the results of the study.
- **Due diligence:** since the research report will be subjected to public scrutiny, the researcher took all reasonable steps to ensure accuracy and correctness at all stages of the research by carefully examining the methods, procedures, results and the report before submission of the research report.
- **Acknowledgement:** Information obtained from existing literature was properly acknowledged to highlight contributions made by other researchers and writers.
- **Guidance on integrity and ethical issues:** The researcher made use of the various available codes of conduct on research ethics and integrity to stir him through to the successful completion of the research.
- **Dealing with ethical dilemma:** Decision making in case of ethical dilemma was not an event but a process which entailed thinking through the dilemma, consulting respected persons and literature to assist in ethical dilemma decision making.
- **Conflict of interest:** This research was not sponsored by any organisation or individual and the researcher was directed only by his academic pursuit. The researcher did not allow his academic goals to affect his objectivity, judgement or conduct. The researcher is not aware of any other research of this nature within the same context that has been published so far.
- **Deception:** Due to the non-intrusive nature of the study, no deception tactics were employed in gathering data.
- **Access to research results:** The results of this study did not refer to any individuals or mention companies by name. Since the major aspects of this study are phenomena normally in the public domain, the results of this research will also be in the public domain and can be accessed by interested parties like academics, researchers and institutions. Organisations are identified by alphabetical letter/codes only e.g. Organisation A.

CHAPTER 4: DISCUSSION OF RESULTS

4.1 Introduction

After carefully selecting the organisations that were going to participate in the study, questionnaires were distributed to start data collection. The data collection was done over a period of 48 days as indicated in Table 4.1.

Table 4.1: Data collection periods and statistics

	Period		Statistics				
	from	**to**	**Sent**	**Returned**	**Return rate**	**Usable**	
Organisation A							
JDI	04/10/2016	18/10/2016	45	20	44%	20	44%
OCAI	13/10/2016	10/11/2016	10	6	60%	5	50%
Organisation B							
JDI	17/10/2016	07/11/2016	45	17	38%	17	38%
OCAI	17/10/2015	07/11/2016	10	5	50%	5	50%
Organisation C							
JDI	02/11/2016	21/11/2016	25	9	36%	9	36%
OCAI	02/11/2016	21/11/2016	10	4	40%	3	30%
Summary							
JDI	04/10/2016	21/11/2016	115	46	40%	46	40%
OCAI	13/10/2016	21/11/2016	30	15	50%	13	43%

On average, the return rate was 45% which was well above the 35% average cited by Baruch (1999) for most academic studies relating to management and organisational representation. The response rate was, therefore, considered to be satisfactory. For the Job Descriptive index, a combined total of 115 questionnaires were sent to the three organisations and 46 were returned giving a return rate of 40% while OCAI had a total of 30 questionnaires distributed with 15 returns giving a return rate of 50%. All returned questionnaires for the JDI were usable while 2 OCAI questionnaires were unusable. In the two questionnaires which were unusable from the OCAI returns, participants failed to properly distribute the 100 points over the options giving sums which were either more than or less than 100. The success rate on the JDI was mainly attributed to the fact that where participants were not sure about how to answer a

question, they were given an option to put a question mark (?) which signified indecision. The question mark, however, counted as a valid response as indicated in Table 3.3.

This research set out to achieve three objectives which were:

1. To establish the current and preferred organisational cultures of three selected organisations operating in the Botswana construction industry.
2. To establish the level of employee job satisfaction in the three organisations under objective 1.
3. To determine the kind of relationship that exists between organisational culture and employee job satisfaction within the Botswana construction industry.

Two instruments were used to help achieve the first two objectives and a comparison of the outcomes of objectives 1 and objective 2 was used to achieve objective 3.

Section B of instrument number 1 (Organisational Culture Assessment Instrument – OCAI), presented in Appendix A, was designed to achieve objective 1. Sections B1 to B6 required participants to assess the six elements that are characteristic of most organisations. Each of the six elements was designed with four options (A, B, C, and D). By evaluating each of the four options, participants helped the researcher achieve objective 1 as they determined the culture (A-Clan, B-Adhocracy, C-Market, or D-Hierarchy) of the organisation. Section 3.6.1 provides more details about the instrument.

Objective 2 was achieved through section B of instrument number 2 (the Job Descriptive Index – JDI) presented in Appendix B. In assessing their level of satisfaction, employees consider their interaction with workmates, the job in general, the nature of their work, remuneration, carrier advancement and how they relate with their supervisors. Section B, consisting of six subsections, was specifically designed to achieve objective number 2. Each one of the six subsections represent one of the elements which are generally evaluated by employees to determine if their job is satisfying or not.

Objective 3 did not require the use of an instrument but, instead, the objective was achieved by comparing the results of objective 1 to those of objective 2.

Results for organisational culture were first presented individually for each of organisations A, B, and C and then, a combined result analysis was given. The results of employee job satisfaction were also presented both individually and combined.

4.2 Participant demographics

This section presents participant demographics for both the Organisational Assessment Instrument and the Job Descriptive Index. The section gives the distribution of elements such as gender, age, nationality and experience.

4.2.1 Participant demographics - JDI

Table 4.2 provides a summary of the respondent characteristics from the Job Descriptive Index questionnaire. Detailed information about the respondents' characteristics is provided in Appendix D, Appendix E, and Appendix F.

The combined gender distribution was 85% male and 15% female. This might be an indication that the construction industry is a male dominated field and females are still shying away from it. This might also reflect the manual nature of most activities in the construction industry which can be too heavy for females. All the three organisations displayed a male dominance with 90% of respondents in Organisation A, 71% in Organisation B, and 100% in organisation C.

The survey indicated that most of the participants were aged between 40 and 49 with only 4% below the age of 24 and none above the age of 60 years. This indicated that most participants were of middle age which might also reflect the demanding nature of construction work. The remaining participants (52%) were distributed between the ages of 25 and 39 with 15% in the range 25-29, 22% between 30 and 34 while another 15% was between 35 and 39. Most of the participants were between the ages of 25 and 49.

Most of the participants exhibited a relatively low length of service with their current organisation. In all the three organisations, 40 to 44% of the participants had been with their current organisation for 2 to 5 years and this can be attributed to the temporary nature of construction projects. Most projects run for durations between 1 and 2.5 years and employees normally get contracts that are aligned with the duration of the project. This may also indicate that most participants had been with their current organisation for one or two projects.

The cumulative experience of most participants was deemed to be below average at between 5 and 10 years. Only 7% of the participants had 20 to 30 years' experience and 4% emerged as being highly experienced with more than 30 years' experience.

Table 4.2: The JDI participant characteristics

	Organisation							
	A		B		C		Combined	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Gender								
Male	18	90%	12	71%	9	100%	39	**85%**
Female	2	10%	5	29%	0	0%	7	**15%**
Total	20	100%	17	100%	9	100%	46	**100%**
Age								
20-24	0	0%	1	6%	1	11%	2	**4%**
25-29	4	20%	2	12%	1	11%	7	**15%**
30-34	3	15%	3	18%	4	44%	10	**22%**
35-39	2	10%	5	29%	0	0%	7	**15%**
40-49	10	50%	6	35%	2	22%	18	**39%**
50-59	1	5%	0	0%	1	11%	2	**4%**
>60	0	0%	0	0%	0	0%	0	**0%**
Total	20	100%	17	100%	9	100%	46	**100%**
Length of service								
<1	1	5%	3	18%	1	11%	5	**11%**
2-5	8	40%	7	41%	4	44%	19	**41%**
5-10	6	30%	4	24%	2	22%	12	**26%**
10-20	4	20%	3	18%	2	22%	9	**20%**
20-30	1	5%	0	0%	0	0%	1	**2%**
>30	0	0%	0	0%	0	0%	0	**0%**
Total	20	100%	17	100%	9	100%	46	**100%**
Experience in construction								
<1	1	5%	3	18%	0	0%	4	**9%**
2-5	6	30%	3	18%	3	33%	12	**26%**
5-10	7	35%	5	29%	3	33%	15	**33%**
10-20	3	15%	5	29%	2	22%	10	**22%**
20-30	2	10%	1	6%	0	0%	3	**7%**
>30	1	5%	0	0%	1	11%	2	**4%**
Total	20	100%	17	100%	9	100%	46	**100%**
Nationality								
Botswana	17	85%	17	100%	9	100%	43	**93%**
Australia	1	5%	0	0	0	0	1	**2%**
Lebanon	1	5%	0	0	0	0	1	**2%**
Zimbabwe	1	5%	0	0	0	0	1	**2%**
Total	20	100%	17	100%	9	100%	46	**100%**
Nationality at birth								
Botswana	17	85%	17	100%	9	100%	43	**93%**
Australia	0	0%	0	0%	0	0%	0	**0%**
Lebanon	2	10%	0	0%	0	0%	2	**4%**
Zimbabwe	1	5%	0	0%	0	0%	1	**2%**
Total	20	100%	17	100%	9	100%	46	**100%**
Managerial level								
Top	1	5%	0	0%	0	0%	1	**2%**
Senior	2	10%	1	6%	1	11%	4	**9%**
Middle	6	30%	1	6%	3	33%	10	**22%**
Lower	9	45%	6	35%	3	33%	18	**39%**
Non	2	10%	9	53%	2	22%	13	**28%**
Total	20	100%	17	100%	9	100%	46	**100%**

Batswana contributed 93% of the respondents and this came as no surprise since the study was focusing on the Botswana construction industry. The remaining 7% came from organisation A which was an international organisation and was expected to have different nationalities among its employees.

A large percentage of the respondents indicated that they were in the lower management bracket followed by 28% who did not have any managerial positions. These statistics are subjective and the researcher suspects that most of the respondents did not carefully read the notes explaining the levels of management which might have led to participants overstating their positions. The researcher got an inclination that most of the participants were in non-managerial positions. With 89% of the participants being in middle, lower, and non-managerial positions, the participants for the Job Descriptive Index were mainly in the lower half of their organisation's hierarchy.

4.2.2 Participant demographics – OCAI

The Organisational Culture Assessment Instrument (OCAI) was designed to measure organisational culture and the instrument was targeting senior and top management. Most of the large organisations operating in Botswana are foreign organisations mainly based in South Africa, Asia, and the Middle East. These organisations have satellite offices in Botswana but most high-level decisions are made from their head offices which are domiciled in their countries of origin. The number of top level managers based in Botswana for these organisations depended mainly on the number of projects that the organisation was currently running. It is very common for organisations to have 1 to 3 top level managers in an organisation and for this reason it was very difficult to meet the target population size. Most organisations had very few people in positions of senior and top management and getting enough participants proved to be a challenge.

The gender distribution for OCAI was 92% male and 8% female indicating a very low female to male ratio in management positions of the construction industry. Table 4.3 gives a summary of the participant characteristics for all the OCAI respondents. A more detailed description is given in Appendix G, Appendix H, and Appendix I.

Table 4.3: OCAI participant characteristics

	Organisation							
	A		B		C		Combined	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Gender								
Male	5	90%	4	71%	3	100%	12	**92%**
Female	0	10%	1	29%	0	0%	1	**8%**
Total	5	100%	5	100%	3	100%	13	**100%**
Age								
20-24	0	0%	1	6%	0	11%	1	**8%**
25-29	0	20%	0	12%	0	11%	0	**0%**
30-34	0	15%	0	18%	1	44%	1	**8%**
35-39	1	10%	0	29%	1	0%	2	**17%**
40-49	3	50%	3	35%	1	22%	7	**58%**
50-59	1	5%	0	0%	0	11%	1	**8%**
>60	0	0%	0	0%	0	0%	0	**0%**
Total	5	100%	4	100%	3	100%	12	**100%**
Length of service								
<1	0	5%	1	18%	0	11%	1	**8%**
2-5	0	40%	1	41%	0	44%	1	**8%**
5-10	2	30%	2	24%	2	22%	6	**46%**
10-20	2	20%	1	18%	1	22%	4	**31%**
20-30	1	5%	0	0%	0	0%	1	**8%**
>30	0	0%	0	0%	0	0%	0	**0%**
Total	5	100%	5	100%	3	100%	13	**100%**
Experience in construction								
<1	0	5%	1	18%	0	0%	1	**8%**
2-5	0	30%	1	18%	0	33%	1	**8%**
5-10	0	35%	0	29%	2	33%	2	**15%**
10-20	2	15%	0	29%	1	22%	3	**23%**
20-30	2	10%	2	6%	0	0%	4	**31%**
>30	1	5%	1	0%	0	11%	2	**15%**
Total	5	100%	5	100%	3	100%	13	**100%**
Nationality								
Botswana	1	85%	4	100%	2	100%	7	**58%**
Australia	0	5%	0	0%	0	0%	0	**0%**
Lebanon	1	5%	0	0%	0	0%	1	**8%**
Zimbabwe	1	5%	0	0%	0	0%	1	**8%**
India	0	0%	0	0%	1	0%	1	**8%**
South Africa	1	0%	0	0%	0	0%	1	**8%**
Britain	1	0%	0	0%	0	0%	1	**8%**
Total	5	100%	4	100%	3	100%	12	**100%**
Nationality at birth								
Botswana	1	85%	4	100%	2	100%	7	**58%**
Australia	0	0%	0	0%	0	0%	0	**0%**
Lebanon	2	10%	0	0%	0	0%	2	**17%**
Zimbabwe	1	5%	0	0%	0	0%	1	**8%**
India	0	0%	0	0%	1	0%	1	**8%**
Britain	1	0%	0	0%	0	0%	1	**8%**
Total	5	100%	4	100%	3	100%	12	**100%**
Managerial level								
Top	1	5%	1	0%	1	0%	3	**23%**
Senior	3	10%	2	6%	1	11%	6	**46%**
Middle	1	30%	0	6%	1	33%	2	**15%**
Lower	0	45%	1	35%	0	33%	1	**8%**
Non	0	10%	1	53%	0	22%	1	**8%**
Total	5	100%	5	100%	3	100%	13	**100%**

Most of the participants (58%) were aged between 40 and 49 with the majority having served their current organisation for periods ranging from 5 to 10 years. This was slightly better than lower level employees for whom the majority had served their current organisations for only 2-5 years. This was also an indication that organisations tend to retain employees who occupy high level positions as opposed to low level positions.

A large portion of the participants were well experienced with 31% possessing 20 to 30 years' experience. This mirrors well with the high level of experience that is expected in management positions of most organisations.

Most of the participants, in a similar fashion to the JDI, were Batswana. The percentage, however, dropped to 58% mainly because organisation A, which is an international concern, had different nationalities in its managerial positions. Overall OCAI had 46% of the respondents as holding senior management positions and 23% holding top management positions.

4.3 Result analysis for organisational culture

The dominant culture of an organisation is the culture that carries the highest score and this applies to both the current and the preferred cultures. The dominant cultures depicted in Figure 4.1, Figure 4.2, and Figure 4.3 are an aggregate of the cultures of all the six dimensions which are: dominant characteristics, organisational leadership, management of employees, organisational glue, strategic emphasis, and criteria for success as indicated in Appendix J, Appendix K and Appendix L. While the dominant culture of an organisation can be, for example, clan, this does not necessarily mean that all the six dimensions were exhibiting the same clan culture. It is worth noting that most organisations display a mix of all the four cultures (clan, adhocracy, market, and hierarchy) but one culture usually scores more than the others and become the dominant culture. The culture with the highest score is the one that dominates and is therefore not mutually exclusive.

4.3.1 Organisation A

The results indicated that organisation A's current dominant culture was the market culture with 34 points. According to Cameron & Quinn (2006) this shows an organisation which is

result oriented and mainly concerned with getting the job done. Cameron & Quinn (2006) stated that people in such organisations are very competitive and desire to achieve. The leadership in this type of organisational culture is aggressive, no-nonsense, and focused on results. The management of employees is typified by hard-driving competitiveness, achievement, and high demands. Achievement and goal accomplishment is the glue that holds the organisation together while its strategic emphasis is hitting targets and winning in the marketplace. Success is defined by winning a share in the market place and outpacing competition. The organisation is generally viewed as prioritizing economic achievement and puts less emphasis on employee participation and advancement (Cameron & Quinn, 2006).

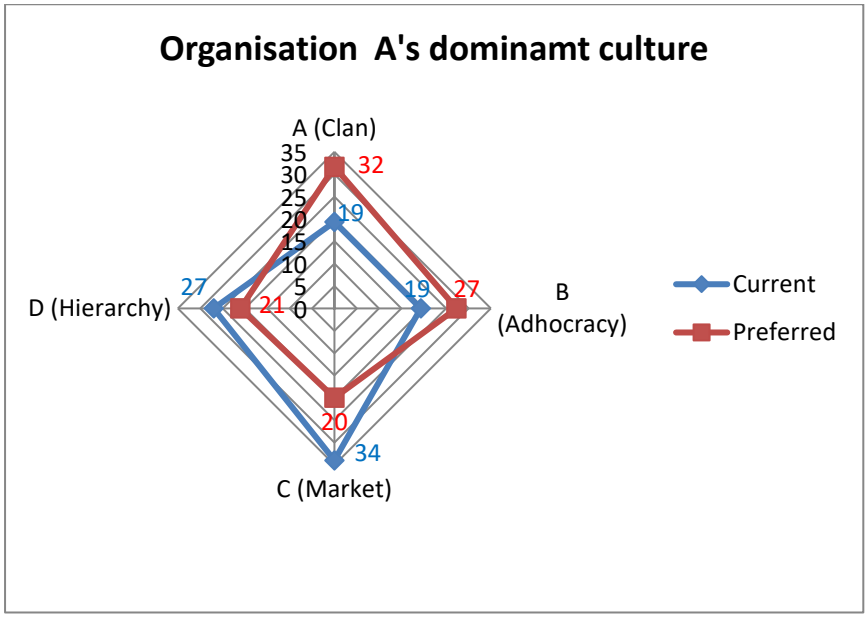


Figure 4.1: Current and preferred cultures of organisation A

While the market culture was dominant in organisation A's culture, Table 4.4 shows that the organisation had a mix of market and adhocracy. The adhocracy culture was pronounced in the organisational leadership dimension. The type of leader in an adhocracy culture is best described as an innovator, entrepreneur and visionary (Cameron & Quinn, 2006). This was an indication that the leadership in organisation A was employing hard driving, aggressive, no-nonsense leadership style complemented by innovation, entrepreneurship, and vision. Put together, this works for an organisation that is intend on winning a share of the market and outpacing competition.

The clan culture dominated organisation A's preferred culture but with a hint of adhocracy. Cameron & Quinn (2006), described organisations with a clan culture as very personalized places which feel more like an extended family where people seem to share a lot about themselves. The leadership is mentoring, facilitating and nurturing. Management of employees in a clan culture is characterized by teamwork, consensus, and participation. The organisation is held together by loyalty and mutual trust while commitment runs high in such an organisation. The organisation's strategic emphasis is on human development and success is based on human resources development, teamwork, commitment, and concern for people.

Table 4.5 presents an outline of the current and preferred culture elements for both organisation A and B with details of what the two cultures entail. This gives a clear juxtaposition of the current and the preferred culture for the two organisations. The two organisations exhibited the same current and preferred organisational cultures.

Table 4.4: Organisation A's culture for individual dimensions

	Dominant culture	
Culture dimension	**Current**	**Preferred**
1. Dominant characteristics	Market	Clan/Adhocracy
2. Organisational leadership	Adhocracy	Clan
3. Management of employees	Market	Clan
4. Organisational glue	Market	Clan/Adhocracy
5. Strategic emphasis	Market	Clan
6. Criteria of success	Market	Clan
Overall dominant culture	**Market**	**Clan**

Table 4.5: Organisation A and B's current and preferred culture elements

	Organisational Culture elements for A and B	
	Current	**Preferred**
Components	**Clan**	**Market**
1. Orientation	Competition	Collaboration
2. Leader type	Hard driver	Facilitator
	Competitor	Mentor
	Producer	Team builder
3. Value drivers	Market share	Commitment
	Goal achievement	Communication
	Profitability	Development
4. Theory of effectiveness	Aggressive competition and customer focus	Human development and participation

The result showed that employees, management included, would like to see a change in the way business was done and give more emphasis on teamwork, participation and human development with a collaborative orientation as opposed to competition.

4.3.2 Organisation B

Like organisation A, organisation B displayed a strong market current culture and a preferred clan culture as shown in Figure 4.2.

