THE USE OF ASSESSMENT CENTRES AS A SELECTION AND DEVELOPMENT TOOL FOR EXECUTIVE LEADERS IN THE BOTSWANA PUBLIC SERVICE

By

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DECLARATION

I, Elizabeth Oarabile Nkala 202307166 hereby declare that:

- **The work contained in this dissertation is my original work**
- **Sources used or referred to have been recognised**
- **The dissertation has not been previously submitted in full or partial fulfillment of the requirements for an equivalent or higher qualification at any other recognised education institution**

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ABSTRACT

Organisations worldwide are attempting to identify talent by using various assessment methods to evaluate competencies perceived to be core to the mandate of their organisations. In recent years recruitment and selection of individuals rely on assessment methods deemed to have high validity and reliability. One such assessment method used worldwide to evaluate top management is the assessment centre, commonly referred to as the AC.

The main research problem of this study focussed on an evaluation of the extent to which the assessment centre method is effectively used for the selection and development of senior management employees in the public service of Botswana. The main research problem had eight sub-problems which were addressed through the following actions:

A comprehensive literature study was conducted to define and establish the purpose of assessment centres. Moreover, the study aimed to establish the international best practice for the administration of the assessment centre as a tool for selection and talent development. Subsequent to the literature study an interview schedule and survey questionnaire were developed based on the literature. The interview schedule was used to obtain information from consultants who provide assessment centre services to the public service. The objective of the questionnaire was to obtain information from the recipients of the service and determine the extent to which that information compares with information obtained from the consultants. The questionnaire was distributed to a randomly selected population.

The results of the empirical study were statistically analysed and interpreted and revealed that permanent and deputy permanent secretaries are more aware of the reasons for using the assessment centre method than directors and deputy directors. These senior management employees felt that the assessment centre is an effective

tool for selection and development but the results from the assessment centre are not optimally used for development.

The study revealed that generally the assessment centre process conducted in the Botswana public service is in line with international best practice of assessment centres. However, there are certain areas that need some improvement for the assessment centre to entirely conform to international best practice. These areas include the implementation of an assessment centre policy and the improvement of feedback and vital information provided to participants prior to the centre.

The empirical study also revealed that senior management employees hold the view that many senior officers in the public service do not know the importance of the assessment centre method and are not comfortable to participate in such a centre.

The assessment centre method has proven to be an effective tool for evaluating competencies. This is due to its use of multiple techniques, assessors, simulations and exercises. Theory has revealed that the assessment centre has higher validity and reliability than other assessment methods. However, due to the high costs of running assessment centres, some organisations take shortcuts and therefore jeopardise its validity.

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CHAPTER 1

INTRODUCTION, PROBLEM STATEMENT AND OUTLINE OF THE RESEARCH PROJECT

1.1 INTRODUCTION

According to Cohen and Swerdlik (2005, p. 4) in a world without any assessment procedures, personnel might be appointed on the basis of nepotism rather than documented merit. The study further expresses that in a world without assessment people can claim to be what they are not, regardless of their background, ability or professional credentials.

According to Thornton and Byham (1982, p. 6) the objective of assessment is to identify the behaviours that are predictive of adequate performance in some specified situation. Stronge and Dipaola (2001) agree and add that leadership assessment is a basic tool of personnel management. The results of the assessments are used in a variety of personnel decisions such as hiring, promotion, reward or contract renewal. Stronge and Dipaola further explain that the assessment of leaders may also be intended to identify learning needs. Recognising the importance of assessment, Queripel (2013) concludes that the essential purpose of leadership assessment is to provide insight and information to improve leadership effectiveness.

The concept of assessment is also explained by Foxcroft and Roodt (2003, p. 3) when they note that the role of assessments is to provide information that guide individuals, groups and organisations to make informed and appropriate decisions. They further explain that assessments can be used to identify strengths and limitations regarding the suitability for a job or field of study. Foxcroft and Roodt (2003, p. 4) enlighten that tools have been developed to provide people with a means of assessing human behaviour. These tools are used to gather a wide range of information which is evaluated and integrated to reach a conclusion or make a decision.

In their study on psychological assessments Cohen and Swerdlik (2005, p. 98) advocate that considering the many critical decisions

based on assessment procedures, there is a need for good tests. According to Cohen and Swerdlik (2005, p. 98) the following factors must be considered when choosing an assessment tool:

- Validity – a test is considered valid for a particular purpose if it measures what it is supposed to measure.
- Reliability – a test is considered reliable when it is consistent in measuring what it is supposed to measure. Thus a reliable measuring tool consistently measures in the same way.
- A good instrument is one that trained assessors can administer, score and interpret with the minimum of difficulty.

Cohen and Swerdlik (2005, p. 2) also explain that apart from validity and reliability a test's value is linked to the knowledge, skill and experience of the assessor. Sundberg and Tyler (1962), as quoted by Cohen and Swerdlik (2005, p. 2), observed that "tests are tools, in the hands of a fool or an unscrupulous person, they become pseudoscientific perversion." Issues of reliability and validity are also explained by Wolfaardt (2003, p. 34) when he states that any psychological measure must meet two technical requirements, namely reliability and validity. Wolfaardt (2003, p. 34) further informs that the requirements of reliability and validity have been emphasised in the Employment Equity Act (Act of 1998) of South Africa.

Schultz and Schultz (2002, p. 68) are of the opinion that every selection programme must be investigated to determine its predictive accuracy or validity. They also recommend that after six months on the job the supervisors of the newly recruited employees should rate their job performance and compare ratings with performance on the selection technique. Schultz and Schultz (2002, p. 68) are of the view that comparing the two ratings can determine how the two measures correlate and whether the technique was able to predict which of the applicants turned out to be the better workers.

The United States Office of Personnel Management (2000) emphasise that issues of validity and reliability of assessment tools should be considered when selecting these tools. They also cite the following as advantages of effective assessment:

- Employees who possess the right competencies are identified and are more likely to contribute to an organisation's success.
- It increases the ability to accurately predict the relative success of each applicant on the job.
- It results in hiring, placing and promoting greater numbers of superior performers.
- It results in cost savings to the organisation.

According to the personnel office hiring a wrong person is costly to the organisation as money is wasted on paying salary, benefits and severance pay. In a study by the U.S. Corporate Leadership Council on employee selection tests (1998, p. 2), as cited by the U.S. Office of Personnel Management (2000), hiring a wrong person in the U.S. can cost an organisation $5, 000 to $300,000 (approximately R50 000 to R3 000 000.00).

Earlier researchers on issues of assessment and selection such as Angus and Humphrey (1989, p. 41) mention that selecting a person who cannot adequately perform the work for which he or she was originally hired to do is costly to an organisation. Angus and Humphrey cite expenses incurred by an organisation as follows:

- Cost of lost performance
- Cost of manager's time spent correcting the foul-ups
- Cost of separating the departing employee
- At times legal costs incurred by the employer to defend his actions in the Industrial Court and
- Cost of finding a replacement.

Angus and Humphrey (1989, p. 43) further explain that when an organisation considers the potential cost of employing an

unsatisfactory worker it is easy to appreciate that staff selection is one of the more important skills in the effective manager's priorities. According to Angus and Humphrey (1989) selecting the right people to do the job is absolutely critical to the success of the organisation.

Angus and Humphrey (1989, p. 43) sentiments are echoed by Sartain and Finney (2003, p. 143) when they express that hiring must be the entire company's core competency, and hiring decisions should be spearheaded by human resource managers. Sartain and Finney (2003, p. 235) also caution that as hiring managers seek to recruit top talent, they may find themselves selling their companies on the strength of their values statement. According to Sartain and Finney (2003, p. 143) there may be a growing pressure for hiring managers not only to sell the value of the opportunity they are offering candidates, but also to promote their values statement and moral track record.

Authors such as Maxwell (2003, p. 15) who research and write about leadership, conclude that organisations successful in executing their mandate depend on the strength of their leaders. It is therefore vital that leaders are assessed and appointed based on their strength. Maxwell's (2003, p. 15) conclusions are echoed by Drucker (2004) when he expresses that wherever you see a successful business, someone made a courageous decision. Drucker (2004) recognised the critical contribution of leaders in successful organisations. He further explains that effectiveness is what executives are being paid for whether they work as managers responsible for the performance of others or as individual professional contributors responsible for their own performance.

In view of the importance of leadership in organisations as described by researchers and the high cost incurred when assessing leaders, it is important to evaluate whether the assessment tools are used effectively. The evaluation results will facilitate informed decision-making on which strategies to put in place to fully use the assessment

method. Furthermore, it is vital to evaluate whether the tool is administered in line with best practices to avoid jeopardising its validity.

1.1.1 Background of the organisation

The public service in Botswana is the main employer in the country and employs approximately 108 000 people. The employees are divided into three broad categories i.e. professionals, including those who hold degree qualifications, technicians, including diploma qualification holders and artisans, including those who hold certificate qualifications.

Approximately 437 senior management employees (permanent secretaries, deputy permanent secretaries, directors and deputy directors) are deployed in different ministries and departments. Previously these leaders were employed on permanent and pensionable terms, but as from 1 April 2013 they were employed on contract terms.

In previous years selection and promotion in the public service were based on the number of years worked (long service) rather than competency. This had a high probability of having officers being elevated to positions for which they did not have the right competencies. The Public Service customer satisfaction and staff perception surveys conducted by DCDM Consultancy (2008/09, p. 8) indicated that middle management and lower level employees' perceptions are that:

- They are not involved in the design and execution of the strategic plan
- There should be competent people in key positions
- The awareness of the public service mandate should be improved
- The communication across the structures of the public service should be improved

The customers' satisfaction survey (2008/09, p. 12) results showed a fairly low level of satisfaction of 27 per cent among customers with the public service in Botswana. The report recommended that these critical areas should be addressed. A further recommendation was that at the collective level, the government of Botswana needs an employment policy for the professional category that focuses on retention (2008/09, p. 10).

Over years the Global Competitiveness Reports (2009/10, p. 39), (2011/12, p. 124) have cited that Botswana's primary weaknesses are related to the country's human resource base and it rated Botswana low in work ethics. The 2012/13 (p. 114) Global Competitiveness Report highlights the same issues, such as poor work ethic in the national labour force and an inadequately educated work force.

The president of Botswana, his Excellency Lieutenant General S.K.I. Khama, in his inauguration address to the nation (2008, p. 4), emphasised that for Botswana to attract investors, traders and foreign residents it requires decisive and inspirational leadership in both government and business to instil self-confidence in the workforce and inculcate a results-oriented culture. He further reiterates that the public service must become optimally efficient, transparent and disciplined. The president cautioned that public officers who are unable to deliver cannot be kept on the team (2008, p. 5). In the second inauguration speech (2009, p. 13) the president echoed that there should be improvement in the nation's work ethic for better productivity and thus improved service delivery.

Between 2008 and 2012 some of the leaders were laid off as they did not make a meaningful contribution to the goals of the public service. Some of those laid off approached the courts represented by trade unions to sue government for her action. The case was registered as "BOPEU & 17 others vs. Attorney General, High Court Civil Case No.

MAHLB- 000001-10", Court of Appeal Civil Appeal No. CACLB-088-11. The appeal by the trade union and its members was dismissed with costs. The judgement was delivered in open court at Lobatse, Botswana, on 10 February 2012.

Competency and service delivery in the public service seem to be areas of concern for the president of Botswana, as each year in his State of the Nation Address (2010, p. 16), (2011, item 49), (2012, p. 2) and (2013, item 96) the issues are raised and an update is provided to the public on strategies put in place to address competency in the public service.

The use of assessment centres (AC) in the Botswana public service was conceptualised in 2005 and operationalised in 2007. The Botswana government is outsourcing these services and uses consultancy companies to do the assessments at a cost of approximately P3 000 000.00 on an annual basis.

Since the inception of using the assessment centre as a tool for selecting and developing senior management in the Botswana public service no comprehensive study has been done to assess whether the assessment centre process conforms to international best practice. Furthermore to evaluate whether the assessment centre is optimally used as government spends a lot of money for the service, as well as to establish the perceptions of senior management employees regarding the use of the AC. This study is therefore aimed at closing the knowledge gap identified.

This discussion gives rise to the main problem of this study.

1.2   MAIN PROBLEM

To what extent are assessment centres used effectively for the selection and development of senior management in the Botswana public service?

Sub-problems and objectives

The sub-problems outlined below have been derived from the main problem.

Sub-problem one

What is the purpose and nature of assessment centres?

This sub-problem was addressed in Chapter Two by means of a literature study aimed at defining and establishing the purpose of assessment centres and contrasting these with other types of selection tools to reveal their unique purpose and nature.

Sub-problem two

Which are the international best practices for the administration and use of assessment centres as a tool to select and develop leaders?

This sub-problem was addressed by means of a literature study to establish the international standards for administering the assessment centre and the competence of those administering it (the assessors).

Sub-problem three

Which leadership competencies are measured through an assessment centre and how are these competencies assessed?

This sub-problem was addressed by a literature study to identify leadership competencies and ways in which these competencies are assessed through various techniques of assessment centres.

Sub-problem four

To what extent are international best practices applied in the use and administration of assessment centres to select and develop senior management in the Botswana public service?

This sub-problem was addressed by interviewing consultants responsible for conducting assessment centres for the Botswana public service. The researcher participated in an assessment centre to obtain an observer view of how it is conducted and to compare the assessment against best practices for the assessment centres' management, as revealed in sub-problem two. Furthermore, a survey was conducted with a questionnaire as data collection tool among directors and deputy directors.

Sub-problem five

What is the performance of officers on competencies measured?

This sub-problem was addressed by data analysis. AC competency results from outsourced consultants were analysed to evaluate performance on competencies.

Sub-problem six

What are the perceptions of permanent secretaries and deputy permanent secretaries on the use of AC in the public service?

This sub-problem was addressed by conducting a survey with a questionnaire as data collection tool among permanent and deputy permanent secretaries. The survey responses were used to assess perceptions on the usefulness of assessment centres, the extent to which they measure desired leadership behaviours, as well as the manner in which they are administered.

Sub-problem seven

What are the perceptions of directors and deputy directors on the use of the AC in the public service?

This sub-problem was addressed by conducting a survey with a self-administered questionnaire as data collection tool among directors and deputy directors. The survey responses were used to assess perceptions on the usefulness of assessment centres and the manner in which these centres are administered.

Sub-problem eight

Which factors contribute towards positive perceptions of the AC among senior management employees in the Botswana public service?

This sub-problem was addressed by conducting a survey with a self-administered questionnaire as data collection tool. The questionnaire measured the relevant factors having a potential impact on senior management perceptions regarding the use of the AC. The inferential statistics analysed revealed the nature and direction of the relationships between the variables.

1.3 OBJECTIVES

The objectives of the study were to:

- Establish the purpose and nature of assessment centres, addressing sub-problem one.

- Establish the international best practice for the administration and use of the assessment centre, addressing sub-problem two. Identify leadership competencies measured through an assessment centre and how these competencies are assessed, addressing sub-problem three.

- Determine the extent to which international best practice are applied in the administration and use of assessment centres in the Botswana public service, addressing sub-problem four.

- Establish performance on leadership competencies by analysing the AC results of senior managers, addressing sub-problem five.

- Determine the perceptions of leaders (permanent and deputy permanent secretaries) on the effectiveness of the assessment centre, addressing sub-problem six.

- Determine the perceptions of directors and deputy directors on the effectiveness of the assessment centre, addressing sub-problem seven.

- Establish factors that contributed towards positive or negative perceptions of senior management regarding the use of the AC in the Botswana public service, addressing sub-problem eight.

- Make recommendations to the Directorate of Public Service Management (DPSM) for improving the effectiveness of the assessment centre.

1.4 CONCEPTUAL MODEL OF THE STUDY

Whitley (2002, p.14) describes four types of variables, namely the independent, dependent, mediating and moderating variable. According to him an independent variable is one that a theory proposes as the cause of another variable, while a dependent variable is caused by another variable. Whitley (2002, p. 15) further describes that mediating variables come between two other variables in a causal chain whereas moderating variables change or limit the relationship between an independent and a dependent variable.

This study concentrated on four variables as illustrated in Figure 1.1. The variables were studied by conducting empirical studies and data collected by means of interviews, questionnaires and observation. The data analysis was conducted through statistical analysis to establish the correlation coefficient between the variables to explain the impact of the independent variables on the following dependent variable:

- Perceptions of directors and deputy directors

- Perceptions of permanent secretaries and deputy permanent secretaries

As earlier stated Whitley (2002, p. 15) explains that an independent variable is one that a theory proposes as a cause of another variable. In other words it influences the dependent variable. In this study the influencing factors are:

- The purpose of the assessment centre
- Administration of the assessment centre
- Components of the assessment centre
- Results and feedback provided to participants

The moderating variables are factors that change or limit the relationship between independent variables and dependent variables. In this study the moderating variables were employees' length of service, their knowledge of the assessment centre and their level (director or deputy director). Figure 1.1 graphically illustrates the interaction of the different variables in this study.

Figure1.1: Independent, moderate and dependent variables

Purpose of the AC		Perceptions about the use of the assessment centre
Administration of the AC		
Components of the AC (Exercises)	Employees' knowledge of the AC	
Results and feedback provided to participants	Employees' level director/ deputy director)	
	Employees' years of service	
Independent variables	**Moderating variables**	**Dependent variable**
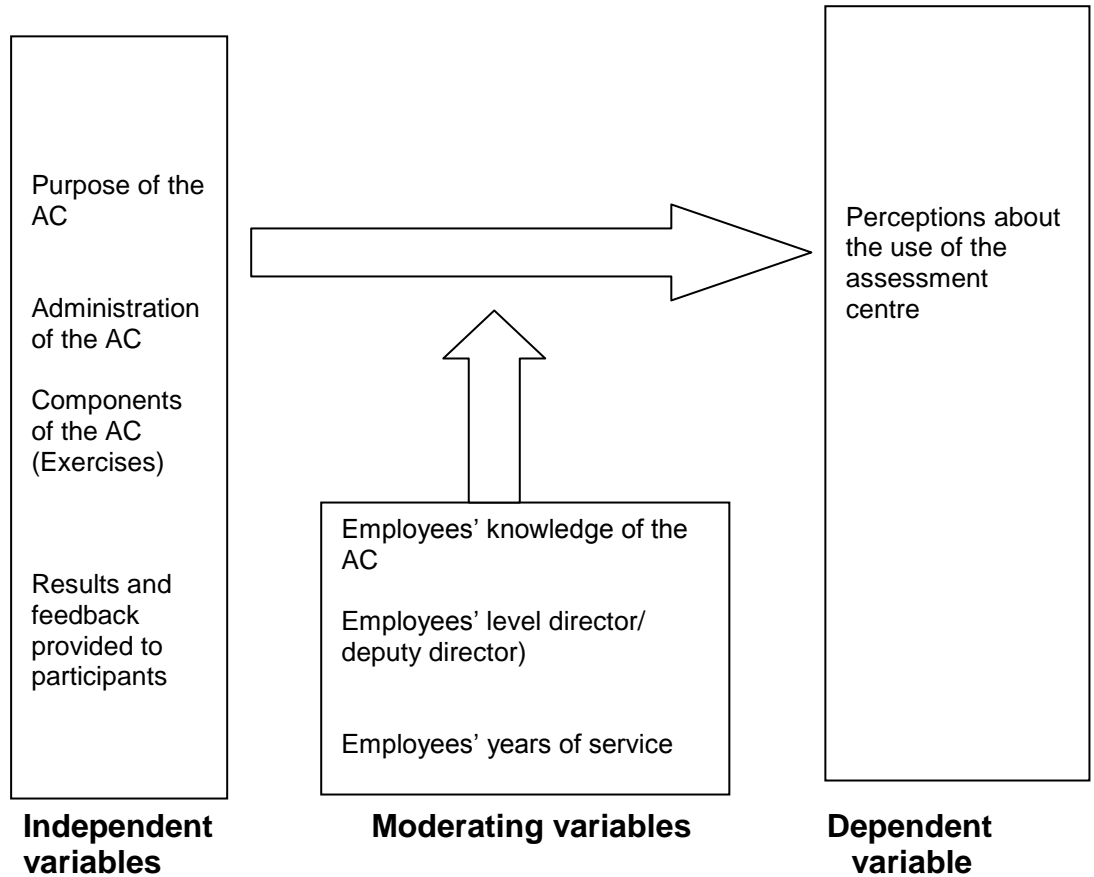
(Source: own construction)

In terms of the conceptual model, the dependent variables are subject to the influence of the independent variables; nonetheless such an influence will be limited by the moderating variables. In the framework of this study, it is suggested that the morale and perception of managers or leaders, the performance of managers at the AC and the number of leaders or managers appointed based on the results of the AC will be impacted by the following independent variables:

- Purpose of the AC
- Administration of the AC
- Components (exercises) of the AC
- Results and feedback provided

The moderating variables, i.e. the employees' knowledge of the assessment centre, their position and their years of service had a determining impact on the interaction between the independent and dependent variables in this study.

1.5 DELIMITATION OR DEMARCATION OF THE RESEARCH

Simon (2011) explains that the delimitations are those characteristics that limit the scope and define the boundaries of the study and are within the researcher's control. Simon's explanation suggests that the delimitation of research enables the researcher to work within parameters that can enable one to focus on a manageable research structure. According to Simon (2011) the chosen problem provides the basis for the research and those aspects not included, are not necessarily not important.

1.5.1   Subject delimitation
   The study will focus on the use and administration of the ACs. Related issues, such as the development programmes of senior management and performance management will not be discussed.

1.5.2 Regional and organisation delimitation
   The research was conducted within the public service of Botswana in Gaborone, the capital city. The public service employs approximately 437 senior management employees (permanent secretaries, deputy permanent secretaries, directors and deputy directors) of whom approximately 30 are heads of ministries based in Gaborone and 407 are heads of departments deployed in Gaborone and various regions of the country.

1.5.3 Target groups

- Consultancies outsourced by government to conduct assessment centres. These are HRMC Talent and Resource Development and Management Associates also known as REDMA.
- Permanent secretaries, deputy permanent secretaries, directors and deputy directors from different ministries within Gaborone form part of the target groups and are the recipients of the assessment centre.

1.5.4 Department delimitation

- The study was limited to the public service and for this study only departments within Gaborone were included.

1.5.5 Levels or employee groups

The study was limited to employees who met the following criteria:

- Male and female employees who had been working in the public service and were still in the service.
- Officers who hold at least a diploma qualification and are employed at senior management positions.

For this study the following employee categories were excluded:

- Employees who do not have a minimum qualification or diploma
- Employees who have not participated in an assessment centre
- Employees who are not at senior management level

1.6 DEFINITION OF CONCEPTS

The following concepts that appear in this document will be defined to prevent different interpretations.

1.6.1 Assessment centre

A process employing multiple techniques, such as simulation exercises, psychometric tests, and multiple assessors to produce judgement regarding the extent to which the participants display selected competencies (Schlebusch & Roodt, 2008, p. 2).

1.6.2 Senior management

Botswana public service employees who are appointed by the permanent secretary to the president or the President (Botswana Public Service Act, 2008).

1.6.3 Selection

The use of systematic techniques to decide which of the applicants is best suited to fill the vacancy in question (Taylor, 2008).

1.6.4 Development

Formal or informal training aimed at closing competency gaps.

1.6.5 AC participant

The participants are the people who attend the AC. They carry out tasks in the simulations so that their behaviour can be observed (Schlebusch & Roodt, 2008, p. 13).

1.6.6 Assessor

An assessor is an individual trained to observe, record, classify and make reliable judgement about the behaviour of participants in an AC (Van Minden, 2004, p. 126).

1.6.7 Competency

Competency refers to an underlying characteristic of a person that results in effective or superior performance (Armstrong, 2001).

1.6.8 Simulation

Simulation is an exercise or technique designed to recreate an everyday work situation. Participants are then requested to play a particular role and to deal with a specific problem (Foxcroft & Roodt, 2005, p. 196).

1.6.9 Construct validity

Construct validity is a judgement about the appropriateness of inferences drawn from test scores regarding individual standings on a variable called a construct. A construct is an informed, scientific idea developed or hypothesised to describe or explain behaviour (Cohen & Swerdlik 2005, p. 175).

1.6.10 Predictive validity

Predictive validity is a form of criterion-related validity that is an index of the degree to which a test score predicts some criterion measure (Cohen & Swerdlik, 2005, p. 157).

1.7 SIGNIFICANCE OF THE STUDY

According to Taflinger (2011) there are two basic significant factors for conducting research, namely to learn something (organised learning) and looking for specific things to add to one's store of knowledge and secondly, research forms the foundation of programme development and policies.

The main purpose of this study was to provide human resource managers and decision makers in the public service with the

knowledge of how a professional assessment centre is conducted. Secondly, to establish the perceptions of senior management employees regarding the use of the assessment centre as well as the method's effectiveness as a tool to identify people with relevant behaviours and characteristics.

This study serves as a basis for deciding how to maximise the use of the AC method in the Botswana public service in line with international standards. Furthermore, the results of the study can inform the decision to either maintain using the assessment centre method as a selection tool or to find alternative methods to either replace or complement the assessment centre.

This study is of benefit not only to the public service but all human resource practitioners in Botswana as it could add to their knowledge of assessment centres and provide insight on the principles of conducting a professional AC that conform to international standards.

The study could also serve as a basis foundation for future studies of the same nature if the use of the AC method is continued in the public service.

The results of this study can be used by:
- Human Resource Managers in government ministries and departments.
- The Directorate of Public Service management staff and those responsible for establishing the Public Service AC.
- Human resource managers in other work environments such as parastatals and private companies using or intending to use the AC tool
- Students who study assessment centres and its impact on the selection and development of leaders

1.8 ASSUMPTIONS

According to Leedy and Ormrod (2010) assumptions are so basic that without them the research problem itself could not exist.

The following assumptions apply to this study:

- The Botswana public service uses the AC for selection and development of officers in senior management
- The AC tool enhances the selection of capable leaders and assist in focussed development
- The assessment of leaders continues to be important for organisations to achieve their objectives

1.9 RESEARCH DESIGN AND METHODOLOGY

This section describes strategies or methodologies that were used in the data collection and analysis to address the main problem of the study. This section focuses on the research design.

The study intended to evaluate the extent to which assessment centres are used effectively for the selection and development of senior management by the Botswana public service, as well as the perceptions of senior management employees. The following procedures were used to solve the main problem and the sub-problems.

1.9.1 Literature study

A thorough study was conducted to explore what the literature reveals about assessment centres. The literature study addressed sub-problems one, two and three. In particular the study focussed on:

- The purpose and nature of assessment centres

- International best standards for the administration and use of assessment centres
- Simulation exercises used and competencies measured in assessment centres

1.9.2 Empirical study

In this study both qualitative and quantitative designs were used. Creswell (2009, p. 4) calls this approach the mixed method research. Creswell also explains that the use of mixed methods research is more than simply collecting and analysing both kinds of data. It also involves the use of both approaches so that the overall strength of a study is greater than either qualitative or quantitative research. Regarding the qualitative design, an interview schedule was used to collect data from the consultants, followed by an observation of the assessment centre process. The quantitative design used the survey questionnaire. A self-administered questionnaire was used as data collection method. The development of the questionnaire was based on the key characteristics of the AC as explored and identified in the literature study. The information gathered in the empirical study assisted in exploring the extent to which international practices of assessment centres as identified in the literature study are applied by the Botswana public service. A Likert type scale was used for Sections B to C of the questionnaire. The questionnaire consisted of the following sections:

Section A: Biographical data

Section B: International standards of ACs

Section C: Perceptions on the use of the AC

Figure 1.2 illustrates a visual presentation of the research design used in this study.

Figure 1.2: Research design
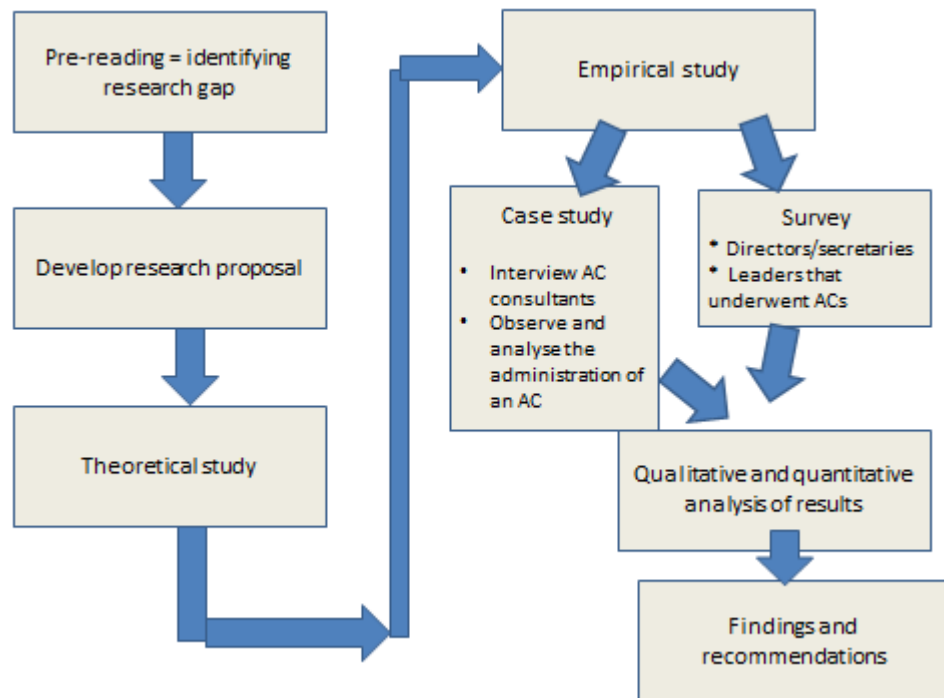
Source: (own construct)

1.10 OUTLINE OF CHAPTERS FOR THIS STUDY

Chapter One: Contains the introduction, problem statement, demarcation and significance of the study.

Chapter Two: Discusses a theoretical study of the assessment centre

Chapter Three: Presents an empirical study of the assessment centre

Chapter Four: Focuses on the research methodology and analysis of the respondents' biographical details.

Chapter Five: Covers the analysis and interprets the results of this study.

Chapter Six: Presents final conclusions as well as recommendations.

1.12   CONCLUSION

The objective of this chapter was to place the research study in perspective by providing an introduction to the study and stating the main problem and the sub-problems. The research design used for the study is explained and a visual illustration presented as Figure 1.1. Chapter Two provides a comprehensive literature review of the assessment centre method, what it is used for, how it is used and its effectiveness compared to other assessment methods.

CHAPTER 2

THEORETICAL STUDY OF ASSESSMENT CENTRES

PAGE

2.1 INTRODUCTION

In Chapter One of this study, the main and sub-problems were stated, the research was demarcated and concepts relevant to the study were defined. The purpose of the study is to close the knowledge gap by evaluating whether the assessment centre (AC) used in the Botswana public service conforms to international best practice, its effectiveness and the influence it has on the leaders. In this chapter a comprehensive literature review of assessment centres is presented. Additionally, this chapter explores views on the advantages and disadvantages of assessment centres and the challenges facing them.

2.2 THE ASSESSMENT CENTRE DEFINED

The International Guidelines and Ethical Considerations for Assessment Centres Operations (2002) provide a comprehensive definition of an assessment centre in describing an AC as:

"a standardised evaluation of behaviour based on multiple inputs. Several trained observers and techniques are used. Judgements about behaviour are made, from specifically developed assessment simulations. These judgements are pooled in a meeting among the assessors or by a statistical integration process. In an integration discussion, comprehensive accounts of behaviour and often ratings of assessment are pooled. The discussion, results in evaluations of the performance of participants on the competencies or other variables that the assessment centre is designed to measure".

These sentiments are also expressed by Thornton and Rupp (2004, p. 319) when they define the assessment centre as "a method of evaluating performance in a set of assessment techniques at least of which is a simulation". The International Guidelines and Ethical Considerations for Assessment Centres Operations (2009, p. 245)

enhanced the definition description by adding that technology may be used to facilitate the writing of reports, presentation of exercises and scoring of competencies as long as the essential elements are not compromised.

According to Schlebusch and Roodt (2008, p. 2) an assessment centre is "a simulation based process employing multiple assessment techniques and multiple assessors to produce judgement regarding the extent to which a participant displays selected competencies required to perform a job effectively". This is affirmed by Guenole, Chernyshenko, Stark, Cockerill and Drascow (2011, p. 16) as they state that typical AC trained assessors rate candidates' performance on a predetermined set of behavioural dimensions across several exercises to determine the extent to which a candidate demonstrates the competencies being assessed.

In the early 80s Byham and Thornton (1982, p. 3) described an assessment centre as a procedure that uses multiple assessment techniques to evaluate employees for a variety of manpower purposes and decision. Byham and Thornton further elaborate that the approach is applied to individuals being considered for selection, promotion, placement, management training and development.

