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THE PERCEIVED MEANING AND BENEFITS OF PEOPLE ANALYTICS IN SELECTED ORGANISATIONS IN SOUTH AFRICA

BY

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Abstract

Regardless of the widespread application of analytics to a variety of business measurements, it is noteworthy that the use of people analytics is still no place close where it could be. The main aim of this study is to examine the perceived meaning and benefits of people analytics in selected South African organisations. People analytics is a burning-fresh topic in HR field aiming at using data to make organisational decisions and little has been done in this area especially in the South African context.

The study employed qualitative-exploratory design which comprised of 10 senior HR officers from selected organisations in South Africa. From the findings, it shows that the employment of people analytics in South African context is in its early stage and its conception and repercussions are little understood. In addition, there is an accord on its usefulness, however the workforce analytic skills have found to be the major difficulty to foster its successful implementation and adoption by organisations. Because of its qualitative nature, this study had a limitation that it lack representativeness hence the findings cannot be generalised. Research opportunities for future can be quantitative and longitudinal research to objectively ascertain the extent future employability of people analytics.

DECLARATION

I, Joram Marazanye, student number 201105425, declare that this dissertation entitled, **"THE PERCEIVED MEANING AND BENEFITS OF PEOPLE ANALYTICS IN SELECTED ORGANISATIONS IN SOUTH AFRICA** ", is my own work, and that all the sources that I have used or have quoted from have been indicated and acknowledged by means of complete references. The dissertation has not in part or in full, been previously submitted for any other degree or examination at this or any other university.

I further declare that ethical clearance to conduct the research has been obtained from the University Research Ethics Committee (UREC) of the University of Fort Hare.

Joram Marazanye
10 March 2017

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DEDICATION

To my father **Joram G. Marazanye II** *Snr.* and mother **Monica Vimisai Museba-Marazanye**

List of Acronyms

HC BRidge™…………………………………Human Capital BRidge™

HC……………………………………… Human Capital

HR……………………………………… Human Resource

HRM…………………………………………Human Resource Management

HRIS………………………………………...Human Resource Information System

IBM………………………………………..International Business Machines

KPMG……………………………………Klynveld Peat Marwick Goerdeler

ROI……………………………………..…Return on Investment

USA………………………………………United States of America

UK……………………………………………United Kingdom

MNC…………………………………………Multi-national Company

UREC………………………………………..University Research Ethics Committee

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CHAPTER ONE. INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

This research study deliberates on the perceived meaning and benefits of people analytics in selected organisations within a South African context. In this chapter, the underpinnings and motivation for the study are talked about prompting to the formulation of statement of the problem, research questions and research objectives. The significance of field of study will be discussed and lastly, chapter layout is provided.

1.2 Background

In today's business environment, HR is under pressure to understand the workforce in greater depth to recruit, develop and retain talent more and more effectively. At the same time, senior management is increasingly interested in having concise, up-to-date information about employees and related external factors that can be used to make business decisions and mobilise talent as strategies change (Lee, 2011). According to Mondore, Douthitt and Carson (2011), analytics has revolutionised decision making in areas such as marketing and supply chain, and it has the potential to do the same for HR. With today's technologies, HR can now do much more than track basic performance indicators from basic workforce analytics to predictive analytics, modelling and big data. Although analytics is fairly a new concept, it really holds a promise of elevating HR practices (Mondore, Douthitt & Carson, 2011). HR now finds it easy to understand the workforce in greater depth, find out what is

happening and why it is happening and can decide the best way to move forward using people analytics.

Today's analytics targeting HR has been given many names ranging from Talentship (Boudreau & Ramstad, 2003), Talent Analytics (Davenport, Harris & Shapiro, 2010), HR analytics (Mondore, Douthitt & Carson, 2011), Talent Intelligence (Snell, 2011), People Analytics (Fitz-enz, Phillips & Ray, 2012), or Workforce Analytics (Hoffmann, Lesser & Ringo, 2012).

To Harris, Craig and Light (2011), the term people analytics incriminates workforce intelligence by way of developing and changing data derived from different sources into facts and business-intelligence; Gustafsson (2012) and Hoffmann, Lesser and Ringo (2012) see people analytics as a concept used for denoting analytical techniques and activities used in an organisation's workforce. The authors propose that if people analytics tools are applied to a wide range of HR activities, they can provide the insight needed to keep employee learning in line with changing skill requirements. This can help employers to, understand the recruiting channels that produces the best candidates; identify high-potential employees; and support succession planning that extends deep into the organisation among other things (Harris, Craig & Light, 2011; Gustafsson, 2012; Hoffmann, Lesser & Ringo, 2012). Given all the different definitions and interpretations offered above, the goal of people analytics is to provide an organisation with insights for effectively managing employees so that business goals can be reached quickly and efficiently.