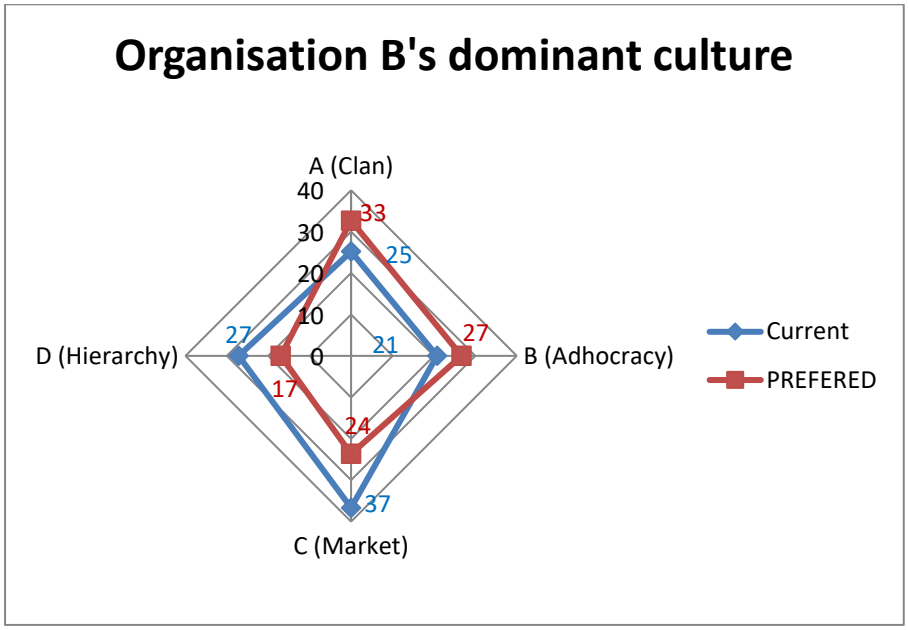


Figure 4.2 : Current and preferred cultures of organisation B

Five of the six dimension in organisation B's current culture came out as market as shown in Table 4.6 but the management of employees reflected a hierarchy culture. The market culture, however, dominated and therefore organisation B was categorised as currently holding a market culture. The hierarchy culture is associated with entities that are very controlled and structured and where formal structures generally govern what people do (Cameron & Quinn, 2006). Management of employees is the dimension that is closely related to employee satisfaction and a depiction of hierarchy culture under management of employees shows an inclination towards punctuality, uniformity and control and this gives employees a feeling of being controlled as opposed to being involved. This saw employees in organisation B preferring the clan culture which is not a controlled environment.

The preferred culture of organisation B was clan mixed with market and adhocracy as shown in Table 4.6. The clan culture, however, was evident in four dimensions and as a result the clan culture dominated the organisation's referred culture. While the clan culture dominated organisation B's preferred culture, employees elected to have the dominant characteristics continue as a market culture. This reflects an organisation that wants to be inclusive, nurturing and mentoring but at the same time being aggressive on the market but not at the expense of the employees.

Table 4.6: Organisation B's current and preferred cultures for individual dimensions

	Dominant culture	
Culture dimension	**Current**	**Preferred**
1. Dominant characteristics	Market	Market
2. Organisational leadership	Market	Clan
3. Management of employees	Hierarchy	Clan
4. Organisational glue	Market	Adhocracy
5. Strategic emphasis	Market	Clan
6. Criteria of success	Market	Clan
Overall dominant culture	**Market**	**Clan**

4.3.3 Organisation C

Just like organisation A and B, organisation C's current culture came out as market as shown in Figure 4.3. All the three organisations displayed the same current culture i.e. market. Despite all the three organisations having different backgrounds, they are all operating under the same economic environment and this result might indicate a culture that has developed in response to the current conditions under which the organisations are operating. The dominance of the market culture can also be explained by results from Deshpande *et al.* (1993) which showed that the market culture is associated with best performing organisation. Organisations might be adopting the market culture in a bid to enhance performance. Deshpande *et al.* (1993) explained that, while the Japanese national culture is largely clan, most corporations are adopting the market culture as they aim to enhance performance. Similar studies in Botswana can help shed more light on why organisations are adopting the market culture.

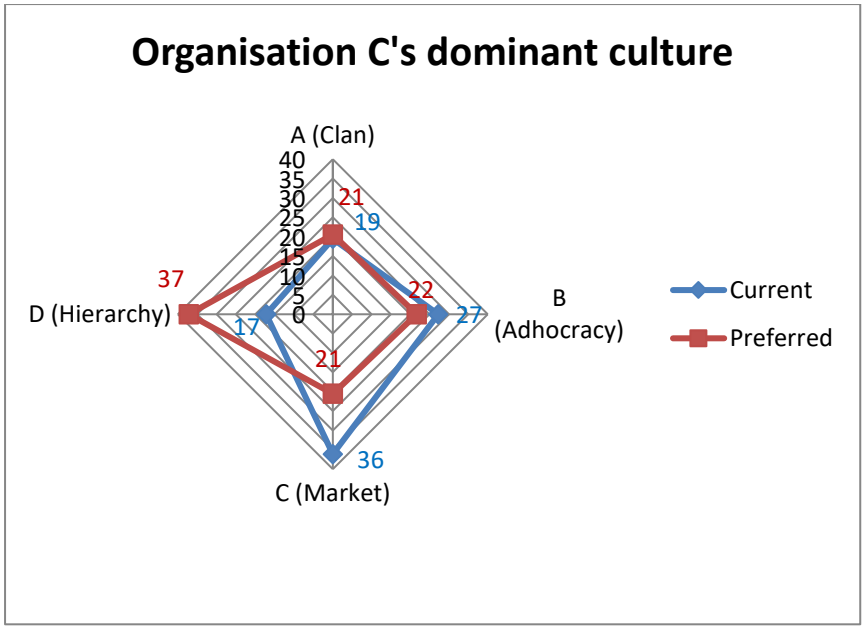


Figure 4.3 : Current and preferred culture of organisation C

Table 4.7: Organisation C's culture for individual dimensions

	Dominant culture	
Culture dimension	**Current**	**Preferred**
1. Dominant characteristics	Market	Hierarchy
2. Organisational leadership	Adhocracy	Hierarchy
3. Management of employees	Market	Hierarchy
4. Organisational glue	Market	Hierarchy
5. Strategic emphasis	Adhocracy	Market
6. Criteria of success	Market	Clan/Adhocracy
Overall dominant culture	**Market**	**Hierarchy**

Unlike the other two organisations, Figure 4.3 and Table 4.7 show that organisation C preferred a hierarchy type of culture as opposed to the clan that was preferred by A and B. Apart from being a controlled and structured place governed by formal rules, the hierarchy culture's leadership is generally considered to exemplify coordinating, organising and smooth-running efficiency. Management style in this kind of organisation is characterised by security of employment, conformity, predictability, and stability in relationships. Success is defined based on efficiency, dependable delivery, and low-cost delivery (Cameron & Quinn, 2006). While the preferred culture of organisation C was mainly hierarchy, it also displayed the existence of the market, clan and adhocracy culture as shown in Table 4.7.

4.3.4 Inferred construction industry's organisational culture.

From the results of the three organisations that participated in this study it was inferred that the industry's prevailing culture was the market culture. This was the current culture that was found to be dominant in all the three organisations and it can, subject to further validation based on larger sample size, be posited as being applicable to the whole of the Botswana construction industry. The clan culture was found to be the preferred organisational culture in two of the three organisations while the third and smallest organisation preferred the hierarchy culture. Considering that organisation C contributed only 20% of the usable returns, it can also be posited that, subject to further validation based on a larger sample size, the industry's preferred culture was the clan culture. Table 4.8 shows a summary of the results and the accompanying organisations.

Table 4.8: Current and preferred cultures of the industry

	Dominant Cultures	
Organisation	**Current**	**Preferred**
A	Market	Clan
B	Market	Clan
C	Market	Hierarchy
Industry	**Market**	**Clan**

4.3.5 Discrepancy between current and preferred cultures

The research could have been carried out using only the "NOW" section of the Organisational Assessment Instrument as this was still going to determine the current cultures of the organisations. The researcher, however, preferred to use the full version of the instrument, which included the "PREFERRED" section, as this allowed the researcher to determine the employees' preferred organisational culture and observe how the two results compare with the Competing Values Framework (CVF) developed by Cameron & Quinn (2006). The CVF put the market culture competing with the clan culture as shown in Figure 2.1 and Figure 2.2. This was proved to be true in this research as this research found that the current culture of the organisations under this study was the market culture but the employees preferred the direct opposite, which was the clan culture.

Cameron & Quinn (2006) stated that differences of more than 10 points between the present and preferred cultures should induce an organisation to take decisive action since these differences are an indication of the desired changes and direction that the organisation should take.

Table 4.9 shows the differences in current and preferred cultures for the organisations under this study. These differences should not, however, be confused with the dominant cultures (which are shown in a larger font size). The differences (negative or positive) represent the magnitude of the desire to shift from one culture to another.

Table 4.9: Differences between current and preferred cultures

Organisation	**Culture**	Clan	Adhocracy	Market	Hierarchy
A	Current	19	19	34	27
	Preferred	32	27	20	21
	Difference	**13**	**8**	**-14**	**-6**
B	Current	25	21	37	27
	Preferred	33	27	24	17
	Difference	**8**	**6**	**-13**	**-10**
C	Current	19	27	36	17
	Preferred	21	22	21	37
	Difference	**2**	**-5**	**-15**	**20**

The market culture carried the largest negative difference in all the organisations (-14, -13, and -15) and the difference was more than -10 in all cases. This indicated a strong desire to change and organisations need to consider the market culture with a view of making changes since the desire for change was high. Organisations should focus less on results, hard driving competition, and the desire to win market shares but instead focus on mentoring, human development, and team building.

4.4 Result analysis for employee job satisfaction

The total possible score for the Job Descriptive Index is 54 (i.e. 18x3) for the 18 element scales. The 9 element scales are doubled to give a possible total score of 54 (i.e. 9x3x2) as well. This scoring system was explained in section 3.6.2.

To determine the levels of satisfaction, the scores were interpreted as indicated in Table 4.10 and then expressed as a percentage of 54, which is the possible total score. Pennington & Riley (1991) used the same classification in their study while evaluating results of the Job Descriptive Index.

Table 4.10: Classification of satisfaction levels

Score	**Percentage of 54**	**Level of satisfaction**
0.00 to 13.5	(0% to 25%)	- Highly dissatisfied
13.5 to 26.5	(25% to 49%)	- Dissatisfied
27	50%	- neither satisfied nor dissatisfied
27.5 to 40.5	(51% to 75%)	- Satisfied
40.5 to 54.0	(75% to 100%)	- Highly satisfied

A summary of the job satisfaction survey using the Job Descriptive Index (JDI) is presented in Table 4.11 and the satisfaction levels are summarised in Table 4.12. The item statistics (means and standard deviations) are presented in Appendix P, Appendix Q, and Appendix R. The results showed that employees across all the organisations under this study were either satisfied or highly satisfied in four of the six scales (People on your present job, Job in general, Work on present job, and Supervision) as indicated in Table 4.12. Across all organisations, the employees expressed dissatisfaction on the pay scale without exception. Apart from organisation C, there was also dissatisfaction with opportunities for promotion. Organisation C was a small and upcoming entity and the anticipation plus prospects of growing into a larger organisation might give employees hope that opportunities for promotion are high and this might explain why organisation C showed satisfaction with opportunities for promotion.

Appendix P, Appendix Q, and Appendix R summarise the item statistics and show the means and the standard deviations for all the JDI items for organisations A, B, and C. It can be seen from the results that the means for the pay and the opportunities for promotion scales are consistently below the average of 2.0, indicating dissatisfaction with the two scales in all organisations.

Despite some elements registering dissatisfaction, especially the “pay” scale and the “opportunities for promotion” scale, the overall score for each of the three organisations, Table 4.12, indicated that employees were generally satisfied with their jobs. It should, however, be noted that the overall satisfaction levels registered on the bottom to mid-range of the “satisfied” scale at 61%, 56%, and 63% respectively for organisation A, B, and C (Table 4.12). The “satisfied” scale ranged from 51% to 75% giving a mid-range value of 63%. This was an

indication that, while employees were generally satisfied with their jobs, they expected more to be done to raise their levels of expectation to levels in the region of 75%.

Table 4.11: Summary of job satisfaction results

Results summary - JDI satisfaction levels

	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	R20	Means	Level of satisfaction
Organisation A																						
1. People on your present job	85%	100%	100%	83%	17%	33%	83%	59%	83%	100%	78%	52%	93%	96%	76%	89%	89%	44%	24%	100%	74%	Satisfied
2. Job in General	74%	91%	78%	93%	61%	28%	89%	74%	100%	94%	78%	24%	72%	65%	85%	81%	67%	83%	69%	96%	75%	Satisfied
3. Work on present Job	100%	100%	78%	100%	22%	31%	78%	85%	89%	94%	89%	17%	89%	87%	83%	76%	67%	61%	85%	89%	76%	Highly satisfied
4. Pay	11%	44%	11%	78%	11%	0%	33%	0%	56%	44%	78%	0%	22%	33%	26%	41%	44%	67%	4%	56%	33%	Dissatisfied
5. Opportunities for Promotion	22%	33%	11%	78%	11%	19%	67%	0%	44%	67%	11%	19%	56%	67%	33%	44%	44%	0%	85%	85%	40%	Dissatisfied
6. Supervision	46%	94%	94%	83%	39%	33%	94%	0%	96%	94%	94%	46%	94%	94%	76%	69%	56%	0%	100%	94%	70%	Satisfied
Overall satisfaction (Mean score)																					**61%**	**Satisfied**
Organisation B																						
1. People on your present job	33%	94%	100%	72%	85%	24%	72%	78%	70%	76%	94%	76%	78%	24%	89%	81%	100%				73%	Satisfied
2. Job in General	0%	22%	89%	52%	69%	17%	72%	67%	46%	78%	94%	85%	78%	96%	81%	78%	89%				65%	Satisfied
3. Work on present Job	6%	39%	72%	9%	61%	28%	78%	61%	41%	78%	94%	83%	89%	85%	76%	83%	89%				63%	Satisfied
4. Pay	63%	11%	41%	7%	33%	7%	67%	44%	33%	56%	78%	26%	78%	4%	41%	44%	63%				41%	Dissatisfied
5. Opportunities for Promotion	4%	33%	0%	0%	56%	4%	44%	22%	0%	33%	56%	33%	11%	85%	44%	11%	15%				27%	Dissatisfied
6. Supervision	13%	41%	30%	41%	43%	17%	61%	72%	74%	89%	94%	76%	94%	100%	69%	91%	89%				64%	Satisfied
Overall satisfaction (Mean score)																					**56%**	**Satisfied**
Organisation C																						
1. People on your present job	50%	78%	69%	59%	83%	72%	83%	91%	83%												74%	Satisfied
2. Job in General	59%	56%	96%	96%	89%	54%	89%	80%	61%												76%	Highly satisfied
3. Work on present Job	54%	67%	81%	81%	85%	85%	91%	65%	67%												75%	Satisfied
4. Pay	48%	11%	0%	0%	0%	44%	78%	52%	48%												31%	Dissatisfied
5. Opportunities for Promotion	30%	22%	37%	37%	78%	78%	89%	67%	78%												57%	Satisfied
6. Supervision	48%	72%	63%	59%	83%	41%	80%	80%	67%												66%	Satisfied
Overall satisfaction (Mean score)																					**63%**	**Satisfied**

Table 4.12: Satisfaction levels of all organisations

	Organisation A		Organisation B		Organisation C	
1. People on your present job	Satisfied	74%	Satisfied	73%	Satisfied	74%
2. Job in General	Satisfied	75%	Satisfied	65%	Highly satisfied	76%
3. Work on present Job	Highly satisfied	76%	Satisfied	63%	Satisfied	75%
4. Pay	**Dissatisfied**	33%	**Dissatisfied**	41%	**Dissatisfied**	31%
5. Opportunities for Promotion	**Dissatisfied**	40%	**Dissatisfied**	27%	Satisfied	57%
6. Supervision	Satisfied	70%	Satisfied	64%	Satisfied	66%
Overall Satisfaction (Mean)	**Satisfied**	**61%**	**Satisfied**	**56%**	**Satisfied**	**63%**

The scores of the JDI were further analysed to see if there are any patterns in the results of the six elements of the JDI which can be linked to, and further explain, the satisfaction levels of the employees in all the three organisations.

In each organisation, the scales were ranked with the highest scoring scale at the top and the lowest scoring scale at the bottom as indicated in Table 4.13. The rankings revealed that the scores of the six JDI scales could be grouped into two categories:

i. Non-beneficial elements (elements of no benefit to the employee's welfare)
ii. Beneficial elements (elements that bring tangible benefits to the employee's welfare)

In all the three organisations, two scales (pay and opportunities for promotion) had the least scores. All but one, scored below 50% which was classified as dissatisfied. The other elements (people in your present job, job in general, work on present job and supervision) scored above 50%, which was classified as either satisfied or highly satisfied.

The non-beneficial elements consist of elements which do not add value to the employee's life, after the contract, and these generally stay behind when the employee leaves the job. From this analysis, it can be inferred that employees did not seem to be concerned about the effect of these scales and the high score might be an indication that they were not bothered about the impact of aspects like supervision or their co-workers.

The beneficial elements are those elements which bring tangible benefits to the employee. The pay benefits the employee in many ways and promotion comes with additional benefits. Employees will continue cherishing these benefits even after leaving their current organisation. Promotion brings a better pay on the current and future jobs while pay brings immediate and tangible financial benefits to the employee. These two elements, therefore, bring direct benefits to the employee and are more sensitive than the other elements.

Table 4.13: Ranking and categories of the JDI scores

ORGANISATION A		ORGANISATION B		ORGANISATION C		CATERGORY
3. Work on present Job	76%	1. People on your present job	73%	2. Job in General	76%	
2. Job in General	75%	2. Job in General	65%	3. Work on present Job	75%	**Non-beneficial elements**
1. People on your present job	74%	6. Supervision	64%	1. People on your present job	74%	
6. Supervision	70%	3. Work on present Job	63%	6. Supervision	66%	
5. Opportunities for Promotion	40%	4. Pay	41%	5. Opportunities for Promotion	57%	**Beneficial elements**
4. Pay	33%	5. Opportunities for Promotion	27%	4. Pay	31%	

Since the overall satisfaction level was a mean of all the six scales, the voice of dissatisfaction with some categories was drowned and supressed but this did not mean that there was no dissatisfaction.

The size of the organisation seemed to have an impact on the levels of satisfaction as indicated in Table 4.14. The three organisations were selected to represent large, medium, and small organisations in the Botswana construction industry.

Table 4.14: Employee job satisfaction ranked by size of organisation

Organisation	1. People on your present job	2. Job in General	3. Work on present Job	4. Pay	5. Opportunities for Promotion	6. Supervision	Mean
A (Large)	74%	75%	76%	33%	40%	70%	61%
C (Small)	74%	76%	75%	31%	57%	66%	63%
B (Medium)	73%	65%	63%	41%	27%	64%	56%

Except for the pay scale, the large and the small organisations scored consistently higher than the medium organisation. The medium organisation had the least satisfied employees compared to the others.

This was interpreted to mean that large organisations have mature cultures and tend to be consistent in their operations and the way they deal with their employees. They have also developed a system which works, based on their long experience. Small organisations tend to have very little bureaucratic procedure and employees will normally have access to top management and can have their problems attended to, directly, by top management and this might give rise to better job satisfaction. Medium organisations on the other hand are going through a transition, from small to large, and employees might find this transition a bit

confusing. The organisation is also trying to break into the large market and will be more focussed on winning a share of the larger market. This can lead to a loss of focus on the employees and lead to dissatisfaction.

4.5 Nature of observed relationship between organisational culture and employee job satisfaction (Hypothesis testing)

Results from both the organisational culture and employee job satisfaction surveys are summarised in Table 4.15. The prevailing culture in all the three organisations under this study, as revealed by the analysis of OCAI results, was the market culture. The JDI revealed that employees across all the three organisations were satisfied with their jobs. The preferred culture, as revealed by the analysis of OCAI results, was generally the clan culture though employees in organisation C preferred the hierarchy culture.

Table 4.15: Summarised findings (organisational culture and employee job satisfaction)

	Organisation A	**Organisation B**	**Organisation C**	**Industry**
Current Organisational Culture (from OCAI – Table 4.8)	Market	Market	Market	**Market**
Preferred Organisational Culture (from OCAI – Table 4.8)	Clan	Clan	Hierarchy	**Clan**
Employee Job Satisfaction Levels (from JDI – Table 4.12)	Satisfied	Satisfied	Satisfied	**Satisfied**

Firstly, for an organisational culture to have a positive relationship with employee job satisfaction, that culture must be supported and employees must also indicate happiness with their jobs. Secondly, for a culture to have a negative relationship with employee job satisfaction, employees are anticipated, in their responses to OCAI, to indicate preference for a culture that is different to the current one. They are also anticipated, in their responses to the JDI, to express dissatisfaction with their jobs. These criteria were used to determine the relationship, if any, that existed between organisational culture and employee job satisfaction.

The null hypothesis (H_0) predicted that a relationship existed between organisational culture and employee job satisfaction and therefore explored the existence of all possible relationships (positive or negative) between organisational culture and employee job satisfaction. The hypotheses were tested based on both the combined results and the individual results of each organisation. The outcomes of the research, as indicated in Table 4.15, show that:

a) The current organisational culture in the industry is market
b) Employees preferred the clan organisational culture
c) Employees in the industry are satisfied with their jobs

In organisation A, the current culture was market and employees rejected it in favour of a clan culture. The employees in organisation A were satisfied with their jobs. Employees were, therefore, satisfied with their jobs in a culture which they rejected. This suggested that there was no relationship between the current organisational culture and employee job satisfaction. The null hypothesis was, therefore, rejected when applied to organisation A.

The current culture of organisation B was the market culture. Employees in organisation B, just like organisation A, rejected the current market culture in favour of a clan culture. The employees in organisation A remained satisfied with their jobs. This also suggested that employee job satisfaction was not related to the current organisational culture. The null hypothesis, was therefore rejected when applied to organisation A.

Organisation C's current culture was the market culture. Employees in organisation C rejected the market culture in favour of a hierarchy culture. The employees of organisation C were satisfied with their jobs but working in a culture which they rejected. This suggested that there was, also, no relationship between the current organisational culture and employee job satisfaction. The null hypothesis, as applied to organisation C, was also rejected.

In all the three organisations that participated in the study, no relationship was found between the current organisational culture and employee job satisfaction. Based on the results of the study, it was found that there is no relationship between the current cultures of the organisations and employee job satisfaction. The null hypothesis was therefore disproved and thus rejected.