It can be noted that the definition of an assessment centre has remained consistent over the years. The key principle is the use of multiple techniques and observation of behaviour.

Figure 2.1 illustrates the characteristics used in each of the definitions above to give a holistic picture of what an AC is.

Figure 2.1 Summary of the description of the assessment centre

Allows candidates to demonstrate behaviour /skills and knowledge

Pooling of judgement through a statistical Integration process

It is a standardised procedure of evaluation

ASSESSMENT CENTRE

Evaluation of candidate's behaviour/ skills and knowledge

Used for a variety of HR decisions

Series of exercises and job simulation

Designed to measure competencies Required to deliver effective performance in a given job

specially developed assessment simulations of future job situations

(**Source: Mukherji & Miscra - TATA Management Training Centre, 2013)**

As can be depicted from Figure 2.1 above an AC is a holistic assessment method aimed at objectively assessing the individual's strengths and limitations to help both the person and managers to have

focussed development. Furthermore, employees can be fully used by placing them in areas that match their strengths.

Beardwell and Holden (1997) alert us to the fact that an assessment centre is not a place but rather a process.

2.2.1 CRITERIA QUALIFYING AN EVENT TO BE CALLED AN AC

The International Guidelines and Ethical Considerations for Assessment Centres Operations (2009, p. 245) provide a framework on principles of the criteria qualifying an event as an AC. According to the guidelines the following nine fundamental characteristics make up an AC, namely job analysis, behavioural classification, assessment techniques, multiple assessments, simulations, assessors, assessor training, recording behaviour and scoring and data integration. The guidelines further caution that when technology based tools are used during the scoring process, the approaches should be evaluated for reliability and accuracy.

The British Psychological Society (2010) in support of the above framework also outlines the following criteria as qualifying an event as an assessment centre. However, provision of feedback to candidates is added.

- A job analysis should define a set of competencies to be measured that are clearly linked to effective performance in the target job.
- Competencies measured should be duplicated among different exercises.
- There are two or more simulations.
- Trained assessors observe, record, classify and evaluate behaviours.

- Assessors complete their evaluations independently prior to the integration session.
- There is a full integration session involving the assessors to summarise the behavioural evidence.
- Feedback is offered to the candidates
- A clear written statement of the intent of the centre exists

The above criteria is also outlined in The Guidelines for Assessment and Development Centres in South Africa (2007) and specific attention is given to the drawing up of an assessment matrix to indicate which competencies are measured by which simulation exercises and by which psychometric instruments.

For the purposes of this study, the researcher will use the following criteria:

- Job analysis to determine the competencies to be assessed and to indicate the type of simulations to be used.
- The use of a combination of multiple simulations and assessment instruments.
- A team of trained assessors observe, record, classify and evaluate.
- The data obtained by individual assessors is shared at the end of the process to determine the final score (data integration).
- Participants are evaluated against predetermined job related competencies.
- Competencies are measured in more than one simulation exercise.
- An assessment report for each candidate.
- Provision of feedback.

2.2.2. DIFFERENT TYPES OF ACs

Schlebusch and Roodt (2008, p. 3) identify different types of assessment centres as follows:

- Traditional ACs – in a traditional AC participants attend without receiving feedback on their performance. Feedback is given after a couple of weeks, but part of its possible impact is lost due to the length of time that elapses from the time of the simulation to the receipt of feedback.

- Assessment ACs – the results are used to influence a selection decision. Feedback on the participants' performance is given to the organisation that initiated the AC.

- Diagnostic ACs – conducted to determine the needs that the actual AC should address. The results of a diagnostic AC may give an indication as to whether the organisation's needs would be best met by using a different intervention or instrument

- Development ACs – used to determine development needs. Feedback is given during and after the process. Participants receive feedback aimed at further development.

- Learning ACs – similar to development assessment centres, but participants attend a debriefing session after each simulation. During debriefing participants receive feedback on the simulation used, as well as theoretical input that they can apply in the next simulation.

- Collaborative AC – is a variation of a development centre. It is based on principles of experiential learning and continuous

feedback, thus the facilitator counsels and coaches the participant on areas of development.

- Functional ACs – use AC methodology in a functional context. The assessors, in addition to being competent, must have the technical skills and knowledge about the job being assessed for.

In view of the above it is necessary to distinguish between an AC used for selection and those that are aimed at identifying and closing competency gaps. People in organisations that use one or two types of the above-mentioned ACs should familiarise themselves with the other types to avoid unconsciously encroaching into other types when conducting their specific ACs, as this can pollute the information obtained.

The focus of this study is on the AC for selection and the development centre (DC). Table 2.1 shows the differences between the AC for selection and the DC.

Table 2.1 Difference between the AC and the DC

Assessment centre	Development centre
Used for selection, promotion	Reflect developmental objectives relating to identification of potential and training needs
Pass or fail events	Not a pass or fail event, rather identify development needs
Duration between 1 and 3 days	Duration 3 to 7 days
Ownership of the data is with the organisation	Participant has more ownership or access to information
If feedback is given, it is after the AC	Feedback and development during the centre
Criteria for the AC is future job performance	Criteria for the DC is learning, development and improvement
Does not include development activities	Include development activities
Geared towards filling an immediate need	Geared towards filling a longer term need
Ratio of assessors to participants is usually 1:2 or 1:3	Ratio of assessors can be 1:1 or 1:2
Tend to be used with external candidates	Tend to be used with internal candidates
Use assessors who evaluate	Use facilitators who assess and coach

(Source: NMMU AC Study Guide, 2008)

2.3 THE PURPOSE OF THE ASSESSMENT CENTRE

According to Schlebusch and Roodt (2008, p. 15) assessment centres can be used either for selection or for developmental purposes. According to them several variations exist within these two broad categories. Schlebusch and Roodt (2008, p. 15) further explain that the assessment centre is sometimes used for diagnostic purposes, to assess the current level of functioning of managers. The outcome helps the AC practitioner to make an informed judgement about the

company's managerial competence. The International Guidelines and Ethical Considerations for Assessment Centre Operations (2009, p. 250) also inform that assessment centres are generally used for three major purposes, namely to predict future behaviour for decision-making, to diagnose development needs and to develop candidates on dimensions of interest. However, the guidelines acknowledge that additional purposes for the AC currently exist and will continue to evolve with further use.

Chen (2006 v8, p. 248) explains that the assessment centre has been empirically and conceptually linked to various human resource functions such as selection, promotion, development and performance feedback. According to Chen most empirical assessment centre research and practice has largely been used for selection and promotion purposes, but the use of the AC in development is in its conceptual stage. On the other hand, 30 years ago Byham (1980) as quoted by Byham (1989, p.345) stated that almost all organisations using assessment centres for selection or promotion also use the information obtained to inform training or development.

Byham (1989, p. 345) is of the view that in practice the assessment centre method is mostly used for the promotion and selection of supervisors and managers in government and business. Cooper and Robertson (1995) as quoted by Morrel (2013) support Byham's view that assessment centres are used frequently to evaluate people who already work within an organisation. The information gained from the assessment centre is then used to help decisions concerning promotion and career development.

According to Byham (1989, p. 347) in an assessment centre simulations are designed to bring out behaviour relevant to the most important aspects of the position or level for which the assessed is being considered. These sentiments are shared by Schlebusch and Roodt (2008, p. 3) when they write that the purpose of an AC is to

select the most appropriate person to be appointed to a position. They also advise participants to understand that the results of the AC are used to influence a selection decision.

According to Thornton III and Rupp (2006, p. 9) assessment centres can contribute valuable information to a large number of functions carried out by the human resource management system in an organisation. According to them the assessment centre can be used for several purposes such as recruitment, selection, placement, training and development, performance appraisal, human resource planning, layoffs and promotion. They further explain that the design of an assessment centre depends on the purpose it will serve and on the type of climate the organisation wishes to create. Thornton III and Rupp (2006, p. 220) further emphasise that assessment centres for different purposes will vary in terms of dimensions, instructions in exercises, procedures in integration of information and feedback to participants.

In their study on the use of the AC in South Africa Krause, Rossberger, Dowdeswell, Venter and Joubert (2011, p. 269) found that two-thirds of the organisations in South Africa use the AC for employee selection as well as development. Only few organisations state that the main objective of their AC is aimed at employee development.

Mukherji and Miscra (2013) express that various organisations have used the data provided by ACs for a variety of purposes such as selection, career development, potential appraisal, identification of high potential managers, succession planning and the identification of training needs and a global pool of talented managers. This view was earlier pronounced by Thornton III and Rupp (2006, p. 2) when they express that assessment centres are used for a broader variety of purposes than they have in the past, and technological advances in assessment and development are being incorporated into the method.

Chen and Naquin (2006, p. 279) caution that since an assessment centre can be used for various purposes, it is important that assessment centre designers and implementers fully articulate the purposes and describe how the data collected from the centre will be used. According to them articulating the purpose could be the key to reducing the anxiety and enhancing the motivation for stakeholders to adopt the programme. Thornton III and Rupp (2006, p. 1) are also of the same view as they state that the human resource manager must design the assessment centre with a specific purpose in mind and then make choices to build an assessment centre that adequately serves that purpose. Thornton III and Rupp (2006, p. 126) further emphasise that the design of the assessment centre should be based on the purpose of the assessment activity and designers should focus on the principle when considering the appropriate type and level of exercises. In addition, the International Guidelines and Ethical Considerations for Assessment Centres Operations (2009, p. 247) require that if the results of the AC are to be used for any other purpose that was not initially communicated to the participant, the purpose should be clearly described to the participant and consent obtained.

Schlebusch and Roodt (2008, p. 4) caution that results from a development centre should never be used for selection purposes. However, results from the selection AC can be used for development purposes.

The above literature on the purpose of the AC clearly indicates that it is imperative to be cautious about its purpose beforehand and that the purpose should be understood by all those who will be involved in the process. This plays a major role in deciding how the AC is to be designed and conducted. Furthermore, the information obtained will be used in line with the purpose for which the AC was designed. Most importantly the credibility of the AC, decision makers and those conducting it will be enhanced. The researcher's view is that when the

purpose of the AC is clearly understood by all stakeholders and the results used in line with the purpose, law suits can be minimised.

Regardless of the purpose of the AC, the designers have to follow a systematic AC design model. Schlebusch and Roodt (2008, p. 18) provide a four-stage design model of the AC as illustrated in Figure 2.

Figure 2.2 The AC design model

Analysis stage	Design stage	Implementation stage	Evaluation & validation

Step 1 Needs analysis

Outcome Functional AC

Step 7 Before the AC

Step 2 Organizational effectiveness analysis

Step 6 Pilot AC

Step 8 During the AC

Outcome Validated AC

Step 3 Job analysis

Step 5 Design AC

Step 9 After the AC

Step 11 validation and reliability analysis

Outcome competency profiles

Step 4 Design simulations

Outcome: operational AC

Step 10 Content evaluation

(Source: Schlebusch & Roodt, 2008)

Schlebusch and Roodt (2008, p. 18) advances the following reasons for following the logic of the design model:

- The design model is based on established methodology that follows a logical and systematic process.
- Every stage has its own objectives and predefined outcomes
- The design model enables the design team to constantly match the stage and steps against the design criteria
- The design team follows a disciplined and systematic approach so that no critical elements are omitted in the design process
- The systematic design process has a better validity and reliability outcome

As can be seen in Figure 2.2 and the reasons advanced by Schlebusch and Roodt the design model provides objective and integrated parts. The model also provides a holistic approach in which different parts are aligned.

2.4 FEATURES OF THE ASSESSMENT CENTRE

According to Schlebusch and Roodt (2008, p. 7) an AC should display several features before it can be truly called an AC. These sentiments are echoed by Thornton III and Rupp (2009, p. 38) when they also explain several basic requirements for an assessment process to legitimately be called an assessment centre. They further clarify that a number of basic requirements of the AC method have remained stable in spite of some variations.

Thornton III and Rupp (2006, p. 38), The Assessment Centre Study Group (ACSG) of South Africa guidelines (2007), Schlebusch and Roodt (2008, p. 6), The International Guidelines and Ethical Considerations for Assessment Centres Operations (2009, p. 247) and

Thornton (2011, p. 164) outline features of ACs of which some are as follows:

2.4.1. A job analysis should be conducted to determine the competencies important for job success, even if the job does not currently exist. The analysis will determine competencies needed for success in the proposed job and even the type of simulations to be used.

2.4.2. Multiple simulations and assessment instruments should be used and a sufficient number of job related simulations to observe the participant's behaviour in relation to the competencies being assessed in more than one setting.

2.4.3. Multiple observers and assessors – the same participants must be observed by different observers or assessors during the various simulations. Having multiple assessors ensures that a participant's behaviour linked to a specific competency is evaluated objectively during an AC.

2.4.4. Behavioural observation of what the participant is saying or doing during simulations.

2.4.5. Noting and classifying behaviour – behaviour displayed by participants must be observed, noted, classified and evaluated accurately by assessors.

2.4.6. Data integration entails that the assessors pool their information on each participant to obtain final ratings at the end of the AC. Each assessor presents his or her ratings and behaviour evidence to support such ratings.

2.4.7. Competent assessors and role players – only well-trained assessors and competent people function as assessors in an AC. If role players are used during the interactive simulations it should be ensured that they are well trained in the characters they will portray, in the competencies regarding which they need to elicit behaviour and in the content of the simulations.

2.4.8. Feedback – after the completion of the AC, feedback must be given to certain stakeholders. Usually the stakeholders are the participants and the line managers.

The above is echoed by Consultants of TATA Management Training Centre, Mukherji and Miscra (2013) when they identify the essential elements or features of the AC as follows:

- Job analysis – to understand job challenges and the competencies required for successful execution of the job.

- Predefined competencies – modelling the competencies which will be tested during the process

- Behavioural classification – behaviours displayed by participants must be classified into meaningful and relevant categories such as dimensions, attributes, characteristics, aptitudes, abilities and knowledge

- Assessment techniques – these include a number of exercises to test the potential of the assessed

- Simulations – the exercises should simulate the job responsibilities as closely as possible to eliminate potential errors in selection

- Observations – accurate and unbiased observation is the most critical aspect of an AC

- Observers – multiple observers are used to eliminate subjectivity and bias from the process

- Recording behaviour – a systematic procedure of recording must be used by the assessors for future reference

- Reports – each observer must compile a detailed report of his or her observation before going for the discussion of the integration of scores

- Data integration – the pooling of information from different assessors is done through statistical techniques

Mukherji and Miscra (2013) further elaborate that the AC consists of many multiples i.e. multiple competencies to be evaluated, multiple observers to eliminate the subjectivity and increase objectivity involved in the process, multiple participants, multiple exercises, multiple simulations and multiple observations.

According to Martin and Jackson (2000, p. 67) as quoted by Morrel (2013) a good AC should include:

- A variety of assessment techniques
- Assessment of several candidates together
- Assessment by several assessors or observers
- Assessment against a number of clearly defined competencies

Thornton III (2011, p. 164) explains that even though the guidelines from individual countries have some unique features to emphasise special considerations for that culture, the basic elements of the AC remain constant. These are job analysis, multiple assessment techniques, multiple trained assessors, classification of behaviour and systematic procedure of observing, recording, classifying behaviour and integration of the data across the assessors. Thornton III and Rupp (2006, p. 1) also state that even though all assessment centres share common features, the process can be adapted in many ways to achieve different objectives. Thornton III and Rupp (2006, p. 37) further explain that variations in assessment centre features are seen in the dimensions being assessed, exercises used to simulate organisational situations, methods to integrate data across exercises and assessors, the type and level of detail in feedback provided to the participants, managers in the organisation and HR staff. According to them variations can be attributed to changing demographics of the workforce and increasing involvement of minorities, women, persons with diverse ethnic backgrounds and older workers.

It can be noted that most of the features of an AC are used as the criteria that qualify an event to be called an assessment centre. Figure 2.3 summarises the main features of an AC.

Figure 2.3 Summary of the main features of an AC

(Source: own construct)

The view of the researcher is that the absence of one or more of the main features of an AC as illustrated in Figure 2.2 above would influence the sense of wholeness, therefore the event cannot qualify to be called an assessment centre.

Thornton III and Rupp (2006, p. 44) are of the view that even though the international guidelines cover many features of the AC methods, future task forces should consider the inclusion of the following areas:
- Cross-cultural considerations
- Types and levels of fidelity and technology

- Qualifications of the AC developers and consultants

Some countries such as South Africa are mindful of cross-cultural issues when implementing ACs. The Guidelines for Assessment and Development Centres in South Africa (2007) require that the assessor population should consist of an ethnic mix and both male and female persons.

2.5 STAKEHOLDERS OF THE ASSESSMENT CENTRE

Different stakeholders are involved in the AC process. According to Schlebusch and Roodt (2008, p. 11) each of the stakeholders' interest and commitment have to be considered in the process from the initial stage up to the implementation and validation stages. The roles of each AC stakeholder are discussed below:

2.5.1. Assessors

According to Van Minden (2004, p. 126) assessors are the cameras and the microphones of the assessment centre because they register and describe candidates' behaviour in terms of certain behavioural dimensions. These sentiments are shared by Thornton III and Rupp (2006, p. 133) when they explain that the main role of trained assessors is to observe the participants as they participate in the simulation exercises. While observing the assessors record the behaviours displayed by each participant.

Saunders (2005, p. 154) is of the view that an assessment process on the whole can succeed or fail, depending on the ability of the assessors to implement a quality assessment process. The assessors' levels of expertise play a significant role in the validity of the whole process (Jones & Born, 2008). The group of people that has the largest impact on the whole assessment process are the assessors (Schlebusch & Roodt, 2008) as quoted in the 32nd Assessment Centre Study Group conference manual (2012, p. 23).

Cohen and Swerdlik (2005, p. 2) also explain that apart from validity and reliability a test's value is linked to the knowledge, skill and experience of the assessor. Sundberg and Tyler (1962), as quoted by Cohen and Swerdlik (2005, p. 2), observed that "'tests are tools, in the hands of a fool or an unscrupulous person, they become pseudoscientific perversion".

Taylor (2007, p. 67) advises that assessors should remain neutral throughout each activity, thus not responding to any questions or queries once an activity is underway. Taylor further advises that if a candidate asks a question, possible responses from the assessor could be: "all the information is in the briefing sheet – that is up to you to decide or a quiet smile.

The above literature by different authors emphasises the critical role played by assessors in an AC. The assessors can be considered as one of the main process owners of the AC. The researcher's view is that the assessors can make or break the AC process as they play a critical role. The issues of assessor training and biases are given much attention in today's study of ACs, as they influence the validity of the AC.

2.5.2. Participants

Participants are the people who attend the AC. They carry out tasks in the simulations so that their behaviour can be observed (Schlebusch & Roodt, 2008, p. 13).

According to Thornton III and Rupp (2006, p. 211) participants play a key role in the success of diagnostic and development centres. In their view, diagnostic and development assessment centres will not achieve their full potential if the participants are not motivated. They further elaborate that in diagnostic ACs participants must be actively involved in follow-up actions after learning about their development needs. In

development the participant must be motivated to process the feedback and attempt to improve performance during the assessment centre and later on the job.

2.5.3. The AC administrator

Schlebusch and Roodt (2008, p. 12) explain that the role of the AC administrator is to ensure that the AC runs smoothly. The duties of an administrator include:

- Planning for the AC, the execution and post-AC work such as chairing of the integration process, ensuring that assessors produce reports for each participant and scheduling of feedback sessions.
- Scheduling the AC, inviting participants, and ensuring that the venue requirements are met.
- Ensuring that only competent assessors are involved.
- During the AC the administrator oversees the functioning of the assessors, ensuring that behaviour is accurately observed.
- Being accountable for the correct administration of all simulations.
- Presenting debriefing sessions and chairing the data integration.

2.5.4. Role players

According to Schlebusch and Roodt (2008, p. 13) role players are people who play different characters and interact with participants. Role players create an opportunity for the participants to display the behaviour linked to the competencies being evaluated. Thornton III and Rupp (2006, p. 108) elaborate that the role player might ask questions, make suggestions, answer questions and even act upset, depending on what the situation calls for.

2.5.5. Line managers

The line managers of the AC participants should support the participants in their further development. Line managers should be given feedback on the performance of participants because they have to support participants at work by encouraging appropriate behaviour (Schlebusch & Roodt, 2008, p. 13). Line managers are not usually involved in the actual AC. The guidelines for AC operations in South Africa (2007) stipulate that a participant's supervisor should not assess him or her in an AC.

2.6. THE ASSESSMENT CENTRE POLICY STATEMENT

The International Guidelines and Ethical Considerations for Assessment Centres Operations (2002 and 2009) require that the AC has to operate as part of the human resource management system in an organisation. In addition, before the introduction of AC into an organisation a policy statement should be prepared and approved. The guidelines outline that the policy statement should address the areas that follow:

2.6.1. Objective and purpose

The reasons for using the AC should be identified, e.g. recruitment, selection or development. The intended benefits to the organisation and employees should also be included.

2.6.2. Participants

The population of employees to be assessed and the method that will be used to select participants to participate in the AC should be outlined. It should be made clear whether participation is compulsory or voluntary, the consequences of non-participation and the conditions under which reassessment takes place.

2.6.3. Assessors

The people who will be assessors and the number of times a particular assessor will be assigned should be specified. In addition, assessor experience and evaluation of assessor performance should also be specified.

2.6.4. Use of data

It should be clear how the data is going to be stored, who will be responsible for the upkeep and confidentiality of the AC results and the restrictions on access to information. The length of time that AC reports will be kept should also be specified.

2.6.5. Qualifications of consultants

The professional qualification and related training of the people responsible for the development of the centre should be specified.

2.6.6. Validation

The policy should specify the validation model to be used. The validation technique employed should be appropriate to the purpose of the AC.

2.6.7 Legal context

The guidelines require that laws existing in an organisation, nation or state where the AC is being carried out should be considered when designing, implementing and validating the AC. The policy should articulate the particular laws and policies relevant for the AC programme and state how legal compliance will be ensured.

The Guidelines for Assessment Centres Operations in South Africa (2007) outline the same requirements as above regarding the AC policy statement. In addition to the above The British Psychological Society Testing Centre guidelines (2005) require that people with disability should be catered for. The guidelines require that one member of the AC team should receive training in the issues

surrounding the assessment of people with disability. The trained person should be familiar with sources of support such as disability organisations and test publishers. The trained person should provide guidance to the whole assessment centre team when a disabled person is being assessed.

2.7 MAIN COMPONENTS OR ASSIGNMENTS OF THE ASSESSMENT CENTRE

According to Byham (1989, p. 181), Jansen and Jongh (1997), Thornton III and Rupp (2006, p. 102), Schlebusch (2008, p. 118), Krause (2011, p. 356.), Oxford University Career Service (2012) and Mukherji and Miscra (2013) the main evaluation techniques used in assessment centres are:

2.7.1 In-basket exercise

This is a simulation of an employee's in-tray, consisting of various items eliciting visible behaviour from the participant that can be classified under the various competencies assessed during an AC. It is designed to test how the person handles complex information within a limited time and performs under pressure. Some of the competencies assessed are planning, organising, decisiveness, delegation, problem solving, creativity and writing skills. The in-tray items can be delivered electronically or in paper format, or in a combined way (Schlebusch, 2008, p. 118). Boyle (2011, p. 312) also explains that most AC designers now use technology to create realistic scenarios and simulations that mirror new ways of working.

Van Minden (2004, p. 162) note that the in-basket exercise picks up on an exceptionally large number of managerial skills and qualities and therefore this diversity affords the in-basket a central place in the AC. Schlebusch (2008, p. 119) also acknowledges that a wide variety of competencies can be evaluated through the in-basket. Disadvantages

of the in-basket are that its design is time-consuming and quite complex.

2.7.2 Presentation

The candidate is given time to prepare for and deliver a formal business presentation. Normally a fictitious problem is involved. The presentation is carried out in front of assessors. According to Thornton and Rupp (2006, p. 106) a presentation exercise is a relatively easy exercise to construct and administer. Furthermore, it is an excellent exercise to assess or develop oral communication skills. Competencies assessed through this exercise are oral communication, presentation and social skills, written communication and organising. In more technologically advanced situations, participants are provided with a computer, presentation software and an LCD projector (Thornton III & Rupp, 2006, p. 106)

2.7.3 Role playing

This is a one-on-one interaction where the candidate conducts a discussion with a role player. The candidate is usually in charge of the discussion. The role player has been trained to play a certain role and to create opportunities during discussion for the candidate to display behaviour linked to competencies. An advantage of the role play exercise is that it is relatively short, requiring 15 to 20 minutes to prepare and only 10 minutes to execute (Thornton III & Rupp, 2006, p. 108). Some of the competencies assessed are problem-solving, problem analysis, interpersonal skills, decisiveness, initiative and leadership.

Technology can be used to record behaviour and relay the discussion in real time to the assessor, who might be at a different location (Schlebusch, 2008, p. 119).

Role play can be applied to incorporate different simulations in an assessment and also for different position levels as shown in Table 2.2.

Table 2.2 Example of role play simulations

Target position	Interviewee or role player	Situation simulated
Middle level to executive	Telephone reporter	Investigation of environmental violations
First-level supervisor	Subordinate	Discussion of a performance problem
Telephone sales	Client	Selling a product or service
Customer service representative	Irate customer	Complaint about a faulty product
Financial supervisor	New financial planner	Soliciting a client on the phone

(Source: Thornton III & Rupp, 2006)

Thornton III and Rupp (2006, p. 109) cites two disadvantages of role play, namely the need for a role player, which increases staffing needs, and the fact that the role player might not play the role consistently.

2.7.4 Leaderless group discussion (LGD)

This is a group meeting between four and six candidates with the purpose of solving the problem or making a decision within a specified time. Competencies assessed are problem solving, problem analysis, decision-making, interpersonal skills, oral communication and leadership. Thornton III and Rupp (2006, p. 107) explain that there are no roles assigned and everyone cooperates in developing the best solution. The LGD is effective in assessing emergent leadership skills.

Van Minden (2004, p. 124) notes that in the LGD assessors look for things such as:

- Who becomes the leader?
- What type of leadership does the person demonstrate?
- How does the person help the group to reach decisions?
- How are problems among members solved?

One of the disadvantages of LGD is lack of standardisation across groups as some group discussions can be lively and challenging and others quiet and dull. This causes assessors to have difficulty in knowing whether the behaviour they observe in a particular individual is a function of the individual or the group dynamic (Thornton III & Rupp, 2006, p. 107).

2.7.5 Fact finding

The candidate is presented with a problem and is expected to come up with sensible questions. The role player is trained to answer the candidate's questions if the questions are asked properly. Thereafter the candidate must make recommendations on what should be done. The candidate is also challenged on his or her line of thinking or recommendations. Some of the competencies assessed are problem solving, analysis, initiative, decision-making, creativity and leadership. Tolerance for stress can also be assessed by using fact finding. According to Thornton III and Rupp (2006, p. 111) the fact finding exercise is a variation of the incident process, originally designed to train managers in analytical thinking, judgement and social awareness. They further explain that in fact finding vague questions result in general answers while specific questions yield valuable information.

One disadvantage of fact finding exercises is that they are difficult to construct and administer.

2.7.6 Psychometric tests

Oxford University Career Services (2012) mention that psychometric and aptitude tests are added to measure intellectual capability for thinking and reasoning. The tests are carefully designed for the role which is being assessed. These sentiments are held by Saunders (2005, p. 111) when she expresses that the most valuable contribution of psychometric assessment is in the area of thinking abilities and learning potential. Macleod (2013) is of the view that more and more companies are opting for a more scientific approach by adopting the use of psychometric testing and the assessment centre.

According to Taylor (2007, p. 90) psychometric tests such as ability tests generally have good validity and if matched to the appropriate competence, they are good predictors of performance. Taylor (2007, p. 91) further explains that some competencies such as attention to detail can be effectively assessed using appropriate ability tests. However, there is a wide range of opinions about the usefulness of psychometrics. These range from psychometrics being an essential part of any assessment to not accurate and useful (Taylor, 2007, p. 86).

Saunders (2005, p. 75) observed that some people consider psychometric assessment to be an integral part of an assessment centre while others believe that assessment centres should comprise purely practical exercises without the addition of psychometric assessment. Saunders (2005, p. 93) is also of the view that psychometric assessment is one of the most controversial subjects and has taken the burden of all dissatisfaction, fear, frustration and a host of other negative sentiments that people tend to attach to assessment situations. In an effort to alleviate the controversy surrounding assessment instruments, researchers such as Taylor (2007, p. 87) emphasise that assessment instruments should always be administered in a standardised test setting. Taylor further elaborates

that the standardisation and use of comparison to large groups of people allow more accurate inferences to be drawn about the individual's aptitudes, abilities and personality characteristics.

In their study on the use of the AC in South Africa Krause et al. (2011, p. 269) observed that in South Africa organisations use a wide variety of exercises and half of the organisations include personality tests or a skills and ability test. Krause (2011, p. 356) also observed that the most frequently used exercises in South Africa are in-basket, presentations, role playing and group discussions. He further explains that the findings are in line with the most frequently used exercises in North America, Canada and the United States. Western Europe uses the same exercises with an addition of case studies. Krause also mentions that these findings are positive because an AC's predictive validity increases if a wide variety of exercises is employed.

According to Thornton III and Rupp (2006, p. 102) an essential element of any assessment centre is the observation of behaviour in simulation exercises. They further explain that simulation exercises present participants with complex stimuli and call for complex behaviour responses. It is against this background that the International Task Force on Assessment Centre Guidelines (2009) advise that AC designers should attempt to design exercises that evoke a large number of job related behaviours because this should give assessors enough opportunities to observe these behaviours. Howard (2008, p. 101) as quoted by Lievens (2012) clarifies that behaviours, not exercises, are the currency of assessment centres. Exercises are merely the stimuli to elicit behaviours. According to Thornton III and Rupp (2006, p. 126) the AC exercises should provide opportunities to observe behavioural information relevant to predicting long range success in a variety of higher level positions.

Schlebusch (2008, p. 118) explains that although the simulations used during an AC may be similar, the content, difficulty level, setting and

other variables specified in the AC blueprint will differentiate between the various simulations.

According to Byham (no date) simulations such as in-basket exercises, group discussion, management games and analysis exercises are the bedrock of the AC method. Byham (no date) acknowledges that one-on-one interaction simulations such as role play and fact finding have become more popular.

Figure 2.4 illustrates components of a typical assessment centre in recent years.

Figure 2.4 A typical assessment centre

Structuring a competency-based assessment battery
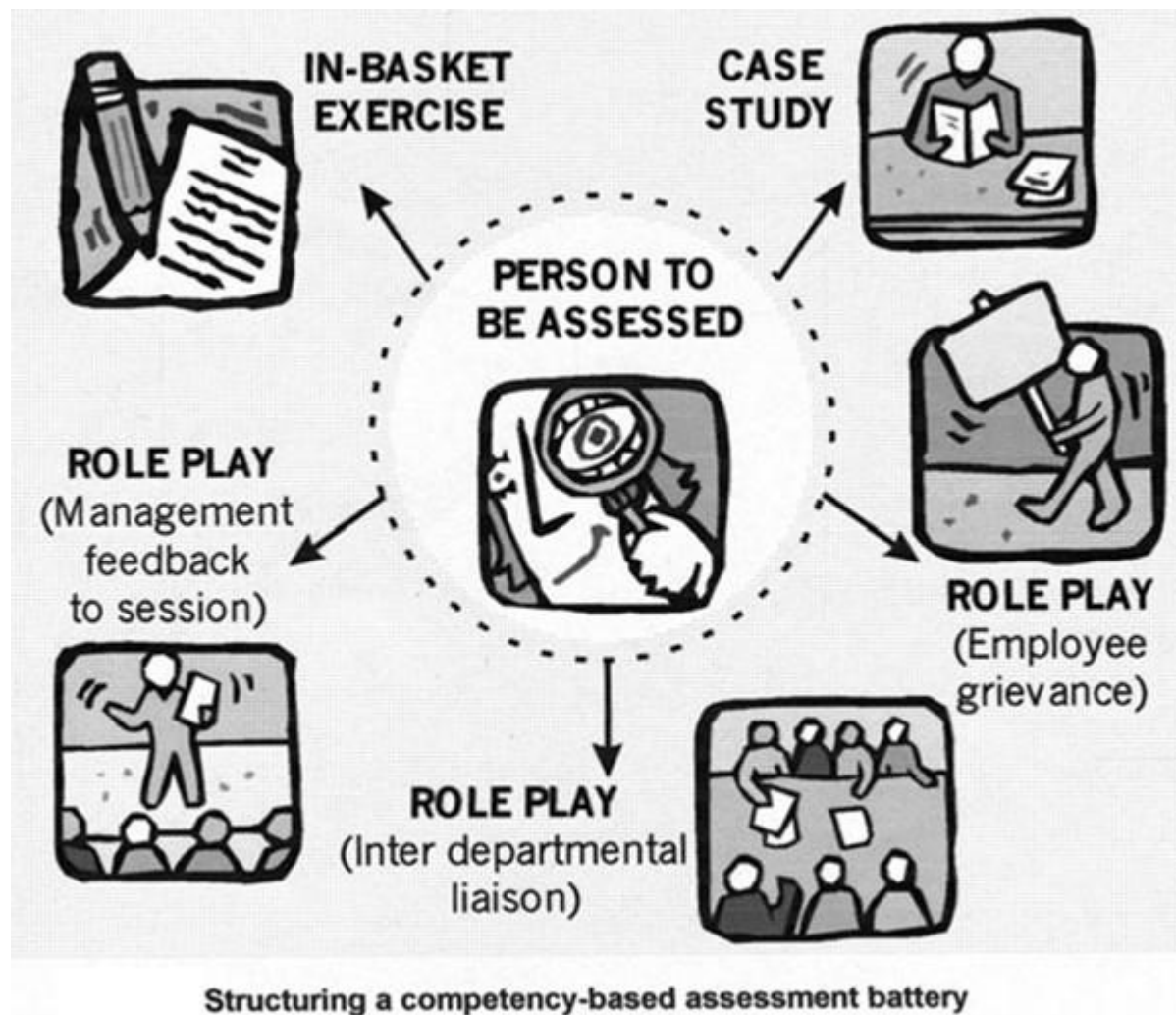
(Source: Nel, 2013)

Figure 2.2 above confirms Byham's statement (no date) that one-on-one interaction simulations such as role play are more popular in recent years. Thornton III and Rupp (2006, p. 108) explain that an advantage of the role play exercise is that it is relatively short, requiring 15 to 20 minutes to prepare and only 10 minutes to execute. Several simulations can be incorporated in role play as illustrated in Figure 2.2. The researcher's view is that due to the cost-effectiveness of role play in terms of time, this could be the reason role play is more popular in recent years.