Bersin and Associates (2012) argue that people analytics connects people and business-outcomes data to make better people and business decisions. The authors

believe that people analytics is useful as it allows an organisation to combine HR and talent data with business outcomes data, such as financial statements, customer satisfaction and some other relevant measures of productivity. Organisations are now able to use transaction level data, and talent management data, to understand what happened in the past, and then statistically regress it to understand what will happen in the future, based on the current workforce. This implies that people analytics is the combination of retrospective reporting and future forecasting. Chrysler-Fox and Roodt (2014) concur with the above by saying that people analytics can enable an organisation to interpret its HR difficulties into legitimately set targets and metrics that can then be mapped into what the organisation thinks and what it might want to know about its workforce.

To predictive modellers, people analytics involves forecasting, determining consequences of policy changes and looking into "what if" scenarios (Boudreau & Ramstad,2007). Analytics can similarly give HR experts a better understanding of how compelling their activities are and this means that HR experts and data analysts can search for patterns in HR data that can help organisations to retain employees, or pinpoint places where human capital savings can be realised. It is equally important that HR experts should acquaint themselves with insights that help them drive performance and retention so that benefits of saving can be realised since the cost of supplanting a dedicated staff who leaves is costly to the organisation. In brief, people analytics is all about articulating the return on investment of human capital (HCROI), where human capital is a very broad catchall for everything from labour spent, recruitment channel fees, employee referral bonuses, to sales manager training (Fitz-enz & Mattox, 2014).

Leading South African companies use people analytics to support a data-driven decision-making culture. They can compare multiple dimensions of talent data and organisational data to see the impact that changes have on the rest of the company (Chrysler-Fox & Roodt, 2014). BP-South Africa uses people analytics to evaluate its training whereas SAB Miller uses people analytics to drive high quality standards across a variety of programmes worldwide. Google uses analytics to gain insights into the impact of every interview and source of hire. Many companies, including Pfizer, AOL and Facebook now analyse the factors that correlate with high-performer retention (Bassi, 2011).

Despite some high-profile companies using of people analytics, the Deloitte (2015) survey confirms that most South African organisations have been slow to get started since their participants showed little change in their ratings of their analytics capabilities since 2014, and more than half of their participants rated their organisations weak at score-carding. Many studies have investigated the role people analytics plays towards the success of an organisation. For example, Becker and Huselid (1998) found a positive relationship between people analytics and firm performance, as have others. Lawler and Mohrman (2003) have shown how people analytics helps HR on its organisational role of being a strategic partner.

The foregoing expositions reveal that organisations that have the capability to do strategic analysis are the ones that are most likely to be positioned as successful strategic partners. However, Chrysler-Fox (2011) determines that there is a conceptual confusion regarding the term people analytics; its use, benefits, as well as literature are relatively unknown in South African organisations. It appears that

organisations have not yet embraced analytics seriously as noted by (Deloitte,2015) and its understanding as a concept and practice seem to be obscure to most South African organisations (Molefe, 2014). It also appears that academic literature is scant, and the current uses in most South African organisations are not known. It is therefore imperative to explore the percieved meaning and benefits of people analytics in organisations that use it in South Africa and provide insights to curb the problems identified in the following section.

1.3 Problem statement

Despite the contributions made by Fitz-enz (2010) on the application of people analytics as an intervention to decision making, its understanding and application seem to be limited in the South African business world. According to a survey conducted by KPMG with 418 global managers, 85% of the participants confirmed that their HR teams are still struggling to provide insightful and predictive analytics (KPMG, 2013).

Narrowing it down, academic research on the meaning and benefits of people analytics appears to be obscure in the South African setting (Molefe, 2014). The usage levels of people analytics seem to be very low in South Africa (Chrysler-Fox & Roodt, 2014). South African scholars further note that regardless of the rising improvements and research relating to people analytics in western nations, particularly the USA and UK, the concept is still in its infancy in South Africa. There is limited literature that explains the understanding, history and use of people analytics in South Africa. Organisations such as Deloitte South Africa, KPMG, FNB, Genesis Analytics

consultancy and a few others seem to be the prominent users in South Africa (Molefe, 2014).

To understand how people analytics affects the productivity of a company or organisation is very important, however not much research has been done to find out what impact people analytics has on productivity in South African organisations. The extent to which people analytics affects strategic business decisions of South African organisations is also still relatively unknown (Wiblen, Dery & Grant, 2012). Most HR practitioners in South African organisations are skilled at collecting and measuring their human resource data, yet few of them can quantify the results or recognise the components that most influence those results (Institute for Corporate Productivity, 2012).