The alternative hypothesis (H_1) predicted that no relationship existed between organisational culture and employee job satisfaction. Based on the analysis of the results and the testing of the null hypothesis, no relationship was found between organisational culture and employee job satisfaction. In all the three organisations, the null hypothesis was rejected. The alternative hypothesis is therefore accepted.

4.6 Internal reliability of the JDI

The internal reliability of the scales for the JDI was checked using SPSS to get the Cronbach's alpha and the results are presented in Table 4.16.

Table 4.16: Cronbach's alpha for the JDI scales

Reliability Statistics **Model:** **Alpha**
Scale: **All variables**

JDI Reliability - using organisation A

	Reliability statistics		Case processing		
	Cronbach's Alpha	**Number of Items**	**Valid**	**Excluded**	**Total**
A1. People on your present job	**0.923**	18	20	0	20
A2. Job in General	**0.856**	18	20	0	20
A3. Work on present Job	**0.905**	18	20	0	20
A4. Pay	**0.748**	9	19	1	20
A5. Opportunities for Promotion	**0.759**	9	18	2	20
A6. Supervision	**0.912**	18	18	2	20

JDI Reliability - using organisation B

	Reliability statistics		Case processing		
	Cronbach's Alpha	**Number of Items**	**Valid**	**Excluded**	**Total**
B1. People on your present job	**0.895**	18	17	0	17
B2. Job in General	**0.919**	18	17	0	17
B3. Work on present Job	**0.905**	18	17	0	17
B4. Pay	**0.787**	9	17	0	17
B5. Opportunities for Promotion	**0.770**	9	17	0	17
B6. Supervision	**0.926**	18	17	0	17

JDI Reliability – using organisation C

	Reliability statistics		Case processing		
	Cronbach's Alpha	**Number of Items**	**Valid**	**Excluded**	**Total**
C1. People on your present job	**0.575**	18	9	0	9
C2. Job in General	**0.796**	18	9	0	9
C3. Work on present Job	**0.485**	18	9	0	9
C4. Pay	**0.804**	9	9	0	9
C5. Opportunities for Promotion	**0.700**	9	9	0	9
C6. Supervision	**0.637**	18	9	0	9

Though subjective, it is generally agreed that a coefficient of 0.7 and above is acceptable as an indication of good internal reliability. Nunnally (1978) suggested that what is acceptable depends on the situation and the elements being measured and suggest figure upwards of 0.7 depending on the situation. Organisations A and B had larger sample sizes as compared to organisation C and the two gave better coefficient values than organisation C. The Cronbach's alpha for organisation A ranged from 0.748 to 0.923 and the ones for organisation B ranged from 0.770 to 0.926. The Cronbach's alpha for organisation C ranged from 0.485 to 0.804 giving an average of 0.666. The figures for organisation A and B are within the range suggested by Nunnally (1978) and are an indication of good internal reliability showing that the different items under each of the six different scales are closely related. Organisation C, because of its small sample size, gave some values of alpha which were lower than those suggested by Nunnally (1978). Based on the larger sample sizes of A and B, the internal reliability was acceptable.

4.7 Review of research questions, aim and objectives

Research questions were postulated at the beginning of this research. This section re-visits the secondary research questions and summarises the answers to the secondary research questions. A summary will also be presented, giving an answer to the central research question.

Three secondary research questions were presented in section 1.7. These research questions are presented below together with summaries of their answers.

1. What type of organisational cultures currently exists within the Botswana construction industry and which organisational culture do employees prefer?
   1.1. An analysis of the data collected using OCAI revealed that the construction industry in Botswana was currently dominated by a market culture. While the market culture dominated the industry, adhocracy and hierarchy cultures were also evident in the industry. The preferred culture was mainly the clan culture but organisation C preferred the hierarchy culture.
2. To what level are employees satisfied with their current jobs?
   2.1. Employees were found to be generally satisfied with their current jobs even though there was dissatisfaction with pay and opportunities for promotion.

3. Is there a relationship between the current organisational culture and employee job satisfaction?
    3.1. The results indicated that employees preferred the clan and hierarchy cultures as opposed to the current market culture but employees remained satisfied with their jobs. This result suggested that there was no relationship between organisational culture and employee job satisfaction within the context of the Botswana construction industry. Exhibiting an organisational culture which employees did not like did not result in job dissatisfaction as would be expected.

The main research question was: does the prevailing organisational culture have an influence on employee job satisfaction in the context of the Botswana construction industry?

The secondary research questions reviewed above indicate that, by and large, organisational culture on its own does not influence the level of employee job satisfaction. Other factors, especially economic factors, must be taken into consideration when evaluating employee job satisfaction. This is supported by the analysis given in section 4.4 which shows pay and opportunities for promotion getting the lowest scores. The statistics given in Table 5.1 show a job market which is not growing. The stagnation of the job market can be a pointer to a depressed economy. Employees expressed satisfaction with their jobs but there is resentment with elements which empower the employee economically and these are pay and promotion. The responses from the participants show that economic factors are also influencing their level of job satisfaction. The competing values framework presented in Figure 2.2 shows the market culture competing with the clan culture. This is confirmed by the results presented in section 4.3.4 and summarised in Table 4.8. The industry is dominated by the market culture but the preferred culture is the clan culture. This shift is an indication of dissatisfaction with the status quo but it did not translate into low levels of job satisfaction. This indicates that organisational culture did not influence job satisfaction.

The aim of this research was to find out if an organisation's prevailing culture type has an influence on the level of employee job satisfaction. The research managed to achieve its aim by establishing that there was no relationship between organisational culture and employee job satisfaction. The type of current organisational culture did not influence employee job satisfaction.

To achieve the aim, the research was directed by three objectives.

1. To establish the current and preferred organisational cultures of selected organisations operating in the Botswana construction industry.

This objective was achieved using a questionnaire, OCAI, which is presented in Appendix A. An assessment of the data collected yielded results which indicated that the current culture of all the organisations was the market type while the preferred organisational culture was mainly the clan culture but also included the hierarchy culture.

2. To establish the level of employee job satisfaction in the three organisations under objective 1.

This objective was also achieved by employing a questionnaire, JDI, presented in Appendix B, to collect data from the same three organisations that were used to establish organisational culture. The data was analysed and results indicated that employees were generally satisfied with their jobs even though they were not happy with their organisations' current culture.

3. To determine the kind of relationship that exists between organisational culture and employee job satisfaction within the Botswana construction industry.

The results from objectives 1 and 2 were used to achieve objective 3. A comparison of the prevailing organisational culture and the level of employee job satisfaction revealed that there was no relationship between organisational culture and employee job satisfaction in the context of the Botswana construction industry. This was deduced from the fact that employees were operating under an organisational culture which they disapproved but remained satisfied with their current jobs.

The research, therefore, managed to achieve all its objectives and hence its aim of establishing if organisational culture has an influence on employee job satisfaction in the context of the Botswana construction industry.

4.8 Research findings versus literature

Research by Daulatram (2003) found that clan and adhocracy cultures are positively associated with job satisfaction while market and hierarchy are negatively associated with job satisfaction.

The findings of this study do not agree with the findings of Daulatram (2003) since no relationship was found between organisational culture and employee job satisfaction.

Another study which found a significant positive relationship between organisational culture and employee job satisfaction is by Sempane *et al.* (2002). Just like Daulatram (2003) the findings of Sempane *et al.* (2002) contradict the results of this study.

Monyatsi (2012) found that employees are generally satisfied with their jobs. While the study by Monyatsi (2012) was in the context of the education sector as opposed to the construction industry, this study agreed with the findings of Monyatsi (2012) in terms of job satisfaction in Botswana. Whereas the impetus behind the construction industry is to make profit, public sectors like education and health are not driven by the desire to make profit. The researcher is of the view that comparing the levels of job satisfaction of entities that are not driven by profit margins with the construction industry is inappropriate. This is so because the construction industry would adopt a culture that favours profitability while the public health and education sectors mainly provide a service and making profit is not the driving force. The cultures will, most likely, be different.

The study by Monyatsi (2012) found limited opportunities for promotion and dissatisfaction with the pay scales. The results mirror the findings of this study, in which employees are also not happy with opportunities for promotion and pay.

The findings of this study are not unusual. Zhang & Li (2013), in a study of a single Chinese company, found out that there was no significant relationship between organisational culture and employee satisfaction even though previous studies had concluded that clan and adhocracy cultures were positively related to employee satisfaction.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section outlines the key findings of this research and provides conclusions and recommendations for future studies.

5.2 Key findings

The first finding of this research was that the prevailing culture of organisations operating in the Botswana construction industry was the market culture.

The second finding was that, whilst organisations were characterised by a market culture, employees preferred the clan culture. This finding showed a difference between the current and preferred cultures and emphasises the need for construction management practitioners to consider their organisations' cultures with a view of making changes.

The third finding was that employees in the construction industry are generally satisfied with their current jobs.

The final finding was that, there was no relationship between organisational culture and employee job satisfaction. This can be an indication of the existence of a third variable which might not have been anticipated.

5.3 Conclusions

Organisational culture and employee job satisfaction cannot be viewed as existing in a vacuum that is divorced from, and immune to external factors such as the prevailing economic conditions. Organisations tend to adapt to economic conditions as a survival strategy while the availability of jobs is entirely dependent on the prevailing economic conditions. Azanza *et al.* (2013) noted that organisations are currently operating under depressed economic conditions and most have adapted to the economic conditions to remain viable. This adaptation can affect the current culture of organisations in one way or the other. When the economy is strong, the construction industry will be buoyant and jobs will be in plenty. This abundancy of jobs gives the employee a wide choice and employees can compare the numerous jobs available on the

market and hence they will be able to easily tell if their current job is satisfying or not. In contrast, when the economy is contracting or there is a recession, jobs are scarce and choices are limited. The simple fact of having a job becomes more satisfying to the employee than the culture of the organisation since the job the employee has, will probably be the only alternative.

This might explain why, in this study, employees preferred a different organisational culture (clan) to the one that the organisations currently hold (market) but remain satisfied with their current jobs. Organisations seem to be reacting to economic conditions and are changing their culture accordingly. Organisational culture is developed as organisations go through difficult and trying times and, in the process, they develop solutions that work in solving their problems. A study to determine organisational culture and employee job satisfaction in the same organisations that participated in this study, but under favourable economic conditions, might yield different results for both organisational culture and employee job satisfaction.

Table 5.1 shows the statistics for paid employees in the Botswana construction industry between June 2010 and June 2016 (Statistics Botswana, 2016). The industry has seen minimal growth and even experienced negative growth between 2014 and 2015. From June 2010 to June 2016, the industry managed to take an additional 676 employees which translates to an absorption rate of 113 employees per annum. The statistics show an industry which is depressed and which is not creating new employment opportunities. In this scenario, employees will be happy just to have a job and this can potentially affect the evaluation of job satisfaction by the employee.

Table 5.1: Botswana construction industry employment figures (2010 to 2016)

	Jun 2 010	**Sept 2010**	**Dec 2010**	**Mar 2011**	**Jun 2011**	**Sept 2012**	**Sept 2013**	**Sept 2014**	**Sept 2015**	**Mar 2016**	**Jun 2016**
Construction Industry	23132	23164	23242	23298	23347	23650	23730	23632	22877	23346	23808
Percentage change		0.14%	0.34%	0.24%	0.21%	1.30%	0.34%	-0.41%	-3.19%	2.05%	1.98%

Source: Statictics Botswana (2016)

The results in Table 4.13 which showed that employees were dissatisfied with beneficial elements as opposed to the non-beneficial elements gave credence to the other finding, that there was no relationship between organisational culture and employee job satisfaction. This

was particularly true in the face of economic down turn as employees might be more concerned about bread and butter issues with little regard to issues that do not further their economic position.

5.4 Research limitations

The study did not seek to determine the level of education of the participants. It is quite possible that the level of education can influence the level of job satisfaction of the employees. Lack of education can result in lack of promotion which can result in frustration and which the employee can misinterpret as dissatisfaction. The lack of education can also limit other aspects of job satisfaction such as opportunities for promotion and carrier advancement. The researcher, therefore, considers this as a limitation to the study because the level of education has the potential to explain some of the trends that were observed.

The current economic downturn was a major limiting factor to this research. Many organisations turned down requests to participate in the study because they did not have employees at the time of the study. Most construction companies release their contract workers when they do not have projects and leave only their core staff. This limited the number of employees that could have responded to the questionnaires and this might have had an impact on the generalisability of the data.

The study was restricted to three organisations because of time limitations. The researcher considers this as a limitation as a larger sample would be more ideal for a study of this nature and will improve the generalisability of the results.

5.5 Recommendations for further studies

This study did not consider the level of education of the participants. The level of education has a potential to influence salary scales and opportunities for promotion and, thus, can have a significant influence on employee job satisfaction. It is recommended that future studies of a similar nature must consider the participant's level of education.

This research endeavored to establish the prevailing organisational culture within the Botswana construction industry and its relationship with employee job satisfaction. The prevailing economic conditions have a potential to influence both organisational culture and employee job satisfaction. Organisations will implement measures that guarantee survival under harsh economic conditions and jobs will become scarce leaving employees with limited choices. It is recommended that future studies consider the impact of economic conditions on both organisational culture and employee job satisfaction.

It was noted that current studies have not bothered to question whether a newly formed (young) organisation has a culture or not and if not, at what point is an organisation considered to have developed a culture? Schein (1984) contended that if an organisation has not faced any difficult situations and developed means to deal with the situation, it is considered to have a weak culture. It is recommended that future studies consider the impact that the developmental stage or strength of culture of an organisation has on employee job satisfaction.

To improve the generalizability of the results, it is recommended that another study be carried out employing a larger sample size. The sample size can be increased to between 20 and 30 organisations. This will significantly improve generalizability but will require more time.

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APPENDICES

Appendix A : Instrument 1 - Organisational Culture Assessment Instrument (OCAI)

Instrument 1

Organizational Culture Assessment Instrument (OCAI)

Instructions to participants

Instructions for completing the Organizational Culture Assessment Instrument (OCAI).

The purpose of the OCAI is to assess six key dimensions of organizational culture. In completing the instrument, you will be providing a picture of how your organization operates and the values that characterize it. There are no right or wrong answers to these questions and you are encouraged to go with your first instincts. **Section A** collects demographic data about your organisation and about yourself.

In **Section B** the questions ask you to rate the organisation or department in which you work. **Section B** consists six sub-sections each and each sub-section has four alternatives (A, B, C, D). Divide 100 points among these four alternatives depending on the extent to which each alternative is similar to your own organization. Give a higher number of points to the alternative that is most similar to your organization. For example, in question one, if you think alternative A is very similar to your organization, alternative B and C are somewhat similar, and alternative D is hardly similar at all, you might give 50 points to A, 20 points each to B and C, and 10 points to D (50+20+20+10=100). Just be sure that your total for **"NOW"** equals 100 points and your total for **"PREFERRED"** also equals 100 points.

Note, that the first column through the six sub-sections is labelled **"NOW**". This refers to the culture, as it exists today. After you complete the "Now", you will have to **repeat the same questions** under a heading of **"PREFERRED"** and distribute another 100 points. Your distribution to the **"PREFERRED"** column should be based on how you would like the organization to look like five years from now.

Section A

This section collects demographic data about you and your organisation

(For statistical purposes)

1. Please indicate country of origin of the organisation that you are rating: _____

2. What level of management do you consider yourself to hold in this organisation

a)	Non – managerial	☐	(you do not make decisions binding on other)
b)	Lower management	☐	(Lowest decision-making position e.g. section leader)
c)	Middle management	☐	(Level of department heard, section engineer, etc.)
d)	Senior management	☐	(Project manager, Construction manager etc.)
e)	Top management	☐	(Highest decision-making level)

3. How many years have you worked for this organisation : _____ years

4. How many years of experience do you have in construction: _____ years

5. What is your nationality? : _____

6. What was your nationality at birth? : _____

7. Are you:
    1. Male
    2. Female

8. How old are you?
    1. Under 20
    2. 20-24
    3. 25-29
    4. 30-34
    5. 35-39
    6. 40-49
    7. 50-59
    8. 60 or over

Section B

The Organizational Culture Assessment

1. Dominant Characteristics		*Now*	*Preferred*
A	The organization is a very personal place. It is like an extended family. People seem to share a lot of themselves.		
B	The organization is a very dynamic entrepreneurial place. People are willing to stick their necks out and take risks.		
C	The organization is very results oriented. A major concern is with getting the job done. People are very competitive and achievement oriented.		
D	The organization is a very controlled and structured place. Formal procedures generally govern what people do.		
	Total	**100**	**100**
2. Organizational Leadership		***Now***	***Preferred***
A	The leadership in the organization is generally considered to exemplify mentoring, facilitating, or nurturing.		
B	The leadership in the organization is generally considered to exemplify entrepreneurship, innovating, or risk taking.		
C	The leadership in the organization is generally considered to exemplify a no-nonsense, aggressive, results-oriented focus.		
D	The leadership in the organization is generally considered to exemplify coordinating, organizing, or smooth-running efficiency.		
	Total	**100**	**100**
3. Management of Employees		***Now***	***Preferred***
A	The management style in the organization is characterized by teamwork, consensus, and participation.		
B	The management style in the organization is characterized by individual risk-taking, innovation, freedom, and uniqueness.		
C	The management style in the organization is characterized by hard-driving competitiveness, high demands, and achievement.		
D	The management style in the organization is characterized by security of employment, conformity, predictability, and stability in relationships.		
	Total	**100**	**100**

4. Organization Glue		*Now*	*Preferred*
A	The glue that holds the organization together is loyalty and mutual trust. Commitment to this organization runs high.		
B	The glue that holds the organization together is commitment to innovation and development. There is an emphasis on being on the cutting edge.		
C	The glue that holds the organization together is the emphasis on achievement and goal accomplishment. Aggressiveness and winning are common themes.		
D	The glue that holds the organization together is formal rules and policies. Maintaining a smooth-running organization is important.		
	Total	**100**	**100**
5. Strategic Emphases		*Now*	*Preferred*
A	The organization emphasizes human development. High trust, openness, and participation persist.		
B	The organization emphasizes acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued.		
C	The organization emphasizes competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.		
D	The organization emphasizes permanence and stability. Efficiency, control and smooth operations are important.		
	Total	**100**	**100**
6. Criteria of Success		*Now*	*Preferred*
A	The organization defines success on the basis of the development of human resources, teamwork, employee commitment, and concern for people.		
B	The organization defines success on the basis of having the most unique or newest products. It is a product leader and innovator.		
C	The organization defines success on the basis of winning in the marketplace and outpacing the competition. Competitive market leadership is key.		
D	The organization defines success on the basis of efficiency. Dependable delivery, smooth scheduling and low-cost production are critical.		
	Total	**100**	**100**

Appendix B : Instrument 2 - The Job Descriptive Index (JDI)

Instrument 2

EMPLOYEE JOB SATISFACTION QUESTIONNAIRE

Job Descriptive Index (JDI)

INSTRUCTIONS TO PARTICIPANTS

1. This questionnaire consist contains 5 (five) pages including this one; kindly ensure that you have completed all the pages.

2. The questionnaire is divided into two sections, **Section A** and **Section B**. Section A collects demographic data which is necessary for statistical analysis and section B is divided into six portions, each one with its own separate instructions. Kindly read the instructions given under each item.