Table 2.3 Assessment matrix indicating competencies measured and assignments used to measure them.

Competencies	Assessment centre assignments				
	Presentation	Leaderless group discussion	In-basket	Fact finding	Role play
Problem analysis		X	X	X	X
Decision-making	X	X	X	X	X
Delegation			X		
Planning and organising			X	X	
Team work		X			
Oral communication	X	X		X	X

(Source: Thornton III & Rupp, 2006)

As Table 2.3 indicates above most AC researchers advise that each competency should be measured in more than one exercise to allow assessors to observe behaviour displayed and clear any doubts. Povah (2011, p. 334) informs that the total number of competencies to be assessed in an AC has always been an issue of debate, due to the difficulty in differentiating one competency from another. Povah further elaborates that research evidence by Lievens and Conway (2001) and

Woehr and Arthur (2003) highlight that the construct validity of the AC improves as the number of competencies decreases. He also explains that in recent years organisations assess three to seven competencies and two to five in each exercise.

2.8. ADMINISTRATION (RUNNING) OF THE ASSESSMENT CENTRE

Howard (1974, p. 120) explains that the time to run an assessment centre varies from one day to about a week. According to Howard the length of the assessment ordinarily should increase with the responsibility level of those being assessed. Contemporary researchers such as Thornton and Krause (2008, p. 289) found that assessment centres last up to one or two days in most organisations. According to them their findings may reflect that today's assessment programmes are leaner than those in the past. Lievens and Thornton (2005) as quoted by Thornton and Krause (2008, p. 289) argue that today's shortcuts may affect the accuracy and effectiveness of the assessment centre. Thornton and Krause (2008, p. 289) compared their research on the duration of ACs with some of their predecessors as follows:

- Spychalski et al. (1997) is M = 2.48 days
- Krause and Gebert (2003) is M = 3.20 days

Taylor (2007, p. 47) outlines key issues in running an assessment centre as follows:

- The time required or needed for assessment – according to Taylor (2007, p. 48) an assessment centre can take almost any length of time depending on the purpose. Taylor further explains that a well-structured and organised assessment lasting not more than one day will be able to provide a wide range of valuable information.
- Materials required – Taylor (2007, p. 51) is of the view that activities that require expensive or specialised equipment are

generally not considered but rather activities that require briefing sheets, paper and pens (basic material) are used.

- Managing the exercises – Taylor (2007, p. 51) advises that time allocated to exercises should be strictly adhered to and written work collected in accordance with the instructions.

- Communicating with participants at the various stages of the process

  a. At the start of the event Taylor (2007, p. 55) advises that a thorough introduction should include the assessor team and participants, structure of the day and time table, general guidelines for the day, competencies to be assessed (optional) and how participants will receive feedback. Taylor (2007, p. 56) further explains that giving brief feedback to all candidates is recommended as good public relations (PR) for both internal and external candidates.

  b. During the event it is important to brief participants about each activity. Timing and detailed instructions should be included in all the briefing sheets. Intervening during the activities should be avoided, as it does not encourage objectivity in the assessment process. (Taylor 2007, p. 59)

- Debriefing is generally appropriate if an activity is being used as part of a development centre. The most usual questions are: What went well for you? What were you less comfortable about? What would you do differently if you were asked to do this task again? (Taylor 2007, p. 59)

- Evaluating the process – according to Taylor (2007, p. 60) the process should periodically be reviewed to evaluate its effectiveness.

According to Taylor (2007, p. 25) a well-organised assessment centre can actually impress candidates and prove invaluable in the event of legal challenges to selection decisions. Taylor is also of the view that for external candidates who are also, in many cases, potential customers, the recruitment process can be the first direct contact they

have with the organisation. In addition, Roodt (2008, p. 57) advises that participants should be informed about the AC purpose, process and outcome to diminish the levels of anxiety and fear. Furthermore, it will create a positive climate and context for conducting the AC.

The International Guidelines and Ethical Considerations for Assessment Centre Operations (2009, p. 250) outline the basic information that should be given to all participants before the centre as follows:

- The objectives of the programme and the purpose of the AC. The organisation may choose to disclose the competencies measured and the general nature of exercises.
- How individuals are selected to participate in the centre.
- Any options the individual has regarding the choice of participating in the AC as a condition of employment, advancement or development.
- General information on the assessors and their role, including the composition, relevant experience and assessor training.
- The AC materials completed by the individual which are collected and maintained by the organisation.
- How the AC results will be used and how long the results will be maintained on file.
- When and how feedback will be given as well as what kind of feedback i.e. by competencies or exercises.
- Development mechanisms for follow-up support and monitoring.
- The reassessment procedure, if any.
- Who will have access to the AC report and under which conditions.
- Who will be the contact person responsible for the records and where the results will be stored.

Mukherji and Miscra (2013) provide a list of critical responsibilities at each stage when running an assessment centre, as highlighted in Table 2.4.

Table 2.4 Critical activities at each stage of the AC

Pre-AC	During the AC	Post-AC
• Defining the objective of the AC. • Get approval for the AC from the concerned officials. • Conduct job analysis. •Define the competencies required for the target position. • Identify the potential position holders and send them invitations. • Identify the observers. • Train the observers. • Design the AC exercises • Decide on the rating methodology. • Make infrastructural arrangements. • Schedule the AC. • Inform the concerned people of the schedule	• Explain to participants the purpose of the AC, the procedure it would follow and its outcome. • Give instructions to the participants, before every exercise. • Distribute the competency exercise matrix sheets among the observers. • Conduct all exercises. • Conduct a discussion of all observers on every participant's ratings, at the end of the session. • Compile a report of the strengths and improvement areas of every participant. • Give feedback to participants. Get feedback from participants and observers about the conduction of the AC.	• Compile reports of all participants and submit the list of selected participants to the concerned authorities. • Make improvements in the design according to the recommendations. • Evaluate the validity of results after a definite period.

(Source: Mukherji & Miscra, 2013)

It can be depicted from Table 2.4 that thorough preparations have to be done before the AC to lay a foundation for the success of the next two stages. Even during the centre standard procedures have to be followed to upkeep the credibility of the AC. Table 2.4 also confirms the AC procedures outlined earlier by Taylor (2007, p. 47) and stipulated by The International Guidelines and Ethical Considerations for Assessment Centre Operations (2009, p. 250).

2.9 THE ASSESSMENT CENTRE RESULTS

Thornton and Rupp (2006, p. 158) explain that individual assessors observe, record, classify and rate behaviour against the job competencies. Thereafter assessors come together to discuss their experiences and reach a consensus on each candidate's performance on each competency and across the entire assessment process. The International Guidelines and Ethical Considerations for Assessment Centre Operations (2009, p. 246) stipulate that the integration of each individual's behaviour must be based on pooled information from assessors or through the statistical integration process. After the integration process an AC report for each participant is produced (Thornton III & Rupp, 2006, p. 158). Schlebusch and Roodt (2008, p. 10) elaborate that the individual report is a summary of the participant's behaviour during the AC. It indicates what he or she has done well in relation to the competencies assessed as well as the development areas. According to the authors a well-written report should also indicate development suggestions to the participant.

Thornton III and Rupp (2006, p. 193) also emphasise that the value of the information (results) to the individual and managers, depends on how it is used and also whether or not:
- Clear examples of both positive and negative results are included in the reports.
- Reports are delivered sensitively by a creditable person.

The International Guidelines and Ethical Considerations for Assessment Centre Operations (2009, p. 247) require that the AC policy statement should outline who receives the reports, restrictions on access to information and the length of time the results will be maintained in files. The guidelines further stipulate that before the centre, participants have the right to know how the assessment centre results will be used and recommendations will be made.

2.10 FEEDBACK

Schlebusch (2008, p. 207) describes feedback as sharing information on what transpired during the AC, thus it is based on the participant's behaviour during the AC simulations. According to Schlebusch the purpose of the specific feedback depends on the needs of the recipient, however, in general, feedback provides insight into the participant's behaviour during the AC.

Taylor (2007, p. 75) advises that effective feedback, whether delivered verbally or in writing, needs to be objective, specific and not judgemental. Taylor further explains that feedback should be balanced, including both strengths and areas for development and provided soon after the assessment event. Schlebusch (2008, p. 207) recommends that feedback should be in the form of a discussion as well as a written report.

According to Schlebusch (2008, p. 207) feedback can be given by the assessors, the AC administrator, or a person specifically trained to give post-AC feedback. Schlebusch further emphasises that only people trained and competent in AC methodology and competent assessors at the specific AC must give feedback. Thornton and Rupp (2006, p. 194) caution that when giving feedback the rights of the individual must be protected. At the same time the goal and purpose of the assessment

centre should be achieved. Taylor (2007, p. 75) also cautions that feedback discussions should not become a negotiation about ratings.

Thornton and Rupp (2006, p. 198) express that giving feedback to a person who has received negative evaluation for promotion or selection is difficult. They further note that the goal of the feedback session is to help the person to see that even though the outcome is not favourable, the procedure for carrying out the centre and making decisions based on the results was fair. Gropanzzano and Schminke (2001) as quoted by Thornton and Rupp (2006, p. 199) explain that an individual's reaction to an unfavourable outcome may be lessened when the outcome is reached through fair procedures and interactions.

Thornton III and Rupp (2006, p. 193) conclude that the value of information from the AC depend on whether or not feedback is given in a timely fashion to the appropriate people.

2.11 EFFECTIVENESS OF ASSESSMENT CENTRES

Taylor (2007, p. 12) enlightens that the effectiveness of a measure is evaluated in terms of its validity. In the organisational context the primary focus is how effective a tool is in predicting an individual's ability in a particular work-related competence, thus its predictive validity.

Collins (2003) as quoted in the ACSG manual (2012, p. 23) expresses that ACs are one of the most effective selection processes even though the AC tool is facing an issue of construct validity. This is echoed by Lievens and Schollaert (2011, p. 47) when they state that generally, assessment centres show a record of success and results of meta-analytic research confirmed that AC ratings are predictive of a variety of criterion measures. Jones and Born (2008) also express that the assessment centre is one of the more prominent selection tools. This is attributed to its relatively high predictive validity of r = .28 (Lievens & Robertson, 2007). Arthur jr, Woehr and Maldegen (2000, p. 814) add that the criterion-related validity of assessment centres, which has been extensively documented, is undoubtedly partially responsible for their popularity.

Thornton and Gibbons (2009) explain that one of the reasons assessment centres are more prominent is because they can be used in a number of diverse settings and for various positions and levels in the organisation. Jansen and Jongh (1997, p. 3) express that many companies are interested in ACs, due to the way AC assignments are designed. Assignments reflect a very true life scenario and involve practical, relevant tasks that elicit concrete behaviour. This sentiment is echoed by Anderson and Cunningham-Shell (2000) when they state that the assessment centre is considered by many employers to be fair and an accurate tool for selection as it gives assessors a chance to see what assessees can do rather than what the assessees say they can do. This view is shared by Lievens (2009) when he writes that the

apparent rigour of the assessment process, its focus on observable behaviours rather than self-reports and the well-documented relevance to job performance compel many organisations to use assessment centres in evaluating and developing managerial talent.

Povah and Thornton (2011) are also of the view that assessment centres are among the most widely used and trusted managerial assessments. They point out that in a typical assessment centre candidates are given opportunities to demonstrate managerial competencies while participating in a series of work simulations or exercises. Then a candidate's performance on each exercise is rated on a predetermined set of dimensions and the ratings are aggregated across exercises to inform selection decisions or to provide developmental feedback to candidates.

Anderson and Cunningham-Snell (2000) provided a summary of research on how well selection methods predict future job performance, where perfect prediction is 1.0 the following selection methods score as follows:

- Assessment centres promotion (0.68)
- Ability tests (0.54)
- Structured interviews (0.44)
- Assessment centres performance (0.41)
- Unstructured interviews (0.33)
- References (0.13)

Research findings above indicate that the AC is better placed than other selection methods in predicting job performance. The AC is more special than other selection tools because various assessment procedures are used in combination with each other (Thornton III & Rupp, p. 8).

Anderson and Cunningham-Snell (2000) also hold the view that due to the low reliability of other selection methods many employers consider assessment centres.

In his monograph on The Assessment Centre Method and Methodology, Byham (no date) concludes that "the assessment centre method is a proven, valid technique that is extremely effective for making selection and promotion decisions and for diagnosing employee development needs. Applied traditionally, it is most appropriate for organisations that process groups of individuals. However, alternative methods now exist that make it possible for most organisations to use the method".

According to Thornton III and Rupp (2006, p. 9) the AC is special due to the way various individual assessment procedures are used in combination with each other. They further compared the AC with other assessment methods as illustrated in Table 2.5.

Table 2.5 Comparison of the AC and other assessment methods

Other assessment techniques	Assessment centre method
Individual assessment • Holistic judgement made • Assessment conducted by a single person • One individual assessed at a time **Multisource feedback** • Raters receive limited to no training • Feedback is mostly written • Multiple raters used e.g. supervisors, co-workers, customers **Behavioural background interview** • Self-reports of past behaviour • Can be faked **Situational interview** • Self-report of intentions to behave **Cognitive ability tests** • Abstract problems assigned • Abilities implied from responses to items • May cause adverse impact **Personality questionnaire** • Easy to fake • Self-description • Measures stable traits • Low face validity	• Specific judgement made, which may be combined into an overall rating • Judgements made by multiple assessors • Multiple individuals can be assessed simultaneously • Assessors receive extensive training • Feedback is often oral and written • Multiple assessors used, but typically from upper management, HR or outside the organisation • Observation of current behaviour • Difficult to fake: candidate must demonstrate actual behaviour • Observation of actual current behaviour • Concrete, work-related problems assigned • Demonstration of overt behaviour required • Little adverse impact caused • Hard to fake • Description by assessors • Can measure both stable traits and developable skills • High face validity

(Source: Thornton III & Rupp, 2006)

It is evident from Table 2.5 that the AC method outperforms other assessment techniques in objectively assessing behaviours wanted for different jobs. Some of the positives found in individual assessment techniques are all contained in the AC method, making it ideal due to its holistic nature.

2.12 CHALLENGES FACING ASSESSMENT CENTRES

Van Minden (2004, p. 129) argues that scientifically, criticism can be levelled at the assessment centre method, some of which also apply to other psychological tests. Van Minden elaborates that the problem of validity and reliability are challenges faced by the AC method. According to Van Minden an element of subjectivity creeps into the assessors' judgements, no matter how well-trained they are. To support his view on assessor subjectivity Van Minden (2004, p. 129) questions what happen when several assessors disagree. His bone of contention is whose opinion has the deciding vote and why that person in particular. According to Thornton III and Rupp (2006, p. 44) there is an unresolved debate over the best integration method to use. Some AC researchers advocate for the statistical method while others prefer consensus meetings. Thornton III and Rupp (2006, p. 44) further enlighten that there is empirical evidence to support each method, but no definite answer as to which is the best method that does not compromise the validity of AC. Dewberry (2011, p. 98) expresses that when making selection decisions, consensus meetings among assessors are by far the most widely used. Surveys conducted suggest that consensus meetings are operated in approximately 90 per cent of ACs run in Europe and the United States (Krause & Thornton, 2009) as quoted by Dewberry (2011, p. 98).

The problem of validity is also raised by Collins et al. (2003) when they write that the biggest issue facing assessment centres is that of construct validity. Homer and Roberts (2008) as quoted in the ACSG manual (2012, p. 23) give more light when they explain that assessor

training is one aspect that could affect the construct validity of assessment centres. The assessors' levels of expertise play a significant role in the validity of the whole process (Jones & Born, 2008). The issue of assessors is also raised by Caldwell et al. (2003) when they write that inadequate assessor training is one of the major challenges facing the AC as quoted in the ACSG manual (2012, p. 23).

Chen and Naquin (2006, p. 265) such as other AC researchers express that although the assessment centre has been proven effective in predicting performance, the issue of establishing construct-related validity is not resolved. Woerhr and Arthur as quoted by Chen and Naquin (2006, p. 265) asserted that the lack of construct-related validity in assessment centre literature is primarily due to issues of design and development.

According to Thornton and Rupp (2006, p. 15) assessment centres are complex undertakings. They are often difficult to develop and maintain due to the cost associated with them, including labour, physical space and a large amount of people's time. In addition, as international business continues to rise there is need for culturally appropriate assessment and development techniques. Creating an AC that is appropriate for candidates from varying cultures is very complex.

Howard (1997) and Thornton and Mueller-Hanson (2004) as quoted by Thornton III and Rupp (2006, p. 15) reviewed many of the frequently cited advantages and disadvantages of using assessment centres. Table 2.4 illustrates the advantages and disadvantages of assessment centres.

Table 2.6 Summary of pros and cons of the AC

Arguments for the use of the AC	Arguments against the use of the AC
• Predicts a wide range of criteria • Highly accepted by applicants and employees • Can measure many attributes that are otherwise very difficult to measure • The method can incorporate anything that can be measured • Assessment centre scores show little adverse impact • Can measure developable attributes • Reports are rich in behavioural detail • Less restriction of range at high levels of managements than cognitive tests • Technological advances can offset many potential disadvantages • Scoring and reporting advances can lessen load on assessors • Allows for measurement of multiple attributes • Exercises are hard to fake • Can assess both declarative and procedural knowledge • Can be tailored to meet the specific needs of the organisation	• Expensive • Cumbersome/difficult to manage • Requires a large staff • Requires a great deal of time • Only a limited number of people can be processed at a time • May not be cost-effective for initial screening of low level jobs • Cross-cultural/international adaptations may be difficult to design and standardise • Much cognitive load on assessors • There may be confidentiality concerns • Changes in implicit contracts may make the investment less justifiable

(Source: Thornton III & Rupp, 2006)

2.13 CONCLUSION

Research has proven that the assessment centre method provides decision makers with valuable information that can enhance their decisions with regard to issues of the selection, promotion and development of the human resource in their organisations. The assessment centre method is popular and preferred by many organisations when compared to other assessment tools. This is attributed to its high face validity, content, criterion and predictive validity. The method is also preferred because the simulations can be adapted to meet the specific needs of the organisation. Even though the AC method has many advantages it is facing challenges of assessor biases and construct validity. Currently there is much debate among researchers about the construct validity of the assessment centre, with some researchers holding the view that evidence of construct validity in the AC method is less promising. Due to the high cost associated with the AC method some organisations take shortcuts when implementing the AC, which compromises the quality of results. In summary the researcher has observed that some of the main issues debated about the AC method today are arguments on methods of data integration, assessor bias, construct validity, culture and use of psychometric tests.

In Chapter Three the empirical study of AC is discussed.

CHAPTER 3

EMPIRICAL STUDY OF ASSESSMENT CENTRES

3.1 INTRODUCTION

In Chapter Two a comprehensive theoretical study on the AC method was presented. Some of the aspects covered in the theoretical study are criteria qualifying an event to be called an AC, its features, the purpose and results and feedback. Two aspects that emerged from the theoretical study were that the AC is one of the most effective and widely preferred selection methods due to being high in predictive validity for future job performance. One other aspect that leads to the AC being preferred over other selection methods is that it uses multiples in techniques, assessors and exercises, to mention a few. However, despite its popularity it is facing challenges of construct validity, assessor biases and training. Much emphasis was placed on the credibility of the assessors and the purpose for which the centre was designed.

The literature reviewed unveils that the AC's cost in terms of money and time is causing some organisations to take shortcuts, which compromises the AC's validity.

The aim of this chapter is to assist in the resolution of sub-problem four, namely:

Sub-problem four

To what extent are international standards of the AC applied in the use of assessment centres in the public service?

This chapter provides insight into the findings obtained from interviews with the consultants, the AC observation by the researcher and interviews with directors.

3.2 INTERVIEWS WITH OUTSOURCED CONSULTANTS

The Botswana public service is outsourcing the AC services from private consultancies. The researcher conducted semi-structured interviews at the outsourced consultancies that have been providing the AC services for at least five years, namely HRMC Talent and Resource Development and Management Associates (REDMA). Request letters to conduct the interviews were sent to the consultancies (refer to Appendix 4). Attached to the request letters was a letter from the Directorate of Public Service Management which confirmed that the researcher is authorised to conduct the research. At HRMC Talent the interview respondents were the registered industrial psychologist and the AC administrator. At REDMA the interview respondents were the managing director and the principal consultant who are both assessors. The purpose of the interview was to obtain information on the AC process conducted for the public service to determine the extent to which the process adheres to AC international practice standards.

3.2.1. PURPOSE OF THE AC

According to Schlebusch and Roodt (2008, p. 15) the assessment centre can be used either for selection purposes or for developmental purposes. According to them several variations exist within these two broad categories. Schlebusch and Roodt (2008, p. 15) further explain that the assessment centre is sometimes used for diagnostic purposes, to assess the current level of managers' functioning. The outcome helps the AC practitioner to make an informed judgement about the company's managerial competence. The International Guidelines and Ethical Considerations for Assessment Centre Operations (2009, p. 250) also inform that assessment centres are generally used for three major purposes, namely to predict future behaviour for decision-making, to diagnose development needs and to develop candidates on dimensions of interest. However, the guidelines acknowledge that

additional purposes for the AC currently exist and will continue to evolve with further use.

At HRMC Talent the consultants expressed that the public service mainly use their AC for selection or promotion purposes. It is only in rare occasions that people are brought in for development. According to the consultants the purpose of the AC is communicated to the participants when invitations are sent prior to the day of the AC. There are no pre-AC materials provided to the participants and the briefing and issuing of material are done on the day of the AC. For positions at director and deputy director level and the equivalent level the length of the AC for selection is one day, while for permanent and deputy permanent secretaries two days are set aside.

At REDMA the consultants also stated that the public service use the AC mainly for selection or promotion purposes. Only few Ministries, approximately four, had in the past conducted ACs for developmental purposes. The purpose of the AC is communicated to the candidates two to three days prior to the AC. In addition, the candidates are provided with overview notes (briefing notes) which assist them to prepare for the AC. A copy of the relevant competency framework and behaviour indicators is also availed. Where applicable, candidates are provided with background materials for the AC exercises. In the morning of the AC candidates are briefed about the AC, given a chance to ask any preliminary clarifying questions and given the AC schedule. According to the consultants the purpose of the AC is well communicated so that the candidates can have a clear understanding of the AC's purpose. They also explained that this is done to ease the anxiety and relax the candidates. For positions of director, deputy director and equivalent levels the length of the AC for selection is one-and-a-half days, while for permanent and deputy permanent secretaries it is two to two-and-a-half days.

Chen and Naquin (2006, p. 279) caution that since an assessment centre can be used for various purposes, it is important that assessment centre designers and implementers fully articulate the purposes. According to Chen and Naquin articulating the AC's purpose could be the key to reducing the anxiety and enhancing the motivation for stakeholders to adopt the programme.

From the interviews with both consultants it is evident that the public service uses the AC mainly for selection or promotion purposes. This affirms Byham's (1989, p. 345) view that in practice the assessment centre method is mostly used for promotion and selection of supervisors and managers in government and business. Morrel (2013) support Byham's view that assessment centres are used frequently to evaluate people who already work within an organisation. The information gained from the assessment centre is then used to help decisions concerning promotion. In their study on the use of the AC in South Africa, Krause, Rossberger, Dowdeswell, Venter and Joubert (2011, p. 269) found that only few organisations state that the main objective of their AC is aimed at employee development. Most organisations use AC for selection.

In their study on AC Thornton and Krause (2008, p. 289) observed that assessment centres last up to one or two days in most organisations. According to them their findings reflect that today's assessment programmes take less time than those in the past.

3.2.2 FEATURES OF THE AC AT REDMA

Thornton III and Rupp (2009, p. 38) explain several basic requirements for an assessment process to legitimately be called an assessment centre. They further explain that a number of basic requirements of the AC method have remained stable in spite of some variations. The theoretical study in Chapter Two revealed the following features as qualifying a process to be called an AC:

- Job analysis – is conducted to determine the competencies that are important for job success, even if the job does not currently exist. The analysis will determine competencies needed for success in the proposed job.

- Multiple simulations and assessment instruments – a sufficient number of job related simulations are used to observe the participant's behaviour in relation to the competencies being assessed in more than one setting.

- Multiple observers or assessors – the same participants are observed by different observers or assessors during the various simulations. Having multiple assessors ensures that a participant's behaviour linked to a specific competency is evaluated objectively during an AC.

- Behavioural observation – behaviour is what the participant is saying or doing during simulations.

- Noting and classifying behaviour – behaviour displayed by participants must be observed, noted, classified and evaluated accurately by assessors.

- Data integration – at the end of the AC, the assessors pool their information on each participant to obtain final ratings. Each assessor presents his or her ratings and behaviour evidence to support such ratings.

- Competent assessors and role players – only well-trained assessors and competent people function as assessors in an AC. If role players are used during the interactive simulations it must be ensured that they are well trained in the characters they will portray.

- Feedback – after the completion of the AC, feedback must be given to certain stakeholders. Usually the stakeholders are the participants and the line managers.

The consultants at REDMA expressed that they operate the AC as per the International Guidelines and Ethical Considerations for AC Operations. A copy of the 2009 International guidelines was availed to the researcher. According to them the features of their process that qualifies it to be called an AC are:

- Job profile – determine competencies to be assessed
- Multiple trained assessors – observe behaviour in AC
- Multiple exercises or simulations matched with competencies as per the assessment matrix – stimulate behaviour to be observed
- Rating forms – to rate behaviour
- Assessment matrix – to match competencies and exercises
- Evidence based integration sessions by assessors – to determine the integrated scores
- An AC report for each candidate

In addition, the consultants informed the researcher that they participate in international conferences to continuously improve the assessment process.

At HRMC Talent the consultants cited the following as features of their process that qualifies it to be called an AC:

Table 3.1 Summary of AC features at HRMC Talent

- Job profile   - Multiple instruments   - Multiple assessors   - Standardised environment (time, administration, evaluation sheets)   - Assessment matrix   - Assessment report for each candidate

For the purposes of this study, the researcher used the following criteria:

- Job analysis to determine the competencies to be assessed and to indicate the type of simulations used.
- The use of a combination of multiple simulations and assessment instruments
- A team of trained assessors observe, record, classify and evaluate
- The data obtained by individual assessors is shared at the end of the process to determine the final score (data integration)
- Participants are evaluated against predetermined job related competencies
- Competencies are measured in more than one simulation exercise
- Assessment report for each candidate
- Provision of feedback

During the interviews with the consultants the researcher observed that one of the criteria or requirements (provision of feedback) that qualify a process to be called an AC is only done on request by the client. According to the consultants government rarely requests for candidates to be given feedback, therefore the majority of participants are not provided with feedback. According to them an additional amount is charged for the provision of feedback. Schlebusch and Roodt (2008, p. 3) inform that feedback on the participants' behaviour during the AC for selection is provided to the management of the organisation that initiated the AC. However, Schlebusch (2008, p. 3) strongly recommend that feedback should also be given to the participants. Schlebusch's basis for the recommendation is that the feedback will assist candidates to better understand the decision taken by

management. In addition, the feedback will enable candidates to learn from the experience.

In regard to data integration the researcher learned that at HRMC Talent there are no assessor integration meetings. The integrated scores are obtained through the use of technology. Data from each assessor is entered into the computer and an integrated score is obtained. However, at REDMA the consultants explained that after each AC there is an integration meeting by all the assessors who participated in that particular AC. An integrated score is reached at the meeting.

3.2.3 AC SIMULATION EXERCISES

According to Thornton III and Rupp (2006, p. 102) an essential element of any assessment centre is the observation of behaviour in simulation exercises. They also inform that simulation exercises present participants with complex stimuli and call for complex behaviour responses. It is against this background that the International Task Force on Assessment Centre Guidelines (2009) advise that AC designers should attempt to design exercises that evoke a large number of job related behaviour exercises because this should give assessors enough opportunities to observe job related behaviours.

Simulations or exercises used at REDMA are:
- In-tray (in-basket) – a simulation of an employee's in-tray consists of various items eliciting visible behaviour from the participant that can be classified under the various competencies assessed during an AC. It is designed to test how the person handles complex information within a limited time and how the person performs under pressure.

- Role plays – a one-on-one interaction during which the candidate conducts a discussion with a role player. The candidate is usually in charge of the discussion. The role player has been trained to play a certain role and to create opportunities during discussion for the candidate to display behaviour linked to competencies. According to the consultants the candidate can meet an aggrieved stakeholder or an underperforming employee.

- Leaderless group discussion – a group meeting between four candidates with the purpose of solving the problem or making a decision within a specified time.

- Presentation – a candidate is requested to deliver a formal business presentation in front of an assessor, explaining how he or she dealt with issues in the in-tray.

- Competency based interviews – behavioural, structured interviews are sometimes used as part of the AC.

- Psychometric tests are also included to measure intellectual capability for thinking and reasoning and personality traits. These are ability tests and OPQ32.

The consultants apprised that exercises are developed by an internal team and sent to a network of international partners for validation. They further explained that when REDMA was engaged by the Botswana public service to revise the leadership competency framework an expert in the field of the AC from Canada was sourced. The expert also spearheaded the development of simulation exercises for the public service. According to the consultants the important point is for the exercises to reflect the needs of the client as specified during the job analysis. The psychometric tests are sourced from reputable companies that specialise in the development of talent measurements and employment testing tools.

According to REDMA consultants the competencies measured are derived from the Botswana public service leadership competency framework and measured across different exercises. Three to six competencies may be selected for each exercise. Matching of the exercises to the competencies is shown in the assessment matrix which is developed during the development of the AC. Table 3.1 below shows competencies assessed for the public service AC.

Table 3.2 Competencies measured

Competency cluster	Competencies	Competency definition
Mastering complexity	Analytical and strategic thinking	• Analysis and synthesises wide-ranging information, identifying current and future trends to support decision-making and advance the organisation's vision, objectives and priorities.
	Deciding and initiating action	• Makes timely, effective decisions and originates action in the face of varying degrees of ambiguity, risk or conflicting information.
Engagement	Teamwork and partnering	• Works collaboratively with others, inside and outside the organisation, to efficiently achieve quality results
	Communicating effectively	• Presents ideas and issues with clarity, credibility and impact both orally and in

		writing, and actively listens to and conveys an understanding of the ideas, comments and questions of others.
Drive for results	Planning and execution	• Delivers optimal results by effectively planning, organising and directing activities to timely completion, adjusting priorities and resources as required.
	Supervision and accountability	• Delegates responsibility and authority for achieving specified goals and standards, and holds employees accountable for meeting them. Uses varied approaches to develop and support employees.
	Innovating and driving change	• Fosters an environment in which change will flourish, continuously seeking and introducing new and innovative ways to accomplish objectives and improve the status quo.
Focusing on customers	Delivering quality service	• Identifies, meets and strives to exceed customer's needs and expectations.

(Source: Botswana public service leadership competency framework, 2011)

Table 3.2 shows the core competencies assessed across different exercises in an AC conducted for the public service. In addition to competency definitions each competency has behaviour indicators.