From the above, it is clear that most organisations neither use people analytics nor understand it (Chrysler-Fox & Roodt, 2014; Deloitte, 2015), since the concept is relatively a new approach. Therefore, the current study seeks to take this work a step forward by investigating the perceived meaning and benefits people analytics in selected organisations in South Africa.

1.4 Research objectives

The overall objective of the study is to investigate meaning and benefits of people analytics in selected organisations in South Africa.

The **specific objectives** of this study are:

- To get an in-depth understanding of the meaning of people analytics as

perceived by selected organisations in South Africa.

- To investigate the use of people analytics in selected organisations in South Africa

- To investigate the benefits of people analytics to selected organisations in South Africa.

1.5 Research Question

The main research question of the study is: *"What is the perceived meaning and benefits of people analytics in selected organisations in South Africa?"*

Questions

- What is the perceived meaning of people analytics in selected organisations in South Africa?

- What are the uses of people analytics in selected organisations in South Africa?

- What are the benefits of people analytics to selected organisations in South Africa?

1.6 Significance of study

The contributions of this study would be of interest to scholars in HRM, personnel psychology and management as well as HR practitioners. It contributes to scholarly literature by considering that people analytics is still a new phenomenon in the South African business world. Moreover, by understanding the meaning and benefits of people analytics, HR managers in organisations can be assured of quality decisions

and competitive advantage (Fitz-enz & Mattox, 2014). This is because people analytics is evidence based methodology for settling on better decisions relating to human capital of business to report the current results and predicting the future (Bassi, 2011). It will help organisations to be proactive rather than being reactive.

From this perspective, assessing the meaning and benefits of people analytics would offer significant advancement of knowledge concerning usage of HR data, metrics, and analytics within South Africa. The findings of the study will provide valuable insights to policy makers, practitioners and organisations on how to integrate analytics well into the HR function. More so the results from this project will allow a reappraisal of the theories of people analytics within the HR stockpile. In taking this approach, this study shifts the focus of our attention from the HR function alone to HR as a strategic business partner. This implies that the results of the assessment can help to articulate how the HR function can employ analytics to achieve the role of strategic partnership (IBM, 2009).

Furthermore, this study has been the recommendation of research in many areas within the HR domain and business science research literature. Therefore, the relevance of this study clings on the fact that the findings would supplement the existing people analytics literature in the South African context.

1.7 Delimitations of the study

The purpose of demarcating a study is to make it more manageable and focused (Baker & Edwards, 2012). The focus of this study is on the perceived meaning, uses and benefits of people analytics in selected organisations in South Africa.

The selected organisations had an estimated employee population 200+. Like any other organisational setting, they have a hierarchical structure composed of composed of different personnel specialising in different areas. As a result, they have a clear structure which allows easy identification of participants for the study.

Geographical demarcation

The study focused only on selected organisations in South Africa.

Units of analysis

The study was limited to HR practitioners in selected organisations in South Africa.

Subject of evaluation

The perceptions of HR practitioners on the meaning, uses and benefits of people analytics to selected organisations in South Africa.

1.8 Dissertation Outline

The study comprised of the following chapters:

Chapter 1: Introduction, problem statement and outline of the study

Chapter 2: Theoretical Framework

Chapter 3: Literature Review

Chapter 4: Research Methodology

Chapter 5: Research Findings and literature control

Chapter 6: Discussion, Conclusions, Recommendations, limitations and future research directions

1.9 Concluding Remarks

The chapter has provided the background of the study and emphasises on the significance people analytics to organisations to improve human capital return on investment (HCROI). The next chapter will provide the theoretical framework of the study.

CHAPTER TWO. THEORETICAL FRAMEWORK

2.1 Introduction

The previous chapter provided background of the study. It highlighted the statement of the problem, objectives and the questions which will help answer the research problem. The present chapter deals with the theoretical base of the research study. The chapter defines terms, theoretical literature and discusses two theories which were deemed important and relevant to the current study which are the HC BRidge and Talent maturity model.

2.2 Theoretical framework

Saunders and Lewis (2012) define a theory as a statement or a set of statements that denotes the relations connecting variables with a vision to explain a certain phenomenon. The theoretical framework is the design that basically supports a research theory to explain research variables. Creswell (2014) describes a theoretical framework as a useful tool or instrument that introduces, describes and guides the theory which shows that the significance of the research problem under study is demonstrable. Due to the growing interest in the field of people analytics many models and methods have found their way into the human capital investment cache (Fitz-enz, Phillips, Ray, 2012). This section will cover two of these models that offer viable options for organisations that aim to use people analytics and big data.