SECTION A

This section collects demographic data about you and yourself

(For statistical purposes)

9. Please indicate country of origin of the organisation that you are rating: _____

10. What level of management do you consider yourself to hold in this organisation

f)	Non – managerial	☐	(you do not make decisions binding on other)
g)	Lower management	☐	(Lowest decision-making position e.g. section leader)
h)	Middle management	☐	(Level of department heard, section engineer, etc.)
i)	Senior management	☐	(Project manager, Construction manager etc.)
j)	Top management	☐	(Highest decision-making level)

11. How many years have you worked for this organisation : _____ years

12. How many years of experience do you have in construction: _____ years

13. What is your nationality : _____

14. What was your nationality at birth (if different) : _____

15. Are you:

1.	Male	☐
2.	Female	☐

16. Indicate your age? (Tick the appropriate box)

1	Under 20	☐
2	20-24	☐
3	25-29	☐
4	30-34	☐
5	35-39	☐
6	40-49	☐
7	50-59	☐
8	60 and above	☐

SECTION B

1. People on Your Present Job	2. Job in General
Think of the majority of people with whom you work or meet in connection with your work. How well does each of the following words or phrases describe these people? In the blank **besides each** words or phrases below, write: **Y** for **"Yes"** if it describes the people with whom you work **N** for **"No"** if it does not describe them **?** for **"?"** if you cannot decide	Think of your job in general. All in all, what is it like most of the time? In the blank **besides each** word or phrase below, write: **Y** for **"Yes"** if it describes your job **N** for **"No"** if it does not describe it **?** for **"?"** if you cannot decide
_____ Motivating _____ Boring _____ Slow _____ Helpful _____ Stupid _____ Responsible _____ Likeable _____ Intelligent _____ Easy to make enemies _____ Rude _____ Smart _____ Lazy _____ Unpleasant _____ Supportive _____ Active _____ Narrow interests _____ Frustrating _____ Stubborn	_____ Pleasant _____ Bad _____ Great _____ Waste of time _____ Good _____ Undesirable _____ Worthwhile _____ Worse than most _____ Acceptable _____ Superior _____ Better than most _____ Offensive _____ Makes me content _____ Inadequate _____ Excellent _____ Awful _____ Enjoyable _____ Lacking

3. Work on Present Job	4. Pay
Think of the work you do at present. How well does each of the following words or phrases describe your work? In the blank **beside each word or phrase** below, write: **Y** for **"Yes"** if it describes your work **N** for **"No"** if it does not describe it **?** for **"?"** if you cannot decide	Think of the pay you get now. How well does each of the following words or phrases describe your present pay? In the blank **besides each word or** phrase below, write: **Y** for **"Yes"** if it describes your pay **N** for **"No"** if it does not describe it **?** for **"?"** if you cannot decide
_____ Interesting _____ Unchanging _____ Satisfying _____ Boring _____ Good _____ Gives sense of accomplishment _____ Respected _____ Exciting _____ Rewarding _____ Useful _____ Challenging _____ Simple _____ Repetitive _____ Creative _____ Dull _____ Uninteresting _____ Can see results _____ Uses my abilities	_____ Income adequate for normal expenses _____ Fair _____ Barely live on income _____ Bad _____ Comfortable _____ Less than I deserve _____ Well paid _____ Enough to live on _____ Underpaid

5. Opportunities for Promotion	6. Supervision
Think of the opportunities for promotion that you have now. How well does each of the following words or phrases describe these? In the blank **besides each word** or phrase below, write: **Y** for **"Yes"** if it describes your opportunities for promotion **N** for "No" if it does not describe them **?** for **"?"** if you cannot decide	Think of the kind of supervision that you get on your job. How well does each of the following words or phrases describe this? In the blank **besides each word** or phrase below, write: **Y** for **"Yes"** if it describes the supervision you get on the job **N** for **"No"** if it does not describe it **?** for **"?"** if you cannot decide
_____ Good opportunities for promotion _____ Opportunities somewhat limited _____ Promotion on ability _____ Dead-end job _____ Good chance for promotion _____ Very limited _____ Infrequent promotions _____ Regular promotions _____ Fairly good chance for promotion	_____ Supportive _____ Hard to please _____ Impolite _____ Praises good work _____ Tactful _____ Influential _____ Up-to-date _____ Unkind _____ Has favourites _____ Tells me where I stand _____ Annoying _____ Stubborn _____ Knows job well _____ Bad _____ Intelligent _____ Poor planner _____ Around when needed _____ Lazy

THIS IS THE END OF THE QUESTIONNAIRE

THANK YOU FOR TAKING PART IN THIS STUDY

Appendix C : Organisation Access request

Organisation/Management Letter of permission.
Access & consent to approach research participants.

Address *(of organisation)*
Date : *(current date to be inserted)*
Dear: *(Responsible person)*

I am a student undertaking my Master's degree in Construction Project Management with the University of the Witwatersrand in South Africa. As part of my course I am undertaking a research study titled: *The relationship between Organisational Culture and Employee Job Satisfaction: A case study of the Botswana construction industry*. The purpose of the study is to investigate the link between organisational culture and employee job satisfaction within the Botswana construction industry.

Prior to undertaking my study, I need your permission/consent to access your premises/organisation and approach your employees in both managerial and non-managerial positions to take part in the study. Participation will involve answering questionnaires and employees will be selected from different departments. I hope to administer the questionnaires on at least 9 people in management positions and approximately 30 people in non-managerial positions. Each questionnaire will take about 30 minutes to complete. I have also attached, to this letter, a participant information sheet which contains details of my study and what will be expected from your employees.

I can assure you that I will make every effort to minimise the disruption of your working environment and any data collected will remain confidential. Individuals and your organisation will not be identified by names. Results of my research will be published in my thesis which will be submitted to the University's School of Construction Economics and Management and will also be available on the university website.

If, as an organization, you wish to have a summary of the research results, you may do so by sending me a request via e-mail or by indicating this in your letter of permission. You will be able to get additional information direct from me or from my research supervisor using the contact details given below.

Name : Justice Mufanebadza
E-mail : 1253627@students.wits.co.za
Research supervisor
Dr Oluwayomi Babatunde
E-mail : Oluwayomi.Babatunde@wits.ac.za

For any ethical issues relating to the study please contact the Chair of the School's Research Ethics Committee.

Contact : Dr. Kola Ijasan
E-mail : Kola.Ijasan@wits.ac.za

Yours Sincerely
Justice Mufanebadza

Appendix D : JDI Respondent profile for organisation A

ORGANISATION A - PARTICIPANT PROFILE

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Level of Management	Lower	Middle	Non	Senior	Middle	Lower	Lower	Middle	Middle	Top
Length of service (years)	10-20	5-10	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20
Experience in construction	10-20	above 30	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20
Nationality - Current	Botswana	Botswana	Botswana	Australia	Botswana	Botswana	Botswana	Botswana	Lebanon	Botswana
Nationality - at birth	Botswana	Botswana	Botswana	Lebanon	Botswana	Botswana	Botswana	Botswana	Lebanon	Botswana
Gender	Male	Male	Male	Male	Female	Male	Male	Female	Male	Male
Age	35-39	50-59	40-49	40-49	40-49	40-49	30-34	40-49	30-34	40-49

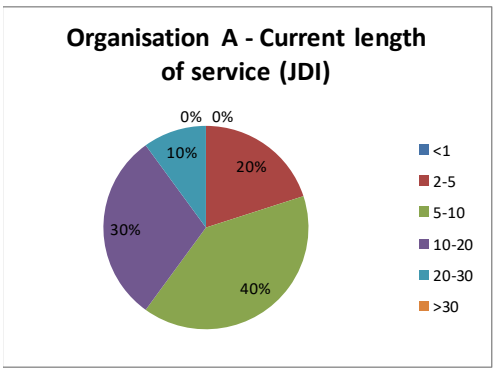
	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20
Level of Management	Senior	Lower	Lower	Middle	Lower	Middle	Lower	Lower	Lower	Non
Length of service (years)	10-20	5-10	2-5	below 1	5-10	2-5	2-5	2-5	2-5	2-5
Experience in construction	20-30	5-10	2-5	below 1	5-10	5-10	2-5	2-5	2-5	5-10
Nationality - Current	Zimbabwe	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Nationality - at birth	Zimbabwe	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	40-49	40-49	30-34	40-49	25-29	40-49	35-39	25-29	25-29	25-29

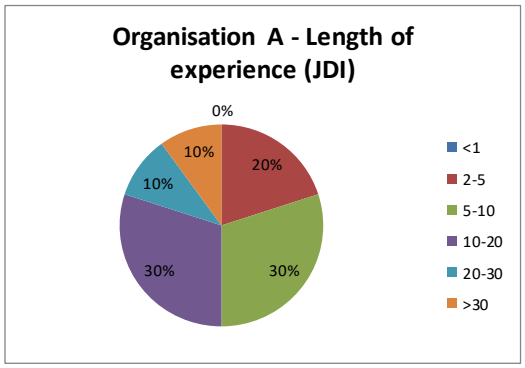
Current Length of service

Service	Count	Percentage
<1	0	0%
2-5	2	20%
5-10	4	40%
10-20	3	30%
20-30	1	10%
>30	0	0%

Experience in construction

Experienc	Count	Percentage
<1	0	0%
2-5	2	20%
5-10	3	30%
10-20	3	30%
20-30	1	10%
>30	1	10%



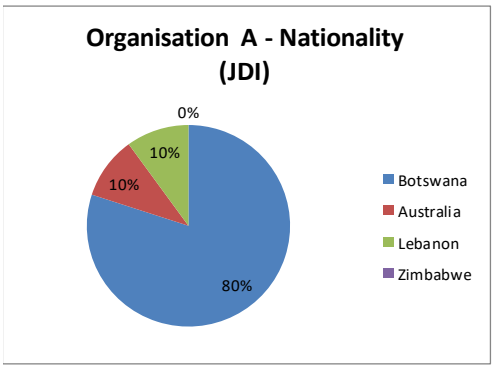


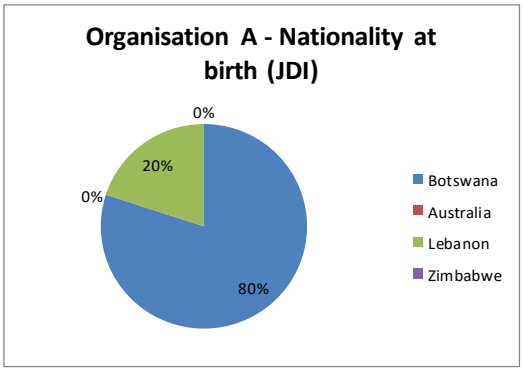
Nationality

Nationality	Count	Percentage
Botswana	8	80%
Australia	1	10%
Lebanon	1	10%
Zimbabwe	0	0%

Nationality at birth

Nationalit	Count	Percentage
Botswana	8	80%
Australia	0	0%
Lebanon	2	20%
Zimbabwe	0	0%



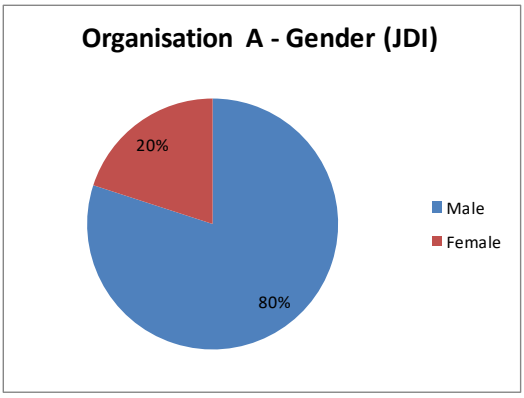


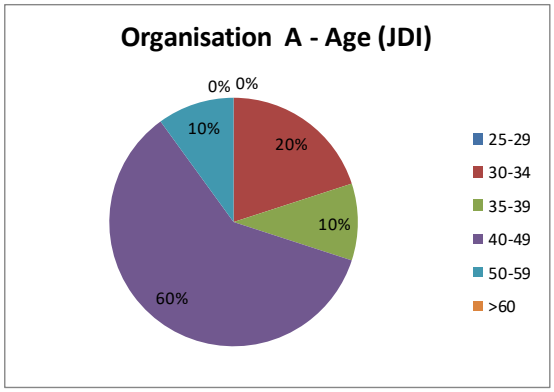
Gender

Gender	Count	Percentage
Male	8	80%
Female	2	20%

Age

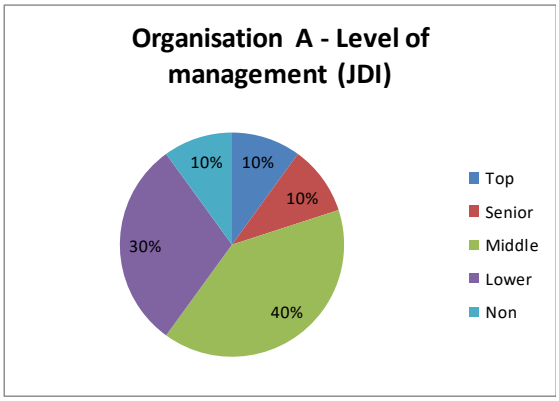
Age	Count	Percentage
20-24	0	0%
25-29	0	0%
30-34	2	20%
35-39	1	10%
40-49	6	60%
50-59	1	10%
>60	0	0%





Level of management

Level	Count	Percentage
Top	1	10%
Senior	1	10%
Middle	4	40%
Lower	3	30%
Non	1	10%



Appendix E : JDI respondent profile for organisation B

ORGANISATION B - PARTICIPANT PROFILE

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Level of Management	Non	Non	Non	Non	Non	Non	Lower	Lower	Non	Lower
Length of service (years)	below 1	below 1	below 1	5-10	10-20	2-5	2-5	5-10	2-5	2-5
Experience in construction	below 1	below 1	below 1	5-10	10-20	2-5	5-10	5-10	2-5	10-20
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Nationality - at birth	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Female	Male	Male	Male	Female	Male	Male	Male	Female
Age	20-24	30-34	35-39	35-39	40-49	40-49	35-39	40-49	30-34	35-39

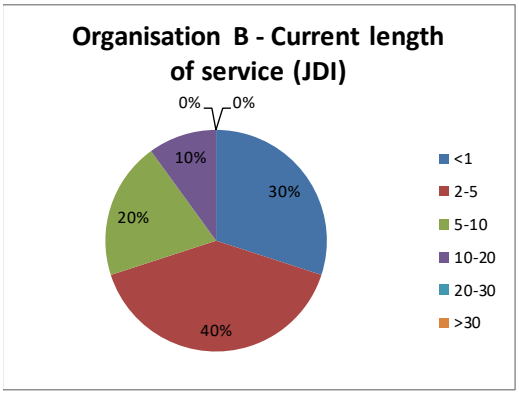
	P11	P12	P13	P14	P15	P16	P17
Level of Management	Lower	Non	Senior	Lower	Lower	Middle	Non
Length of service (years)	5-10	10-20	10-20	2-5	2-5	5-10	2-5
Experience in construction	10-20	10-20	20-30	2-5	5-10	10-20	5-10
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Nationality - at birth	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Female	Female	Male
Age	40-49	30-34	40-49	25-29	25-29	35-39	40-49

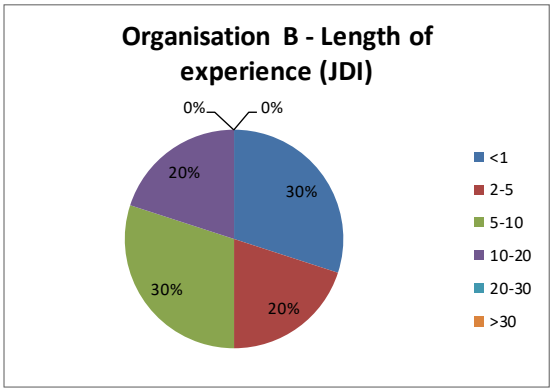
Current length of service

Service	Count	Percentage
<1	3	30%
2-5	4	40%
5-10	2	20%
10-20	1	10%
20-30	0	0%
>30	0	0%

Experience in construction

Experience	Count	Percentage
<1	3	30%
2-5	2	20%
5-10	3	30%
10-20	2	20%
20-30	0	0%
>30	0	0%



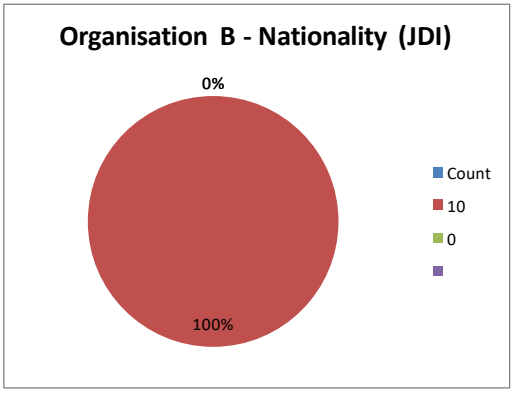


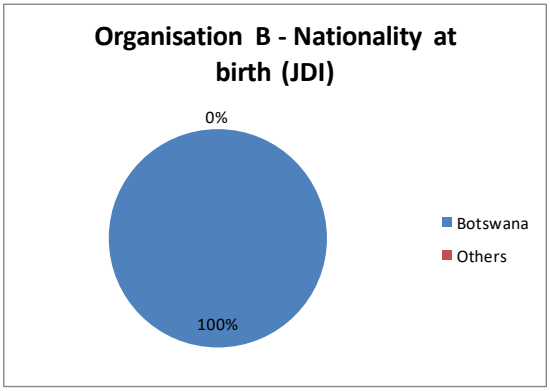
Nationality

Nationality	Count	Percentage
Botswana	10	100%
Others	0	0%

Nationality at birth

Nationality	Count	Percentage
Botswana	10	100%
Others	0	0%



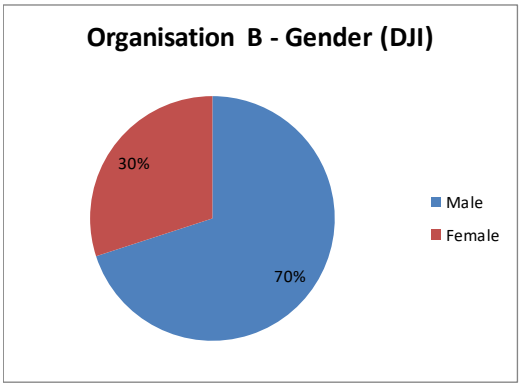


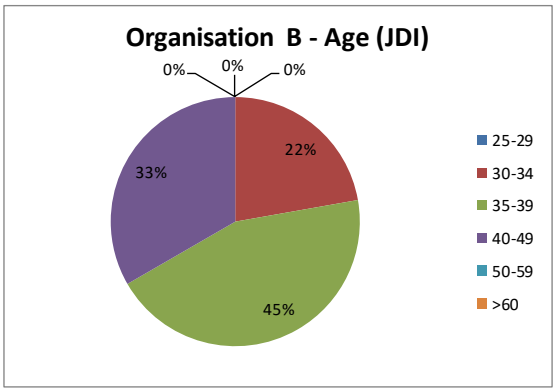
Gender

Gender	Count	Percentage
Male	7	70%
Female	3	30%

Age

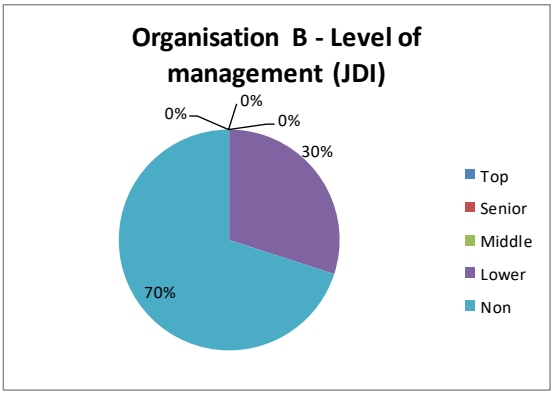
Age	Count	Percentage
20-24	1	10%
25-29	0	0%
30-34	2	20%
35-39	4	40%
40-49	3	30%
50-59	0	0%
>60	0	0%





Level of management

Level	Count	Percentage
Top	0	0%
Senior	0	0%
Middle	0	0%
Lower	3	30%
Non	7	70%



-

Appendix F : JDI respondent profile for organisation C

ORGANISATION C - PARTICIPANT PROFILE

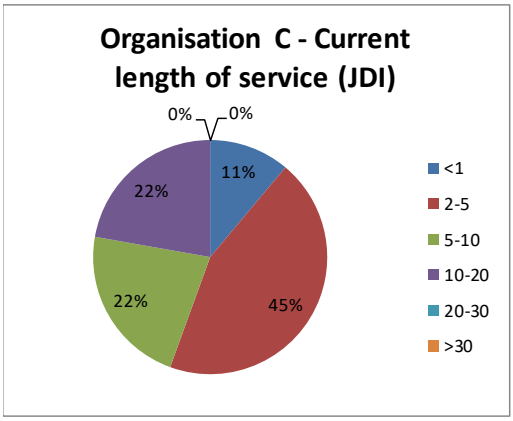
	P1	P2	P3	P4	P5	P6	P7	P8	P9
Level of Management	Lower	Middle	Lower	Non	Middle	Non	Middle	Senior	Lower
Length of service (years)	2-5	5-10	10-20	5-10	below 1	2-5	10-20	2-5	2-5
Experience in construction	2-5	above 30	10-20	5-10	5-10	5-10	10-20	2-5	2-5
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Nationality - at birth	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	20-24	50-59	40-49	30-34	30-34	30-34	40-49	25-29	30-34

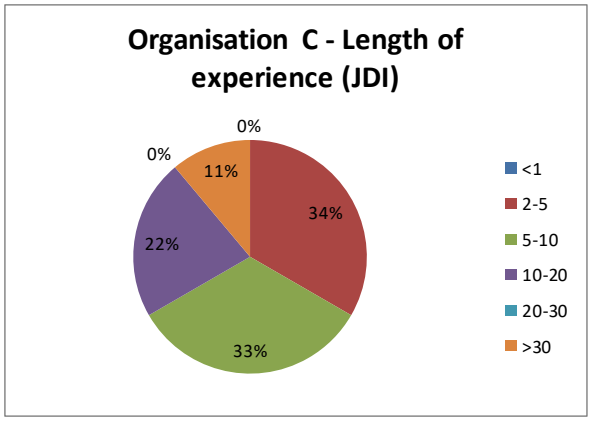
Current length of service

Service	Count	Percentage
<1	1	11%
2-5	4	44%
5-10	2	22%
10-20	2	22%
20-30	0	0%
>30	0	0%

Experience in construction

Experience	Count	Percentage
<1	0	0%
2-5	3	33%
5-10	3	33%
10-20	2	22%
20-30	0	0%
>30	1	11%