Table 3.3 Sample AC matrix for deputy director position (REDMA)

	AC meetings (simulation exercises)			
Competencies	Meeting 1 With deputy executive secretary **(In - tray followed by presentation)**	Meeting 2 With deputy manager (underperforming) **(Role play)**	Meeting 3 With stakeholder and then PSA executive committee member **(Role play)**	Meeting 4 PSA advisory sub-committee meeting **(Group exercise)**
Analytical and strategic thinking	X	X		X
Deciding and initiating action	X	X	X	
Team work and partnering		X	X	X
Communicating effectively	X		X	X
Planning and execution	X	X		X
Supervision and accountability	X	X		X
Innovating and driving change	X		X	X
Delivering quality service	X	X	X	
Number of competencies	7	6	5	6

(Source: REDMA, 2012)

Table 3.3 demonstrate that each competency is assessed in three exercises and interactive exercises are mostly used. Most AC researchers such as Thornton and Rupp (2006) and Povah (2011) advise that each competency should be measured in more than one exercise to allow assessors to observe behaviour displayed and dispel any doubts. In addition, the International Guidelines and Ethical Considerations for Assessment Centres Operations (2009, p. 246) require that AC designers should design exercises that reliably elicit a large number of dimension related behaviours. This will provide assessors with sufficient opportunities to observe dimension related behaviour. Povah (2011, p. 334) explains that the total number of competencies to be assessed in an AC has always been an issue of debate, due to difficulty in differentiating one competency from another. Povah further elaborates that research evidence by Lievens and Conway (2001) and Woehr and Arthur (2003) highlight that the construct validity of the AC improves as the number of competencies decreases. He also apprises that in recent years organisations assess three to seven competencies and two to five in each exercise.

The interview conducted at HRMC Talent revealed that the simulation exercises used are:

- Role play
- Online in-tray or in-box
- A wave performance discussion exercise which is an interactive exercise aimed at evaluating the work performance of candidates and it uses cards. The discussion is between the assessor and the candidate.
- Presentation
- Psychometric – aptitude and work style tests
- Strength finder which is done after the psychometric tests and used as a validation exercise

According to the consultants they use three interactive exercises in their AC process. The in-tray is done online, however, there is provision for paper and pencil to cater for candidates who are not comfortable to use technology. The competencies measured are problem solving, influencing people, adapting approaches and delivering results. They do not develop any exercises internally. Exercises are sourced from different companies internationally and mostly from the UK.

During the interviews the researcher observed that at both consultancies interactive exercises are more common. One of the interactive exercises mostly used is role play and different simulations are used e.g. the candidate meeting a dissatisfied customer, an underperforming supervisee and a stakeholder.

This confirms Byham's statement (no date) that one-on-one interaction simulations such as role play are more popular in recent years. An advantage of the role play exercise is that it is relatively short, requiring 15 to 20 minutes to prepare and only 10 minutes to execute (Thornton III & Rupp, 2006, p. 108).

The use of role play by the consultants affirms Nel's (2013) diagram in Figure 2.4 of this study illustrating components of a typical AC in recent years.

The fact finding exercise is not used by any of the two interviewed consultants. This supports Thornton III and Rupp's (2006, p. 111) view that fact finding exercises are difficult to construct and administer and rarely used.

The researcher observed that even though the consultants are offering the services of the AC to the same client for similar positions, some of the simulation exercises used and competencies they measure differ. For instance HRMC Talent uses the wave performance discussion

exercise, which is between the assessor and the candidate while at REDMA the leaderless group discussion is used among usually four candidates. In addition, HRM Talent uses strength finder exercises while REDMA uses competency based interviews.

3.2.4. ADMINISTRATION OF THE AC

There are critical activities that have to be carried out before, during and after running an AC. As presented in Chapter Two of this study, Taylor (2007, p. 47), The International Guidelines and Ethical Considerations for Assessment Centre Operations (2009, p. 250) and TATA Management Training Centre (2013), an article on assessment centre concept provides a list of critical activities to undertake at each stage when running an assessment centre. Some of the critical activities that must be carried out include the following:

Before the AC: All necessary preparations must be performed, such as defining the objective of the AC, the job analysis and defining competencies to be measured, the AC matrix, assessors' preparation, informing participants and making infrastructural arrangements.

During the AC: Brief candidates, give instructions at the beginning of each exercise, conduct all exercises, time exercises and debriefs at the end of the exercises.

Post-AC: Conduct the integration meeting, produce an individual AC report for all the participants and deliver the AC report to the concerned authorities.

The consultants at REDMA outlined the following activities they engage in before, during and after the centre:

Before:
- Dates are scheduled and communicated to the client organisation.

- Invitation letters are sent to the contact person for candidates to collect two to three days before the AC. The letter includes the date and time for AC and the directions to the venue. A copy of the competency framework to be used and overview notes on an AC is also sent as part of the package. The overview notes explain the AC process, exercises and tools to be used. The package may include background materials for the AC if that is required by that particular AC.

- Three days before the AC assessors are assigned roles after they have indicated their availability. A strict conflict of interest declaration is enforced so that assessors do not evaluate candidates they know too well or would be perceived to compromise the objectivity and integrity of the AC.

- Two days before the AC sufficient quantities of materials are produced.

- The assessment rooms are prepared a day before the AC.

- The assessors receive material one to two days before the AC to prepare.

During the AC:

- According to the consultants the morning commences with a brief talk to ease candidates into the AC.

- The briefing entails an explanation of competencies, instructions on what to do and an introduction of the assessors.

- Candidates are provided with the AC schedule, background materials, instructions and exercise materials prior to the commencement of each exercise. Materials no longer needed are collected at the end of each exercise. A health break is provided between exercises.

After:

- The AC ends with the completion of an evaluation form and debriefing to obtain candidates' views.

- Assessors start to classify, rate and summarise the evidence as soon as possible and the work must be completed the next day when assessors can still recall what they observed and recorded.
- After individual assessors have rated the exercises as per the matrix, a formal meeting to discuss and integrate the results is held. Each participating assessor has a file of the evidence and ratings from all the exercises. The results are reviewed and finalised within two days after the AC.
- An AC report for each candidate is prepared.
- A detailed report of each candidate is sent to the focal person of the ministry within five working days after the results are finalised.

The consultants informed the researcher that four candidates are assessed per AC. At the end of the AC a candidate will have been observed by three to four assessors. During the AC candidates are observed by a different assessor for each exercise. Schlebusch and Roodt (2008, p. 108) hold the view that at least two assessors should assess a candidate in a given exercise.

At HRMC Talent the consultants provided the following information regarding the administration of the AC:

Before the AC:
- The assessment rooms are prepared
- The candidates are invited to the AC and informed about the date and time.
- The candidates are not issued with any pre-AC materials.

During the AC:
- The candidates are provided with relevant materials
- The candidates are given instructions before each exercise
- The candidates are given time to prepare.

- On the day of the AC there is a briefing session in the morning prior to the commencement of the AC. The brief takes 15 to 30 minutes.

After the AC:
- At the end of the AC candidates fill in evaluation feedback forms
- Debriefing is done to obtain candidates' views.
- There is no integration session meeting.
- Each assessor's information is entered into the computer and an integrated score is derived.
- An AC report is produced for each candidate.
- The report is sent to the focal person of the ministry or to the person the ministry authorised to receive the AC reports.

The consultants explained that four candidates are assessed per AC. At the end of the AC each candidate will have been observed by three assessors.

Table 3.5 below shows a comparison of the AC activities that the two consultants engage in before, during and after the AC.

Table 3.4 Summary of the AC activities at REDMA and HRMC Talent

ACTIVITIES	REDMA	HRMC Talent
Before the AC	- Dates are scheduled and communicated to client organisation - Invitation letters and pre-AC material are sent out - Assessors are assigned roles and provided with material to prepare - Materials are produced - Assessment rooms are prepared	- Invitations are sent out - Assessment rooms are prepared
During the AC	- Morning briefing - Declaration of conflict of interest - Candidates are provided with AC schedule and background information - Instructions and materials are provided to candidates before each exercise	- Morning briefing - Candidates are provided with materials and instructions before each exercise
After the AC	- Candidates complete evaluation forms - Debriefing session - Individual assessors classify, rate and summarise information collected during the AC - Assessor integration session is held and integrated score determined - Individual AC report is produced - Reports are sent to the client	- Candidates complete evaluation form - Debriefing session - Information from assessors entered into computer - Integrated score obtained - Individual AC report is produced - Reports are sent to the client

It can be noted from Table 3.5 that there are variations in the AC processes of the two consultancies. For instance, at REDMA candidates are provided with pre-AC material while at HRMC Talent they are not. In addition, there is an assessor integration session at REDMA and final scores are reached through consensus. However, at HRMC Talent the final scores are generated through the use of technology. During the interviews REDMA consultants emphasised the declaration of conflict of interest by assessors and candidates declaring their comfort to be observed by assessors presented to them. HRMC Talent did not mention anything regarding this issue.

Taylor (2007, p. 25) advises that a well-organised assessment centre can actually impress candidates and prove invaluable in the event of legal challenges to selection decisions.

3.2.5 THE AC RESULTS

According to Thornton and Rupp (2006, p. 158) individual assessors observe, record, classify and rate behaviour against competencies of the job. Thereafter assessors come together to discuss their experiences and reach a consensus on each candidate's performance on each competency and performance across the entire assessment process. After the integration process an AC report for each participant is produced.

REDMA consultants explained that the final results for each participant are based on the ratings from the exercises and ability tests. As earlier stated assessors who have rated the exercises meet in an integration session to pool the evidence and reach final ratings. The consultants admitted that there are at times disagreements. When disagreements occur, further discussions are done until consensus is reached. The consultants emphasised that the decision is based on the weight of the evidence provided by each assessor. Dewberry (2011, p. 98)

expresses that when making assessment decisions, consensus meetings are by far the most widely used. Surveys conducted suggest that consensus meetings are operated in approximately 90 per cent of ACs run in Europe and the United States (Krause & Thornton, 2009) as quoted by Dewberry (2011, p. 98).

At HRMC Talent the results of the AC are also based on the ratings from exercises and psychometric tests. There is no assessor integration meeting, rather the assessors' information and scores are entered into the computer and an integrated score is obtained. In his monogram on the AC Byham (no date) explained that "Software programs can expedite the assessment process, and are therefore advocated for by many assessors and administrators. In a common system assessors input their observations directly into computers. The computer organizes behaviour by dimension and feeds it back to the assessor in a way that facilitates the rating of each dimension. The computer, using an expert system, then checks the rating and if the computer's rating differs from that of the assessor, a second assessor reviews the data and shares his or her insights with the assessor. Together, they make a decision on the dimension rating for the exercise".

The International Guidelines and Ethical Considerations for Assessment Centre Operations (2009, p. 246) require that the integration of each individual's behaviour must be based on pooled information from assessors or through the statistical integration process. The guidelines further advise that computer technology may also be used to support the data integration process. After the integration process an AC report for each participant should be produced (Thornton III & Rupp, 2006, p. 158).

3.2.6 FEEDBACK

Thornton and Rupp (2006, p. 198) acknowledge that giving feedback to a person who has received negative evaluation for promotion or selection is difficult. However, the feedback session helps the person to see that even though the outcome is not favourable, the procedure for carrying out the centre and making decisions based on the results was fair. In addition, Taylor (2007, p. 75) advises that the feedback should be balanced, including both strengths and areas for development, and conveyed to candidate soon after the assessment event.

Schlebusch and Roodt (2008, p. 3) advocate for provision of feedback to candidates who participated in the AC for selection rather than giving it only to the organisation's management. In arguing in favour of feedback to candidates Schlebusch (2008, p. 207) points out that feedback is important as it provides an opportunity to discuss the participant's current areas of strength as well as the participant's areas needing further development.

According to both REDMA and HRMC Talent consultants' feedback to candidates is provided on request by the client ministry or department. The consultants informed the researcher that the public service officials rarely request feedback. At REDMA the consultants cited that only three ministries out of the 26 have once requested feedback to candidates. At HRMC Talent only two ministries were cited. At both consultancies feedback is given by assessors who participated in that particular AC process.

Schlebusch (2008, p. 207) recommends that feedback should be given by the assessors, the AC administrator, or a person specifically trained to give post-AC feedback. Schlebusch also emphasises that only people trained and competent in AC methodology and competent assessors at the specific AC must give feedback.

3.2.8. THE ASSESSMENT CENTRE POLICY

The International Guidelines and Ethical Considerations for Assessment Centres Operations (2002 and 2009) require that before the introduction of the AC into an organisation a policy statement should be prepared and approved by the organisation's management. The guidelines also shed light that the AC operates more effectively as part of an integrated human resource system. According to the guidelines the AC policy statement should address the following areas:

i. Objective – An assessment centre may be used for a variety of purposes. Falling into the broad categories of selection versus diagnosis versus development, such purposes might include pre-screening, hiring, early identification and evaluation of potential, performance appraisal, succession planning and professional development. An assessment centre participant should be told, before the assessment, which decision(s) will or might be made with the assessment centre data. If the organisation desires to make decisions with the data other than those previously communicated to the participant, the decision(s) should be clearly described to the participant and consent obtained. In addition, the assessment centre developer must remain cognisant of the assessment centre's purpose when designing, developing, implementing, and validating the programme. Decisions about the choice of dimensions, content of simulations, selection and training of assessors, scoring, feedback, and evaluation should all be made with the objective in mind.

ii. Participants – The population to be assessed, the method for selecting assessees from this population, the procedure for notification, and the assessment process should be specified.

iii. Assessors – The assessor population (including sex, age, race, and ethnic mix), limitations on the use of assessors, assessor experience,

and evaluation of assessor performance and certification requirements, where applicable, should be specified.

iv. Use of data – The process flow of assessment records within the organisation, individuals who receive reports, restrictions on access to information, procedures and controls for research and programme evaluation purposes, feedback procedures to management and employees, and the length of time the data will be maintained in files, should all be specified. Particularly for a selection application, it is recommended that the data be used within two years of the date of administration because of the likelihood of change in the participant or the organisation.

v. Qualifications of consultant(s) or assessment centre developer(s) – The internal or external consultant(s) responsible for the development of the centre or of the exercises or simulations for the centre should be identified and his or her professional qualifications and related training specified.

vi. Validation – The statement should specify the validation model being used. If a content-oriented validation strategy is used, the documentation of the relationship of the job or the job family content to the dimensions and exercises should be presented along with evidence of the reliability of the observations and rating.

During the interviews with the consultants the researcher ascertained that even though the public service has been using the AC process for more than five years the AC policy for the public service had not been implemented and communicated to government departments. At REDMA the consultants expressed their concern regarding the unavailability of the AC policy as some ministries send officers for reassessment after a short period of less than 12 months, in some cases after one month. The consultants explained that when this happens they normally advise the ministries that the person had just

participated in an AC, so it is not advisable to assess them for the same purpose and position. The consultants also informed the researcher that they only have information of officers who participated at the REDMA AC. The researcher observed that each consultancy keeps information about candidates who had participated in their AC and do not share any information. Furthermore, the researcher learnt that there is no central database in the public service for candidates who participated in the AC. In view of the above scenario it is highly possible that an officer may participate at the two service providers in a space of two weeks for the same purpose.

The feedback received from the consultants concerning the AC policy prompted the researcher to enquire from the public service officers who are involved in the AC project to provide clarity regarding the AC policy. The researcher learnt that the draft AC policy is in place and has been circulated to permanent secretaries in ministries for input and it is not yet implemented and communicated to the employees.

The researcher's view is that it is highly likely that the unavailability or non-implementation of the AC policy in the public service may compromise the requirements of an AC as outlined in the International Guidelines and Ethical Considerations for Assessment Centres Operations (2009).

3.3 OBSERVATION OR PARTICIPATION IN AN AC

The researcher had an opportunity to participate in an AC administered by REDMA. One week before the AC the focal person in the department issued invitation letters and consent forms to the participants. The invitation letter informed that the AC was for developmental purposes.

The activities that the researcher engaged in and observed are outlined below:

Before the AC

- Two days before the AC participants were issued with pre-AC material.
- The package included a letter confirming the post the candidate will be assessed for, competency framework, notes on the overview of the AC and background information of the organisation.
- A psychometric test, specifically OPQ 32, was done online.

During the AC

- The day started with a morning briefing of about 15 minutes. The four participants were welcomed by the AC administrator and briefed on the activities of the day. The AC schedule was availed and additional materials were issued. The participants were informed that instructions for each exercise would be issued prior to its commencement.
- A team of four assessors was introduced to the participants and the participants were requested to indicate if they know the assessors. Furthermore, candidates were asked to declare if they are comfortable to be observed by the assessors.
- Instructions for the first simulation exercise (in-tray) were issued. Thereafter each participant was allocated an assessment room. After attending to the in-tray, each participant prepared a presentation. The presentation consisting of how the issues in the in-tray were approached and resolved was done in front of an assessor. There was a short break of five minutes, after which the assessor asked follow-up questions.
- After a tea break each participant engaged in two role play exercises. In one of the role play exercises the participant had to attend to an underperforming officer while in the second one to a disgruntled stakeholder.

- After lunch each participant was given 30 minutes to prepare for a group discussion.
- The group exercise was held in the boardroom and all four assessors were present.

After the AC

- The participants completed the evaluation forms.
- There was a debriefing session during which participants shared their experience regarding the AC.

Observations

- The AC consisted of five simulation exercises and a psychometric test.
- Each exercise was observed by a different assessor.
- Time allocated to the exercises was strictly adhered to.
- The assessment proceedings were recorded.
- The exercise tasks following the in-tray focussed on issues in there.
- The AC took the whole day, started at 8am and finished at 5pm.
- The environment was quiet.

Two months after the AC the participants were invited for a group feedback meeting by the director of the department. The director provided general feedback in relation to the performance on competencies. At that time the participants had not received their AC results. The AC results or reports were availed to participants three months after the AC and were handed to them by the secretary of the deputy director.

Interpretation of observation findings

To a greater extent the AC process attended by the researcher met the international practice on AC administration as discussed in Chapter Two of this study and specifically in the following areas:

- Use of multiple exercises
- Observation of behaviour by multiple assessors
- Measurement of competencies across different exercises
- Strict adherence to the time allocated to exercises
- Provision of instructions before each exercise
- Briefing session at the beginning of the AC
- Debriefing session at the end of the AC

The areas of concern were with regard to the provision of the AC results and feedback to the candidates. Since the AC was conducted for developmental purposes, the candidates were supposed to be provided with their results and specific feedback. The feedback was supposed to be provided by one of the assessors who observed during the AC. The results were also supposed to be handed to the participants by a credible professional such as their managers, to give the managers an opportunity to appreciate performance of their supervisees. According to Schlebusch and Roodt, (2008, p. 13) line managers should be given feedback on the performance of their participants because they have to support participants at work, by encouraging appropriate behaviour.

Taylor (2007, p. 75) advises that feedback to participants should be provided soon after the assessment event. Feedback should be provided by the assessors, the AC administrator or a person specifically trained to give post-AC feedback (Schlebusch, 2008, p. 207).

The other areas not addressed in accordance with international best practice of the AC were with regard to informing the participants about

the process flow of their assessment results within the organisation, individuals who receive the reports from consultants and restrictions on access to information.

The International Guidelines and Ethical Considerations for Assessment Centres Operations (2009, p. 250) require that the participants should be informed about who will have access to the AC reports, under which conditions and how long the results will be maintained on file.

3.4 INTERVIEWS CONDUCTED AT GOVERNMENT MINISTRIES

The researcher conducted structured interviews at government ministries with permanent secretaries (PS), deputy permanent secretaries (DPS), directors and deputy directors. The purpose of the interview was to determine whether employees in senior management are aware of the rationale for using the AC method in the public service. For the PS and the DPS a total of 12 participants were interviewed (six permanent and six deputy permanent secretaries). For the directors and deputy directors one question required respondents to indicate whether they are aware of the reasons for using the AC in the public service was posed. A total of 69 participants were interviewed (27 directors and 42 deputy directors). Individualised interviews were conducted during which respondents were provided with a copy of the interview questions. Respondents were requested to record their responses on the questionnaire copy issued to them. The interviews were based only on the structured interview questions due to time constraints and work-related commitments on the part of the interviewees. This methodology was applied to both permanent secretaries or deputy permanent secretaries and directors or deputy directors.

Chart 3.1 provides a visual illustration of the percentage of respondents

Chart 3.1 Percentage of respondents
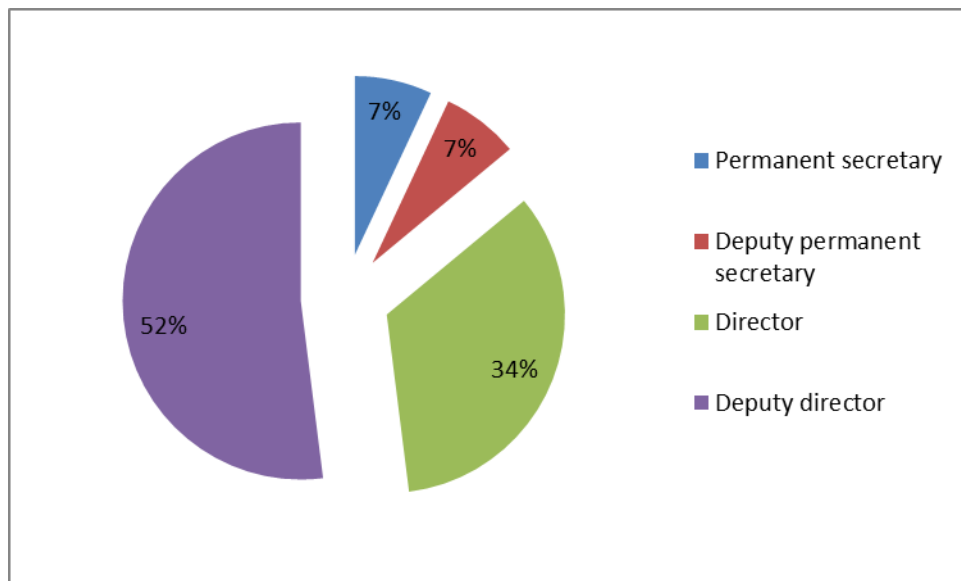
As depicted in Chart 3.1 the majority of the respondents represented by 52 per cent was deputy directors while the minority (seven per cent) was permanent and deputy permanent secretaries.

The responses from permanent secretaries (PS) and deputy permanent secretaries (DPS) are presented in Tables 3.4 and 3.5 respectively.

Table 3.5

Rationale for using the AC – permanent secretaries' responses

No.	Rationale for using the AC	% positive	% negative
1.	I am aware of the reasons for using the AC method in the public service	100	0
2.	I understand the AC policy statement for the public service	100	0
3.	I have access to the AC policy	100	0
4.	I am aware of the criteria used to select individuals to undergo the AC	100	0
5.	I am involved in the appointment of directors and other senior officers in my Ministry	100	0
6.	Senior management appointments are based only on the AC results	0	100
7.	When considering appointments the AC results are used together with other assessment results	100	0
8.	The AC results provide vital information that inform appointments	100	0
9.	Officers at middle management are sent to the AC for development purposes	100	0
10	After the development AC individual development plans are designed	67	33
11	Supervisors are involved in the design of individual development plans	67	33
12	Action is taken to close competency gaps	67	33

It is very clear from Table 3.5 above that permanent secretaries unanimously agree that:

- They are aware of the reasons for using the AC in the public service.
- They understand the AC policy statement
- They have access to the policy
- They are involved in the appointment of directors and senior officers
- The AC provides vital information that inform appointments

- The appointments are not based only on the AC results

It was ascertained that though the AC policy is not yet implemented and communicated to the rest of the employees in the public service it was distributed to all permanent secretaries to obtain their input.

From Table 3.5 it is evident that the permanent secretaries hold differing views regarding the development of employees after the AC. Sixty-seven per cent hold the view that development of staff is taking place while 33 per cent are in disagreement. Two of the permanent secretaries commented that development is not always done.

Table 3.6

Rationale for using the AC – deputy permanent secretaries' responses

No.	Rationale for using the AC	% Yes	% No
A9.1.	I am aware of the reasons for using the AC method in the public service	100	0
A9.2.	I understand the AC policy statement for the public service	50	33
A9.3.	I have access to the AC policy	50	33
A9.4.	I am aware of the criteria used to select individuals to undergo the AC	50	33
A9.5.	I am involved in the appointment of directors and other senior officers in my Ministry	100	0
A9.6.	Senior management appointments are based only on the AC results	17	83
A9.7.	When considering appointments the AC results are used together with other assessment results	83	17
A9.8.	The AC results provide vital information that inform appointments	67	33
A9.9	Officers at middle management are sent to the AC for development purposes	33	67
A9.10	After the development AC individual development plans are designed	17	83
A9.11	Supervisors are involved in the design of individual development plans	17	83
A9.12	Action is taken to close competency gaps	17	83

From Table 3.6 an overwhelming 100 per cent of deputy permanent secretaries indicated that they are aware of the reasons for using the AC method in the public service and are involved in the appointments of senior officers. It is evident from results in Table 3.5 that appointments are not based only on AC results, but AC results are used together with other assessment results. The majority of deputy permanent secretaries represented by 83 per cent are of the view that staff development to close competency gaps is not done, while a minority (17 per cent) believe that staff development is taking place. One respondent did not respond to three questions on the AC policy.

In the directors' and deputy directors' questionnaire, question nine required respondents to indicate whether they are aware of the reasons for using the AC method in the public service. The question was posed to a total of 69 respondents (27 directors and 42 deputy directors).

Table 3.7 Directors' responses

Awareness of the reasons for using the AC method in the public service	Frequency	Percentage
Yes	16	59
No	3	11
Uncertain	8	30
Total	**27**	**100**

Table 3.7 indicate that most of the directors (59 per cent) are aware of the reasons for using the AC method in the public service, while 11 per cent are not aware of the reasons for using the AC. Out of the interviewed directors 30 per cent indicated that they are uncertain about the reasons for using the AC method. From Table 3.7 it can be noted that 41 per cent of the directors interviewed cannot confidently articulate the reasons for using the AC method in the public service

despite the fact that they are part of the people leading the public service.

Table 3.8 Deputy directors' responses

Awareness of the reasons for using the AC method in the public service	Frequency	Percentage
Yes	26	62
No	1	2
Uncertain	15	36
Total	**42**	**100**

Table 3.8 above just as Table 3.7 indicates that the majority of deputy directors represented by 62 per cent are aware of the reasons for using the AC method in the public service. Only two per cent comprising of one respondent indicated that she is not aware of the reasons for using the AC method. In addition, 36 per cent of the deputy directors interviewed expressed that they are uncertain about the reasons for using the AC method in the public service. From Table 3.8 it is evident that 38 per cent of deputy directors interviewed are not certain about the reasons for using the AC method in the public service.

Table 3.9

Summary of responses of directors and deputy directors

Awareness of the reasons for using the AC method in the public service	Frequency	Percentage
Yes	42	61
No	4	6
Uncertain	23	33
Total	**69**	**100**

It can be depicted from Table 3.9 that the majority of respondents represented by 61 per cent are aware of the reasons for using the AC method in the public service while 39 per cent are not entirely aware.

The Botswana Public Service Act No. 30 of 2008 stipulates that "Entry into and advancement in the public service shall be based on a proven record performance and skills and competencies. However, the academic requirements and price of admission competencies, as determined from time-to-time, shall apply for entry level posts". The DPSM Circular (2013) was disseminated to employees as a reminder of this requirement in the Public Service Act and it stated that "progression in the public service shall be based on good performance and demonstrated ability and competencies to perform at higher level".

As discussed earlier, Table 3.9 showed that the public service has 39 per cent of senior management employees that are not aware of the reasons for the implementation of the AC method. The Botswana public service charter pillar seven on "Duty to be informed" requires that every public officer has the duty to inform himself or herself to keep informed of all matters pertinent to his or her service. These include the aims and objectives of the ministry and prevailing government policies.

From the results in Tables 3.5, 3.6 and 3.9 it is evident that as the hierarchy of the respondents descends, the number of officers who are not aware of the reasons for using the AC method in the public service increases.

3.5 VALIDATION OF THE INFORMATION FROM CONSULTANTS

The researcher conducted structured interviews with directors and deputy directors who participated in the AC process at REDMA and HRMC Talent. These recipients of the service were interviewed to determine the extent to which their responses match with the information obtained from the consultants. A total of 45 participants were interviewed through a survey questionnaire, 19 directors and 26 deputy directors. Of the 19 directors 10 participated in the AC at REDMA and nine at HRMC Talent. Of the 26 deputy directors, 12 participated in the AC at REDMA and 14 at HRMC Talent. Table 3.10 below illustrates the number of participants according to their positions and where they participated in the AC.

Table 3.10 Categorisation of the AC participants

Position	Number that attended at REDMA	Number that attended at HRMC Talent
Directors	10	9
Deputy directors	12	14
Sub totals	**22**	**23**
Grand Total	**45**	

Table 3.10 above indicate that the government's use of the two service providers is balanced as there is a slight difference in the number of participants.

3.5.1 INTERVIEWS WITH THE DIRECTORS AND DEPUTY DIRECTORS

3.5.1.1 Purpose of the AC

The literature review on the assessment centre revealed that the participants should be informed about the purpose of the AC prior to

participation. Furthermore, the participants should be assured that the results would be used for the purpose communicated to them.

Section B1.1 of the structured questionnaire required respondents to respond to statements relating to the purpose of the AC. There was an open question at the end that required respondents to provide any other information that they want to bring to the attention of the researcher.

Table 3.11 and 3.12 below presents analysis of the responses obtained from directors and deputy directors assessed by REDMA.

Table 3.11 Purpose of the AC – response of directors about REDMA

No.	Purpose of the AC	% positive	% negative
B1.1.1	Informed about the purpose of the AC in advance	80	20
B1.1.2.	Understanding of the purpose of the AC	80	20
B1.1.3.	Results of the AC used for the intended purpose	80	20
B1.1.4.	Consent	30	70

Table 3.11 indicates that the majority of directors (80 per cent) were in agreement that they were informed about and understood the purpose of the AC and that the results were used for the intended purpose. Only 20 per cent were in disagreement with the statements. It is evident that 80 per cent of the respondents confirmed the information provided by the REDMA consultants that they inform participants about the purpose of the AC prior to their participation. This information was contradicted by 20 per cent of the respondents.

The majority of the respondents represented by 70 per cent indicated that they did not have a choice to participate in the AC while 30 per cent indicated that they did have a choice. Two participants responded to the open-ended question. One of them commented that participating in the AC was good experience and there was good rapport. The other one commented that the AC was torture.

Table 3.12 Purpose of the AC – response of the deputy directors about REDMA

No.	Purpose of the AC	% positive	% negative
B1.1.1.	Informed about the purpose of the AC in advance	67	33
B1.1.2.	Understanding of the purpose of the AC	83	17
B1.1.3.	Results of the AC used for the intended purpose	58	25
B1.1.4.	Consent	42	58

Table 3.12 indicates that 67 per cent of deputy directors confirmed the information provided by consultants while 33 per cent contradicted this. When deputy directors' responses in Table 3.12 are compared with responses from directors in Table 3.11, there is a slight increase of 13 per cent for those who indicated that they were not informed about the purpose of the AC in advance. The majority of both directors and deputy directors represented by at least 80 per cent showed that they understood the purpose of the AC.

Two participants did not respond to question B1.1.3 verifying whether the results were used for the intended purpose. However, the majority represented by 58 per cent indicated that their AC results were used for the intended purpose while 25 per cent indicated that the results this was not the case. Both Table 3.11 for directors and 3.12 for deputy

directors revealed that the majority of respondents indicated that their AC results were indeed used for the intended purpose.

It is evident from Tables 3.11 and 3.12 that both directors represented by 70 per cent and deputy directors by 58 per cent did not have a choice to participate in the AC.

Table 3.13 Purpose of the AC – response of directors about HRMC Talent

No.	Purpose of the AC	% positive	% negative
B1.1.1.	Informed about the purpose of the AC in advance	44	56
B1.1.2.	Understanding of the purpose of the AC	78	22
B1.1.3.	Results of the AC used for the intended purpose	67	11
B1.1.4.	Consent	11	78

Two participants did not respond to item B1.1.3, one of them commented that he did not know whether to agree or disagree. The other one commented that she was phoned by the consultant a day before the AC informing her that she should come for assessment, but she was not told about the purpose of the assessment. She was later informed that the assessment was for developmental purposes. One of the participants did not respond to item B1.1.4 and commented that if she did not participate in the AC she would not have been promoted.

Table 3.13 above indicates that 44 per cent of the participants specified that they were informed prior to the AC of its purpose and 56 per cent indicated they were not. The results indicate that 56 per cent of respondents did not agree with the information obtained from

consultants that participants are informed about the purpose of the AC in advance. Seventy-eight per cent indicated that they understood the purpose of the AC while only 22 per cent indicated that they did not.

As in Table 3.11 the majority of participants represented by 78 per cent indicated that they did not have a choice to participate. It was ascertained that participation in the AC is handled by the employer.

Table 3.14 below illustrates an analysis of the responses obtained from deputy directors who attended the AC at HRMC Talent.