2.2.1 HC BRidge^{TM}

One of the commonly used models to address the challenge of linking HR initiatives to business is the HC BRidge™ framework. Boudreau and Ramstad (2004, 2007)

developed the HC BRidge™ framework, which uses the metaphor of a bridge to describe the links between investments in HR programs and sustainable business success. The model focuses on what the organisation should be doing about human capital and talent rather than on what HR management is doing. The HC BRidge™ framework is useful as a planning tool in that it works from sustainable strategic success at the top, to derive implications for HR practices and investments at the bottom. The HC Bridge framework in figure 1 below is built on the three major anchor points and their associated fundamental questions.

Figure 1: HC BRidge Framework
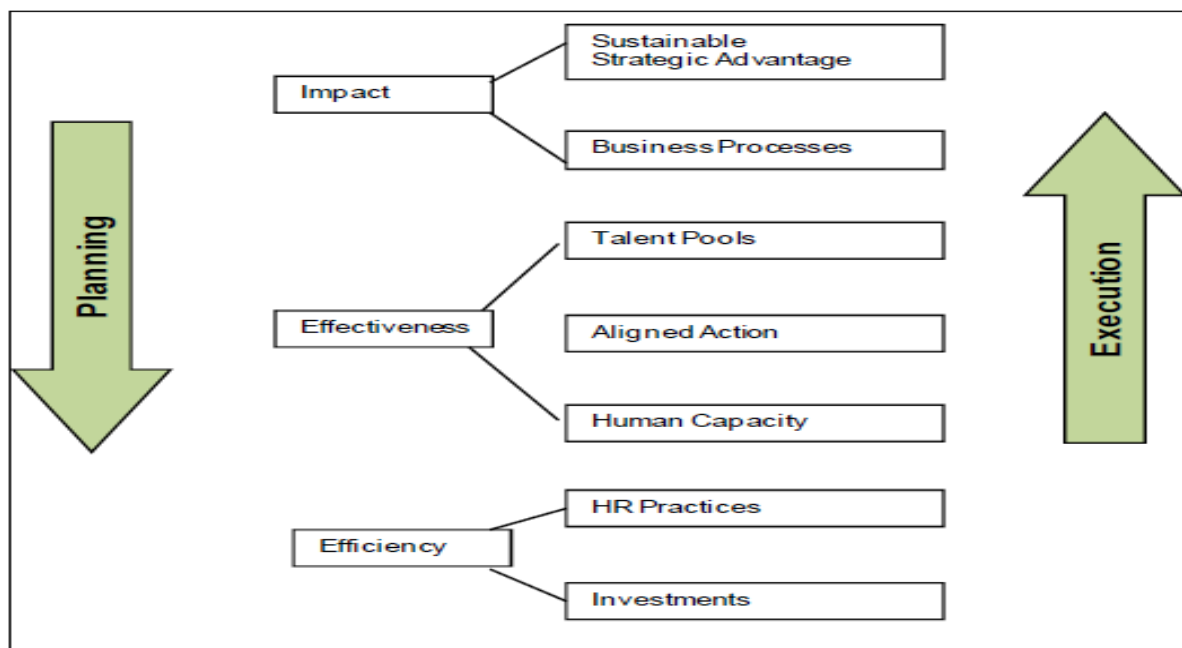
FIGURE 1
HC BRidge ™ Framework

Source: Boudreau and Ramstad (2004, 2007)

According to Magau and Roodt (2010) the major anchor points are **efficiency** which asks questions like- do we deliver HR programs and practices through the prudent use

of resources?; **effectiveness** –what effects does our HR programs and practices have on the people to whom we apply them?; and **impact**- do we apply HR programs and practices to the talent pools where they have the greatest effect on our strategic and organisational effectiveness? All these three anchor points are depicted in figure 1 above.

To augment on the HC Bridge, Magau and Roodt (2010) whose main aim was to determine whether the HC BRidge^{TM} framework can create a useful platform for leveraging human capital solutions and for demonstrating HR value-add, the researchers found that there were statistically significant differences between line management's and HR practitioners' views in respect of HR's strategic business objectives. Their results suggest that HR management was not yet fully aligned to strategic business objectives and to becoming a strategic business partner.

Therefore, it is clear from the author's findings that the HC BRidge^{TM} framework can be used to guide measurement solutions to assist HR to measure the contribution of human capital towards strategic objectives. Boudreau and Ramstad (2007) clinch that the significant implication of the HC BRidge^{TM} framework is that it can be used to guide the creation and use of measures that demonstrate HR management's strategic value-add. The study suggested that organisations should use this model to develop much better metrics and analytics in their attempt to achieve their goal of strategic partnership (Magau & Roodt, 2010).