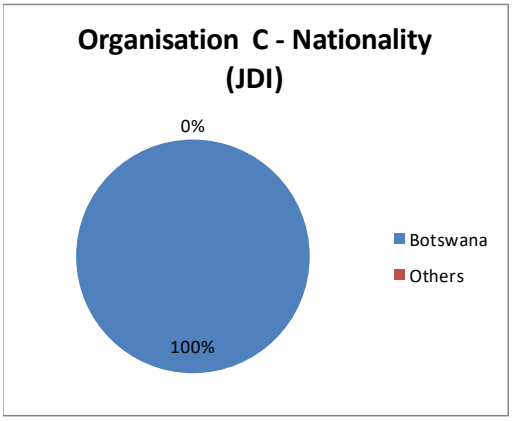


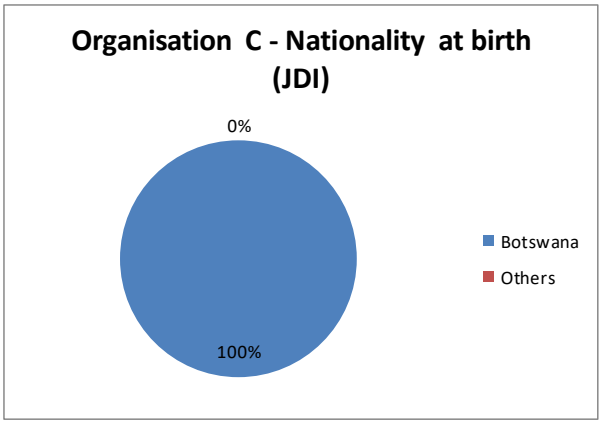
Nationality

Nationality	Count	Percentage
Botswana	9	100%
Others	0	0%

Nationality at birth

Nationality	Count	Percentage
Botswana	9	100%
Others	0	0%



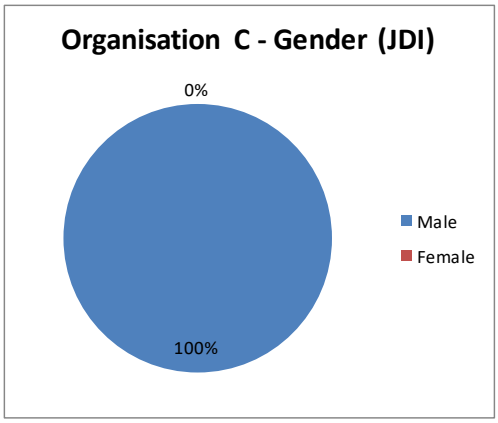


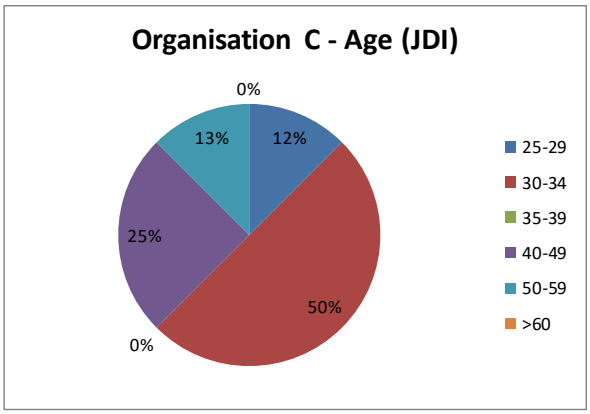
Gender

Gender	Count	Percentage
Male	9	100%
Female	0	0%

Age

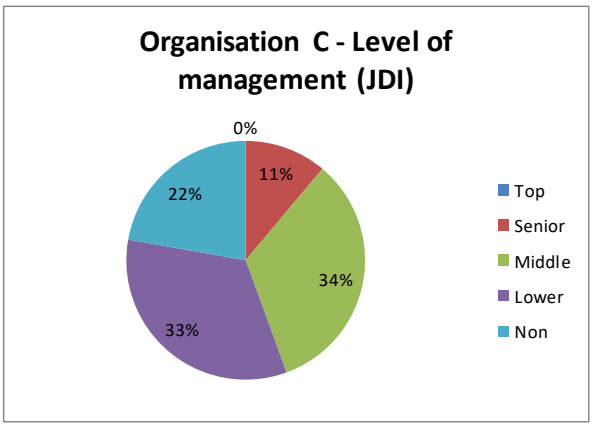
Age	Count	Percentage
20-24	1	11%
25-29	1	11%
30-34	4	44%
35-39	0	0%
40-49	2	22%
50-59	1	11%
>60	0	0%





Level of management

Level	Count	Percentage
Top	0	0%
Senior	1	11%
Middle	3	33%
Lower	3	33%
Non	2	22%



Appendix G : OCAI Respondent profile for organisation A

ORGANISATION A - PARTICIPANT PROFILE (OCAI)

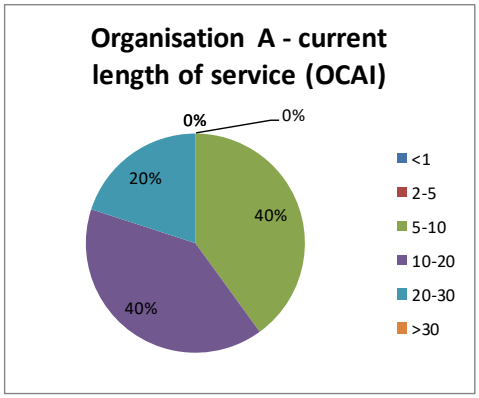
	P1	P2	P3	P4	P5	P6
Level of Management	Senior	Senior	Senior	Middle		Top
Length of service (years)	10-20	5-10	5-10	10-20		20-30
Experience in construction	20-30	20-30	10-20	10-20		above 30
Nationality - Current	Zimbabwe	South Africa	Britain	Botswana		Lebanon
Nationality - at birth	Zimbabwe	South Africa	Lebanon	Botswana		Lebanon
Gender	Male	Male	Male	Male		Male
Age	40-49	40-49	35-39	40-49		50-59

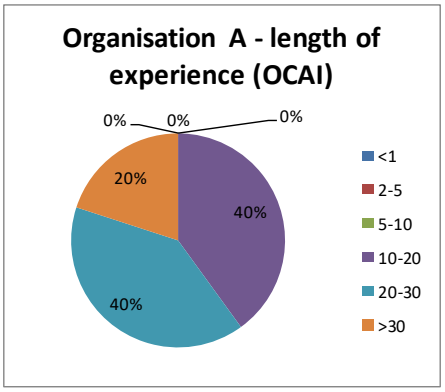
Current Length of service

Service	Count	Percentage
<1	0	0%
2-5	0	0%
5-10	2	40%
10-20	2	40%
20-30	1	20%
>30	0	0%

Experience in construction

Experience	Count	Percentage
<1	0	0%
2-5	0	0%
5-10	0	0%
10-20	2	40%
20-30	2	40%
>30	1	20%



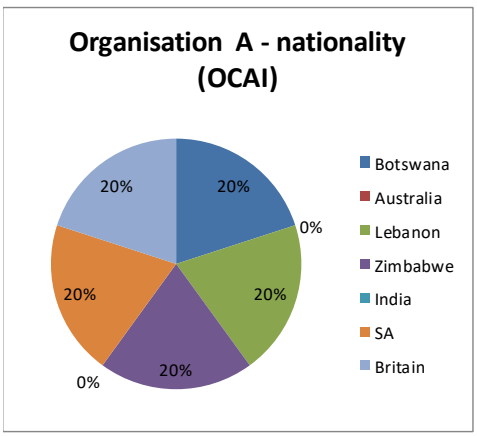


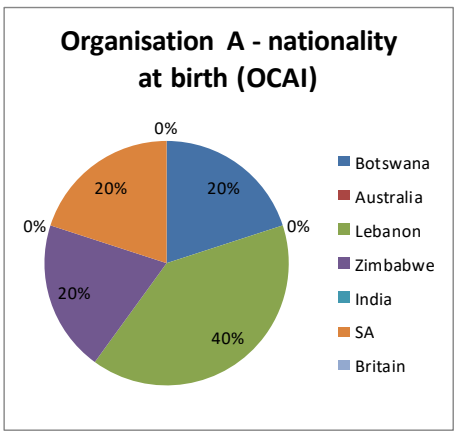
Nationality

Nationality	Count	Percentage
Botswana	1	33%
Australia	0	0%
Lebanon	1	33%
Zimbabwe	1	33%
India	0	0%
SA	1	33%
Britain	1	33%

Nationality at birth

Nationality	Count	Percentage
Botswana	1	25%
Australia	0	0%
Lebanon	2	50%
Zimbabwe	1	25%
India	0	0%
SA	1	25%
Britain	0	0%



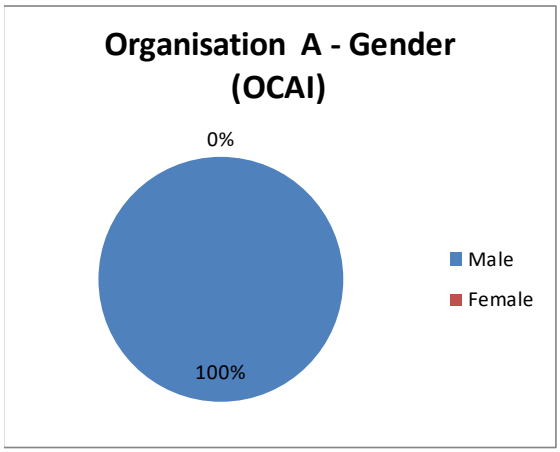


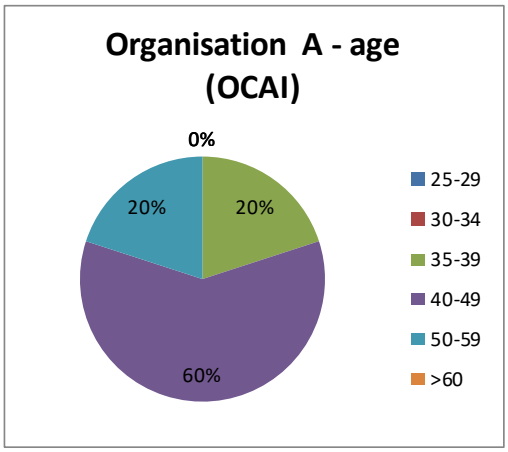
Gender

Gender	Count	Percentage
Male	5	100%
Female	0	0%

Age

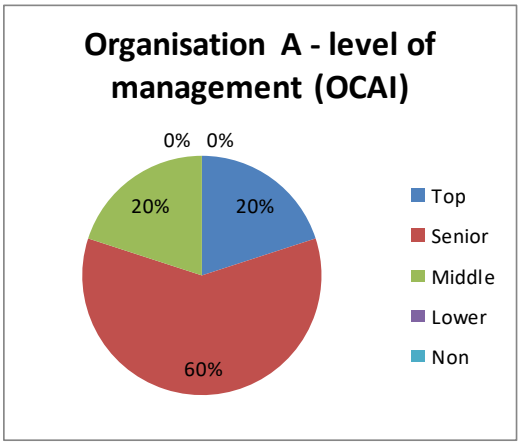
Age	Count	Percentage
20-24	0	0%
25-29	0	0%
30-34	0	0%
35-39	1	20%
40-49	3	60%
50-59	1	20%
>60	0	0%





Level of management

Level	Count	Percentage
Top	1	20%
Senior	3	60%
Middle	1	20%
Lower	0	0%
Non	0	0%
Total	**5**	**100%**



Appendix H : OCAI Respondent profile for organisation B

ORGANISATION B - PARTICIPANT PROFILE (OCAI)

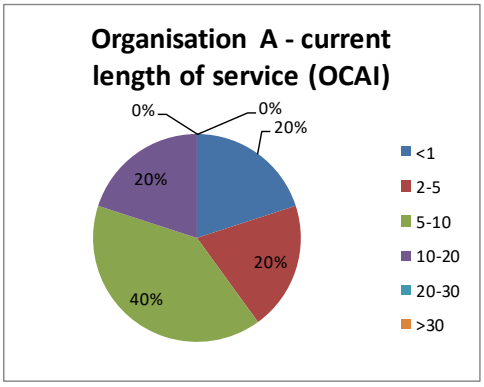
	P1	P2	P3	P4	P5
Level of Management	Senior	Lower	Non	Top	Senior
Length of service (years)	5-10	below 1	2-5	10-20	5-10
Experience in construction	above 30	below 1	2-5	20-30	20-30
Nationality - Current		Botswana	Botswana	Botswana	Botswana
Nationality - at birth		Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Female	Male	Male
Age		20-24	40-49	40-49	40-49

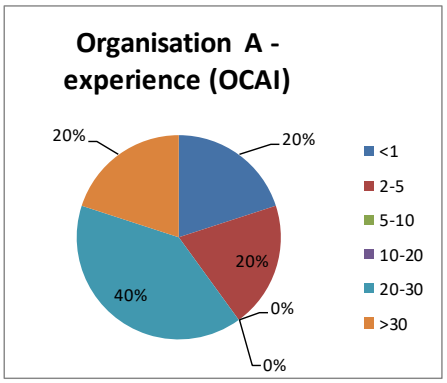
Current Length of service

Service	Count	Percentage
<1	1	20%
2-5	1	20%
5-10	2	40%
10-20	1	20%
20-30	0	0%
>30	0	0%

Experience in construction

Experience	Count	Percentage
<1	1	20%
2-5	1	20%
5-10	0	0%
10-20	0	0%
20-30	2	40%
>30	1	20%



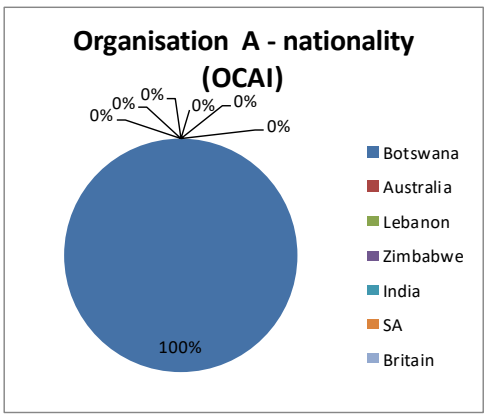


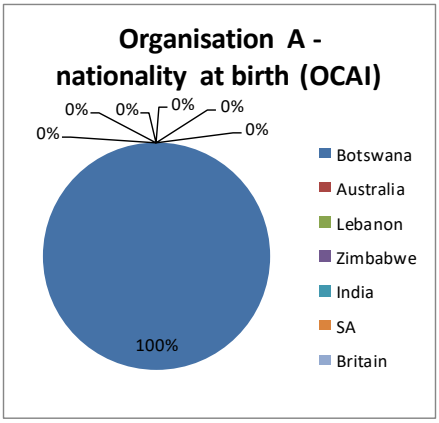
Nationality

Nationality	Count	Percentage
Botswana	4	100%
Australia	0	0%
Lebanon	0	0%
Zimbabwe	0	0%
India	0	0%
SA	0	0%
Britain	0	0%

Nationality at birth

Nationality	Count	Percentage
Botswana	4	100%
Australia	0	0%
Lebanon	0	0%
Zimbabwe	0	0%
India	0	0%
SA	0	0%
Britain	0	0%



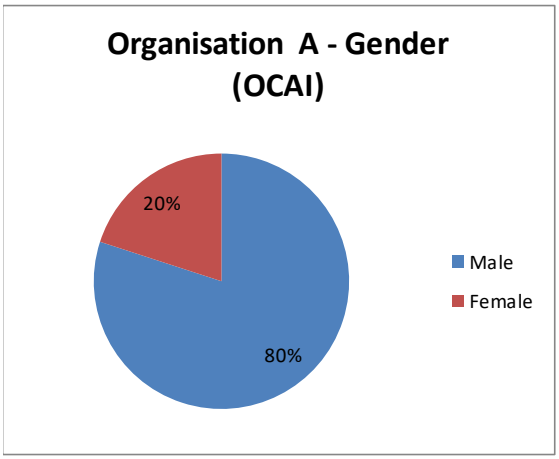


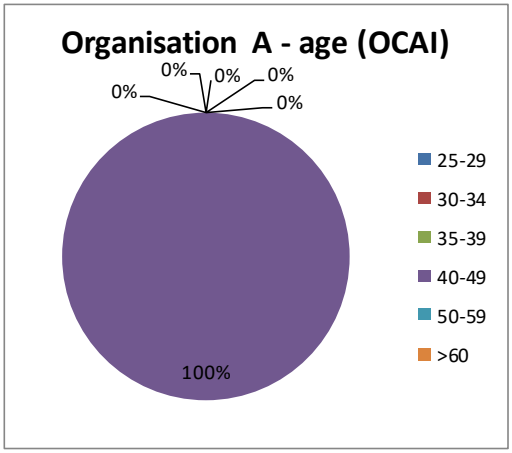
Gender

Gender	Count	Percentage
Male	4	80%
Female	1	20%

Age

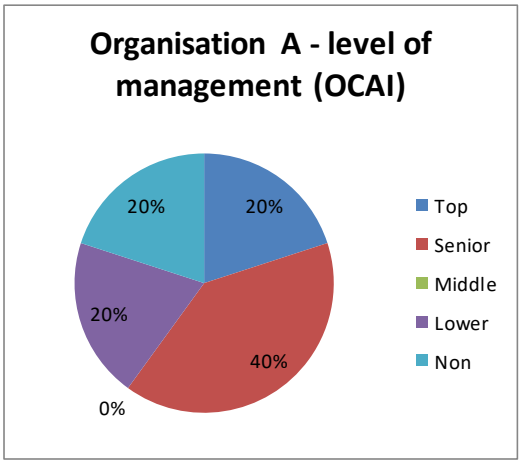
Age	Count	Percentage
20-24	1	33%
25-29	0	0%
30-34	0	0%
35-39	0	0%
40-49	3	100%
50-59	0	0%
>60	0	0%





Level of management

Level	Count	Percentage
Top	1	20%
Senior	2	40%
Middle	0	0%
Lower	1	20%
Non	1	20%
Total	**5**	**100%**



Appendix I : OCAI Respondent profile for organisation C

ORGANISATION C - PARTICIPANT PROFILE (OCAI)

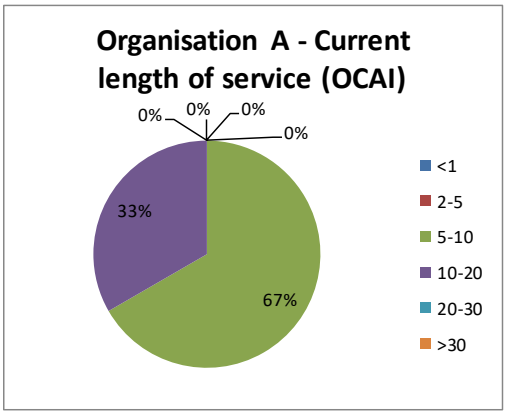
	P1	P2	P3	P4
Level of Management	Middle	Top	Senior	
Length of service (years)	5-10	10-20	5-10	
Experience in construction	5-10	5-10	10-20	
Nationality - Current	Botswana	India	Botswana	
Nationality - at birth	Botswana	India	Botswana	
Gender	Male	Male	Male	
Age	30-34	35-39	40-49	

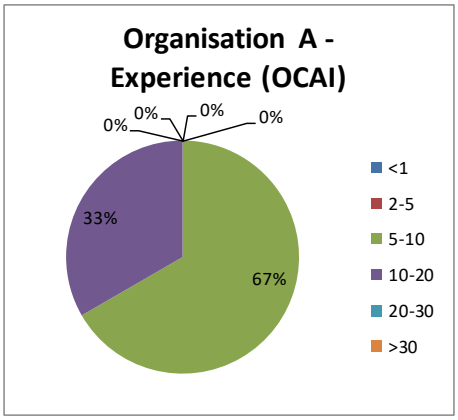
Current Length of service

Service	Count	Percentage
<1	0	0%
2-5	0	0%
5-10	2	67%
10-20	1	33%
20-30	0	0%
>30	0	0%

Experience in construction

Experience	Count	Percentage
<1	0	0%
2-5	0	0%
5-10	2	67%
10-20	1	33%
20-30	0	0%
>30	0	0%



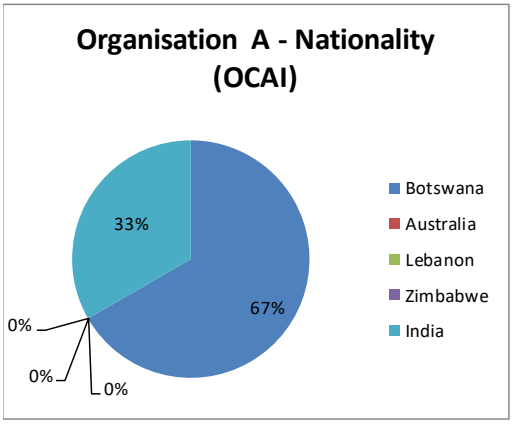


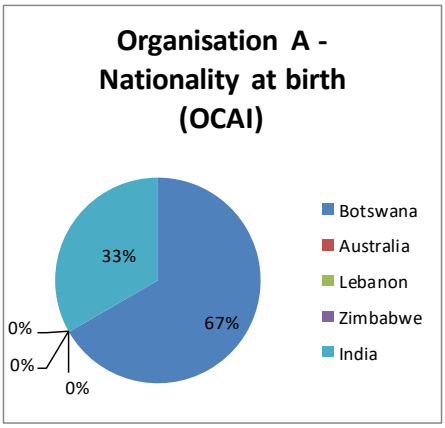
Nationality

Nationality	Count	Percentage
Botswana	2	100%
Australia	0	0%
Lebanon	0	0%
Zimbabwe	0	0%
India	1	50%
SA	0	0%
Britain	0	0%

Nationality at birth

Nationality	Count	Percentage
Botswana	2	100%
Australia	0	0%
Lebanon	0	0%
Zimbabwe	0	0%
India	1	50%
SA	0	0%
Britain	0	0%