Table 3.14 Purpose of the AC – response of deputy directors about HRMC Talent

No.	Purpose of the AC	% positive	% negative
B1.1.1.	Informed about the purpose of the AC in advance	71	29
B1.1.2.	Understanding of the purpose of the AC	71	29
B1.1.3.	Results of the AC used for the intended purpose	64	36
B1.1.4.	Consent	21	79

Table 3.14 above revealed that the majority of respondents (71 per cent) indicated that they were informed about the purpose of the AC in advance while only 29 per cent indicated otherwise. Equally 71 per cent indicated that they understood the purpose while 29 per cent indicated that they did not. Just as in the preceding tables the majority of respondents indicated that their results were used for the intended purpose. Altogether 79 per cent indicated that they did not have a choice to participate in the AC. The responses on consent are the same as in the previous tables and clearly indicate that respondents were not given a chance to consent.

Still on the issue of consent to participate, the Office of the President directive of 2005 repealed the general order of 1996, that required promotion to be based on the length of years worked. The directive stipulated that promotion should be based on proven demonstration of competencies and the assessment centre method shall be used. According to Schlebusch and Roodt (2008, p. 13) usually participation in the AC is voluntary, however, there are organisations that insist that to be appointed to certain levels employees have to participate in the AC and others compel staff to attend the AC for development purposes.

Regarding the responses from the open-ended question it was remarked that:

- The AC should be used for development only
- The individual should inform him or herself on the purpose of the AC through the internet
- "The facilitators not very conversant, the atmosphere very sterile".
- "The assessor appeared to be immature and not quite competent".
- "I wondered why my assessment results were same (verbatim) to another colleague. I wondered if we are 100 per cent the same".

The above concerns raised by the respondents point to the competence of the assessors. The literature review of the AC in Chapter Two of this study revealed that one of the challenges facing the AC method in recent years is the competence of assessors. Saunders (2005, p. 154) enlighten that an assessment process on the whole can succeed or fail, depending on the ability of the assessors to implement a quality assessment process. The assessors' levels of expertise play a significant role in the validity of the whole AC process (Jones & Born, 2008). The group of people that has the largest impact

on the whole assessment process are the assessors (Schlebusch & Roodt, 2008) as quoted in the 32nd Assessment Centre Study Group conference manual (2012, p. 23).

Question B1.1.6 required respondents to indicate the purpose of the AC they attended. Table 3.14 below illustrates the responses from directors and deputy directors.

Table 3.15 The purpose of the AC – directors or deputy directors' responses.

Purpose of the AC	Frequency	Percentage
Selection	41	91
Development	4	9
Other	0	0
Total	**45**	**100**

The results from Table 3.15 show that the majority of respondents (91 per cent) indicated that the AC they attended was for selection, while a minority of respondents (nine per cent) indicated development purposes. The results confirm information obtained from consultants that the public service uses the AC mainly for selection.

Question B1.1.7 requested respondents to indicate the duration of the AC they attended. The results are presented in Table 3.16 below.

Table 3.16 Duration of the AC – directors or deputy directors responses

Duration of the AC	Frequency	Percentage
1 day	16	36
2 days	24	53
3 days	5	11
4 days	0	0
Total	**45**	**100**

Chart 3.2 below provides a visual illustration of responses from directors and deputy directors regarding the duration of the AC they participated in.

Chart 3.2 Duration of the AC responses
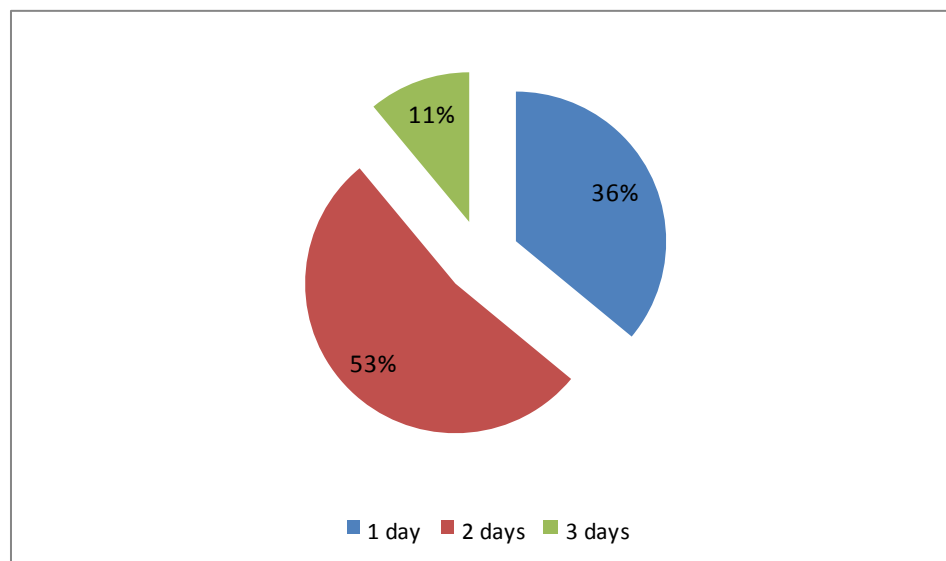
Own construct

Table 3.16 and Chart 3.2 above clearly indicate an inconsistency regarding the duration of the AC for the same purpose and positions. The researcher observed that respondents who attended at both consultancies indicated different durations, ranging from one day to

three days. However, the majority of respondents, namely 53 per cent, indicated a duration of two days. No one indicated four days.

Contemporary researchers such as Thornton and Krause (2008, p. 289) found that in recent years assessment centres lasted up to one or two days in most organisations.

3.5.1.2 ADMINISTRATION OF THE AC

Section B1.2 of the questionnaire covered the administration of the AC. Tables 3.17 and 3.18 below illustrate an analysis of the responses obtained from directors and deputy directors assessed at REDMA.

Table 3.17 Administration of the AC by REDMA – directors' responses

No.	Administration of the AC	% positive	% negative
1.2.1.	Provided with the AC materials in advance to prepare	70	30
1.2.2.	Thorough briefing at the start of the AC that included introduction of assessor team, structure of the day and general guidelines for the day	80	20
1.2.3.	During the AC detailed instructions were provided in all briefing sheets for the exercises	80	20
1.2.4	I was informed about who will have access to my results	20	80
1.2.5	Time allocated to exercises was strictly adhered to	90	10

From Table 3.17 it is evident that the responses of the majority of directors represented by 70 per cent and above concur with the information provided by the consultants on the following:

- Provision of the AC materials prior to the day of the AC
- Thorough briefing at the beginning of the AC

- Provision of instructions for the exercises
- Strict adherence of allocated time for the exercises

Results in Table 3.17 indicate that the majority of directors represented by 80 per cent showed that they were not informed about who will have access to their results. This scenario is a call for concern as The International Guidelines and Ethical Considerations for Assessment Centres Operations (2009, p. 247) require that before participants participate in an AC they should be informed about "….the process flow of assessment records within the organisation, individuals who receive reports, restrictions on access to information, procedures and controls for research and program evaluation purposes, feedback procedures to management and employees, and the length of time data will be maintained in files should all be specified". As highlighted earlier it is evident that a lack of AC policy in the public service is contributing to non-adherence to international standards of running a professional AC.

Table 3.18 Administration of the AC by REDMA – deputy directors' responses

No.	Administration of the AC	% positive	% negative
1.2.1.	Provided with the AC materials in advance to prepare	83	17
1.2.2.	Thorough briefing at the start of the AC that included introduction of assessor team, structure of the day and general guidelines for the day	92	8
1.2.3.	During the AC detailed instructions were provided in all briefing sheets for the exercises	92	8
1.2.4	I was informed about who will have access to my results	83	17
1.2.5	Time allocated to exercises was strictly adhered to	100	0

Table 3.18 indicate that the majority of deputy directors' responses represented by above 80 per cent concur with responses from the directors in Table 3.17 and information provided by the consultants on the following:

- Provision of the AC materials prior to the day of the AC
- Thorough briefing at the beginning of the AC
- Provision of instructions for the exercises
- Strict adherence of allocated time for the exercises

The responses of deputy directors on the above stated requirements of AC indicate a positive skew towards adherence to the AC international best practice.

Contrary to Table 3.17 where the majority of directors (70 per cent) assessed by the same consultancy indicated that they were not informed about who will have access to their results, the majority of deputy directors represented by 83 per cent indicated that they were indeed informed. This result can be interpreted as an indication of inconsistency in the application of the requirement.

Table 3.19 Administration of the AC by HRMC Talent – directors'
responses

No.	Administration of the AC	% positive	% negative
1.2.1.	Provided with the AC materials in advance to prepare	11	89
1.2.2.	Thorough briefing at the start of the AC that included introduction of assessor team, structure of the day and general guidelines for the day	89	11
1.2.3.	During the AC detailed instructions were provided in all briefing sheets for the exercises	89	11
1.2.4	I was informed about who will have access to my results	33	77
1.2.5	Time allocated to exercises was strictly adhered to	100	0

Results in Table 3.19 show that an overwhelming 100 per cent of
responses indicated that time allocated to the exercises was strictly
adhered to. The responses confirm information obtained from
consultants that when administering exercises they strictly adhered to
time. This result aligns with international requirements of administering
AC exercises. Taylor (2007, p. 51) advises that time allocated to
exercises should be strictly adhered to. In addition, the majority of
responses represented by 90 per cent showed compliance to the
following requirements:

- Thorough briefing at the beginning of the AC
- Provision of instructions for the exercises

Results in Table 3.19 portray that the majority of respondents
represented by 89 per cent indicated that they were not given any AC

material prior to the AC. This response confirms information obtained from the HRMC Talent consultants that they do not provide candidates with any AC material prior to the AC.

It can be noted from Table 3.19 that the majority of respondents represented by 77 per cent indicated that they were not informed about who will have access to their results just as in Table 3.17. As mentioned earlier this is an indication that the requirement is not adhered to.

Table 3.20 Administration of the AC by HRMC Talent – deputy directors' responses

No.	Administration of the AC	% positive	% negative
1.2.1.	Provided with the AC materials in advance to prepare	29	71
1.2.2.	Thorough briefing at the start of the AC that included introduction of assessor team, structure of the day and general guidelines for the day	89	11
1.2.3.	During the AC detailed instructions were provided in all briefing sheets for the exercises	78	22
1.2.4	I was informed about who will have access to my results	47	53
1.2.5	Time allocated to exercises was strictly adhered to	78	22

From Table 3.20 above it is evident that the responses from deputy directors are not different from the responses from directors (Table 3.19) assessed by the same consultancy, namely HRMC Talent. The results are skewed towards showing compliance to the following requirements:

- Strict adherence to time allocated to the AC exercises

- Thorough briefing at the beginning of the AC

- Provision of instructions for the exercises

Just as in Table 3.19 the responses in Table 3.20 above indicate that respondents were not informed about who will have access to their results. This is a sign of non-compliance to international best practice of the AC regarding this requirement.

Regarding the responses from the open-ended question one respondent remarked that:

- "I was assessed by one assessor in all exercises and I wondered if there was no window for bias". If the comment of the respondent is true then the assessment she participated in does not qualify to be called an AC. International best practice of the AC requires that a candidate should be observed by more than one assessor. The above scenario mentioned by the respondent can be interpreted as a sign that the consultants sometimes take shortcuts.

3.5.1.3. THE AC ASSIGNMENTS

Section B1.3 of the questionnaire covered the AC assignments. The section required respondents to indicate the simulations or exercises they participated in. Tables 3.21 and 3.22 below show an analysis of the responses from 22 respondents who attended the AC at REDMA and 23 at HRMC Talent.

Table 3.21 AC exercises responses by REDMA participants

No.	AC simulations or exercises	% positive	% negative
1.3.1.	In-basket	91	9
1.3.2.	Role play	91	9
1.3.3.	Group discussion	73	23
1.3.4	Presentation	96	4
1.3.5	Fact finding	53	47
1.3.6	Psychometric	96	4
Other (specify)	Nothing mentioned		

From Table 3.21 it is evident that the simulations commonly used at REDMA for director and deputy director levels are:

- In-basket
- Role play
- Group discussion
- Presentation
- Psychometric

The above results correspond with information obtained from REDMA consultants. According to Byham (1982, p. 181), Jansen and Jongh (1997), Thornton III and Rupp (2006, p. 102), Schlebusch (2008, p. 118), Krause (2011, p. 356) the above AC exercises are the main common assignments used in ACs.

When analysing the responses the researcher observed that two out of 22 respondents indicated that they participated in three exercises, namely in-tray, role play and presentation while the rest indicated four to five exercises and a psychometric test. It can be depicted from Table 3.21 that 53 per cent of respondents indicated that they participated in a fact finding exercise. This is contradictory to the information obtained from the consultants as they did not mention fact finding as one of the exercises they use. Furthermore, none of the AC matrix availed to the researcher had the fact finding exercise.

Table 3.22 AC exercises – responses by HRMC Talent participants

No.	AC simulations or exercises	% positive	% negative
1.3.1.	In-basket	88	12
1.3.2.	Role play	84	16
1.3.3.	Group discussion	68	32
1.3.4	Presentation	40	60
1.3.5	Fact finding	32	68
1.3.6	Psychometric	88	12
1.3.7 Other (please specify)	Nothing mentioned		

Table 3.22 above indicate that the most commonly used simulations represented by above 60 per cent at HRMC Talent are:

- In-basket
- Role play
- Group discussion
- Psychometric test

Results from Table 3.22 indicate that "presentation" represented by 40 per cent is one of the least exercises used. Regarding the fact finding exercise 32 per cent of the respondents indicated that they did participate in the exercise, however, the consultants had ascertained during the interview that they do not use a fact finding exercise. The discrepancy could be an indication that respondents are not entirely knowledgeable about the AC exercises.

When analysing the responses the researcher observed that one respondent indicated that she participated in a psychometric test and in-basket only, while the rest (22) indicated three to four exercises including a psychometric test. Best practice in the AC requires that candidates ought to be taken through multiple exercises to provide them with an opportunity to display behaviour. This requirement is outlined in the International Guidelines of Assessment Centres and Operations of 2009.

Question B1.3.8 required respondents to indicate if they were aware of the competencies being assessed when they participated in the AC. Table 3.23 below shows the results from the respondents.

Table 3.23

Number of respondents who were aware of competencies measured

Awareness of competencies measured	Frequency	Percentage
Yes	31	69
No	14	31
Total	**45**	**100**

Chart 3.3 below illustrates a visual presentation of the results in percentages.

Chart 3.3 Awareness of competencies measured
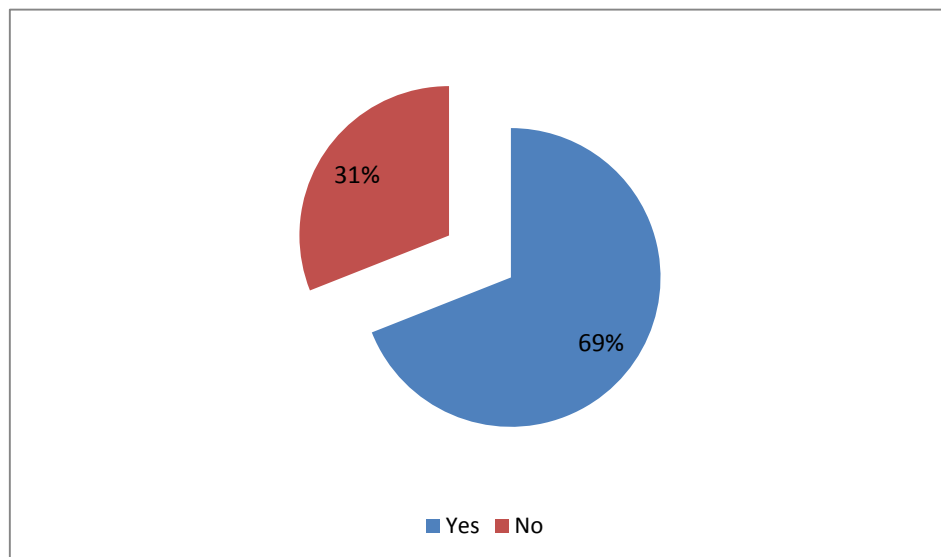
Own construct

It is evident from Table 3.23 and Chart 3.3 that the majority of respondents represented by 69 per cent were aware of the competencies measured. This result matches with information provided by consultants that participants are made aware of the competencies measured.

Question 1.3.9 was an open-ended question that required the respondents to list the competencies they would have wanted to be assessed. The aim of the question was to determine whether the respondents would indicate competencies that are different from the ones in the leadership competency framework currently in use. Of the 45 respondents, 24 responded to the question and listed competencies that are currently in use. Three of those who responded included the functional or technical competency. The number of responses obtained regarding this open-ended question clearly indicated that more than half of the respondents did not respond. The result affirms Frary's (no date) statement that where possible open-ended questions should be avoided. A major reason is variation in willingness and ability to respond in writing.

3.5.1.4 THE AC RESULTS AND FEEDBACK

Section B1.4 of the questionnaire covered the results and feedback post-AC. The questions in Table 3.23 required directors and deputy directors to indicate their responses in relation to the results of the AC and feedback. A total of 45 responded to the questions.

Table 3.24

AC results and feedback – directors or deputy directors' responses

No.	AC results and feedback	% positive	% negative
1.4.1	I was given the AC report containing my results	27	73
1.4.2.	The results indicated my strengths	27	73
1.4.3.	The results indicated my areas for development	27	73
1.4.4.	The report was delivered to me by a creditable person	22	78
1.4.5.	I was informed about how long my results will be valid	13	87
1.4.6.	My manager discussed my AC results with me	18	82
1.4.7.	I was given professional feedback regarding my results	13	87
1.4.8.	The feedback was given by someone knowledgeable to give the AC feedback	9	91
1.4.9.	The AC provided me with a good idea of my strengths	33	67
1.4.10.	The AC provided me with a good idea of my limitations	27	73
1.4.11.	Development areas were identified based on the results	16	84
1.4.12.	An individual development plan was designed	7	93
1.4.13	The individual development plan was discussed with my supervisor	7	93
1.4.14	The individual development plan was implemented	7	93
1.4.15.	My development needs were addressed	2	98

Referring to Table 3.24 above it is significant that the majority of the respondents represented by above 70 per cent expressed that:

- They were never given their results
- They did not receive any feedback, even those who participated in the development centre
- Their managers never discussed the AC results with them
- Individual development plans were never designed
- Developmental needs were not addressed

Even though there was no open-ended question, quite a number of respondents commented that after the AC no action was taken to address competency gaps, even after a developmental AC. In addition, they were never told anything about their AC results. The comments correspond with responses from the majority of deputy permanent secretaries (83 per cent) in Table 3.6 which indicated that staff development to close competency gaps is not taking place.

The remarks also correspond well with information obtained from the consultants that government rarely request for candidates to be given feedback on their AC results. Furthermore, the consultants voiced that some participants often contact them explaining that they have not received their AC results and feedback from the employer, therefore the consultants should give them the results. The consultants explained that they normally refer the AC participants to the employer.

According to Thornton III and Rupp (2006, p. 193) the value of information from the AC depend on whether or not feedback is given in a timely fashion to the appropriate people. In addition, Taylor (2007, p. 75) advises that feedback should be balanced, including both strengths and areas for development, and provided soon after the assessment event.

3.5.1.5 MAIN FINDINGS AND INCONSISTENCIES

The interviews revealed that to a greater extent the assessment process was in line with international practice and qualify to be called an assessment centre. However, there were occurrences of discrepancies. The main findings and inconsistencies revealed by the interviews are presented below:

i) The AC policy

The international standards of the AC require that before the introduction of an AC into an organisation a policy should be prepared, approved and implemented. In the case of the Botswana public service the AC policy was not implemented and communicated to all employees. The AC policy is still in a draft form. The Handbook for General Law Village Officials (2006) state that an important aspect to remember about a policy is that communication does not stop once the committee completes the manual. Wide communication to all employees is important and the policy assists management to reach logical and consistent decisions.

ii) Feedback to the AC participants

Thornton and Rupp (2006, p. 193), Taylor (2007, p. 75) and Schlebusch (2008, p. 207) maintain that the provision of feedback to candidates after the AC is important as the feedback provides the candidate with information on strengths and developmental areas. Schlebusch and Roodt (2008, p. 3) advocate for the provision of results and feedback to the candidates who had participated in the AC for selection. The majority of respondents indicated that they never received feedback regarding their AC results, even some of those who indicated that the purpose of their AC was for development.

iii) Addressing developmental needs

Ninety eight per cent of the respondents indicated that their developmental needs were not addressed. Schlebusch and Roodt (2008, p. 13) advise that results from an AC for selection can be used for developmental purposes. This suggests optimal use of AC results.

iv) Communicating the purpose of the AC to participants

Though the majority of respondents indicated that they were informed about the purpose of the AC prior to participation, quite a number indicated that they were not, as shown in Table 3.13. A few remarked about being informed about the purpose after participating in an AC. International best practice, however, requires that candidates should be informed prior to participation..

Participants should be informed about the flow of assessment records within the organisation, who will have access to their results as well as how long the results will be kept. The majority of respondents, however, showed that they were never informed of any of these factors.

v) Assessors

A few of the respondents raised concerns regarding the competence of the assessors in one of the consultancies. One of the respondents remarked that she was assessed by one assessor in all exercises. The literature review of the AC in Chapter Two revealed that a candidate has to be assessed by multiple assessors. In addition, the theory revealed that the competence of assessors affects the validity of the AC.

3.6 CONCLUSION

This chapter explored the AC process of the consultants outsourced by the Botswana public service to provide assessment to senior management. Interviews were conducted with the two consultancies, REDMA and HRMC Talent, to obtain first-hand information from the custodians of the process. Thereafter interviews were conducted with directors and deputy directors to validate information obtained from the consultants. The interviews highlighted that to some extent the ACs are run professionally and to international standards' best practice, however, the results indicated a sign of lack of compliance to some international requirements discussed in the preceding section.

The interviews revealed that not all people in the senior management category can confidently articulate the reasons for using the AC method in the public service. This becomes evident as the hierarchy of the public service moves down. The result could indicate a sign of an inadequate flow of information across the structures of the public service.

In Chapter Four the research methodology used during the research study will be discussed. This chapter will also focus on professional research design, the sample, questionnaire, pilot study, the survey and the survey response rate applicable to this study. The biographical information gathered during the survey (Section A of the questionnaire) will also be presented and discussed.

CHAPTER 4
RESEARCH METHODOLOGY

PAGE

CHAPTER 4
RESEARCH METHODOLOGY

4.1. INTRODUCTION

In Chapter Three the empirical study of assessment centres has been explored and discussed. Chapter Two dealt with the theoretical study of the AC which entailed a comprehensive literature review of the AC across the globe. The information gathered from the empirical study has been compared with the theoretical study of the AC to appreciate the similarities and differences with what is regarded today as best practice. This was also done to check and establish the extent to which the Botswana public service compares with set international standards in the use of the AC for selection and development.

The objective of this chapter is to describe the research methodology used to address the sub-problems in this study. This chapter focuses on the professional research design, the population, questionnaire, pilot study, survey and survey response rate. The biographical information gathered during the survey is also presented and discussed.

4.2. RESEARCH DESIGN

Creswell (2009, p. 3) perceives research design as plans and procedures for research that span decisions from broad assumptions to detailed methods of data collection and analysis. In addition, he elaborates that the selection of a research design is based on the nature of the research problem or issue being addressed. Thomas (2011, p. 27) agrees and adds that research begins with a purpose and a question, not a research design. According to Creswell it is the question that will be at the heart of the research and the design follows on from that rather than the other way around. There are generally two

major perspectives to research, namely the qualitative and quantitative (Glatthorn & Joyner 2005, p. 39).

Quantitative research design is a more logical and data led approach which provides a measure of what people think from a statistical and numerical point of view. Quantitative research can gather large volumes of data that can be easily organised and manipulated into reports for analysis. This design largely uses methods such as questionnaires and surveys with set questions and answers that respondents tick from a predefined selection. Answers can be measured in strengths of feeling such as strongly agree, disagree or numbers such as a point scale (Glatthorn & Joyner, 2005, p. 40; Creswell & Clark, 2011, p. 177).

According to Glatthorn and Joyner (2005, p. 41) quantitative research is generally very flexible as it can be administered by a questionnaire through the post, online or even over the phone. In addition, Creswell and Clark (2011, p. 177) assure that the forms of data collection in quantitative research have been reasonably stable over the years. However, the main setback of quantitative research is that sometimes there could be a lack of willingness to participate by some members of the targeted groups, which may warrant the introduction of incentives to encourage participation.

Unlike quantitative research design which relies on numbers and volumes of data, qualitative research design is more focussed on how people feel and what they think and is largely led with discussion around certain concepts or ideas with open questioning. Respondents are encouraged to explain or describe their reasons for having certain responses which can reveal underlying motivations, associations and behavioural triggers. The most common forms of qualitative research consist of focus groups relevant to the target audience or one-on-one interviews conducted face to face or over the telephone (Creswell, 2003, p. 25; Glatthorn & Joyner, 2005, p. 40). Creswell and Clark

(2011, p. 177) agree and elaborate that the types of data researchers can collect when using qualitative research is more extensive than in quantitative research.

In this study both qualitative and quantitative designs have been used. The approach is referred to as a mixed method (Glatthorn & Joyner, 2005, p. 97; Creswell, 2009, p. 4). A summary of the full process flow diagram is shown in Figure 1.2 in Chapter One of this study. Creswell (2009, p. 4) explains that the use of mixed methods research is more than simply collecting and analysing both kinds of data. It also involves the use of both approaches so that the overall strength of a study is greater than either qualitative or quantitative research.

The research design used in this study emanates from identifying the main problem and its related sub-problems. The main problem was:

To what extent are assessment centres used effectively for the selection and development of senior management in the Botswana public service?

The analysis of the main problem gave rise to the identification of eight sub-problems.

Sub-problem one

What is the purpose and nature of assessment centres?

Sub-problem two

Which are the international best standards for the administration and use of assessment centres?

Sub-problem three

Which leadership competencies are assessed using the AC and through which AC components or exercises?

Sub-problem four

To what extent are international standards of the AC applied in the use of assessment centres in the public service?

Sub-problem five

What is the performance of officers on competencies measured?

Sub-problem six

What are the perceptions of permanent secretaries and deputy permanent secretaries on the use of the AC method?

Sub-problem seven

What are the perceptions of directors and deputy directors on the use of the AC method?

Sub-problem eight

Which factors contribute towards positive or negative perceptions of the AC among senior management employees in the Botswana public service?

4.2.1 Approach used to address the main and sub-problems

The following approach was adopted to address the main problem and its sub-problems.

In Chapter Two a comprehensive literature review on assessment centres had been explored and was presented. The review addressed sub-problems one, two and three. Sub-problem one focussed on the purpose and nature of the AC. Sub-problem two dealt with the administration (running) of a professional AC while sub-problem three focussed on AC exercises or simulations used to measure competencies.

In Chapter Three an empirical study was conducted and presented addressing sub-problem four. Semi-structured interviews were conducted with outsourced consultants providing AC services to the public service. Furthermore, observations on the activities that the consultants engage in when running an AC have been interrogated and fully documented. In addition, a survey questionnaire was prepared with set questions and predefined answers for respondents to select from. The questionnaire was then distributed to senior management employees in the public service to complete. The responses from the senior management employees who had previously been assessed through assessment centres were compared with information obtained from the consultants.

Sub-problem five was addressed by a document analysis of the AC results or reports of senior managers who participated in the AC to evaluate their performance on competencies.

To address sub-problems six and seven an empirical survey was conducted with a survey questionnaire as a data collection instrument. The survey questionnaire was developed to establish the perceptions of the senior management regarding the use of the AC method in the public service.

Sub-problem eight was also addressed by conducting a survey with a self-administered questionnaire as data collection tool. The questionnaire measured the relevant factors that have a potential impact on senior management perceptions regarding the use of the AC. The inferential statistics analysed revealed the nature and direction of relationships between the variables.

4.3. EMPIRICAL STUDY

The empirical study was conducted by means of a survey questionnaire, which provided for the collection of large amount of information. Whitley (2002, p. 139) cites two advantages of using questionnaires; it can be administered to people in groups, whereas other measures usually require people to participate individually. Secondly, questionnaires can be administered by people who require relatively little training. Structured interview and observation research methods were also used in data collection, to explore in depth the AC process conducted in Botswana. In this chapter, the population, questionnaire, pilot study, the survey and the research response rate are discussed in detail. The biographical information collected during the survey is also presented and discussed.

4.3.1. Population and sampling

According to Thomas (2011, p. 61) the total number of all the people in whom the researcher is interested in is called the target population, and the sample is a selected section of that population. Cohen and Swerdlik (2005, p. 103) refers to the process of selecting the portion of the universe deemed to be representative of the whole population sampling.

Thomas (2011, p. 61) advises that researchers can sacrifice the size of a sample by doing clever decisions such as making sure that they get the important parts of the population properly represented in their small sample. Things to consider are age, sex, type of institution attended and educational level of the participants. However, Thomas (2011, p. 61) acknowledges that the bigger the sample, the better the chance of representing the population accurately. He also emphasises that a sample should show the quality of the whole.

Whitley (2002, p. 391) states that a number of techniques can be used to draw a research sample from a study population. He explains that the techniques can be described in terms of two dimensions, namely probability and non-probability sampling techniques. Probability sampling is characterised by random sampling where each individual has an equal probability of being selected from the population, ensuring that the sample will be representative of the population (Creswell, 2009, p. 155). Non-probability is characterised by non-random sampling with the probability of being chosen is unknown. Non-probability sampling is subjective in nature as the researcher exercises more control over the selection of units (De Vos, Strydom, Fouche & Delport, 2002, p. 200). Some contemporary authors in the area of research such as Thomas (2011, p. 62) argue that to make a distinction of probability and non-probability is confusing and wrong. In his view non-probability should be referred to as a 'bad sample' or a 'quick and dirty sample'. He emphasises that a sample has to be 'a portion that shows the quality of the whole'. However, some of the researchers such as Creswell (2009, p. 155) still uphold the two distinctions and add that when individuals are not randomly selected, the procedure is called a quasi-experiment and when individuals can be randomly assigned to groups the procedure is called true experiment.

A non-probability convenience sampling strategy was used in this study as the population of senior management employees was not randomly selected. Creswell (2009, p. 155) note that in many studies a convenience sample is possible because the researcher uses naturally formed groups such as organisations, families and classrooms. Non-probability purposeful sampling was also used as the consultancies were not randomly selected. Purposeful sampling means that the researcher selects individuals and sites for study because they can purposefully form an understanding of the research problem (Creswell, 2007, p. 125).

The target population for this study consisted of a group of senior management employees at different levels, namely permanent secretaries, deputy permanent secretaries, directors and deputy directors in the public service of Botswana. The total number of senior management at every level was taken into account in determining the number of respondents to be taken from each group. It would not have been feasible to include all employees in senior management. Instead a non-probability convenience sample consisting of 100 respondents representing all the groups was selected.

4.3.2 The questionnaire

According to Malhotra (2004, p. 17) a questionnaire is a formalised set of questions for obtaining information from respondents. The objective is to translate the researcher's information needs into a set of specific questions that respondents are able to answer. In addition, Wilson and Sapsford (2006, p. 93) explain that questionnaires prompt the respondents to read the question and answer either by ringing or ticking one of the answers provided. Thomas (2011, p. 165) agrees and expresses that a questionnaire is a written form of questioning and the questions may be closed or open. A questionnaire can be tightly structured, but can also allow the opportunity for a more open response if required. It also enables quantitative data to be collected in a standardised way so that the data is internally consistent and coherent for analysis (Malhotra, 2004, p. 17)

4.3.2.1 Development of the questionnaire

The development of the questionnaire used in this study was based on the literature review of the assessment centre method presented in Chapter Two. The questions were also developed taking into consideration the sub-problems identified in Chapter One. Malhotra (2004, p. 177) note that a continual review of the earlier stages of the research, particularly the specific components of the problem, the

research questions and the hypothesis, will keep the questionnaire focussed.

Struwig and Stead (2001, p. 89) point out that the response to a questionnaire is voluntary, therefore a questionnaire should be designed to maintain the interest of the respondent.

Frary (no date) cautions that while it seems easy to write open-ended questions, in most cases they should be avoided. A major reason is the variation in willingness and ability to respond in writing. Secondly, they can pose a challenge when analysing data. Frary (no date) advises that when using open-ended questions it is necessary to categorise the responses to each question to analyse them.

Struwig and Stead (2001, p. 89), Maholtra (2004, p. 177) and Wilson and Sapsford (2006, p. 97) provide the following guidelines in respect of the development of a questionnaire:

- The first step is to specify the information needed
- The target respondents should be kept in mind, taking into account their educational level and experience
- The language used and context of the questions must all be familiar to the respondents
- The questionnaire should contain precise and clear instructions on how to answer the questions
- It should be determined what should be included in each question and whether more than one question is needed to obtain the information in an unambiguous way
- Asking two questions in one statement should be avoided
- It should be brief and focussed and
- Neutrality should be maintained

Furthermore, Malhotra (2004, p. 178) provides guidelines for the content and phrasing of the questions. The aim is to avoid questions

that may be good to know but don't directly address the research problem. Secondly, questions should be phrased in a manner that respondents will accurately interpret and not influenced to provide specific answers.

According to Maholtra (2004, p. 186) a scaled response question, such as the Likert type scale, is preferred as it is easy for the researcher to construct and administer and also easier for the respondent to understand. Wilson and Sapsford (2006, p. 99) advise that a certain amount of work can be done to ensure the success of a structured survey questionnaire before it is distributed to the target group.

The questionnaire used in this study was constructed in accordance with the criteria as suggested by Maholtra (2004, p. 177) and Wilson and Sapsford, (2006, p. 99) and advice provided by Frary (no date). Questions were close-ended but an open-ended question was provided at the end of Section B. No sensitive questions were asked and the questions were formulated in a neutral manner.

There was no form of identification of the respondent such as name and department included in the questionnaire. According to Hillingdon Hospital, Education Centre (2013) anonymous questionnaires that contain no identifying information are more likely to produce honest responses than those identifying the respondent (refer to Appendix 4).

The questionnaire was divided into three sections:

Section A required biographical data and comprised multiple choice and dichotomous questions.

Section B comprised questions related to international standards of assessment centres. This section was structured as a Likert type scale and contained one open-ended question.

Section C comprised questions concerning the perceptions of senior management employees regarding the use of the AC in the public service. This section was also formatted to the Likert type scale.

4.3.2.2 Interviews (Interview schedule)

Open-ended questions were developed based on the literature review presented in Chapter Two. The structure of the interview was provided by a schedule that listed issues intended to be covered by the researcher. According to Thomas (2011, p. 163) semi-structured interviews allow the researcher to probe points as necessary. Furthermore, the interview schedule reminds the researcher of potential questions and probes (refer to Appendix 5).

4.3.2.3 Observation

Thomas (2011, p. 165) expresses that observation is a key way to collect data and mentions two types of observation. In the one the researcher systematically looks for particular kinds of behaviour, known as structured observation. In the other the researcher watches informally but methodologically records important facets of what is happening and this is known as unstructured observation. In this study the researcher observed systematically to look for specific types of activities and behaviours (structured observation). The literature review presented in Chapter Two and data gathered during interviews were used as a basis for identifying the activities and behaviours that should be observed.

4.3.2.4 Reliability and validity of the measuring instrument

A measuring tool or procedure is considered good when it meets two technical requirements, reliability and validity (Wolfaardt, 2002, p. 40). In addition, to Wolfaardt (2002, p. 40), Cohen and Swerdlik (2005, p. 98) explain that there are technical criteria that assessment

professionals use to evaluate the quality of tests and other measurement procedures, namely reliability and validity.

VALIDITY

The validity of a measure concerns what the test measures and how well it does this. A test is considered valid for a particular purpose if it in fact measures what it purports to measure (Cohen & Swerdlik, 2005, p. 98).

Wolfaardt (2002, p. 49) identifies three types of validity or validation procedures, namely content validity, criterion validity and construct validity. According to Wolfaardt (2002, p. 50) face validity is not validity in psychometric terms as it refers not to what the test measures, but to what it appears to measure. However, some of the authors such as De Vos, et al., (2002, p. 167) refer to it as the fourth type of validity.

Content validity involves "determining whether the content of the measure covers a representative sample of the behaviour domain to be measured". It is non-statistical and a frequently used procedure to ensure high content validity as it uses subject experts to evaluate the items during test construction (Wolfaardt, 2002, p. 49).

Wolfaardt (2002, p. 50) explains that face validity refers not to what the test measures, but to what the test appears to measure. It is more on whether the test looks valid. Sometimes the aim of the measure may be achieved by using phrasing that appears to be appropriate for the purpose. It is therefore a preferred characteristic of a measurement instrument.

Criterion validity is a quantitative procedure which involves the calculation of a correlation coefficient between a predictor and a criterion. A criterion is a variable with or against which scores on a measure are compared or evaluated (Wolfaardt & Roodt, 2005, p. 33).

According to Wolfaardt and Roodt (2005, p. 35) construct validity of a measure is the extent to which it measures the theoretical construct or trait it is supposed to measure. In the context of this study, construct validity implies the extent to which the measuring instrument measures the respondents' view of the use of the assessment centre in the public service.

The following actions were taken to improve the content, face and construct validity of the questionnaire:

- The development of the questionnaire was based on international standards of the AC as discussed and presented in Chapter Two.
- The questionnaire was subjected to the scrutiny of academics from two universities, namely the University of Botswana and Nelson Mandela Metropolitan University. Their feedback was incorporated to improve the content of the questionnaire. Additionally, the questionnaire was scrutinised by two senior officers in the public service who participated in the AC and did not identify any limitations or problems.

RELIABILITY

Reliability refers to consistency in measurement. A good measuring instrument or procedure is considered reliable when it consistently measures what it is supposed to measure (Cohen & Swerdlik, 2005, p. 98). Wolfaardt and Roodt (2005, p. 28) define reliability as the consistency with which a measuring instrument measures whatever it measures.

In addition, Wolfaardt and Roodt (2005, p. 29) identify five types of reliability, namely:

- Test-retest reliability implies that the measuring instrument is administered twice to the same group. The reliability coefficient is the correlation between the scores obtained on the first and second application of the measure. The coefficient is also called a coefficient of stability. Cohen and Swerdlik (2005, p. 133) agree with this view and also explain that test-retest reliability is an estimate of reliability obtained by correlating pairs of scores from the same people on two different administrations of the same test. Although the technique looks simple and straightforward it has some limitations such as the testing circumstances may be different for test takers e.g. emotional factors, fatigue, worry and transfer effects such as practice and memory. Respondents may be reluctant to complete the same questionnaire twice and if the researcher allows a lengthy interval between testing, the likelihood of eliciting the exact same responses will be reduced.

- Alternate form reliability implies that "two equivalent forms of the same measure are administered to the same group on two different occasions. The correlation obtained between the two sets of scores represents the reliability coefficient" (Wolfaardt & Roodt, 2005, p. 29).

- Split-half reliability where the reliability coefficient is obtained by splitting the measure into two equal halves and computing the correlation coefficient between the two sets of scores.

- Kuder-Richardson reliability is a coefficient of consistency, based on the consistency of responses to all items in the measure.

- Inter-scorer reliability is not used in standard procedures for administration and scoring of tests, rather it is used in answers to open-ended questions. Inter-scorer reliability is determined by having all the test takers' protocols scored by two assessment practitioners. The correlation coefficient between the two sets of scores is called the inter-scorer reliability coefficient.

In this study the researcher focussed on test-retest reliability. The problems mentioned earlier associated with test-retest reliability were overcome by making use of the pilot study, which served as a type of test-retest method. The responses received from the pilot study were compared with those received from the survey to make a judgement about the reliability of the questionnaire.

Internal consistency relates to the correlating of responses to each question to those received to other questions, or to questions within the same sub-section of the questionnaire (Struwig & Stead, 2001, p. 132). The responses to Sections B and C in the questionnaire were statistically tested for internal consistency by means of the Cronbach alpha test.

Cronbach's alpha is a measure of internal consistency, namely how closely related a set of items is as a group (Cohen & Swerdlik, 2005, p. 139). It is specifically useful in cases where a Likert type scale has been used (Struwig & Stead, 2001, p. 133).

Cronbach's alpha coefficient usually ranges between 0 and 1. The closer to 1 the value of the Cronbach's alpha coefficient is, the greater the internal consistency of the items. A Cronbach's alpha between 0.65 and 0.70 is considered acceptable (Cohen & Swerdlik, 2005, p. 141).

For the factors measured in this study the results from the Chronbach's alpha test are as follows:

- Purpose – alpha = 0.67
- Administration – alpha = 0.59
- Results – alpha = 0.96
- Perceptions – alpha = 0.81

Only one section, "administration" is not at the acceptable level of 0.65, therefore the results from this section should be read with caution.

4.3.2.5 QUESTIONNAIRE COVERING LETTER

The researcher's main reason for attaching a covering letter to the questionnaire is to explain the purpose of the survey.

Friese and Wilks (2007) provide the following guidelines for designing a questionnaire covering letter:

- Use quality paper and the organisation letterhead
- Keep the letter to one page, easy to read and 12-point font size
- Say why the study is important and how the results will be used
- Let the volunteers know why they are being asked to participate
- Let the volunteers know that their participation is voluntary
- Let the volunteers know that the survey is confidential and their individual answers will not be shared
- Remind volunteers not to put their name on the survey
- Include instructions on how to return the survey and give a due date
- Provide a contact name and number for anyone who has questions
- Don't forget to include a self-addressed stamped envelope

The above suggestions were considered when designing the questionnaire covering letter (refer to Appendix 2).

Prior to conducting the pilot study, the questionnaire was evaluated by two senior academics with extensive knowledge in research and in the human resource management field. They critiqued the questionnaire and commented on the question formulation, layout and the scale used in the questionnaire. As a result of the feedback received from these persons, adjustments and corrections were made. Subsequent to refining of the questionnaire a pilot study was conducted.

4.3.3 Pilot study

Altman, Burton, Cuthill, Festing, Hutton and Playle (2006) describe that a pilot study also known as a feasibility study is a small experiment designed to test logistics and gather information prior to a larger study. Furthermore, Wilson and Sapsford (2006, p. 103) explain that the pilot study is intended to assess the adequacy of the research design and the instrument to be used for data collection. Altman et al. (2006) add that a pilot study can reveal deficiencies in the design of a questionnaire or procedure and these can be addressed before time and resources are spent on large scale studies. A pilot study allows an assessment of the validity and reliability of the measuring instrument and clarity of instructions (Altman et al., 2006).

The approach used for the pilot study in this project was as follows:

- The questionnaire was given to five officers who occupy senior management positions within the public service. They were also a representative of the target sample and requested to complete and evaluate the questionnaire in terms of the following:

  o the time required to complete the questionnaire;
  o clarity of the instructions and questions;
  o layout; and
  o any other aspect that should be added.

The feedback received from the pilot study was used to refine the questionnaire before it was distributed to the target group (refer to Appendix 1).

4.3.4. Administration of the questionnaire

The population for the study consisted of permanent secretaries, deputy permanent secretaries, directors and deputy directors of the public service in Gaborone, Botswana. The number of officers in these categories is approximately 437. The composition of the sample represents the four levels of senior management employees within the target group. Welman and Kruger (2001, p. 55) state that for a sample to be representative, it must have the exact same properties in the exact same proportions as the population from which it was drawn, but in smaller numbers. It was ascertained that the respondents would make a constructive contribution towards establishing the credibility of the AC process used in the public service since they are the recipients of the service. For this study questionnaires were distributed to 100 respondents.

The following procedure was followed in administering the questionnaire:

- The researcher liaised with the Botswana public service college where short courses for senior management are conducted on a continuous basis. The purpose was to request a ten minutes slot to inform the target population about the study and explain to them the importance of the study, its benefit to the public service and to the researcher. According to Saunders and Thornhill (2000, p. 308), prior notification to respondents establishes personal contacts with respondents and subsequently raises the perceived importance of the study. Burgess (2001) notes that respondents are more likely to commit to answer a questionnaire when they see it as interesting, of value and well-presented.
- The college management agreed to the request and the researcher was given an opportunity to talk to different groups of

the target population. After each briefing the respondents were questioned about the preferred method of delivery of the questionnaire. The majority preferred to be handed the questionnaires at the training institution for them to complete and submit within a week while some preferred that the questionnaires be delivered to their personal assistants or secretaries at their offices for them to fill in at a later stage. Only a few requested that the questionnaire be emailed. The potential respondents were thanked for agreeing to participate in the survey and assured of the anonymity of their responses.

- In Gaborone the government ministries or departments are located within proximity in the government enclave, therefore it was feasible that the researcher could drop off the questionnaires.

- The covering letter and the questionnaire were either dropped off at the office of each potential respondent or handed to each respondent at the training institution.

- A follow-up telephone call was made to each potential respondent after one week to remind non-respondents to complete the questionnaire

- The second follow-up was conducted after two weeks to potential respondents who had not yet responded.

According to Burgess (2001) follow-up telephone calls can help to raise the response rate for self-administered questionnaires.

4.3.5 Response rate

The covering letter and the questionnaire were distributed to 100 respondents from various ministries and departments in the Botswana public service sector. In total 81 respondents completed the questionnaire while 19 did not fill in the questionnaire advancing the reasons that they have never participated in the AC or they did not

know much about the method. However, of the 81 questionnaires, 19 employees indicated that they did not attend an AC prior to promotion, so they did not complete Sections B and C of the questionnaire. Altogether 62 employees indicated that they previously attended an AC prior to promotion. Of the 62 employees, 15 indicated that they attended an AC at the two service providers prior to promotion which brought in the issue of re-assessment. According to literature on the AC discussed in Chapter Two of this study the issue of re-assessment should be clarified in the AC policy and the policy should stipulate the period of time candidates should take before re-assessment. Furthermore, the results of the AC are valid for two years (International Guidelines and Ethical Considerations for Assessment Centre Operations (2009). In the case of the Botswana public service the AC policy is not available to comply with this requirement. In addition, the empirical study in Chapter Three revealed that government departments send employees for re-assessment within a short period of time ranging between two and four weeks, a concern raised by the consultants. In view of the situation regarding the 15 respondents, these questionnaires were not included in the analysis of results.

The researcher also discovered that most of the permanent and deputy permanent secretaries had not participated in the AC before their appointment to their current positions. They went through the AC when aspiring for the level of director.

In total 47 questionnaires were suitable for analysis as the respondents indicated that they attended an AC once at one of the service providers. They were therefore not affected by the re-assessment requirement. Two of the questionnaires were excluded from the analysis as these questionnaires contained missing data. In total, 45 questionnaires were suitable for analysis and led to a low response rate.

The low response rate in this study can be attributed to the following reasons:

- The study focussed on top level employees who had attended an AC
- The AC method is relatively new in Botswana and not all top level employees had attended the AC
- The study focussed only on the public service
- A lack of an AC policy contributed to disqualifying 15 questionnaires

A description of the 81employees who responded to the questionnaire is presented in Tables 4.1 and 4.2

Table 4.1 Description of the respondents

Category	Number of subjects	Percentage
Attended an AC	62	77
Not attended an AC	19	23
Total	**81**	**100**

Table 4.2 Description of respondents who attended an AC

Category	Number of subjects	Percentage
Attended an AC twice (part of the 62)	15	19
Missing data (part of the 62)	2	2
Suitable for analysis (part of the 62)	45	56
Total	**62**	**77**

In addition to Tables 4.1 and 4.2, Charts 4.1 and 4.2 provide a visual representation of the description of the employees.

Chart 4.1: Description of the respondents
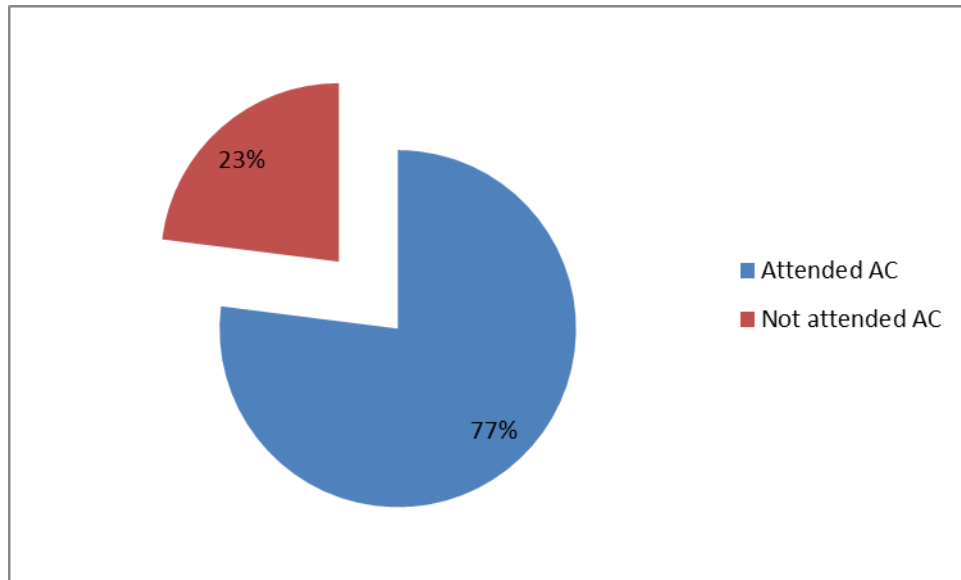
Own construct

Chart 4.2 Description of the respondents who attended an AC
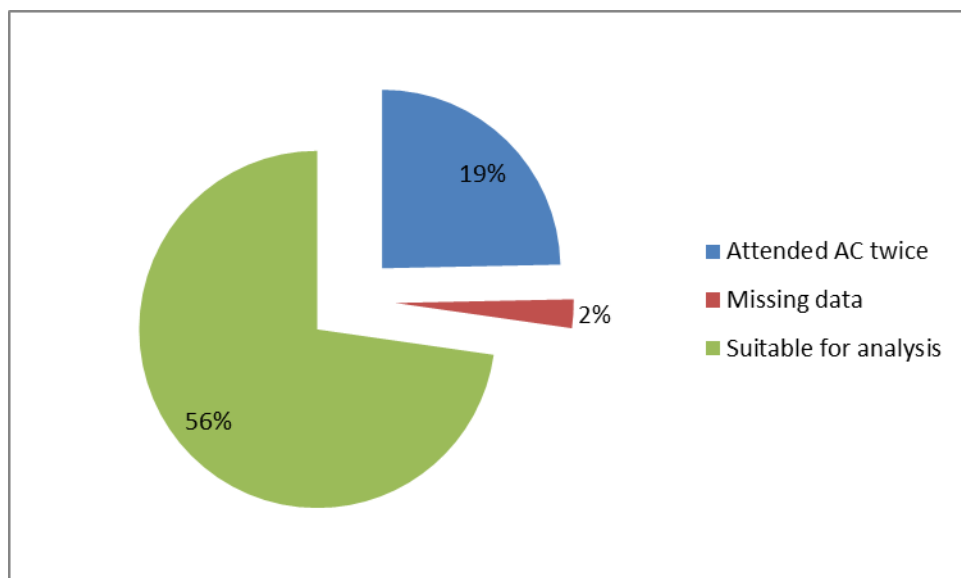
Own construct

Table 4.1 and Chart 4.1 indicate that 77 per cent of the respondents attended an AC while 23 per cent did not. However, Table 4.2 and Chart 4.2 show that of the 77 per cent, 19 per cent attended an AC twice and two per cent had missing data. The 19 per cent was excluded from the results analysis as their re-assessment was not in line with international standards of the AC, while two per cent was excluded due to missing data. In total 56 per cent was suitable for analysis.

4.4 PRESENTATION AND ANALYSIS OF THE BIOGRAPHICAL INFORMATION

Section A of the questionnaire required the respondents to provide information about themselves, such as age, gender, position held, qualifications, length of service and others. These questions were included in the questionnaire due to their potential value as independent variables to probe similarities or differences in the responses to various sections of the questionnaire.

The information obtained from the questions contained in Section A is presented and discussed below.

Question A1 required respondents to indicate their gender. The results to this question are presented in Table 4.2 and Chart 4.2

Table 4.3 Gender composition

Gender	Frequency	Percentage
Male	20	44
Female	25	56
Total	**45**	**100**

Chart 4.3 Gender composition
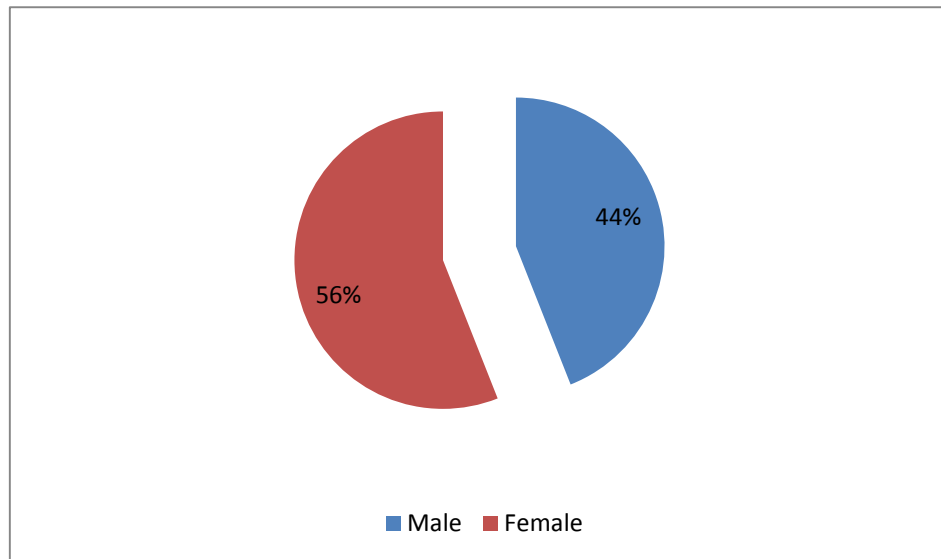
Own construct

It is evident from Table 4.3 and Chart 4.3 that the majority of people who participated in the study was female, represented by 56 per cent. While analysing the information on gender the researcher observed that most of the females were in the deputy director category while most of the males were directors. This is reflective of the public service in Botswana where top positions are mainly held by males.

Question A2 required respondents to indicate their age. This provides an indication of the age of both the majority and minority responses that participated in the survey. The results are presented in Table 4.4 and Chart 4.4.

Table 4.4 Ages of the respondents

Age	Frequency	Percentage
36-45	25	56
46-55	18	40
over 55	2	4
Total	**45**	**100**

Chart 4.4 Ages of the respondents
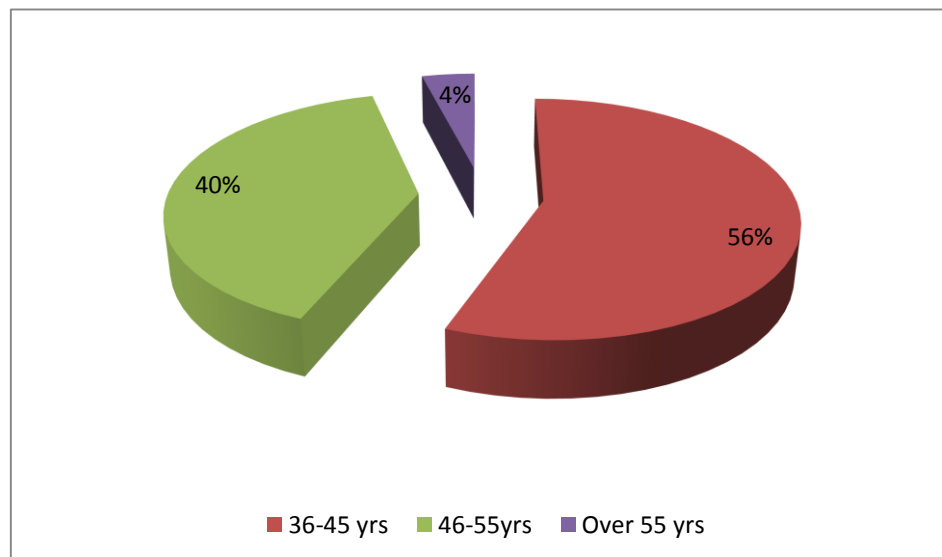
Own construct

According to the rate of responses in Table 4.4 and Chart 4.4 the majority of respondents was 36 to 45 years old which is represented by 56 per cent while the minority of four per cent represents respondents in the over 55 years category. In the public service of Botswana prior to the directive of 2005 from the permanent secretary to the president, progression was based on the number of years worked (long service). The directive stipulated that recruitment and promotion in the public service must be based on the right skills for the right jobs. The directive further stated that promotion should be based on merit and

performance. This could be the reason for having the majority of respondents in the 36 to 45 years category among people leading the public service.

Question A3 required respondents to indicate their qualifications. The results are shown in Table 4.5 and Chart 4.5 below.

Table 4.5 Respondents' qualifications

Qualification	Frequency	Percentage
Junior degree	9	20
Masters degree	34	76
PhD	2	4
Total	**45**	**100**

Chart 4.5 Respondents' qualifications
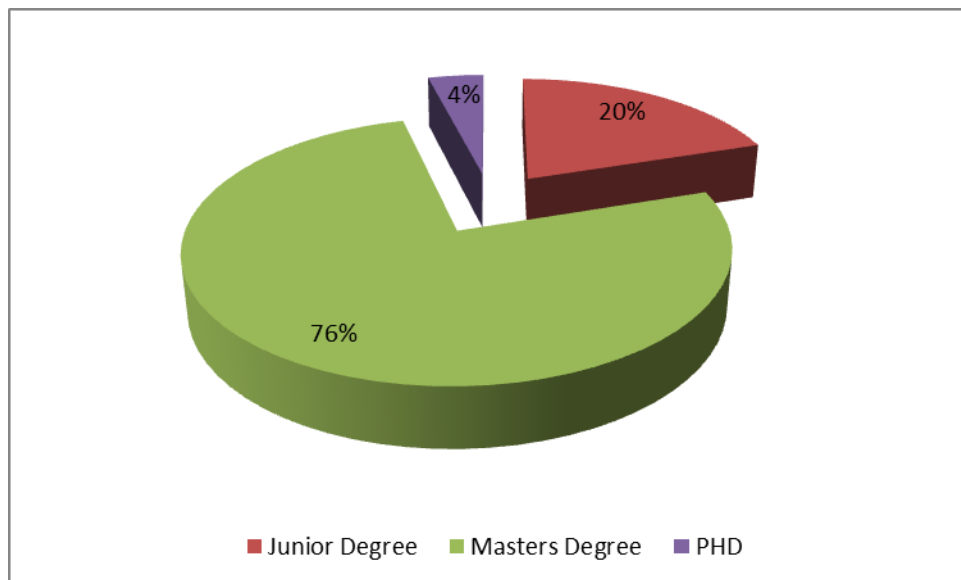
Own construct

Table 4.5 and Chart 4.5 indicate that the majority of respondents represented by 76 per cent held a Masters degree while the minority represented by four per cent held a PhD qualification.

Question A4 required respondents to indicate their length of service in the public service. The results are presented in Table 4.6 and Chart 4.6 below.

Table 4.6 Respondents' length of service

Length of service	Frequency	Percentage
1 to 9 years	6	13
10 to 15 years	4	9
16 to 20 years	19	42
Over 20 years	16	36
Total	**45**	**100**

Chart 4.6 Respondents' length of service
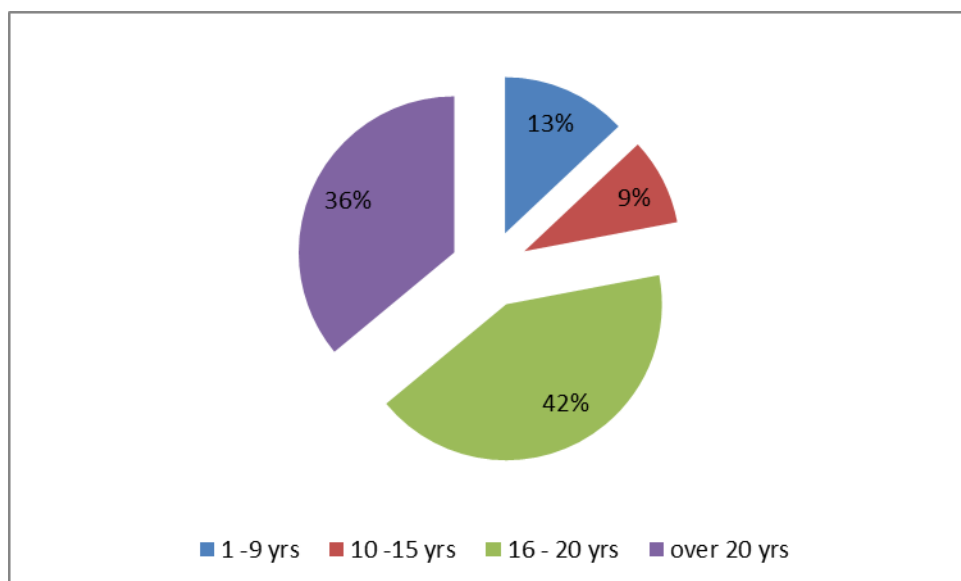
Own construct

It is evident from Table 4.6 and Chart 4.6 that the majority of respondents, namely 42 per cent and 36 per cent had served in the public service for a substantial period of time, 16 to 20 years and over 20 years respectively. The minority represented by nine per cent had served for 10 to 15 years.

Question A5 required respondents to indicate their job titles. The results are shown in Table 4.7 and Chart 4.7

Table 4.7 Respondents' positions

Position	Frequency	Percentage
Director	18	40
Deputy director	27	60
Total	**45**	**100**

Chart 4.7 Respondents' position
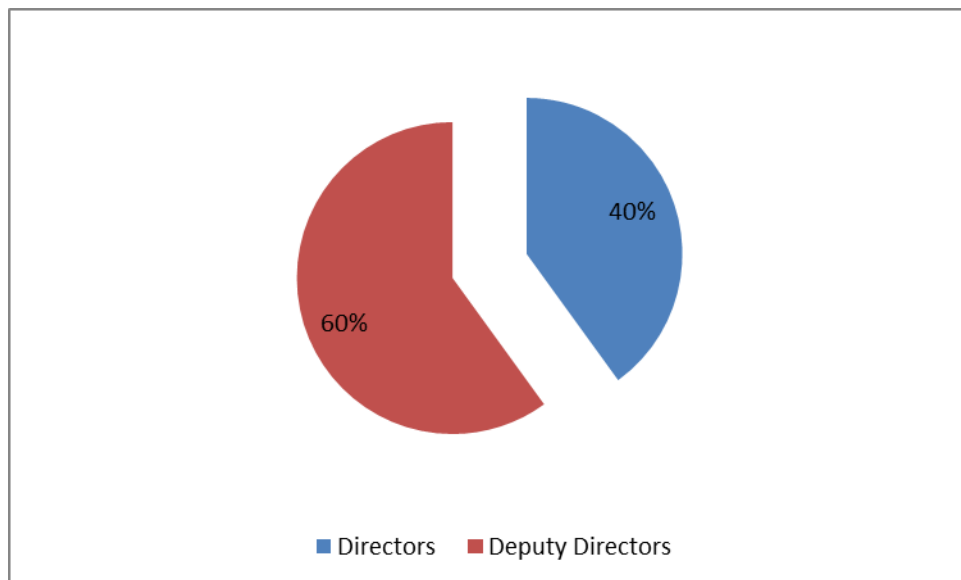
Own construct

Table 4.7 and Chart 4.7 show that the majority of respondents were deputy directors (60 per cent) and directors were the minority represented by 40 per cent of the respondents.

Question A6 required respondents to indicate their knowledge of the AC process. The results are shown in Table 4.8 and Chart 48.

Table 4.7 Level of knowledge of the AC

Knowledge of the AC	Frequency	Percentage
Excellent	8	18
Good	21	47
Average	16	35
Total	**81**	**100**

Chart 4.8 Level of knowledge of the AC
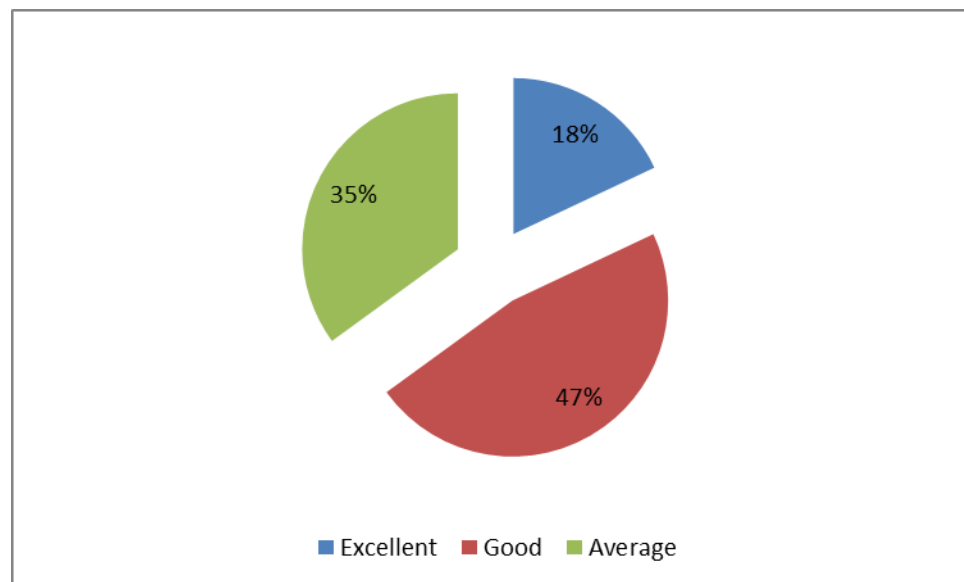
Own construct

Table 4.8 and Chart 4.8 indicate that the majority of respondents (47 per cent) held the view that their knowledge of the AC process is good while the minority 18 per cent was of the view that their knowledge is excellent.