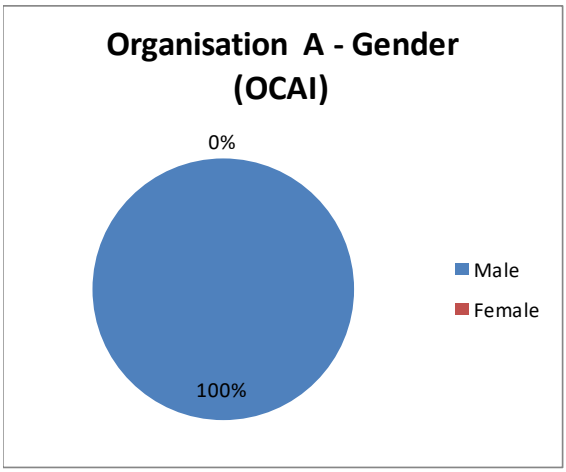


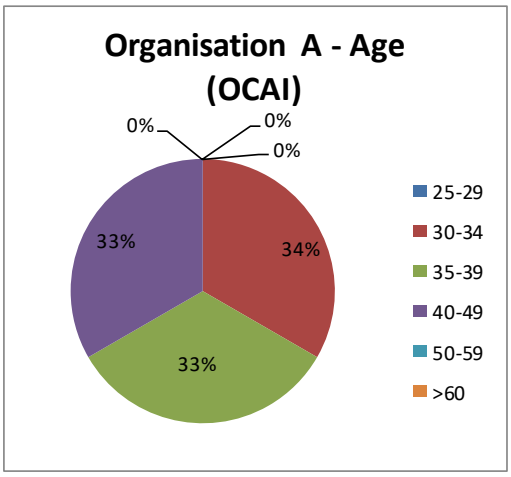


Gender

Gender	Count	Percentage
Male	3	100%
Female	0	0%

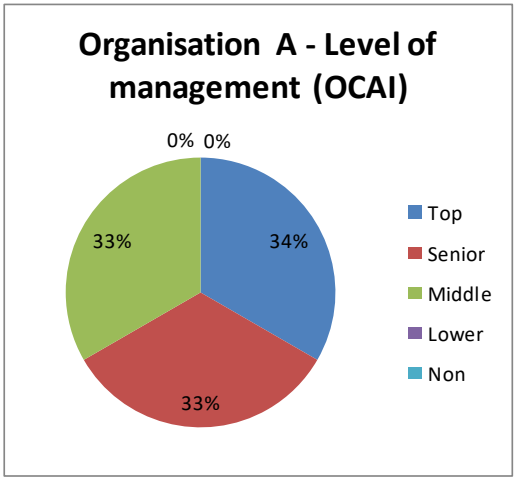
Age	Count	Percentage
20-24	0	0%
25-29	0	0%
30-34	1	33%
35-39	1	33%
40-49	1	33%
50-59	0	0%
>60	0	0%





Level of management

Level	Count	Percentage
Top	1	33%
Senior	1	33%
Middle	1	33%
Lower	0	0%
Non	0	0%
Total	**3**	**100%**



Appendix J : Determination of organisation A's culture

DETERMINATION OF ORGANISATION A'S CULTURE

Current - Mean scores

	Clan		Adhocracy		Market		Hierarchy		Dominant Culture
1. Dominant characteristics	14	**1A**	20	**1B**	36	**1C**	30	**1D**	Market
2. Organisational leadership	20	**2A**	28	**2B**	24	**2C**	26	**2D**	Adhocracy
3. Management of employees	26	**3A**	20	**3B**	34	**3C**	20	**3D**	Market
4. Organisational glue	22	**4A**	14	**4B**	38	**4C**	26	**4D**	Market
5. Strategic emphasis	16	**5A**	18	**5B**	36	**5C**	30	**5D**	Market
6. Criteria of success	18	**6A**	16	**6B**	36	**6C**	30	**6D**	Market
Sum	**116**		**116**		**204**		**162**		
Average	**19**		**19**		**34**		**27**		**Market**

Preferred - Mean scores

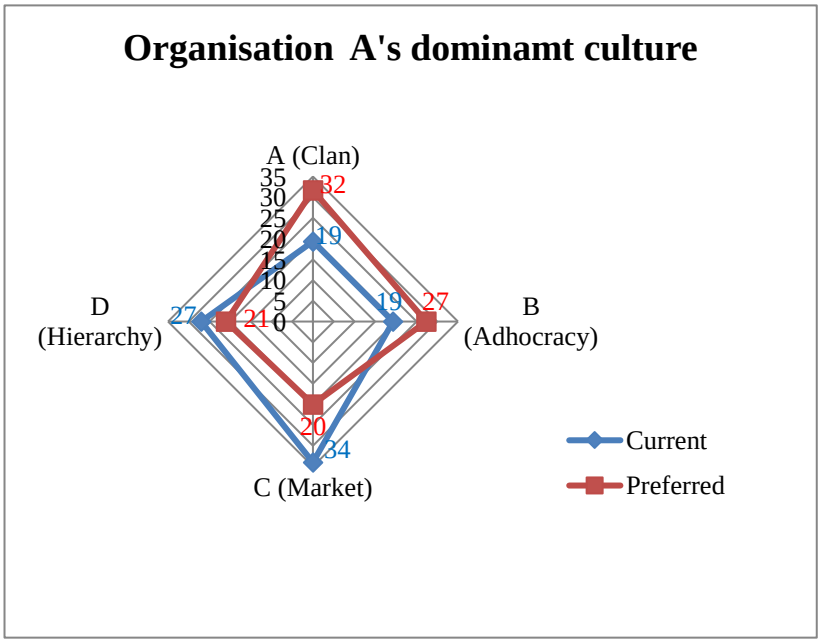
	Clan		Adhocracy		Market		Hierarchy		Dominant Culture
1. Dominant characteristics	28	**1A**	28	**1B**	20	**1C**	24	**1D**	Clan/Adhocracy
2. Organisational leadership	36	**2A**	28	**2B**	16	**2C**	20	**2D**	Clan
3. Management of employees	30	**3A**	20	**3B**	26	**3C**	24	**3D**	Clan
4. Organisational glue	30	**4A**	30	**4B**	20	**4C**	20	**4D**	Clan/Adhocracy
5. Strategic emphasis	32	**5A**	28	**5B**	20	**5C**	20	**5D**	Clan
6. Criteria of success	34	**6A**	30	**6B**	18	**6C**	18	**6D**	Clan
Sum	**190**		**164**		**120**		**126**		
Average	**32**		**27**		**20**		**21**		**Clan**

MEAN CURRENT

A (Clan)	19
B (Adhocracy)	19
C (Market)	34
D (Hierarchy)	27
Total	**100**

MEAN PREFERED

A (Clan)	32
B (Adhocracy)	27
C (Market)	20
D (Hierarchy)	21
Total	**100**



Appendix K : determination of organisation B's culture

DETERMINATION OF ORGANISATION B'S CULTURE

Current - Mean scores

	Clan		Adhocracy		Market		Hierarchy		Dominant Culture
1. Dominant characteristics	32	**1A**	20	**1B**	36	**1C**	12	**1D**	Market
2. Organisational leadership	17	**2A**	30	**2B**	38	**2C**	16	**2D**	Market
3. Management of employees	20	**3A**	18	**3B**	26	**3C**	44	**3D**	Hierarchy
4. Organisational glue	30	**4A**	14	**4B**	40	**4C**	36	**4D**	Market
5. Strategic emphasis	23	**5A**	20	**5B**	43	**5C**	25	**5D**	Market
6. Criteria of success	30	**6A**	23	**6B**	38	**6C**	30	**6D**	Market
Sum	**151**		**125**		**220**		**163**		
Average	**25**		**21**		**37**		**27**		**Market**

Preferred - Mean scores

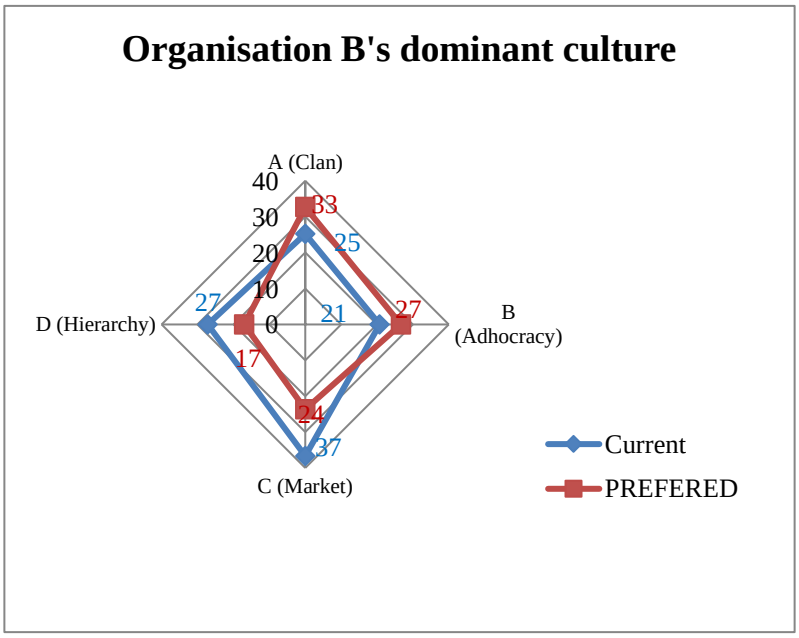
	Clan		Adhocracy		Market		Hierarchy		Dominant Culture
1. Dominant characteristics	30	**1A**	18	**1B**	32	**1C**	20	**1D**	Market
2. Organisational leadership	30	**2A**	28	**2B**	20	**2C**	22	**2D**	Clan
3. Management of employees	40	**3A**	24	**3B**	20	**3C**	16	**3D**	Clan
4. Organisational glue	26	**4A**	32	**4B**	26	**4C**	16	**4D**	Adhocracy
5. Strategic emphasis	32	**5A**	30	**5B**	22	**5C**	16	**5D**	Clan
6. Criteria of success	38	**6A**	28	**6B**	22	**6C**	12	**6D**	Clan
Sum	**196**		**160**		**142**		**102**		
Average	**33**		**27**		**24**		**17**		**Clan**

MEAN CURRENT

A (Clan)	25
B (Adhocracy)	21
C (Market)	37
D (Hierarchy)	27
Total	**110**

MEAN PREFERED

A (Clan)	33
B (Adhocracy)	27
C (Market)	24
D (Hierarchy)	17
Total	**100**



Appendix L : determination of organisation C's culture

DETERMINATION OF ORGANISATION C'S CULTURE

Current - Mean scores

	Clan		Adhocracy		Market		Hierarchy		Dominant Culture
1. Dominant characteristics	17	**1A**	20	**1B**	50	**1C**	13	**1D**	Market
2. Organisational leadership	17	**2A**	33	**2B**	30	**2C**	20	**2D**	Adhocracy
3. Management of employees	20	**3A**	23	**3B**	40	**3C**	17	**3D**	Market
4. Organisational glue	17	**4A**	27	**4B**	33	**4C**	23	**4D**	Market
5. Strategic emphasis	27	**5A**	43	**5B**	17	**5C**	13	**5D**	Adhocracy
6. Criteria of success	20	**6A**	17	**6B**	47	**6C**	17	**6D**	Market
Sum	117		163		217		103		
Average	19		27		36		17		**Market**

Preferred - Mean scores

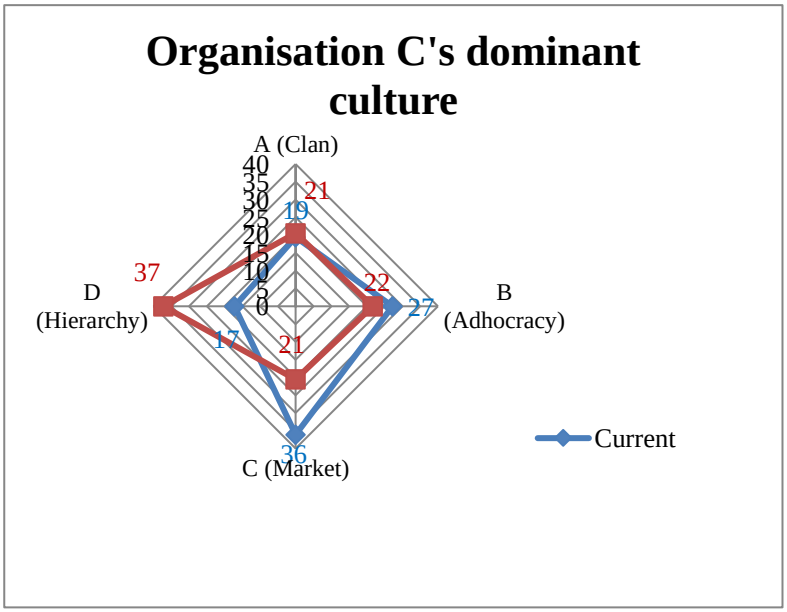
	Clan		Adhocracy		Market		Hierarchy		Dominant Culture
1. Dominant characteristics	20	**1A**	13	**1B**	23	**1C**	43	**1D**	Hierarchy
2. Organisational leadership	20	**2A**	20	**2B**	17	**2C**	43	**2D**	Hierarchy
3. Management of employees	13	**3A**	27	**3B**	20	**3C**	40	**3D**	Hierarchy
4. Organisational glue	13	**4A**	23	**4B**	17	**4C**	47	**4D**	Hierarchy
5. Strategic emphasis	27	**5A**	17	**5B**	33	**5C**	23	**5D**	Market
6. Criteria of success	30	**6A**	30	**6B**	13	**6C**	27	**6D**	Clan/Adhocracy
Sum	123		130		123		223		
Average	21		22		21		37		**Hierarchy**

MEAN CURRENT

A (Clan)	19
B (Adhocracy)	27
C (Market)	36
D (Hierarchy)	17
Total	**100**

MEAN PREFERED

A (Clan)	21
B (Adhocracy)	22
C (Market)	21
D (Hierarchy)	37
Total	**100**



1. People on your present job

	Respondent																			
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**
Level of Management	Lower	Middle	Non	Senior	Middle	Lower	Lower	Middle	Middle	Top	Senior	Lower	Lower	Middle	Lower	Middle	Lower	Lower	Lower	Non
Length of service (years)	10-20	5-10	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20	10-20	5-10	2-5	below 1	5-10	2-5	2-5	2-5	2-5	2-5
Experience in construction	10-20	above 3	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20	20-30	5-10	2-5	below 1	5-10	5-10	2-5	2-5	2-5	5-10
Nationality - Current	Botswana	Botswana	Botswana	Australia	Botswana	Botswana	Botswana	Botswana	Lebanon	Botswana	Zimbabwe	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Female	Male	Male	Female	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	35-39	50-59	40-49	40-49	40-49	40-49	30-34	40-49	30-34	40-49	40-49	40-49	30-34	40-49	25-29	40-49	35-39	25-29	25-29	25-29
1	3	3	3	3	0	0	3	3	3	3	3	0	3	3	3	3	3	3	0	3
2	3	3	3	3	0	1	3	3	3	3	3	1	3	3	1	3	0	0	3	3
3	3	3	3	3	0	1	3	1	0	3	3	1	3	3	3	1	3	0	0	3
4	3	3	3	3	0	0	3	3	3	3	0	3	3	3	3	3	0	0	0	3
5	3	3	3	3	1	1	3	3	0	3	3	1	3	3	1	3	3	0	3	3
6	1	3	3	3	0	1	3	3	3	3	3	3	3	3	3	3	3	0	3	3
7	3	3	3	3	0	1	3	1	3	3	3	3	1	3	3	3	3	0	0	3
8	3	3	3	1	1	1	3	1	3	3	0	3	3	3	0	1	3	0	1	3
9	1	3	3	3	3	0	0	1	0	3	3	0	3	3	0	3	3	3	0	3
10	3	3	3	3	0	1	3	1	3	3	3	3	3	3	3	3	3	0	0	3
11	3	3	3	3	0	1	3	1	3	3	0	3	3	3	3	3	3	3	1	3
12	3	3	3	3	0	3	3	1	3	3	3	3	3	3	3	3	3	3	0	3
13	3	3	3	3	0	3	3	1	3	3	3	1	1	3	3	1	3	3	1	3
14	3	3	3	3	0	1	3	3	3	3	3	0	3	3	3	3	3	3	1	3
15	3	3	3	1	0	1	3	3	3	3	3	0	3	3	3	3	3	3	0	3
16	1	3	3	1	3	0	0	1	3	3	3	0	3	1	0	3	3	3	0	3
17	1	3	3	3	0	1	0	1	3	3	0	0	3	3	3	3	3	0	0	3
18	3	3	3	0	1	1	3	1	3	3	3	3	3	3	3	3	3	0	0	3
Sum	**46**	**54**	**54**	**45**	**9**	**18**	**45**	**32**	**45**	**54**	**42**	**28**	**50**	**52**	**41**	**48**	**48**	**24**	**13**	**54**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**85%**	**100%**	**100%**	**83%**	**17%**	**33%**	**83%**	**59%**	**83%**	**100%**	**78%**	**52%**	**93%**	**96%**	**76%**	**89%**	**89%**	**44%**	**24%**	**100%**

2. Job in General

	Respondent																			
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**
Level of Management	Lower	Middle	Non	Senior	Middle	Lower	Lower	Middle	Middle	Top	Senior	Lower	Lower	Middle	Lower	Middle	Lower	Lower	Lower	Non
Length of service (years)	10-20	5-10	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20	10-20	5-10	2-5	below 1	5-10	2-5	2-5	2-5	2-5	2-5
Experience in construction	10-20	above 3	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20	20-30	5-10	2-5	below 1	5-10	5-10	2-5	2-5	2-5	5-10
Nationality - Current	Botswana	Botswana	Botswana	Australia	Botswana	Botswana	Botswana	Botswana	Lebanon	Botswana	Zimbabwe	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Female	Male	Male	Female	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	35-39	50-59	40-49	40-49	40-49	40-49	30-34	40-49	30-34	40-49	40-49	40-49	30-34	40-49	25-29	40-49	35-39	25-29	25-29	25-29
1	3	3	3	3	3	1	3	1	3	3	3	0	3	3	3	1	3	3	3	3
2	3	3	3	3	3	3	3	3	3	3	3	1	3	3	3	3	3	3	3	3
3	3	3	3	3	1	1	3	3	3	3	0	0	3	1	3	3	3	3	0	3
4	3	3	3	3	3	1	3	3	3	3	3	1	3	3	3	3	3	3	3	3
5	3	3	3	3	3	1	3	3	3	3	3	1	3	3	3	3	3	3	3	3
6	1	3	0	3	3	1	3	1	3	3	3	3	3	1	3	1	0	3	3	3
7	3	3	3	3	1	1	3	1	3	3	3	0	0	1	3	1	3	3	3	3
8	3	3	3	1	1	1	3	3	3	3	3	1	3	1	3	3	3	3	3	3
9	3	3	3	3	1	1	3	1	3	3	3	3	3	3	3	3	3	3	3	3
10	3	3	3	3	1	0	0	3	3	3	0	0	3	3	0	3	3	3	0	3
11	3	3	0	1	1	0	0	3	3	3	3	0	0	1	3	3	0	0	0	3
12	1	3	3	3	3	1	3	3	3	3	3	3	1	1	3	1	3	3	3	3
13	1	1	3	3	3	0	3	1	3	3	3	0	0	3	3	3	0	0	1	3
14	1	3	0	3	3	1	3	3	3	3	3	0	1	1	3	1	0	3	3	3
15	3	3	3	3	0	0	3	3	3	3	0	0	3	3	0	3	3	3	0	3
16	1	0	0	3	3	1	3	1	3	0	3	0	3	0	1	3	3	3	3	1
17	1	3	3	3	0	1	3	3	3	3	3	0	3	3	3	3	0	3	3	3
18	1	3	3	3	0	0	3	1	3	3	0	0	1	1	3	3	0	0	0	3
Sum	**40**	**49**	**42**	**50**	**33**	**15**	**48**	**40**	**54**	**51**	**42**	**13**	**39**	**35**	**46**	**44**	**36**	**45**	**37**	**52**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**74%**	**91%**	**78%**	**93%**	**61%**	**28%**	**89%**	**74%**	**100%**	**94%**	**78%**	**24%**	**72%**	**65%**	**85%**	**81%**	**67%**	**83%**	**69%**	**96%**

3. Work on present Job

	Respondent																			
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**
1	3	3	3	3	0	0	3	3	3	3	3	0	3	3	3	3	3	3	3	3
2	3	3	0	3	3	1	3	1	3	3	0	0	3	3	0	0	3	3	3	3
3	3	3	3	3	0	0	0	3	3	3	3	0	3	3	3	3	3	3	0	3
4	3	3	3	3	0	1	3	3	3	3	3	0	3	3	3	3	3	0	3	3
5	3	3	3	3	0	0	3	3	3	3	3	0	3	0	3	3	3	0	3	3
6	3	3	3	3	1	1	3	3	3	3	3	1	3	3	3	3	3	0	3	3
7	3	3	3	3	0	1	0	3	3	3	3	1	3	3	3	3	3	3	3	3
8	3	3	3	3	0	0	3	3	3	3	3	0	3	3	3	3	3	3	3	3
9	3	3	3	3	0	0	3	3	3	3	3	0	3	3	3	3	0	0	0	3
10	3	3	3	3	1	1	3	3	3	3	3	0	3	3	3	0	0	3	3	3
11	3	3	3	3	0	3	3	3	3	3	3	1	3	3	3	0	0	3	3	3
12	3	3	0	3	1	3	0	1	0	0	3	0	3	3	3	3	0	3	3	0
13	3	3	0	3	0	1	0	1	0	3	0	1	3	1	0	1	3	3	1	0
14	3	3	3	3	0	0	3	1	3	3	3	0	0	3	0	3	3	0	3	3
15	3	3	0	3	0	1	3	3	3	3	3	1	3	3	3	1	3	3	3	3
16	3	3	3	3	3	1	3	3	3	3	3	0	3	3	3	3	3	3	3	3
17	3	3	3	3	0	0	3	3	3	3	3	1	3	3	3	3	0	0	3	3
18	3	3	3	3	3	3	3	3	3	3	3	3	0	1	3	3	0	0	3	3
Sum	**54**	**54**	**42**	**54**	**12**	**17**	**42**	**46**	**48**	**51**	**48**	**9**	**48**	**47**	**45**	**41**	**36**	**33**	**46**	**48**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**100%**	**100%**	**78%**	**100%**	**22%**	**31%**	**78%**	**85%**	**89%**	**94%**	**89%**	**17%**	**89%**	**87%**	**83%**	**76%**	**67%**	**61%**	**85%**	**89%**