Question A7 required the respondents to indicate if they participated in an AC before being appointed to their position. All 45 respondents had participated in an AC prior to appointment. Respondents who did not participate in an AC (19) were excluded from the analysis of the results as they did not complete Sections B and C of the questionnaire. The two sections required one to have attended an AC.

Question A8 requested respondents to indicate where they participated in the AC process before appointment to the position. The results are shown in Table 4.8 and Chart 4.8 below.

Table 4.9 AC service providers

AC service provider	Frequency	Percentage
REDMA	22	49
HRMC Talent	23	51
Total	**45**	**100**

Chart 4.9 AC service providers
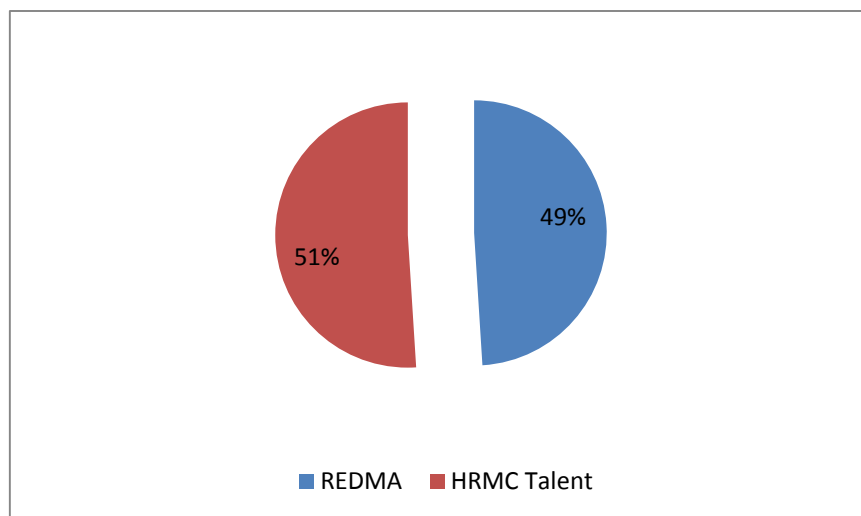
Own construct

The results from Table 4.9 and Chart 4.9 indicate that there is a minimal difference in terms of the number and percentage of respondents assessed by HRMC Talent and REDMA. HRMC Talent is on the lead with 51 per cent while REDMA had 49 per cent. Fifteen respondents (19 per cent) who had indicated that they attended an AC at both service providers before their appointment into the positions, had been excluded from this study as it was not certain that their re-assessment was in line with the AC international standards.

4.5 CONCLUSION

This chapter presented the research methodology used during the study and focussed on professional research design, the sample, pilot study, the survey and the survey response rate. The biographical information gathered during the survey (Section A of the questionnaire) was also presented and discussed.

In the next chapter, quantitative analysis of the results and the results of the remaining sections in the questionnaire are presented and discussed to determine the performance of officers on competencies and the respondents' perceptions with regard to the use of the AC method in the public service.

CHAPTER 5

ANALYSIS AND INTERPRETATION OF RESULTS

CHAPTER 5

ANALYSIS AND INTERPRETATION OF THE RESULTS

5.1 INTRODUCTION

In Chapter Four the research methodology used in this study was presented and discussed. The data which relates to the demographic details of the respondents in respect of section A of the questionnaire was also presented and analysed.

The aim of this chapter is to assist in the resolution of empirical sub-problems five, six, seven and eight. These sub-problems are as follows:

Sub-problem five

What is the performance of officers on competencies measured?
This sub-problem was addressed by means of a document analysis. The AC results of senior management who participated in the AC were analysed. The aim was to establish performance on competencies.

Sub-problem six

What are the perceptions of permanent secretaries and deputy permanent secretaries on the use of the AC method?

The sub-problems was addressed by means of a survey, with a questionnaire as the data collection instrument to establish perceptions of permanent or deputy permanent secretaries with regard to the use of the AC.

Sub-problem seven

What are the perceptions of directors and deputy directors on the use of the AC method?

Sub-problem seven was also addressed by means of a survey with a questionnaire as the data collection instrument to establish perceptions of directors and deputy directors with regard to the use of the AC.

Sub-problem eight

Which factors contribute towards positive or negative perceptions of the AC among senior management employees in the Botswana public service?

The sub-problem was addressed by conducting a survey with a self-administered questionnaire as data collection tool. The questionnaire measured the relevant factors that have a potential impact on senior management perceptions regarding the use of the AC. The inferential statistics analysed revealed the nature and direction of relationships between the variables.

The results from Sections B and C of the survey questionnaire are presented in the same order as they appeared in the questionnaire.

Section B focussed on the evaluation of the AC process used in the Botswana public service, which was aimed at determining the extent to which the AC process adhered to international best practices. In addition, it also evaluated whether the assessment centre is optimally used. With regard to Section C, the questionnaire measured perceptions of senior management with regard to the use of the assessment centre method.

The research findings are presented in a tabulated form. The graphs and tables were developed and compiled with the aid of MS-Excel and Statistica.

5.2 DESCRIPTIVE STATISTICS

According to Coleman, Weathersby and Freyberg (2012, p. 35) descriptive statistics entails summarising samples of data into single values. Coleman et al. (2012, p. 35) elaborate that generally two values are computed to summarise a group of scores, namely a measure of central tendency (centre) and a measure of variability (spread). Statistics that measure the central tendency of a group of scores are mean, median and mode.

A measure of central tendency is usually accompanied by a measure of variability, because distributions can be similar with regard to one of the measures, but different with regard to the other. The most commonly reported measure of variability is the standard deviation which measures the deviation from the mean (Coleman et al., 2012, p. 38)

Descriptive statistics were used to analyse the raw data obtained from the survey. The descriptive data included measures of central tendency and the dispersion of variables. Sections B and C of the questionnaire were developed according to a Likert type scale and for each item, the respondents had to indicate whether they strongly disagreed, disagreed, were uncertain, agreed or strongly agreed with each statement. Numerical values, ranging from one (strongly disagree) to five (strongly agree) were used to evaluate the quantitative analysis of the results. The quantitative analysis of the results from Sections B to C is presented below.

5.2.1 SECTION B: International standards of the AC

The international best practices of the AC were comprehensively discussed in Chapter Two of this study. The areas discussed were the purpose and administration of the AC, simulations or exercises used in the AC and the results and feedback to AC participants. The literature

in Chapter Two is used as a basis to measure the extent to which the results in this section compare with the international standards.

5.2.1.1 Statistical findings on the purpose of an AC are presented in Table 5.1.

Table 5.1 Mean and standard deviation – Purpose of the AC n=45

No.	Purpose of the AC	N	Mean	Standard deviation
B1.1.1	I was informed about the purpose of the AC I was to undergo beforehand	45	2.71	1.06
B1.1.2.	I clearly understood the purpose of the AC	45	3.09	0.85
B1.1.3.	My AC results were used for the intended purpose	45	2.73	0.99
B1.1.4.	I had a choice to agree or disagree to participate in the AC	45	1.93	1.07

An analysis of the mean scores and standard deviation in this section revealed that the majority of the mean scores four of five falls between 2.73 and 3.09. This suggest that the respondents were inclined to the "agree" rating. The standard deviation indicated that the spread of the results were narrow, ranging between 0.85 and 1.06. This suggests that the respondents were agreeing in their responses. However, one mean score of 1.93 for statement B1.1.4 suggests that the respondents were more inclined to the "disagree" rating. The standard deviation also shows that the spread of the results was narrow, implying that the respondents concurred in their responses. This suggests that participation in an AC was obligatory.

The international best practice of AC literature discussed in Chapter Two of this study revealed that prior to the AC the participants have to be informed about the purpose of the AC. They should understand the

purpose and the results should be used for the initial intended purpose. With regard to consent to participate in an AC the literature revealed that participation in an AC is usually voluntary, however, some organisations stipulate in their AC policy that participation is compulsory especially when the AC is for developmental purposes. In the case of the Botswana public service the empirical study revealed that the AC policy is still in a draft form and not yet implemented though the AC method was implemented approximately six years ago.

5.2.1.2. Mean scores and standard deviations for administration of the AC are presented in Table 5.2 below.

Table 5.2 Mean and standard deviation – Administration of the AC
n=45

No.	Administration of the AC	N	Mean	Standard deviation
B1.2.1.	I was given some AC materials in advance to prepare	45	2.89	1.54
B1.2.2.	At the start of the AC there was a thorough briefing that included introduction of the assessor team, structure of the day and general guidelines for the day	45	3.91	0.97
B1.2.3.	During the AC detailed instructions were provided in all briefing sheets for the exercises	45	3.96	0.80
B1.2.4	I was informed about who will have access to my results	45	2.76	1.46
B1.2.5	Time allocated to exercises was strictly adhered to	45	4.27	0.94

An analysis of the mean scores and standard deviations in Table 5.2 reveal that three variables, namely B1.2.2, B1.2.3 and B1.2.5 had the highest mean scores. The aggregate mean for these variables is 4.04. This suggest that the responses skewed towards the "agree" rating. The standard deviations for the three variables indicate a narrow spread of scores ranging between 0.80 and 0.97. This shows that the respondents' were in agreement with regard to the variables. The "agree" rating indicates that the three variables were executed in line with the requirements of international best practices of the AC as outlined by Taylor (2007, p. 47) and Mukherji and Miscra (2013).

The variable "I was informed about who will have access to my results" obtained the lowest mean score of 2.76 and the standard deviation of 1.46. This result suggests that respondents were inclined to the "disagree" rating. The spread of their responses was relatively narrow suggesting the respondents were coinciding. The literature on the AC presented in Chapter Two of this study revealed that AC participants have to be informed about the process flow of their results within the organisation, who will have access to their results and how long their results will be kept. This requirement is also stipulated in the International Guidelines and Ethical Considerations for Assessment Centre Operations (2009, p. 250).

With regard to the variable "I was given AC material in advance to prepare" the results indicate a mean score of 2.89 showing that the respondents were more inclined to the "uncertain" rating. The standard deviation was 1.54 indicating a wide spread of scores. The empirical study in Chapter Three of this study revealed a variation regarding this variable with one of the consultancies providing pre-AC material while the other one does not. The reason for the result could be that when the two variations were brought together they produced the "uncertain" rating.

5.2.1.3 AC simulations or exercises

A visual presentation of the AC simulations or exercises respondents participated in is illustrated in Graph 5.1.

Graph 5.1 AC assignments respondents participated in
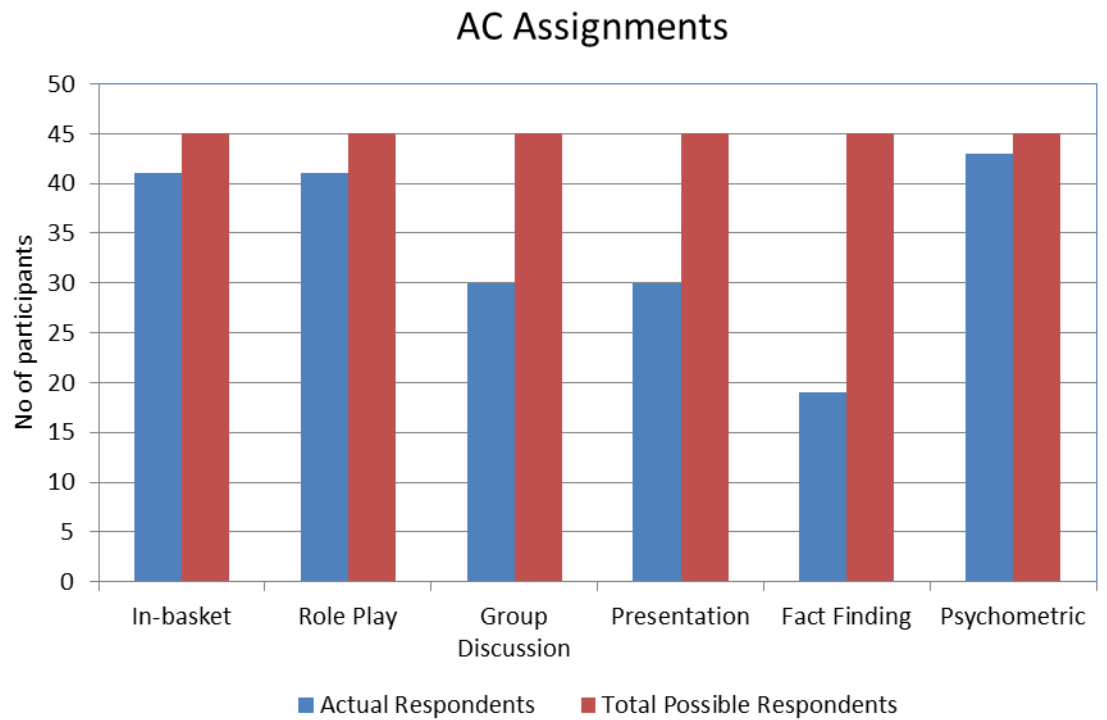
The majority of respondents (40) as shown in Graph 5.1 indicated that they participated in AC assignments such as role plays, in-basket exercises and psychometric testing. The theory in Chapter Two of this study revealed that these AC exercises are the core assignments of the AC in recent years (Byham, 2006).

5.2.1.4. Mean scores and standard deviations regarding "results and feedback" are presented in Table 5.3

Table 5.3 Mean and standard deviation – results and feedback n=45

No.	Results and feedback	N	Mean	Standard deviation
1.4.1	I was given the AC report containing my results	45	1.98	1.48
1.4.2.	The results indicated my strengths	45	2.29	1.42
1.4.3.	The results indicated my areas for development	45	2.29	1.41
1.4.4.	The report was delivered to me by a creditable person	45	2	1.45
1.4.5.	I was informed about how long my results will be valid	45	1.87	1.27
1.4.6.	My manager discussed my AC results with me	45	1.91	1.33
1.4.7.	I was given professional feedback regarding my results	45	1.82	1.21
1.4.8.	The feedback was given by someone knowledgeable to give the AC feedback	45	1.62	1.07
1.4.9.	The AC provided me with a good idea of my strengths	45	2.33	1.51
1.4.10.	The AC provided me with a good idea of my limitations	45	2.24	1.49
1.4.11.	Development areas were identified based on the results	45	1.82	1.32
1.4.12.	An individual development plan was designed	45	1.58	1.10
1.4.13	The individual development plan was discussed with my supervisor	45	1.62	1.11
1.4.14	The individual development plan was implemented	45	1.49	1.01
1.4.15.	My development needs were addressed	45	1.49	0.89

An analysis of the mean scores and standard deviations for "results and feedback" revealed an average mean of 1.89. This suggests a tendency towards the "disagree" rating in all the statements. The standard deviation indicated that the spread was relatively narrow

ranging between (0.89) and (1.49), indicating that the respondents were relatively consistent in the way they responded to the items in this section. The variables with the lowest mean score of 1.49 were B1.4.14 and B1.4.15. The result indicates that the responses were inclined to select the "strongly disagree" rating. The standard deviation ranged between 0.89 and 1.01 and therefore indicates that the scores were narrowly spread, revealing that the respondents were in agreement regarding the variables on development.

The empirical study in Chapter Three revealed that the Botswana public service mostly use the AC for selection purposes. The theory in Chapter Two revealed that the AC results for selection purposes are for the organisation's management. However, Schlebusch (2008, p. 3) advocates for the provision of results to the candidates who had participated in the AC for selection. In their argument Schlebusch and Roodt (2008, p. 207) point out that feedback is important as it provides an opportunity to discuss the participant's current areas of strength as well as the areas needing further development.

Furthermore, Schlebusch (2008, p. 3) highlights that the results from an AC for selection can be used for developmental purposes. This therefore suggests that organisations can optimise the AC results by using them to address both selection and developmental needs.

The next section explored the perceptions of senior management with regard to the use of the AC.

5.2.2. Section C: Mean scores and standard deviations for Section C are presented in Tables 5.4 and 5.5.

Section C of the questionnaire required respondents to indicate their views regarding the use of the AC in the public service. In addition to directors and deputy directors, the questionnaire was administered to 12 top executives (permanent and deputy permanent secretaries) in

the public service. Seven of them managed to complete all items in the questionnaire.

Table 5.4

Perceptions on the use of the AC n=45

No.	In my view ……	N	Mean	Standard deviation
C1.1.1	The AC is conducted professionally	45	3.89	0.78
C.1.1.2	The assessment rooms are well arranged	45	4.02	0.78
C.1.1.3	The assessment is well planned for and organised	45	3.96	0.80
C.1.1.4	The assessors are qualified to do the job	45	3.20	1.01
C.1.1.5	The AC is a good tool for assessing competencies	45	3.71	0.79
C.1.1.6	The exercises enabled me to display competencies	45	3.56	0.87
C.1.1.7	The results of the AC were a true reflection of my competence level	45	2.98	1.01
C.1.1.8	The AC results are optimally utilised by appointing authorities	45	2.78	0.93
C.1.1.9	Employees appointed through the AC generally perform better than those appointed using other methods	45	2.67	1.04
C.1.1.10	I liked the use of psychometric test	45	3.60	1.05
C.1.1.11	Senior officers in the public service know the importance of using the AC	45	2.47	1.08
C.1.1.12	Employees are comfortable to participate in the AC	45	2.09	1.10

Analyses of the mean scores and standard deviations in Section C revealed that three variables, namely C1.1.1, C1.1.2 and C1.1.3 had the highest mean scores and an aggregate mean of 3.95. This

suggests a tendency towards the "agree" rating. The standard deviations indicated that the spread was narrow, ranging between 0.78 and 0.80, indicating that the respondents were consistent in the way they responded to the items. In addition, the mean score and standard deviation revealed that the respondents held the view that:

- The AC was conducted professionally

- Assessment rooms were well organised

- Assessments were well planned for and organised

The variable "employees are comfortable to participate in an AC" received the lowest mean of 2.09 and a standard deviation of 1.10. This suggest that responses were strongly skewed towards the "disagree" rating. The standard deviation of 0.84 indicated that the spread of scores was narrow, showing that the respondents were consistent in the way they responded to the item. The mean score and the standard deviation revealed that the respondents held the view that employees were not comfortable to participate in an AC.

Regarding the variable "assessors are qualified to do the job" the results revealed a mean of 3.20, indicating that the respondents were more inclined to the "uncertain" rating. The standard deviation of 1.01 showed a narrow spread, indicating that the responses were in agreement.

Table 5.5

Perceptions on the use of the AC: permanent secretaries or deputy
permanent secretaries

No.	In my view ……	N	Mean	Standard deviation
C1.1.1	The AC is conducted professionally	**7**	3.86	1.46
C.1.1.2	The assessment rooms are well arranged	**7**	4.00	0.82
C.1.1.3	The assessment is well planned for and organised	**7**	4.29	0.76
C.1.1.4	The assessors are qualified to do the job	**7**	4.14	0.69
C.1.1.5	The AC is a good tool for assessing competencies	**7**	4.57	0.53
C.1.1.6	The exercises enabled me to display competencies	**7**	4.14	0.69
C.1.1.7	The results of the AC were a true reflection of my competence level	**7**	4.00	0.82
C.1.1.8	The AC results are optimally utilised by appointing authorities	**7**	3.14	0.90
C.1.1.9	Employees appointed through the AC generally perform better than those appointed using other methods	**7**	2.57	0.98
C.1.1.10	I liked the use of psychometric test	**7**	4.00	0.82
C.1.1.11	Senior officers in the public service know the importance of using the AC	**7**	3.00	1.15
C.1.1.12	Employees are comfortable to participate in the AC	**7**	2.29	0.76

Analyses of mean scores and standard deviations in Table 5.5 reveal
that the executives agree with most of the variables in this section. Of
the 12 variables, eight have mean scores of above 3.8 (C1.1.1, C1.1.2,
C1.1.3, C1.1.4, C1.1.5, C1.1.6, C1.1.7 and C1.1.10). This indicates a

tendency towards the "agree" rating. The standard deviations for seven of the variables revealed a narrow spread ranging between 0.53 and 0.82. Only one variable C1.1.1 had a standard deviation of 1.46, indicating that it is not as narrowly spread as the other seven variables.

The variable "AC is a good tool for assessing competencies" received the highest mean score of 4.57 which suggests a tendency towards the "strongly agree" rating. The standard deviation of 0.53 also revealed a narrow spread of scores, indicating that there was a strong agreement among the respondents regarding this variable. In addition, the mean score and the standard deviation revealed that the respondents have coinciding perceptions about the effectiveness of the AC method.

The variable "employees are comfortable to participate in an AC" received the lowest mean of 2.29 which suggests a tendency towards the "strongly disagree" rating. The standard deviation of 0.76 indicated that the spread of the results was narrow. The mean score of 2.29 therefore implies that the respondents held the view that employees were not comfortable to participate in an AC.

The variable "AC results are optimally utilised by appointing authorities" obtained a mean of 3.14. This suggests a tendency towards the "uncertain" rating. The standard deviation of 0.90 revealed a narrow spread and confirms that there was little variation in the perceptions of respondents with regard to optimal use of the AC results. The results of this variable confirms the findings in Section B "results and feedback" where respondents (directors and deputy directors) disagreed with all the variables with an aggregate mean of 1.89. The findings from both sections revealed that the respondents were of the view that the AC results were not optimally used, in particular for developmental needs.

The next section evaluated the performance of senior management on competencies.

5.3 PERFORMANCE ON COMPETENCIES

The convenience sampling method was used to sample the AC reports containing results of senior management employees. The sample consisted of reports for three financial years, namely 2009/2010, 2011/2012 and 2013/2014. A total of 100 AC reports were sampled for each year. The purpose was to conduct an analysis of the results and evaluate senior management employees' performance on competencies. The results are tabulated in Tables 5.6, 5.7 and 5.8. In addition, a visual illustration of the results is presented in Graphs 5.6, 5.7 and 5.8.

Table 5.6 Performance on competencies: 2009/2010

		Performance: Behavioural Anchored Rating Scale				
Competency	No. of participants	1 Un - satisfactory	2 Less than satisfactory	3 Satisfactory	4 Highly satisfactory	5 Excellent
Analytical thinking and visioning	100	6	67	26	1	0
Deciding and initiating action	100	11	60	24	5	0
Building and managing relations	100	5	35	48	12	0
Managing performance	100	3	43	42	12	0
Planning and execution	100	22	57	20	1	0
Communicating effectively	100	28	38	29	5	0
Creativity and innovation	100	29	55	16	0	0
Quality service delivery	100	26	56	17	1	0

Chart 5.6 Performance on competencies: 2009/2010
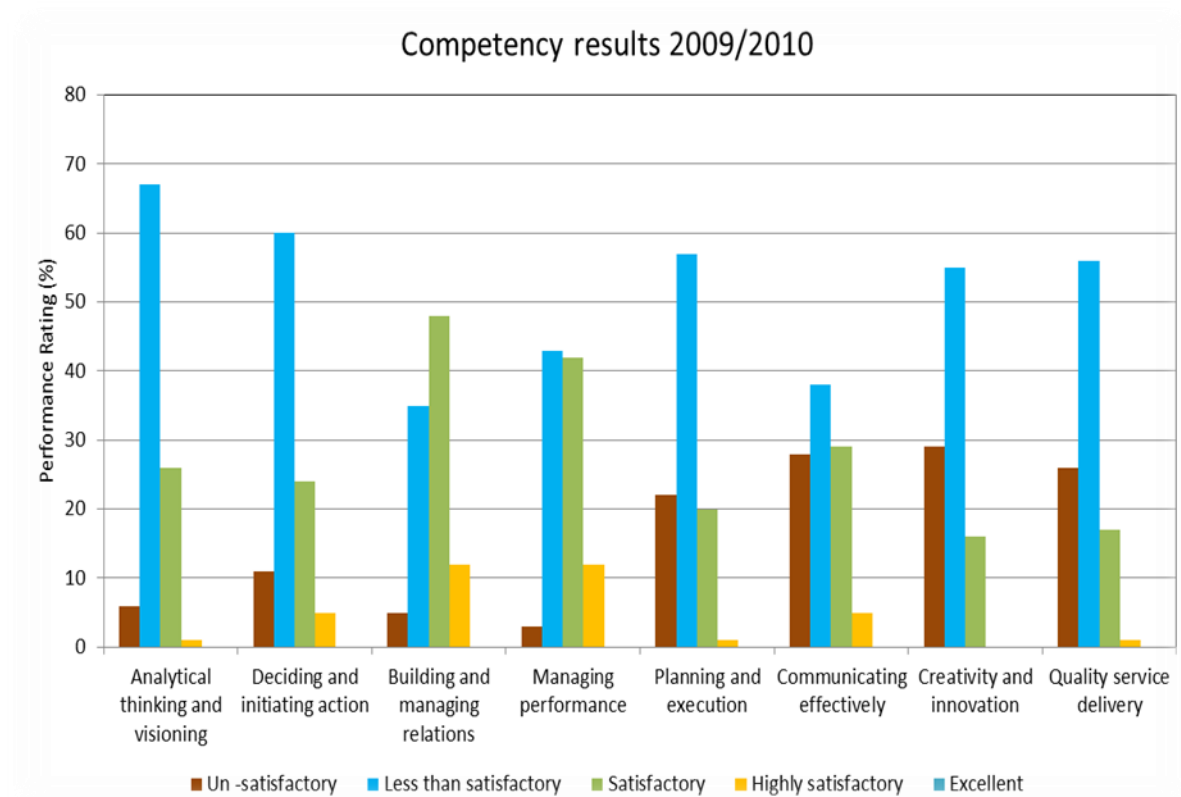
An analysis of the results in Table 5.6 and Graph 5.6 indicates that participants' performance was low in almost all competencies except for building and managing relations (BMR) and managing performance. The results reveal that the satisfactory or highly satisfactory percentage for both competencies is 60 per cent. The results also show that the participants had performed below par in the following competencies:

- Creativity and innovation (84% obtained unsatisfactory or less than satisfactory)
- Quality service delivery (82% obtained unsatisfactory or less than satisfactory)
- Planning and execution (79% obtained unsatisfactory or less than satisfactory)

It is evident from Table 5.6 and Graph 5.6 that none of the participants obtained the "excellent" rating.

Table 5.7 Performance on competencies: 2011/2012

Competency	No. of participants	Performance: Behavioural Anchored Rating Scale				
		1 Un - satisfactory	2 Less than satisfactory	3 Satisfactory	4 Highly satisfactory	5 Excellent
Analytical thinking and visioning	100	4	50	44	2	0
Deciding and initiating action	100	4	52	40	4	0
Building and managing relations	100	0	35	58	7	0
Managing performance	100	6	63	30	1	0
Planning and execution	100	24	65	11	0	0
Communicating effectively	100	0	33	56	11	0
Creativity and innovation	78	8 (10%)	38 (49%)	32 (41%)	0	0
Quality service delivery	100	17	55	28	0	0

Graph 5.7 Performance on competencies: 2011/2012
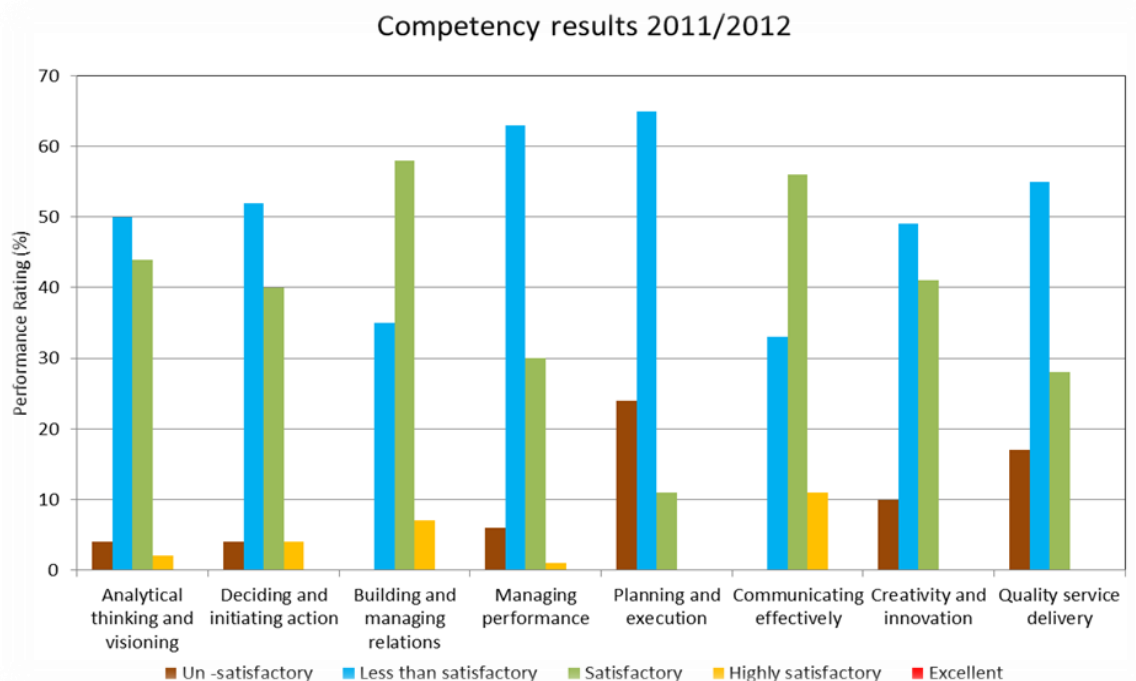
Of the 100 sampled reports, 22 reports showed no record of the competency creativity and innovation referred to in the table. It was

ascertained that the participants were not assessed on this competency.

It can be depicted from Table 5.7 and Graph 5.7 that participants' performance in six competencies was very low with the majority of participants, more than 55 per cent in the "unsatisfactory or less than satisfactory" rating. Performance on only two competencies, namely building and managing relations and communicating effectively was above 50 per cent. Table 5.7 and Graph 5.7 clearly indicate that the majority of participants (89 per cent) performed badly in planning and execution with only 11 per cent obtaining the "satisfactory" rating. In all competencies none of the participants obtained the "excellent" rating.

Table 5.8 Performance on competencies 2013/2014

		Performance: Behavioural Anchored Rating Scale				
Competency	No. of participants	1 Un - satisfactory	2 Less than satisfactory	3 Satisfactory	4 Highly satisfactory	5 Excellent
Analytical thinking and visioning	100	7	61	31	1	0
Deciding and initiating action	100	3	59	38	0	0
Team work and partnering	100	3	54	40	3	0
Supervision and accountability	100	11	78	11	0	0
Planning and execution	100	12	76	12	0	0
Communicating effectively	100	0	34	64	2	0
Innovation and driving change	100	9	70	21	0	0
Quality service delivery	100	22	69	9	0	0

Graph 5.8 Performance on competencies 2013/2014
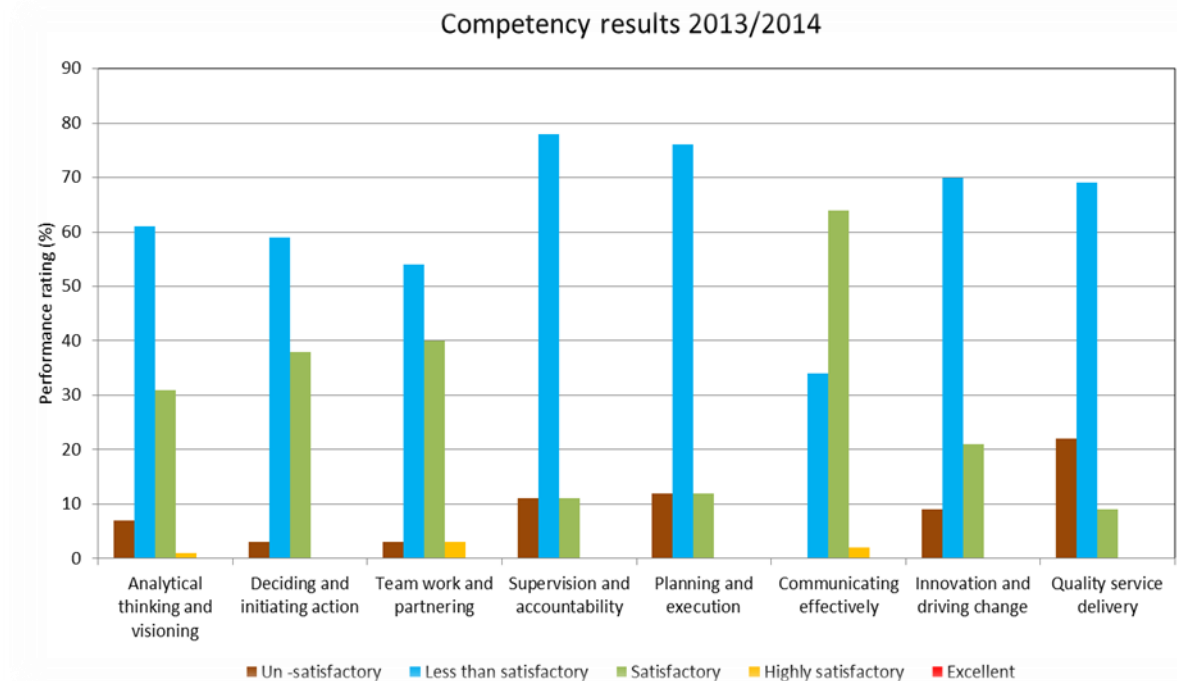
Referring to the preceding tables, Table 5.8 and Graph 5.8 indicate that performance on competencies was low in all competencies except on only one, namely communicating effectively. The lowest performance was on the following competencies:

- Quality service delivery (91% obtained unsatisfactory or less than satisfactory)

- Planning and execution (88% obtained unsatisfactory or less than satisfactory)

- Supervision and accountability (89% obtained unsatisfactory or less than satisfactory)

It can be noted from Table 5.8 and Chart 5.8 that the competency building and managing relations (BMR) presented in the preceding tables has been replaced with team work and partnering. The average percentage for BMR was 59 per cent in the previous years, suggesting a marginal satisfactory result. This result might have influenced the substitution. However, the above results indicate that performance on

the introduced competency teamwork and partnering was low and 57 per cent of the participants obtained the " unsatisfactory or less than satisfactory" rating.