4. Pay

	Respondent																			
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**
Level of Management	Lower	Middle	Non	Senior	Middle	Lower	Lower	Middle	Middle	Top	Senior	Lower	Lower	Middle	Lower	Middle	Lower	Lower	Lower	Non
Length of service (years)	10-20	5-10	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20	10-20	5-10	2-5	below 1	5-10	2-5	2-5	2-5	2-5	2-5
Experience in construction	10-20	above 3	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20	20-30	5-10	2-5	below 1	5-10	5-10	2-5	2-5	2-5	5-10
Nationality - Current	Botswana	Botswana	Botswana	Australia	Botswana	Botswana	Botswana	Botswana	Lebanon	Botswana	Zimbabwe	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Female	Male	Male	Female	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	35-39	50-59	40-49	40-49	40-49	40-49	30-34	40-49	30-34	40-49	40-49	40-49	30-34	40-49	25-29	40-49	35-39	25-29	25-29	25-29
1	0	3	0	3	0	0	0		0	0	3	0	0	1	3	3	0	0	0	0
2	0	0	0	1	0	0	3		3	3	3	0	0	1	0	1	0	3	0	3
3	3	0	3	3	3	0	0		3	3	3	0	3	1	0	1	3	3	1	0
4	0	3	0	3	0	0	3		3	3	3	0	0	1	3	3	3	3	0	3
5	0	3	0	3	0	0	0		3	3	3	0	0	1	1	1	3	3	0	0
6	0	0	0	1	0	0	0		0	0	0	0	0	1	0	0	0	3	0	3
7	0	0	0	1	0	0	0		0	0	0	0	3	1	0	1	0	0	0	3
8	0	3	0	3	0	0	0		3	0	3	0	0	1	0	0	0	0	0	0
9	0	0	0	3	0	0	3		0	0	3	0	0	1	0	1	3	3	0	3
Sum x 2	6	24	6	42	6	0	18	0	30	24	42	0	12	18	14	22	24	36	2	30
Possible total	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
Percentage	**11%**	**44%**	**11%**	**78%**	**11%**	**0%**	**33%**	**0%**	**56%**	**44%**	**78%**	**0%**	**22%**	**33%**	**26%**	**41%**	**44%**	**67%**	**4%**	**56%**

5. Opportunities for Promotion

	Respondent																			
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**
Level of Management	Lower	Middle	Non	Senior	Middle	Lower	Lower	Middle	Middle	Top	Senior	Lower	Lower	Middle	Lower	Middle	Lower	Lower	Lower	Non
Length of service (years)	10-20	5-10	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20	10-20	5-10	2-5	below 1	5-10	2-5	2-5	2-5	2-5	2-5
Experience in construction	10-20	above 3	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20	20-30	5-10	2-5	below 1	5-10	5-10	2-5	2-5	2-5	5-10
Nationality - Current	Botswana	Botswana	Botswana	Australia	Botswana	Botswana	Botswana	Botswana	Lebanon	Botswana	Zimbabwe	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Female	Male	Male	Female	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	35-39	50-59	40-49	40-49	40-49	40-49	30-34	40-49	30-34	40-49	40-49	40-49	30-34	40-49	25-29	40-49	35-39	25-29	25-29	25-29
1	0	3	0	3	0	0	3		0	3	0	0	3	3	3	3	0		3	3
2	0	0	0	1	3	1	3		0	3	0	0	3	0	0	1	0		3	3
3	1	0	3	1	0	1	3		3	3	0	1	0	1	3	1	3		3	3
4	1	1	0	1	0	1	3		3	3	0	1	3	3	3	1	3		3	1
5	1	1	0	3	0	0	3		0	3	0	0	3	3	0	3	3		3	3
6	0	0	0	3	0	1	0		0	0	0	0	0	3	0	1	0		3	3
7	1	1	0	3	0	0	0		3	0	0	3	3	1	0	1	0		1	1
8	1	0	0	3	0	0	0		3	0	0	0	0	1	0	1	0		1	3
9	1	3	0	3	0	1	3		0	3	3	0	0	3	0	0	3		3	3
Sum x2	12	18	6	42	6	10	36	0	24	36	6	10	30	36	18	24	24	0	46	46
Possible total	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
Percentage	**22%**	**33%**	**11%**	**78%**	**11%**	**19%**	**67%**	**0%**	**44%**	**67%**	**11%**	**19%**	**56%**	**67%**	**33%**	**44%**	**44%**	**0%**	**85%**	**85%**

6. Supervision

	Respondent																			
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**	**R18**	**R19**	**R20**
Level of Management	Lower	Middle	Non	Senior	Middle	Lower	Lower	Middle	Middle	Top	Senior	Lower	Lower	Middle	Lower	Middle	Lower	Lower	Lower	Non
Length of service (years)	10-20	5-10	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20	10-20	5-10	2-5	below 1	5-10	2-5	2-5	2-5	2-5	2-5
Experience in construction	10-20	above 3	2-5	20-30	10-20	5-10	5-10	5-10	2-5	10-20	20-30	5-10	2-5	below 1	5-10	5-10	2-5	2-5	2-5	5-10
Nationality - Current	Botswana	Botswana	Botswana	Australia	Botswana	Botswana	Botswana	Botswana	Lebanon	Botswana	Zimbabwe	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Female	Male	Male	Female	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	35-39	50-59	40-49	40-49	40-49	40-49	30-34	40-49	30-34	40-49	40-49	40-49	30-34	40-49	25-29	40-49	35-39	25-29	25-29	25-29
1	3	3	3	3	0	0	3		3	3	3	1	3	3	3	3	0		3	3
2	0	3	3	0	0	0	0		3	3	3	0	3	3	3	3	0		3	3
3	1	3	3	3	3	1	3		3	3	3	0	3	3	3	3	3		3	3
4	3	3	3	3	0	1	3		3	3	3	1	3	3	0	1	3		3	3
5	1	3	0	1	0	1	3		1	0	3	3	3	3	1	1	0		3	3
6	1	3	3	3	0	1	3		3	3	3	0	3	0	3	1	0		3	3
7	1	3	3	3	0	0	3		3	3	3	0	3	3	0	1	0		3	3
8	1	3	3	3	0	1	3		3	3	3	0	3	3	3	1	3		3	3
9	1	0	3	1	0	0	3		3	3	0	1	3	3	0	0	3		3	3
10	1	3	3	3	0	1	3		3	3	3	1	0	3	3	3	3		3	0
11	1	3	3	3	0	1	3		3	3	3	3	3	3	3	1	3		3	3
12	1	3	3	1	3	1	3		3	3	3	3	3	3	3	3	3		3	3
13	3	3	3	3	3	3	3		3	3	3	3	3	3	3	3	3		3	3
14	1	3	3	3	3	1	3		3	3	3	1	3	3	3	3	3		3	3
15	1	3	3	3	3	3	3		3	3	3	1	3	3	1	1	3		3	3
16	1	3	3	3	0	1	3		3	3	3	1	3	3	3	3	0		3	3
17	3	3	3	3	3	1	3		3	3	3	3	3	3	3	3	0		3	3
18	1	3	3	3	3	1	3		3	3	3	3	3	3	3	3	0		3	3
Sum	**25**	**51**	**51**	**45**	**21**	**18**	**51**	**0**	**52**	**51**	**51**	**25**	**51**	**51**	**41**	**37**	**30**	**0**	**54**	**51**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**46%**	**94%**	**94%**	**83%**	**39%**	**33%**	**94%**	**0%**	**96%**	**94%**	**94%**	**46%**	**94%**	**94%**	**76%**	**69%**	**56%**	**0%**	**100%**	**94%**

1. People on your present job

	Respondent																
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**
Level of Management	Non	Non	Non	Non	Non	Non	Lower	Lower	Non	Lower	Lower	Non	Senior	Lower	Lower	Middle	Non
Length of service (years)	below 1	below 1	below 1	5-10	10-20	2-5	2-5	5-10	2-5	2-5	5-10	10-20	10-20	2-5	2-5	5-10	2-5
Experience in construction	below 1	below 1	below 1	5-10	10-20	2-5	5-10	5-10	2-5	10-20	10-20	10-20	20-30	2-5	5-10	10-20	5-10
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Female	Male	Male	Male	Female	Male	Male	Male	Female	Male	Male	Male	Male	Female	Female	Male
Age	20-24	30-34	35-39	35-39	40-49	40-49	35-39	40-49	30-34	35-39	40-49	30-34	40-49	25-29	25-29	35-39	40-49
1	3	3	3	0	3	1	3	0	0	3	3	3	3	0	3	3	3
2	1	3	3	0	3	0	3	3	3	3	3	1	3	3	3	3	3
3	3	3	3	3	3	1	3	3	3	3	3	3	3	0	1	3	3
4	3	3	3	0	3	1	0	3	3	3	3	3	0	0	3	3	3
5	1	3	3	1	3	1	3	3	3	3	3	1	3	3	3	3	3
6	1	3	3	3	3	1	3	3	3	0	3	3	3	3	3	3	3
7	1	3	3	3	3	1	3	3	3	3	3	3	3	0	3	3	3
8	1	3	3	3	3	1	0	3	0	1	3	0	0	1	1	0	3
9	0	3	3	3	0	0	3	3	3	3	3	0	3	0	3	3	3
10	0	3	3	3	3	0	3	3	3	3	3	3	3	0	3	3	3
11	1	3	3	3	3	1	0	0	0	0	3	3	0	1	3	1	3
12	0	3	3	3	3	1	3	0	3	0	3	3	3	0	3	3	3
13	0	3	3	3	1	1	3	3	3	1	3	3	3	1	1	3	3
14	1	3	3	3	3	1	3	3	0	3	3	3	3	1	3	3	3
15	0	3	3	3	3	1	0	3	1	3	0	3	3	0	3	1	3
16	0	0	3	1	3	1	3	0	1	3	3	0	3	0	3	0	3
17	1	3	3	1	0	0	0	3	3	3	3	3	0	0	3	3	3
18	1	3	3	3	3	0	3	3	3	3	3	3	3	0	3	3	3
Sum	**18**	**51**	**54**	**39**	**46**	**13**	**39**	**42**	**38**	**41**	**51**	**41**	**42**	**13**	**48**	**44**	**54**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**33%**	**94%**	**100%**	**72%**	**85%**	**24%**	**72%**	**78%**	**70%**	**76%**	**94%**	**76%**	**78%**	**24%**	**89%**	**81%**	**100%**

2. Job in General

	Respondent																
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**
Level of Management	Non	Non	Non	Non	Non	Non	Lower	Lower	Non	Lower	Lower	Non	Senior	Lower	Lower	Middle	Non
Length of service (years)	below 1	below 1	below 1	5-10	10-20	2-5	2-5	5-10	2-5	2-5	5-10	10-20	10-20	2-5	2-5	5-10	2-5
Experience in construction	below 1	below 1	below 1	5-10	10-20	2-5	5-10	5-10	2-5	10-20	10-20	10-20	20-30	2-5	5-10	10-20	5-10
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Female	Male	Male	Male	Female	Male	Male	Male	Female	Male	Male	Male	Male	Female	Female	Male
Age	20-24	30-34	35-39	35-39	40-49	40-49	35-39	40-49	30-34	35-39	40-49	30-34	40-49	25-29	25-29	35-39	40-49
1	0	0	3	3	1	0	3	3	0	3	3	3	3	3	1	3	3
2	0	0	3	3	3	0	3	3	3	3	3	3	3	3	3	3	3
3	0	0	3	3	3	0	0	0	0	0	3	3	0	3	3	0	3
4	0	0	3	1	3	0	3	3	3	0	3	3	3	3	3	3	3
5	0	0	3	1	3	0	3	3	3	3	3	3	3	3	3	3	3
6	0	0	3	1	1	0	3	3	1	3	3	3	3	3	1	3	3
7	0	0	3	1	1	3	3	3	3	3	3	3	3	3	1	3	3
8	0	0	3	1	3	0	3	3	3	3	3	3	3	3	3	3	3
9	0	0	3	3	3	3	3	3	0	3	3	3	3	3	3	3	3
10	0	0	3	1	3	0	0	0	0	0	0	0	0	3	3	0	0
11	0	0	3	0	0	0	3	0	0	3	3	3	3	3	3	3	0
12	0	3	0	1	1	0	3	3	3	3	3	3	3	3	1	3	3
13	0	0	3	3	3	0	0	0	0	3	3	3	3	3	3	3	3
14	0	3	3	1	1	0	3	3	0	3	3	3	3	3	1	3	3
15	0	0	0	3	3	0	0	0	0	0	3	0	0	3	3	0	3
16	0	3	3	1	1	3	0	3	3	3	3	1	3	1	3	3	3
17	0	0	3	0	3	0	3	3	3	3	3	3	3	3	3	3	3
18	0	3	3	1	1	0	3	0	0	3	3	3	0	3	3	0	3
Sum	**0**	**12**	**48**	**28**	**37**	**9**	**39**	**36**	**25**	**42**	**51**	**46**	**42**	**52**	**44**	**42**	**48**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**0%**	**22%**	**89%**	**52%**	**69%**	**17%**	**72%**	**67%**	**46%**	**78%**	**94%**	**85%**	**78%**	**96%**	**81%**	**78%**	**89%**

3. Work on present Job

	Respondent																
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**
Level of Management	Non	Non	Non	Non	Non	Non	Lower	Lower	Non	Lower	Lower	Non	Senior	Lower	Lower	Middle	Non
Length of service (years)	below 1	below 1	below 1	5-10	10-20	2-5	2-5	5-10	2-5	2-5	5-10	10-20	10-20	2-5	2-5	5-10	2-5
Experience in construction	below 1	below 1	below 1	5-10	10-20	2-5	5-10	5-10	2-5	10-20	10-20	10-20	20-30	2-5	5-10	10-20	5-10
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Female	Male	Male	Male	Female	Male	Male	Male	Female	Male	Male	Male	Male	Female	Female	Male
Age	20-24	30-34	35-39	35-39	40-49	40-49	35-39	40-49	30-34	35-39	40-49	30-34	40-49	25-29	25-29	35-39	40-49
1	0	3	3	3	3	0	0	3	0	0	3	3	3	3	3	3	3
2	0	3	0	0	0	0	3	0	1	0	3	0	0	3	0	0	0
3	0	3	3	0	3	0	0	3	0	3	3	3	3	0	3	3	3
4	0	0	3	1	1	0	3	3	3	3	3	3	3	3	3	3	3
5	0	0	3	1	3	0	3	3	3	3	3	3	3	3	3	3	3
6	0	0	3	0	1	0	3	3	0	3	3	3	3	3	3	3	3
7	0	3	1	0	3	3	0	3	0	3	3	3	3	3	3	3	3
8	0	3	3	0	3	0	0	0	0	3	3	3	3	3	3	3	3
9	0	0	1	0	1	0	3	0	3	3	3	3	3	0	3	3	3
10	0	0	3	0	3	0	3	3	0	3	3	3	3	3	0	3	3
11	0	0	3	0	3	3	3	3	0	3	3	3	3	3	0	3	3
12	3	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3
13	0	3	0	0	1	3	3	0	0	0	0	0	0	1	1	0	0
14	0	0	3	0	3	0	3	0	0	0	3	0	3	3	3	0	3
15	0	0	3	0	1	0	3	3	3	3	3	3	3	3	1	3	3
16	0	3	3	0	3	0	3	3	0	3	3	3	3	3	3	3	3
17	0	0	3	0	1	0	3	0	3	3	3	3	3	3	3	3	3
18	0	0	1	0	0	3	3	0	3	3	3	3	3	3	3	3	3
Sum	**3**	**21**	**39**	**5**	**33**	**15**	**42**	**33**	**22**	**42**	**51**	**45**	**48**	**46**	**41**	**45**	**48**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**6%**	**39%**	**72%**	**9%**	**61%**	**28%**	**78%**	**61%**	**41%**	**78%**	**94%**	**83%**	**89%**	**85%**	**76%**	**83%**	**89%**

4. Pay

	Respondent																
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**
Level of Management	Non	Non	Non	Non	Non	Non	Lower	Lower	Non	Lower	Lower	Non	Senior	Lower	Lower	Middle	Non
Length of service (years)	below 1	below 1	below 1	5-10	10-20	2-5	2-5	5-10	2-5	2-5	5-10	10-20	10-20	2-5	2-5	5-10	2-5
Experience in construction	below 1	below 1	below 1	5-10	10-20	2-5	5-10	5-10	2-5	10-20	10-20	10-20	20-30	2-5	5-10	10-20	5-10
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Female	Male	Male	Male	Female	Male	Male	Male	Female	Male	Male	Male	Male	Female	Female	Male
Age	20-24	30-34	35-39	35-39	40-49	40-49	35-39	40-49	30-34	35-39	40-49	30-34	40-49	25-29	25-29	35-39	40-49
1	3	0	1	1	1	1	3	3	3	3	3	3	3	0	3	3	3
2	3	3	1	0	3	0	3	0	0	3	3	0	3	0	1	0	3
3	3	0	1	0	1	1	3	3	3	3	3	0	3	1	1	3	3
4	3	0	1	0	1	0	3	3	0	3	3	3	3	0	3	3	1
5	1	0	1	0	3	0	3	3	0	3	3	1	3	0	1	3	3
6	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8	1	0	1	0	0	0	3	0	3	0	3	0	3	0	0	0	3
9	3	0	1	0	0	0	0	0	0	0	3	0	3	0	1	0	0
Sum x2	34	6	22	4	18	4	36	24	18	30	42	14	42	2	22	24	34
Possible total	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
Percentage	**63%**	**11%**	**41%**	**7%**	**33%**	**7%**	**67%**	**44%**	**33%**	**56%**	**78%**	**26%**	**78%**	**4%**	**41%**	**44%**	**63%**

5. Opportunities for Promotion

	Respondent																
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**
Level of Management	Non	Non	Non	Non	Non	Non	Lower	Lower	Non	Lower	Lower	Non	Senior	Lower	Lower	Middle	Non
Length of service (years)	below 1	below 1	below 1	5-10	10-20	2-5	2-5	5-10	2-5	2-5	5-10	10-20	10-20	2-5	2-5	5-10	2-5
Experience in construction	below 1	below 1	below 1	5-10	10-20	2-5	5-10	5-10	2-5	10-20	10-20	10-20	20-30	2-5	5-10	10-20	5-10
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Female	Male	Male	Male	Female	Male	Male	Male	Female	Male	Male	Male	Male	Female	Female	Male
Age	20-24	30-34	35-39	35-39	40-49	40-49	35-39	40-49	30-34	35-39	40-49	30-34	40-49	25-29	25-29	35-39	40-49
1	0	0	0	0	3	0	0	0	0	0	3	3	0	3	3	0	0
2	0	3	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0
3	0	0	0	0	3	0	3	0	0	0	3	3	0	3	1	0	1
4	0	0	0	0	1	0	3	3	0	3	3	3	0	3	1	3	3
5	0	0	0	0	3	0	0	0	0	0	3	0	0	3	3	0	0
6	0	3	0	0	0	1	0	3	0	3	0	0	0	3	1	0	0
7	1	0	0	0	1	0	3	0	0	3	0	0	0	1	1	0	0
8	0	0	0	0	3	0	0	0	0	0	0	0	0	1	1	0	0
9	0	3	0	0	1	0	3	0	0	0	3	0	3	3	0	0	0
Sum x2	2	18	0	0	30	2	24	12	0	18	30	18	6	46	24	6	8
Possible total	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
Percentage	**4%**	**33%**	**0%**	**0%**	**56%**	**4%**	**44%**	**22%**	**0%**	**33%**	**56%**	**33%**	**11%**	**85%**	**44%**	**11%**	**15%**

6. Supervision

	Respondent																
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**	**R17**
Level of Management	Non	Non	Non	Non	Non	Non	Lower	Lower	Non	Lower	Lower	Non	Senior	Lower	Lower	Middle	Non
Length of service (years)	below 1	below 1	below 1	5-10	10-20	2-5	2-5	5-10	2-5	2-5	5-10	10-20	10-20	2-5	2-5	5-10	2-5
Experience in construction	below 1	below 1	below 1	5-10	10-20	2-5	5-10	5-10	2-5	10-20	10-20	10-20	20-30	2-5	5-10	10-20	5-10
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Female	Male	Male	Male	Female	Male	Male	Male	Female	Male	Male	Male	Male	Female	Female	Male
Age	20-24	30-34	35-39	35-39	40-49	40-49	35-39	40-49	30-34	35-39	40-49	30-34	40-49	25-29	25-29	35-39	40-49
1	0	3	0	0	1	0	3	0	3	3	3	3	3	3	3	3	3
2	0	0	0	0	0	1	0	3	3	3	3	3	3	3	3	3	3
3	0	0	3	3	3	0	3	0	3	3	3	3	3	3	3	3	3
4	0	3	0	1	1	0	0	3	3	3	3	0	3	3	1	3	3
5	1	3	1	1	0	1	0	3	1	3	3	1	3	3	1	3	1
6	0	3	1	3	1	1	0	3	1	3	3	3	3	3	1	3	1
7	0	0	1	0	1	0	3	3	3	3	3	0	3	3	1	3	3
8	0	0	0	3	0	0	3	3	3	3	3	3	3	3	1	3	3
9	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
10	3	1	1	0	1	0	0	0	0	3	3	3	3	3	3	3	1
11	0	0	0	3	1	0	3	3	3	3	3	3	3	3	1	3	3
12	0	0	0	3	1	0	3	3	3	3	3	3	3	3	3	3	3
13	1	1	0	1	3	0	0	3	3	0	3	3	3	3	3	3	3
14	0	0	0	1	1	0	3	3	3	3	3	3	3	3	3	3	3
15	0	3	3	1	3	0	3	0	1	3	3	1	3	3	1	1	3
16	0	1	0	1	0	0	3	3	1	3	3	3	3	3	3	3	3
17	1	3	3	0	3	3	3	3	3	3	3	3	3	3	3	3	3
18	1	0	3	1	3	3	3	3	3	3	3	3	3	3	3	3	3
Sum	**7**	**22**	**16**	**22**	**23**	**9**	**33**	**39**	**40**	**48**	**51**	**41**	**51**	**54**	**37**	**49**	**48**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**13%**	**41%**	**30%**	**41%**	**43%**	**17%**	**61%**	**72%**	**74%**	**89%**	**94%**	**76%**	**94%**	**100%**	**69%**	**91%**	**89%**