Table 5.9 below shows a comparison of performance results for the three financial years.

Table 5.9

Comparison of performance results

Financial year	Competency with lowest performance	% satisfactory performance
2009/2010	Creativity and innovation	16
2011/2012	Planning and execution	11
2013/2014	Quality service delivery	9

It is evident from Table 5.9 that performance on these three competencies was very low and the satisfactory result ranged between nine per cent and 16 per cent. These three competencies were consistently among the lowest in all three financial years.

The above findings on competency performance confirm the Global Competitiveness Reports' (2009/10, p. 39), (2011/12, p. 124) conclusion that Botswana's primary weaknesses are related to the country's human resource base. In addition, the Global Competitiveness Report (2013/14, p. 114) rated Botswana low in work ethics. As earlier mentioned the competency "quality service delivery" is always among the lowest performance ratings. The customer satisfaction survey of 2013 conducted by DCDM Consultancy revealed the following concerns raised by the public regarding the public service:

- No sense of urgency among public officers when assisting customers
- Unsatisfactory service delivery in government departments

It can therefore be concluded that the findings regarding performance on competencies is a reflection of the previous results from the global competitiveness reports and customer satisfaction surveys.

5.3 INFERENTIAL STATISTICS

The inferential statistics were used to resolve the conceptual model of the study illustrated in Chapter One. This model suggested that the independent variables, namely purpose and administration of the AC and its results and feedback had an influence on the perceptions of senior management employees (dependent variable) regarding the use of the AC.

Gravetter and Wallnau (2005, p. 6) explain that inferential statistics "consist of techniques that allow us to study samples and then make generalizations about the populations from which they were selected". Coleman et al. (2012, p. 2) agree and clarify that the goal of most research in the social and behavioural sciences is to use the information in a sample of data to form a conclusion, that is make an inference about an entire population. However, Gravetter and Wallnau (2005, p. 6) acknowledge that a sample provides only limited information about the population and does not provide a perfectly accurate picture of the whole population.

The inferential statistics reported on and analysed in this section include the correlation coefficients, also known as the Pearson's correlation, to determine whether there was a statistically significant relationship between variables. The T-test determined whether there was a statistically significant difference between the mean scores of the two groups regarding their perceptions about the use of the AC.

5.3.1 The correlation coefficient

The correlation coefficient measures the degree and the direction of the linear relationship between two variables (Gravetter & Wallnau, 2005, p. 415). In the case of this study the correlation coefficient was used to determine whether there is a statistically significant relationship between the three factors (purpose, administration and results of the AC) and perceptions. The three factors were considered to have a potential impact on senior management perceptions regarding the use of the AC.

The correlation coefficients were interpreted using the following criteria as produced by the statistician:

- < 0.30 : Weak
- 0.30 – 0.49 : Moderate
- 0.50+ : strong

The correlation coefficients among the variables are illustrated in Table 5.10 below.

Table 5.10 Correlation coefficients

	Purpose	Administration	Results	Perceptions
Purpose	1.000			
Administration	0.457	1.000		
Results	0.477	0.297	1.000	
Perceptions	0.515	0.431	0.354	1.000

It can be noted from Table 5.10 that the correlation coefficients clearly indicate that there was a positive relationship between the three AC factors. Purpose measured whether the respondents were informed of the reasons for participating in an AC, administration measured whether the respondents were provided with the necessary materials and instructions for the exercises and results measured whether the

respondents were provided with their results and their influence on perceptions. The correlation coefficient 0.515 indicates that there was a strong relationship between purpose and perceptions. This suggests that if the purpose of the AC was clearly stated and understood by respondents it would contribute to positive perceptions. Similarly the correlation coefficients between administration and perceptions (0.431) and results and perception (0.354) indicate a moderate positive relationship between these factors and perceptions. It can therefore be concluded that the three AC factors had an influence on the perceptions of the respondents with regard to the use of the AC.

5.3.2 The results of the T-test aimed at establishing the relationship among variables are presented in Table 5.11

Table 5.11 T-test comparing directors and permanent secretaries' perceptions

	Directors mean	Permanent secretary mean	t-value	Degree of freedom	P-value
Perceptions	3.21	3.64	-1.86	50	0.0688

The p-value indicates whether there is a statistically significant difference between the perceptions of the two respondents (directors and permanent secretaries) in relation to the use of the AC. When the p-value is below 0.05, it implies the existence of a statistically significant difference between two groups of respondents. Results from Table 5.11 indicate a p-value of 0.0688 which is above 0.05. This implies that there is no statistically significant difference between the perceptions of directors and permanent secretaries regarding the use of the AC.

5. 5. CONCLUSION

In this chapter the statistical analysis and interpretation of the results from the empirical study were presented and discussed. The quantitative research findings were summarised and integrated and the interpretation of the data were explained in terms of the research objectives stated in Chapter One.

In Chapter Six the conclusions and recommendations based on the findings of the empirical study will be presented and discussed. The problems and limitations encountered during the research study as well as the opportunities for future research are highlighted.

CHAPTER 6

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

6.1 INTRODUCTION

In Chapter Five the results of the empirical study were analysed and presented. The purpose of this chapter is to present a summary of the research findings with specific reference to the extent to which the main problem and its associated sub-problems had been addressed. The problems experienced during the study are discussed and recommendations for further research are presented.

6.2 SUMMARY OF THE STUDY

To bring all the elements of this study together, the main problem and the sub-problems are restated to present the action that had been taken in respect of each. The key findings associated with each sub-problem are recapped to provide a clear and coherent closing discussion of actions taken to resolve each sub-problem.

The main problem in this study was presented as:

To what extent are assessment centres used effectively for the selection and development of senior management in the Botswana public service?

There were two main procedures that needed to be carried out to address the main and sub-problems of this study. Firstly, a comprehensive literature study had to be conducted with regard to the assessment centres. Secondly, this research project entailed an empirical study to establish the extent to which the AC in the Botswana public service compares with international standards as well as establish the perceptions of senior management employees regarding the use of the AC.

In analysing the main problem, the following sub-problems were identified:

Sub-problem one

What is the purpose and nature of assessment centres?

This sub-problem was addressed in Chapter Two by means of a literature study aimed at defining and establishing the purpose of assessment centres and contrasting them with other types of selection tools to reveal their unique purpose and nature. It was revealed in the literature study that the AC is one of the assessment tools aimed at assessing behaviour in the form of competencies relevant for a given job. Unlike other assessment tools that only use one technique, an AC is a tool of multiples as it uses multiple techniques, assessors and exercises. Furthermore, the theory revealed that an AC can be used for multiple purposes such as selection, development, placement and performance feedback. Though an AC can be used for various purposes many organisations worldwide use it mainly for selection and development. Results from a selection AC can be used for developmental purposes, however, results from a development centre should never be used for selection purposes.

Sub-problem two

Which are the international best practices for the administration and use of the assessment centre as a tool to select and develop leaders?

This sub-problem was addressed by means of a literature study to establish the international standards for administering the assessment centre and the competence of those administering it (assessors). The theory revealed that in the past years ACs were run between one day and five days, however, in recent years ACs last up to a day or two days. The administration of the AC requires those administering it to be engaged in three critical stages, namely:

    i.   Pre-AC stage

This stage requires that before running an AC the objective of the AC should be defined. All preparations and logistical arrangements should be done at this stage. Most importantly this is the stage that requires all assessors taking part in the AC to be trained or re-retrained to be able to observe competency behaviour for that particular AC.

ii. During the AC stage

This stage involves two briefing sessions to be done in the morning of the AC and after the AC. On the day of the AC, participants are briefed on what their day will look like. Clear instructions and materials to be used are provided to participants. The participants participate in various exercises and time allocated to the exercises is strictly adhered to. Competent assessors observe behaviour. At the end there is a debriefing session.

iii. After the AC stage

Assessor integration sessions are held so that all assessors who participated in the AC can bring forth their ratings and evidence to support their ratings. Final consensus scores are reached. Individual performance reports for candidates are produced and submitted to the concerned authorities.

The theory emphasised the competence of assessors and revealed that the competence level of assessors can have either a positive or negative impact on the outcome of an AC. This implies that competent assessors maintain the validity of an AC, while incompetent assessors compromise its validity.

Sub-problem three

Which leadership competencies are measured through assessment centres and how are these competencies assessed?

This sub-problem was addressed by a literature study to identify the leadership competencies and ways in which these competencies are assessed through various techniques of assessment centres. The most commonly assessed leadership competencies include strategic thinking, dealing with abstraction, communication, problem analysis, problem solving, planning and execution. The AC uses various simulations or exercises to measure these leadership competencies. The main simulations used are in-basket, role play, presentation and group discussions. The competencies are measured across the simulation exercises.

Psychometric tests are also used to assess attributes such as personality, reasoning and performance. However, there is much debate surrounding the use of psychometric tests in ACs.

Sub-problem four

To what extent are international best practices applied in the use and administration of assessment centres used to select and develop senior management in the Botswana public service?

This sub-problem was addressed by interviewing consultants responsible for conducting assessment centres for the Botswana public service. The researcher participated in an assessment centre to obtain an observer view of how it is conducted to compare the assessment against best practices for the management of assessment centres, as revealed in sub-problem two. Furthermore, a survey was conducted with a questionnaire as data collection tool among directors and deputy directors. The empirical study revealed that to a greater extent the AC process is administered in line with international standards. The AC is mainly used for selection purposes. Leadership competencies are assessed through commonly used exercises such as in-basket, presentation, role play and group discussion. The predominantly used simulation exercise is role play. In addition to simulation exercises, psychometric tests are used. The results of the AC are used for

selection purposes and there is not much happening regarding development. The majority of respondents indicated that they were never provided with feedback regarding their AC results and developmental needs are not addressed. The empirical study also revealed some inconsistencies and lack of adherence to international standards in issues such as:

- AC policy – the AC is used without having an AC policy in place. This scenario leads to compromise of some AC requirements such as issues of re-assessment and informing participants prior to the centre.

- Feedback is not provided to candidates regarding their AC results, even for those who attended the development centre.

- There were a few instances where respondents indicated that they were assessed by one assessor throughout the AC.

- There were instances where the purpose of the AC was not communicated or was communicated after the AC.

Sub-problem five

What is the performance of officers on competencies measured?

The sub-problem was addressed by data analysis and the AC competency results for three financial years were sampled. Each sample consisted of 100 senior management employees' AC results. The results for each financial year were analysed to evaluate performance on competencies. An analysis of the results showed very low performance in all eight competencies measured, with more than 65 per cent of participants obtaining a "2" in a five-point scale. This suggests the "less than satisfactory" rating. Competencies with the lowest performance in all three financial years were:

- Quality service delivery
- Planning and execution
- Supervision and accountability

Performance results for the three mentioned competencies revealed that more than 80 per cent of the participants obtained a "less than satisfactory" rating.

Sub-problem six

What are the perceptions of permanent secretaries (PS) and deputy permanent secretaries (DPS) on the use of the AC method?

This sub-problem was addressed by conducting a survey with a questionnaire as data collection tool among permanent and deputy permanent secretaries. The survey responses were used to assess perceptions on the use of the assessment centre as well as the manner in which the assessment centres were administered. An analysis of the results showed that PS or DPS held the view that an AC is a good tool for assessing competencies. They also held the view that ACs conducted for the public service are administered professionally. However, the PS or DPS's perceptions were that employees are not comfortable to participate in an AC.

Sub-problem seven

What are the perceptions of directors and deputy directors who attended assessment centres for selection into senior management positions?

This sub-problem was addressed by conducting a survey with a self-administered questionnaire as data collection tool among directors and deputy directors. The survey responses were used to evaluate perceptions on the usefulness of assessment centres and the manner in which the assessment centres were administered. An analysis of results indicated that directors and deputy directors were of the view that the AC is a good tool for assessing competencies. They felt that the AC conducted for the public service is professionally administered. However, they were uncertain whether the assessors are competent

and whether the AC results are optimally used by appointing authorities.

The results also showed that directors and deputy directors held the view that senior officers in the public service do not know the importance of the AC and are not comfortable to participate in an AC.

Sub-problem eight

Which factors contribute towards positive or negative perceptions of the AC among senior management employees in the Botswana public service?

This sub-problem was addressed by conducting a survey with a self-administered questionnaire as data collection tool. The questionnaire measured the relevant factors that have a potential impact on senior management perceptions regarding the use of the AC. The inferential statistics analysed revealed that the AC factors, namely purpose, administration and the results and feedback had an influence on the perceptions of senior management employees regarding the use of the AC. The correlation coefficients ranged between 0.354 and 0.515 which suggests a positive relationship between the variables.

Based on the research findings, recommendations are made and areas for future research highlighted.

6.3. RECOMMENDATIONS

In Chapter One reference was made to research being conducted to learn something and looking for specific things to add to one's store of knowledge (Taflinger, 2011). The objective of this study was to close the knowledge gap by evaluating the AC process used in the Botswana public service as well as the perceptions of senior employees on the use of the AC. Moreover, the study aims to make recommendations to

the management of the Directorate of public service management on running professional ACs and the optimal use of the AC method.

Increased competition for talent and the need to achieve the organisational mandate and identify strategists are some of the reasons why organisations need to use objective assessment tools that can predict future job performance. This does not only promote organisational performance, but it also leads to organisational survival and eventually to sustaining the economy of the country.

The following recommendations emerged from the research conducted:

- The AC should be used as per the international recognised standards to maintain its validity and reliability. To achieve this, organisations need to draw up an AC policy that guides the critical procedures of conducting professional ACs. This suggests that the Botswana public service should as a matter of urgency have an AC policy in place.
- The AC policy should be applied consistently and be understood by employees and especially those at senior management level.
- The empirical study revealed some inconsistencies in the running of the AC. This suggests that there should be close monitoring of AC service providers.
- Performance on competencies measured is very low. However, employees are not aware of their performance and had expressed their displeasure regarding access to their results. This suggests that employees should be provided with feedback by people who have been trained to provide feedback.
- The results of the AC are used for selection purposes. Considering the low performance on competencies, the results should, as a matter of necessity, be used also for developmental purposes.

- The empirical study revealed some variations regarding the administration of the AC by the two consultancies. This necessitates the standardisation of the AC procedures, especially the simulation exercises used, the running of the AC and the competencies measured.

Recommendations for future research pertaining to the topic of assessment centres are listed below:

- Research could be done to determine the impact of the assessment centre in the Botswana public service.
- The validity of assessment centres conducted by consultants in Botswana could be investigated.

6.4 PROBLEMS AND LIMITATIONS

There were problems and limitations encountered during the duration of this study. The two main problems encountered were in relation to the administration of the questionnaire, specifically to obtain an ample number of responses and the pilot study. These two problems encountered are discussed in detail below.

6.4.1 Response rate

The target population for this study was top management employees in the public service who had attended an AC before appointment into their positions. Top management positions in any organisation are few, therefore this creates a limitation in terms of the number of employees considered as the target population. The public service of Botswana is not different with the number of employees in the category of top management limited, especially those who had attended an AC before their appointment. The problem was aggravated by a lack of AC policy in the public service, which led to the exclusion of 15 completed

questionnaires as the respondents' re-assessments were not done in line with the international standards of the AC. Although the questionnaire was administered to a 100 respondent sample group, of the 81 received only 45 were suitable for analysis. However, the sample can be considered as being representative of the target population.

6.4.2 Pilot study

The researcher managed to secure the involvement of senior academic scrutiny of the questionnaire before the pilot study. During the pilot study the questionnaire was administered to some senior management employees who had attended an AC. However, it would have been ideal to also subject the questionnaire to the scrutiny of a statistician prior to embarking on the actual administration of the questionnaire.

6.5 CONCLUSION

Executives of organisations are constantly in search of better ways to identify talent, especially for top management positions. In the public service of Botswana poor service delivery had been attributed to a lack of systematic procedures to identify competent employees at top management positions (Tsa Badiri Consultancy Report, 2001). The findings prompted government to introduce the AC as a tool for assessing leadership competencies and it was operationalised in 2007.

The findings from this study revealed that to a greater extent the AC is run in line with international standards. However, there were some inconsistencies uncovered that need to be rectified. The inconsistencies are mostly caused by non – implementation of the AC policy. The results of the study also revealed a low performance in all the leadership competencies measured. With such results the public service as a matter of necessity has to embark on grooming and developing leaders for the country to sustain its economy.

APPENDIX 1

• PO Box 77000 • Nelson Mandela Metropolitan University
• Port Elizabeth • 6031 • South Africa • www.nmmu.ac.za

Nelson Mandela Metropolitan University

f o r   t o m o r r o w
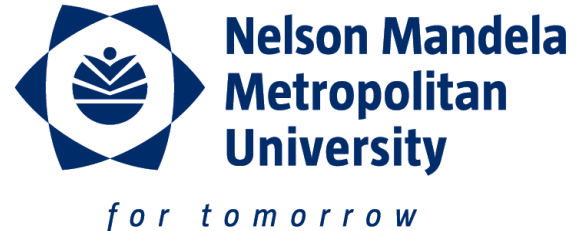
Dear Colleague

PILOT STUDY: QUESTIONNAIRE

I am currently studying towards my Master of Technology (Human Resource Management) at the Nelson Mandela Metropolitan University. It requires conducting research on the use of the assessment centre in the public service. I would appreciate your assistance in completing the attached questionnaire.

Please note that it is important that you complete the entire questionnaire.

You are kindly requested to return the completed questionnaire by 07 July 2014 and include feedback on the following:

- Were the instructions clear?
- Which questions were difficult to understand?
- Was the layout attractive?
- How long did the questionnaire take to complete?
- Is there any other thing that you will like to bring to my attention (please specify)

Your comments will determine whether there is need to refine the questionnaire before administering it to the targeted sample.

Thank you very much for your time and cooperation.

Elizabeth O. Nkala

Researcher

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• Port Elizabeth • 6031 • South Africa • www.nmmu.ac.za

Nelson Mandela Metropolitan University

f o r　t o m o r r o w
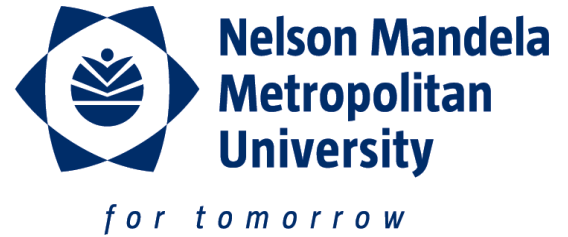
Date 15 July, 2014.

Dear Sir/Madam

SURVEY OF ASSESSMENT CENTRES USED BY THE BOTSWANA

PUBLIC SERVICE

Your assistance in completing and returning the attached questionnaire is greatly appreciated. The questionnaire is an important part of the research I have to conduct to obtain a Master's degree in Human Resources Management.

Section A of the questionnaire contains biographical questions. Section B contains questions relating to the assessment centre and Section C questions relating to the perceptions about the use of assessment centre in the public service.

You are kindly asked to answer all the questions in the attached questionnaire. The survey is completely anonymous and confidential.

Yours sincerely

_____
Elizabeth O. Nkala (Ms).

Telephone
3684296 (office)
Mobile 71426278

Email address: enkala@gov.bw

APPENDIX 3

<mark>SURVEY QUESTIONNAIRE – PS and DPS</mark>

THE USE OF ASSESSMENT CENTRES AS A SELECTION AND DEVELOPMENT TOOL FOR SENIOR MANAGEMENT IN THE BOTSWANA PUBLIC SERVICE

PERMANENT SECRETARIES AND DEPUTY PERMANENT
SECRETARIES QUESTIONNAIRE

SECTION A - BIOGRAPHICAL DATA
Please complete all the questions. Mark your response with an X in the appropriate block

1. Gender

Male	
Female	

2. What is your age

25 – 35 years	
36 -45 years	
46 – 55 years	
Over 55 years	

3. Highest level of education

Junior degree	
Masters degree	
PhD	
Other (specify)	

4. How long have you been employed by government

1 – 9 years	
10 – 15 years	
16 – 20 years	
Over 20 years	

5. Job Title

Permanent secretary	
Deputy permanent secretary	

6. How would you describe your knowledge of the assessment centre (AC) process

Excellent	
Good	
Average	
Poor	

7. Did you undergo an AC before appointment to senior management position

Yes	
No	

8. If you answered "yes" at No.7 which consultancy facilitated the AC

Resource Development Management & Associates (REDMA)	
Human Resource Management Consultancy (HRMC)	
Premiere Consulting	

9. Rationale for using AC

Mark your response with an X in the appropriate block

No.	Rationale for using AC	Yes	No
1.	I am aware of the reasons for using the AC method in the public service		
2.	I understand the AC policy statement for the public service		
3.	I have access to the AC policy		
4.	I am aware of the criteria used to select individuals to undergo the AC		
5.	I am involved in the appointment of directors and other senior officers in my Ministry		
6.	Senior management appointments are based only on the AC results		
7.	When considering appointments AC results are used together with other assessment results		
8.	The AC results provide vital information that inform appointments		
9.	Officers at middle management are sent to AC for development purpose		
10	After the development AC individual development plans are designed		
11	Supervisors are involved in the design of individual development plans		
12	Action is taken to close competency gaps		

SECTION C - PERCEPTIONS ABOUT THE AC

Please indicate with an X the extent to which you agree or disagree
with the following statements regarding the assessment centre method.

No.	In my view ……	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
1.	The AC is conducted professionally					
2.	The assessment rooms are well arranged					
3.	The assessment is well planned for and organised					
4.	The assessors are qualified to do the job					
5.	The AC is a good tool for assessing competencies					
6.	The exercises enabled me to display competencies					
7.	The results of the AC were a true reflection of my competence level					
8.	The AC results are optimally utilised by appointing					

	authorities					
9.	Employees appointed through AC generally perform better than those appointed using other methods					
10.	I liked the use of the psychometric test					
11.	Senior officers in the public service know the importance of using AC					
12.	Employees are comfortable to participate in AC					

Thank you for your participation in the survey.

APPENDIX 4

SURVEY QUESTIONNAIRE

DIRECTORS AND DEPUTY DIRECTORS

THE USE OF ASSESSMENT CENTRES AS A SELECTION AND DEVELOPMENT TOOL FOR SENIOR MANAGEMENT IN THE BOTSWANA PUBLIC SERVICE

SECTION A - BIOGRAPHICAL DATA

Please complete all the questions. Mark your response with an X in the appropriate block

1. Gender

Male	
Female	

2. What is your age

25 – 35 years	
36 -45 years	
46 – 55 years	
Over 55 years	

3. Highest level of education

Junior degree	
Masters degree	
PhD	
Other (specify)	

4. How long have you been employed by government

1 – 9 years	
10 – 15 years	
16 – 20 years	
Over 20 years	

5. Job title

Director	
Deputy director	
Other (please specify)	

6. How would you describe your knowledge of the assessment centre (AC) process

Excellent	
Good	
Average	
Poor	

7. Did you undergo an AC before appointment to senior management position

Yes	
No	

8. If you answered "yes" at No.7 which consultancy facilitated the AC

Resource Development Management & Associates (REDMA)	
Human Resource Management Consultancy (HRMC)	
Premiere Consulting	

9. I am aware of the reasons for using the AC method in the public service

Yes	
No	
uncertain	

SECTION B – INTERNATIONAL STANDARDS OF THE AC

The theoretical study revealed that the AC method is made up of different aspects. For an event to be called the AC it has to meet certain requirements. There are international guidelines and ethical considerations for AC operations in place. The guidelines are reviewed from time to time by a team of experts from different countries. Some countries such as South Africa and Britain have developed their guidelines to contextualise the international guidelines.

B1.1. PURPOSE OF AC

Please mark your response with an X in the appropriate block

No.	Purpose of AC	Strongly disagree	Disagree	Agree	Strongly agree
1.1.1	I was informed about the purpose of the AC I was to undergo before hand				
1.1.2.	I clearly understood the purpose of the AC				
1.1.3.	My AC results were used for the intended purpose				
1.1.4.	I had a choice to agree or disagree to participate in the AC				
1.1.5. Use the space provided below if you want to mention any other thing you experienced regarding assessment centre.					

For the statements below place X in the appropriate block

1.1.6. What was the purpose of the AC you attended?

Selection	
Development	
Other (please specify)	

1.1.7. How long was the AC you underwent?

One day	
Two days	
Three days	
Four days	
Five days	

B1.2. ADMINISTRATION (RUNNING) OF THE AC

Please mark your response with an X in the appropriate block

No.	Administration of AC	Strongly disagree	Disagree	uncertain	Agree	Strongly agree
1.2.1.	I was given some AC materials in advance to prepare					
1.2.2.	At the start of the AC there was a thorough briefing that included introduction of assessor team, structure of the day and general guidelines for the day					
1.2.3.	During the AC detailed instructions were provided in all briefing sheets for the exercises					
1.2.4	I was informed about who will have access to my results					
1.2.5	Time allocated to exercises was strictly adhered to					
1.2.6.Use the space provided below if you want to mention any other thing you observed regarding the administration of assessment centre. ……………………………………………………………………………………… …………………………………………………………………………………….						

B1.3. AC EXERCISES
Please mark with an X those activities you engaged in during the AC

No.	AC exercise or simulation	
1.3.1.	In-basket or In-tray	
1.3.2.	Role play	
1.3.3.	Group discussion	
1.3.4.	Presentation	
1.3.5	Fact finding	
1.3.6	Psychometric	
1.3.7 Other (please specify)		

B1.3.8 Were you aware of the competencies measured?

Yes	
No	

B1.3.9 What competencies would you have wanted to be assessed?

List the competencies in the table below

i.	
ii.	
iii.	
iv.	
v.	

B1.4 RESULTS AND FEEDBACK

Please indicate the extent to which you agree or disagree with the following items by marking X in the appropriate block.

No.	Results and feedback	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
1.4.1	I was given the AC report containing my results					
1.4.2.	The results indicated my strengths					
1.4.3.	The results indicated my areas for development					
1.4.4.	The report was delivered to me by a creditable person					
1.4.5.	I was informed about how long my results will be valid					
1.4.6.	My manager discussed my AC results with me					
1.4.7.	I was given professional feedback regarding my results					
1.4.8.	The feedback was given by someone knowledgeable to					

	give AC feedback					
1.4.9.	The AC provided me with a good idea of my strengths					
1.4.10.	The AC provided me with a good idea of my limitations					
1.4.11.	Development areas were identified based on the results					
1.4.12.	Individual development plan was designed					
1.4.13	The individual development plan was discussed with my supervisor					
1.4.14	The individual development plan was implemented					
1.4.15.	My development needs were addressed					

SECTION C - PERCEPTIONS ABOUT THE AC

Please indicate with an X the extent to which you agree or disagree with the following statements regarding the assessment centre method.

No.	In my view ……	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
C1.1.1	The AC is conducted professionally					
C.1.1.2	The assessment rooms are well arranged					
C.1.1.3	The assessment is well planned for and organised					
C.1.1.4	The assessors are qualified to					

	do the job					
C.1.1.5	The AC is a good tool for assessing competencies					
C.1.1.6	The exercises enabled me to display competencies					
C.1.1.7	The results of the AC were a true reflection of my competence level					
C.1.1.8	The AC results are optimally utilised by appointing authorities					
C.1.1.9	Employees appointed through the AC generally perform better than those appointed using other methods					
C.1.1.10	I liked the use of the psychometric test					
C.1.1.11	Senior officers in the public service know the importance of using the AC					
C.1.1.12	Employees are comfortable to participate in AC					

Thank you for your participation in the survey.

APPENDIX 5

P.O. Box 900 AAD

Poso House

Gaborone

Cell: 71426278

Email: enkala@gov.bw

26 May 2014

The Managing Director

HRMC Talent

Kgale Terrace, unit 5

Gaborone

Dear Sir/Madam

<u>**RE: REQUEST TO CONDUCT AN INTERVIEW**</u>

My name is Elizabeth O. Nkala. I am working for the Ministry of State President in the Directorate of Public Service Management (DPSM). I am currently carrying out a study on the use of assessment centres as a selection and development method for leaders in the Botswana public service, towards attainment of Master's Degree Human Resource Management.

The interview will be about the assessment centres your consultancy conducts for the public service. The purpose is to carry out an empirical study to evaluate the extent to which the AC adhere to international AC standards and to make recommendations to the Directorate of Public Service Management for improving optimal use of the assessment centre method.

I hope to use this information to complete my research and to guide the public service on conducting professional assessment centres, since the government is establishing its own assessment centre.

The interview should take about 30 minutes and it will be highly appreciated if the interview can be conducted by the 15th June 2014.

Find attached the letter from DPSM that authorised this research.

Your cooperation and positive response will be highly appreciated.

Yours sincerely

Elizabeth Nkala
(Researcher)

INTERVIEW SCHEDULE FOR OUTSOURCED CONSULTANCIES

(THE INTERVIEW IS SEMI-STRUCTURED)

A. RESOURCE DEVELOPMENT AND MANAGEMENT ASSOCIATES (REDMA)

B. HRMC TALENT

1. **Opening**

A. (**Establishing Rapport**) My name is Elizabeth Nkala. I am working for Ministry of State President in the Directorate of Public Service Management. I am currently carrying out a study on the use of assessment centres as a selection and development tool for leaders in the Botswana public service towards attainment of Master Degree HRM.

B. (**Purpose**) I would like to ask you some questions about the assessment centres you conduct for the public service. The purpose is to carry out an empirical study to evaluate the extent to which the AC adhere to international AC standards and to make recommendations to the Directorate of Public Service for improving the effectiveness and utilization of the assessment centre method

C. (**Motivation**) I hope to use this information to complete my research and to guide the public service on conducting professional assessment centres, since the government is establishing its own assessment centre

 (**Time Line)** The interview should take about 30 minutes. Are you available to respond to questions at this time?

2. **Body**
 (Topic) Assessment Centre
2.1 Purpose of the AC

    i)   For what purpose does the public service use the AC?

          _____

          _____

    ii) How long is each AC? (please specify for selection and development)

          _____

iii) Do you inform candidates about the purpose of the AC? If not who informs them?

_____

iv) Do you give candidates any materials before the day of the AC, If not when do you give them?

2.2 Features of the AC

i) Can you please outline the features of your AC that qualifies it to be called a professional AC?

_____

_____

2.3. Components of the AC

i) What AC exercises or simulations are used when you conduct the AC for leaders in the public service?

_____

_____

ii) Who designs the exercises you are using?

_____

iii) What critical competencies are measured by each exercise?

_____

_____

iv) Do you include a psychometric test? If yes, which one?

_____

_____

v) Who designs the psychometric test you are using?

_____

2.4. Administration of the AC

i) How many candidates are assessed per AC?

_____

ii) How many assessors are assigned to each candidate?

_____

iii) Are the assessors accredited, if so who accredits them?

_____

iv) How are candidates prepared for the AC?

_____

v) Do you have an AC policy?

_____

vi) Can you please take me through the AC activities you undertake before, during and after the AC

_____

_____

2.5. Results and feedback of the AC

i) How do you reach the final scores of candidates?

_____

_____

ii) Do you prepare an AC report for each candidate?

_____

iii) To whom do you give the AC results?

_____

iv) Do you give candidates feedback? If yes who gives feedback?

_____

Closing

I appreciate the time you took for this interview. Is there anything else you think would be helpful for me to know?

(Action to be taken) I should have all the information I need. Would it be alright to contact you if I need any information or clarity on any issue?

Thank you very much for the interview.

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