Appendix O : Organisation C JDI responses

1. People on your present job

	Respondent								
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**
Level of Management	Lower	Middle	Lower	Non	Middle	Non	Middle	Senior	Lower
Length of service (years)	2-5	5-10	10-20	5-10	below 1	2-5	10-20	2-5	2-5
Experience in construction	2-5	above 30	10-20	5-10	5-10	5-10	10-20	2-5	2-5
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	20-24	50-59	40-49	30-34	30-34	30-34	40-49	25-29	30-34
1	3	3	1	1	3	3	3	3	3
2	0	0	0	0	3	3	3	3	3
3	3	3	3	0	0	3	0	3	3
4	3	3	3	3	3	3	3	0	3
5	3	3	3	3	3	3	3	3	3
6	0	3	3	3	3	3	3	3	3
7	1	3	3	3	3	3	3	3	0
8	3	3	3	3	3	3	3	3	0
9	0	0	0	0	0	0	0	3	3
10	1	3	0	0	3	3	3	3	0
11	0	3	3	3	3	3	3	3	3
12	1	3	3	3	3	0	3	3	3
13	1	3	3	3	3	1	3	1	3
14	1	3	3	3	3	3	3	3	3
15	3	3	3	3	3	3	3	3	3
16	1	0	0	0	0	1	0	3	3
17	3	0	0	0	3	0	3	3	3
18	0	3	3	1	3	1	3	3	3
Sum	**27**	**42**	**37**	**32**	**45**	**39**	**45**	**49**	**45**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**50%**	**78%**	**69%**	**59%**	**83%**	**72%**	**83%**	**91%**	**83%**

2. Job in General

	Respondent								
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**
Level of Management	Lower	Middle	Lower	Non	Middle	Non	Middle	Senior	Lower
Length of service (years)	2-5	5-10	10-20	5-10	below 1	2-5	10-20	2-5	2-5
Experience in construction	2-5	above 30	10-20	5-10	5-10	5-10	10-20	2-5	2-5
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	20-24	50-59	40-49	30-34	30-34	30-34	40-49	25-29	30-34
1	1	0	3	3	3	3	3	3	3
2	1	3	3	3	3	3	3	3	0
3	3	0	3	3	3	1	3	3	0
4	3	3	3	3	3	1	3	3	3
5	3	3	3	3	3	3	3	3	3
6	3	0	3	3	3	0	3	3	0
7	1	3	3	3	3	3	3	3	0
8	3	3	3	3	3	1	3	3	3
9	3	3	3	3	3	3	3	3	0
10	1	0	3	3	3	1	3	1	0
11	0	3	3	3	3	1	3	3	3
12	1	3	3	3	0	1	0	1	3
13	3	3	3	3	3	1	3	3	3
14	1	0	3	3	3	1	3	1	3
15	3	0	3	3	3	1	3	3	3
16	1	3	3	3	0	1	0	1	3
17	1	0	1	1	3	3	3	3	3
18	0	0	3	3	3	1	3	0	0
Sum	**32**	**30**	**52**	**52**	**48**	**29**	**48**	**43**	**33**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**59%**	**56%**	**96%**	**96%**	**89%**	**54%**	**89%**	**80%**	**61%**

3. Work on present Job

	Respondent								
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**
Level of Management	Lower	Middle	Lower	Non	Middle	Non	Middle	Senior	Lower
Length of service (years)	2-5	5-10	10-20	5-10	below 1	2-5	10-20	2-5	2-5
Experience in construction	2-5	above 30	10-20	5-10	5-10	5-10	10-20	2-5	2-5
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	20-24	50-59	40-49	30-34	30-34	30-34	40-49	25-29	30-34
1	3	3	3	3	3	3	3	3	3
2	3	0	3	3	1	0	1	3	3
3	1	3	1	1	3	0	3	3	0
4	0	3	1	1	3	3	3	3	0
5	0	3	3	3	3	3	3	3	3
6	0	3	3	3	3	1	3	3	3
7	0	3	1	1	3	3	3	3	3
8	3	0	3	3	3	3	3	3	0
9	0	0	1	1	3	3	3	1	0
10	3	3	3	3	3	3	3	0	3
11	3	3	3	3	3	3	3	1	3
12	3	3	3	3	0	3	3	0	3
13	1	0	1	1	0	3	0	0	3
14	3	3	3	3	3	3	3	3	0
15	0	3	3	3	3	3	3	3	3
16	3	0	3	3	3	3	3	0	0
17	0	3	3	3	3	3	3	3	3
18	3	0	3	3	3	3	3	0	3
Sum	**29**	**36**	**44**	**44**	**46**	**46**	**49**	**35**	**36**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**54%**	**67%**	**81%**	**81%**	**85%**	**85%**	**91%**	**65%**	**67%**

4. Pay

	Respondent								
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**
Level of Management	Lower	Middle	Lower	Non	Middle	Non	Middle	Senior	Lower
Length of service (years)	2-5	5-10	10-20	5-10	below 1	2-5	10-20	2-5	2-5
Experience in construction	2-5	above 30	10-20	5-10	5-10	5-10	10-20	2-5	2-5
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	20-24	50-59	40-49	30-34	30-34	30-34	40-49	25-29	30-34
1	3	3	0	0	0	0	3	1	1
2	3	0	0	0	0	0	3	3	3
3	3	0	0	0	0	3	0	1	0
4	0	0	0	0	0	3	3	3	0
5	1	0	0	0	0	0	3	3	3
6	1	0	0	0	0	3	3	0	0
7	1	0	0	0	0	0	3	0	3
8	0	0	0	0	0	0	3	3	0
9	1	0	0	0	0	3	0	0	3
Sum x 2	26	6	0	0	0	24	42	28	26
Possible total	54	54	54	54	54	54	54	54	54
Percentage	**48%**	**11%**	**0%**	**0%**	**0%**	**44%**	**78%**	**52%**	**48%**

5. Opportunities for Promotion

	Respondent								
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**
Level of Management	Lower	Middle	Lower	Non	Middle	Non	Middle	Senior	Lower
Length of service (years)	2-5	5-10	10-20	5-10	below 1	2-5	10-20	2-5	2-5
Experience in construction	2-5	above 30	10-20	5-10	5-10	5-10	10-20	2-5	2-5
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	20-24	50-59	40-49	30-34	30-34	30-34	40-49	25-29	30-34
1	0	0	1	1	0	3	3	3	3
2	1	0	0	0	3	3	3	0	3
3	0	3	3	3	3	3	3	3	3
4	3	0	1	1	0	0	0	3	3
5	3	0	1	1	3	3	3	3	3
6	1	0	0	0	3	3	3	0	3
7	0	3	1	1	3	0	3	0	3
8	0	0	0	0	3	3	3	3	0
9	0	0	3	3	3	3	3	3	0
Sum x2	16	12	20	20	42	42	48	36	42
Possible total	54	54	54	54	54	54	54	54	54
Percentage	**30%**	**22%**	**37%**	**37%**	**78%**	**78%**	**89%**	**67%**	**78%**

6. Supervision

	Respondent								
Item	**R1**	**R2**	**R3**	**R4**	**R5**	**R6**	**R7**	**R8**	**R9**
Level of Management	Lower	Middle	Lower	Non	Middle	Non	Middle	Senior	Lower
Length of service (years)	2-5	5-10	10-20	5-10	below 1	2-5	10-20	2-5	2-5
Experience in construction	2-5	above 30	10-20	5-10	5-10	5-10	10-20	2-5	2-5
Nationality - Current	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana	Botswana
Gender	Male	Male	Male	Male	Male	Male	Male	Male	Male
Age	20-24	50-59	40-49	30-34	30-34	30-34	40-49	25-29	30-34
1	1	3	1	1	3	3	3	3	0
2	0	0	0	0	0	1	1	1	3
3	3	0	1	1	3	1	0	3	3
4	0	3	3	3	3	1	3	3	3
5	3	3	3	3	3	1	3	3	0
6	3	3	1	1	0	3	0	3	0
7	0	0	1	1	3	1	3	3	3
8	3	3	1	1	3	1	3	3	3
9	0	0	0	0	3	1	3	0	0
10	3	0	3	3	0	1	0	3	3
11	0	3	1	1	3	1	3	0	0
12	1	3	1	1	3	1	3	3	3
13	3	3	3	3	3	1	3	3	3
14	0	3	3	3	3	1	3	3	0
15	3	3	3	1	3	1	3	3	3
16	0	3	3	3	3	1	3	3	3
17	0	3	3	3	3	1	3	0	3
18	3	3	3	3	3	1	3	3	3
Sum	**26**	**39**	**34**	**32**	**45**	**22**	**43**	**43**	**36**
Possible total	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**	**54**
Percentage	**48%**	**72%**	**63%**	**59%**	**83%**	**41%**	**80%**	**80%**	**67%**

Appendix P : Organisation A - JDI Item statistics

1. People in your present job	Mean	Std. Deviation	N
Motivating	2.40	1.231	20
Boring	2.25	1.209	20
Slow	2.00	1.298	20
Helpful	2.10	1.410	20
Stupid	2.30	1.129	20
Responsible	2.50	1.051	20
Likeable	2.25	1.209	20
Intelligent	1.95	1.234	20
Easy to make enemies	1.90	1.410	20
Rude	2.35	1.182	20
Smart	2.40	1.095	20
Lazy	2.60	0.995	20
Unpleasant	2.35	1.040	20
Supportive	2.50	1.051	20
Active	2.35	1.182	20
Narrow interests	1.85	1.348	20
Frustrating	1.80	1.399	20
Stubborn	2.25	1.209	20

2. Job in General	Mean	Std. Deviation	N
Pleasant	2.55	0.945	20
Bad	2.90	0.447	20
Great	2.25	1.209	20
Waste of time	2.80	0.616	20
Good	2.80	0.616	20
Undesirable	2.20	1.152	20
Worthwhile	2.20	1.152	20
Worse than most	2.50	0.889	20
Acceptable	2.70	0.733	20
Superior	2.00	1.414	20
Better than most	1.50	1.433	20
Offensive	2.50	0.889	20
Makes me content	1.85	1.348	20
Inadequate	2.05	1.234	20
Excellent	2.10	1.410	20
Awful	1.75	1.333	20
Enjoyable	2.35	1.182	20
Lacking	1.55	1.395	20

3. Work on present job	Mean	Std. Deviation	N
Interesting	2.55	1.099	20
Unchanging	2.05	1.356	20
Satisfying	2.25	1.333	20
Boring	2.45	1.146	20
Good	2.25	1.333	20
Gives sense of accomplishment	2.55	0.945	20
Respected	2.50	1.051	20
Exciting	2.55	1.099	20
Rewarding	2.10	1.410	20
Useful	2.35	1.182	20
Challenging	2.45	1.146	20
Simple	1.75	1.446	20
Repetitive	1.35	1.309	20
Creative	2.00	1.414	20
Dull	2.40	1.095	20
Uninteresting	2.75	0.786	20
Can see results	2.30	1.261	20
Uses my abilities	2.45	1.146	20

4. Pay	Mean	Std. Deviation	N
Income adequate for normal expenses	0.84	1.344	19
Fair	1.11	1.370	19
Barely live on income	1.74	1.408	19
Bad	1.79	1.475	19
Comfortable	1.26	1.408	19
Less than I deserve	0.42	0.961	19
Well paid	0.47	0.964	19
Enough to live on	0.68	1.250	19
Underpaid	1.05	1.393	19

5. Opportunities for promotion	Mean	Std. Deviation	N
Good opportunities for promotion	1.67	1.534	18
Opportunities somewhat limited	1.17	1.383	18
Promotion on ability	1.67	1.283	18
Dead-end job	1.72	1.227	18
Good chance for promotion	1.61	1.461	18
Very limited	0.78	1.263	18
Infrequent promotions	1.00	1.188	18
Regular promotions	0.72	1.127	18
Fairly good chance for promotion	1.61	1.461	18

6. Supervision	Mean	Std. Deviation	N
Supportive	2.39	1.195	18
Hard to please	1.83	1.505	18
Impolite	2.61	0.916	18
Praises good work	2.33	1.138	18
Tactful	1.67	1.283	18
Influential	2.00	1.328	18
Up-to-date	1.94	1.392	18
Unkind	2.33	1.138	18
Has favourites	1.67	1.414	18
Tells me where I stand	2.17	1.249	18
Annoying	2.50	0.985	18
Stubborn	2.67	0.767	18
Bad	2.67	0.767	18
Intelligent	2.56	0.856	18
Poor planner	2.33	1.138	18
Around when needed	2.72	0.826	18
Lazy	2.61	0.916	18

Appendix Q : Organisation C - JDI Item Statistics

1. People in your present job	Mean	Std. Deviation	N
Motivating	2.18	1.334	17
Boring	2.41	1.121	17
Slow	2.59	0.939	17
Helpful	2.18	1.334	17
Stupid	2.53	0.874	17
Responsible	2.59	0.939	17
Likeable	2.59	0.939	17
Intelligent	1.53	1.328	17
Easy to make enemies	2.12	1.409	17
Rude	2.47	1.179	17
Smart	1.65	1.367	17
Lazy	2.18	1.334	17
Unpleasant	2.24	1.091	17
Supportive	2.47	1.007	17
Active	1.94	1.345	17
Narrow interests	1.59	1.417	17
Frustrating	1.88	1.409	17
Stubborn	2.53	1.068	17

2. Job in General	Mean	Std. Deviation	N
Pleasant	2.06	1.345	17
Bad	2.47	1.179	17
Great	1.41	1.543	17
Waste of time	2.18	1.334	17
Good	2.35	1.222	17
Undesirable	2.00	1.275	17
Worthwhile	2.29	1.160	17
Worse than most	2.35	1.222	17
Acceptable	2.47	1.179	17
Superior	0.76	1.300	17
Better than most	1.59	1.543	17
Offensive	2.12	1.269	17
Makes me content	1.94	1.478	17
Inadequate	2.12	1.269	17
Excellent	1.06	1.478	17
Awful	2.18	1.185	17
Enjoyable	2.29	1.312	17
Lacking	1.71	1.448	17

3. Work on present job	Mean	Std. Deviation	N
Interesting	2.12	1.409	17
Unchanging	0.76	1.300	17
Satisfying	1.94	1.478	17
Boring	2.24	1.251	17
Good	2.35	1.222	17
Gives sense of accomplishment	2.00	1.414	17
Respected	2.18	1.334	17
Exciting	1.94	1.478	17
Rewarding	1.71	1.448	17
Useful	1.94	1.478	17
Challenging	2.12	1.409	17
Simple	2.29	1.312	17
Repetitive	0.71	1.160	17
Creative	1.41	1.543	17
Dull	2.06	1.345	17
Uninteresting	2.29	1.312	17
Can see results	2.00	1.414	17
Uses my abilities	2.00	1.414	17

4. Pay	Mean	Std. Deviation	N
Income adequate for normal expenses	2.18	1.185	17
Fair	1.53	1.463	17
Barely live on income	1.88	1.269	17
Bad	1.76	1.393	17
Comfortable	1.65	1.367	17
Less than I deserve	0.18	0.393	17
Well paid	0.24	0.752	17
Enough to live on	1.00	1.369	17
Underpaid	0.65	1.169	17

5. Opportunities for promotion	Mean	Std. Deviation	N
Good opportunities for promotion	0.88	1.409	17
Opportunities somewhat limited	0.41	1.004	17
Promotion on ability	1.00	1.369	17
Dead-end job	1.53	1.463	17
Good chance for promotion	0.71	1.312	17
Very limited	0.82	1.286	17
Infrequent promotions	0.59	1.004	17
Regular promotions	0.29	0.772	17
Fairly good chance for promotion	0.94	1.391	17

6. Supervision	Mean	Std. Deviation	N
Supportive	2.00	1.414	17
Hard to please	1.82	1.468	17
Impolite	2.29	1.312	17
Praises good work	1.76	1.393	17
Tactful	1.71	1.160	17
Influential	1.94	1.197	17
Up-to-date	1.76	1.393	17
Unkind	2.00	1.414	17
Has favourites	0.41	1.004	17
Tells me where I stand	1.65	1.367	17
Annoying	2.06	1.345	17
Stubborn	2.18	1.334	17
Knows job well	1.94	1.345	17
Bad	2.06	1.345	17
Intelligent	1.88	1.269	17
Poor planner	1.94	1.345	17
Around when needed	2.71	0.849	17
Lazy	2.59	0.939	17

Appendix R : Organisation C - JDI Item Statistics

1. People in your present job	Mean	Std. Deviation	N
Motivating	2.56	0.882	9
Boring	1.67	1.581	9
Slow	2.00	1.500	9
Helpful	2.67	1.000	9
Stupid	3.00	0.000	9
Responsible	2.67	1.000	9
Likeable	2.44	1.130	9
Intelligent	2.67	1.000	9
Easy to make enemies	0.67	1.323	9
Rude	1.78	1.481	9
Smart	2.67	1.000	9
Lazy	2.44	1.130	9
Unpleasant	2.33	1.000	9
Supportive	2.78	0.667	9
Active	3.00	0.000	9
Narrow interests	0.89	1.269	9
Frustrating	1.67	1.581	9
Stubborn	2.22	1.202	9

2. Job in General	Mean	Std. Deviation	N
Pleasant	2.44	1.130	9
Bad	2.44	1.130	9
Great	2.11	1.364	9
Waste of time	2.78	0.667	9
Good	3.00	0.000	9
Undesirable	2.00	1.500	9
Worthwhile	2.44	1.130	9
Worse than most	2.78	0.667	9
Acceptable	2.67	1.000	9
Superior	1.67	1.323	9
Better than most	2.44	1.130	9
Offensive	1.67	1.323	9
Makes me content	2.78	0.667	9
Inadequate	2.00	1.225	9
Excellent	2.44	1.130	9
Awful	1.67	1.323	9
Enjoyable	2.00	1.225	9
Lacking	1.44	1.509	9

3. Work on present job	Mean	Std. Deviation	N
Interesting	3.00	0.000	9
Unchanging	1.89	1.364	9
Satisfying	1.67	1.323	9
Boring	1.89	1.364	9
Good	2.67	1.000	9
Gives sense of accomplishment	2.44	1.130	9
Respected	2.22	1.202	9
Exciting	2.33	1.323	9
Rewarding	1.33	1.323	9
Useful	2.67	1.000	9
Challenging	2.78	0.667	9
Simple	2.33	1.323	9
Repetitive	1.00	1.225	9
Creative	2.67	1.000	9
Dull	2.67	1.000	9
Uninteresting	2.00	1.500	9
Can see results	2.67	1.000	9
Uses my abilities	2.33	1.323	9

4. Pay	Mean	Std. Deviation	N
Income adequate for normal expenses	1.22	1.394	9
Fair	1.33	1.581	9
Barely live on income	0.78	1.302	9
Bad	1.00	1.500	9
Comfortable	1.11	1.453	9
Less than I deserve	0.78	1.302	9
Well paid	0.78	1.302	9
Enough to live on	0.67	1.323	9
Underpaid	0.78	1.302	9

5. Opportunities for promotion	Mean	Std. Deviation	N
Good opportunities for promotion	1.56	1.424	9
Opportunities somewhat limited	1.44	1.509	9
Promotion on ability	2.67	1.000	9
Dead-end job	1.22	1.394	9
Good chance for promotion	2.22	1.202	9
Very limited	1.44	1.509	9
Infrequent promotions	1.56	1.424	9
Regular promotions	1.33	1.581	9
Fairly good chance for promotion	2.00	1.500	9

6. Supervision	Mean	Std. Deviation	N
Supportive	2.00	1.225	9
Hard to please	0.67	1.000	9
Impolite	1.67	1.323	9
Praises good work	2.44	1.130	9
Tactful	2.44	1.130	9
Influential	1.56	1.424	9
Up-to-date	1.67	1.323	9
Unkind	2.33	1.000	9
Has favourites	0.78	1.302	9
Tells me where I stand	1.78	1.481	9
Annoying	1.33	1.323	9
Stubborn	2.11	1.054	9
Knows job well	2.78	0.667	9
Bad	2.11	1.364	9
Intelligent	2.56	0.882	9
Poor planner	2.44	1.130	9
Around when needed	2.11	1.364	9
Lazy	2.78	0.667	9