2.2.2 Talent Analytics Maturity Model

In the present business world, organisations have millions of data elements about people-demographic data, performance data, job history, compensation, mobility, assessment, training, and more. This data can be correlated and matched to many different types of business data to help companies to understand profiles and behaviours which create high performance.

Bersin by Deloitte's maturity models define the stages of evolution an organization goes through to reach analytics maturity in each area. The Talent Analytics Maturity Model is a product of both the quantitative and qualitative analysis conducted as part of an on-going research effort in talent analytics. Bersin and Associates (2012) argue that talent analytics uses measurement and analysis techniques to understand, improve, and optimize the people side of business and it is sometimes referred to as people analytics and big data.

 The Talent Analytics Maturity model shows the four stages that an organisation goes through as it evolves from a tactical, non- strategic function into a fully integrated value-add business process. The model is helpful to HR practitioners and organisations since it provides a way of defining where, in terms of talent analytics maturity, organisations are. It starts with level 1 as the level of reactive, operational reporting of HR data. Levels move up to 2 where organisations start being more proactive and advanced in their reporting and include benchmarks and multi-dimensional dashboards. Level 3 is what Bersin (2012) classifies as 'Strategic Analytics' and this involves more use of statistical analysis, development of models and segmentation. The ultimate level of maturity according to Bersin (2012) is predictive analytics which involves predictive models, scenario planning and integrates with strategic planning.

Figure 2*: Talent analytics maturity model*

Bersin by Deloitte
Talent Analytics Maturity Model®

Level 4: Predictive Analytics — 4%
Development of predictive models, scenario planning
Risk analysis and mitigation, integration with strategic planning

Level 3: Strategic Analytics — 10%
Segmentation, statistical analysis, development of "people models"
Analysis of dimensions to understand cause and delivery of actionable solutions

Level 2: Proactive – Advanced Reporting — 30%
Operational reporting for benchmarking and decision making
Multi-dimensional analysis and dashboards

Level 1: Reactive – Operational Reporting — 56%
Ad-Hoc Operational Reporting
Reactive to business demands, data in isolation and difficult to analyze

Source: *Bersin & Associates, (2012)*

According to Bersin (2012), Level 4 organisations have 38 percent higher retention rates and generate almost three times the revenue per employee of Level 1 HR organisations. At Level 4, which they contend that only fewer than 10 percent of all organisations have achieved, the HR team is not only administering the basic personnel functions, but also staying intimately involved in strategic decisions about where to invest, how to grow the business, and where performance can be improved. So, the mode provides insights of what type of analytics HR practitioners should be using at each level.

2.3 Theory synthesis

Since people analytics has been a priority for most HR professionals because of its anticipated value add to the organisations, its development has been moving forward lately as a new set of critical skills for HR, organisations and leadership. This means that organisations are now devoting their time and resources in building workforce analytics competencies that will help them with competitive advantage and outperform competitors. Though companies are acknowledging the importance of people analytics, they have been slow in adopting it in practice.

Research exhibits that the evolutionary journey of mature analytics can be measured using the Talent Maturity Model. This model provides with full analytical maturity levels ranging from the lower level of Operational Reporting, Advanced Reporting, and Advanced Analytics to the apex level of Predictive Analytics. Each stage from operational reporting stage upwards resembles advancement in the application of analytics and metrics applied. The Talent maturity framework has provided stepping stones to reach higher levels of excellence in building blocks of people analytics. The Talent Maturity model provides a valuable contribution to the present study by offering a practical methodology for anyone looking to make tangible improvements in human capital.

On the other hand, the HC Bridge^{TM} framework offers a blueprint that helps HR organisations in dealing with talent management function in pivoting and directing the Human capital needs for driving business impact. The HC Bridge^{TM} framework puts a spotlight on the key elements that must be optimized to drive results. Driving impact requires observant orchestration among efficiency, effectiveness and organisational resources, in a way that delivers esteemed results. The model elaborates on the three

elements that are the strategic anchors which make HR function well. In short, to provide a framework for the discussion of successful implementation of strategic people analytics, the study has utilised two models: the maturity model, which is based on four distinct but interrelated quadrants; and the HC BRidge^{TM} model, which incorporates the three measures of business success namely efficiency, effectiveness and impact.

2.4 Concluding remarks

The present chapter dealt with the theoretical base of the research study. The chapter defined terms, theoretical literature and discussed two theories which were deemed important and relevant to the current study which are the HC Bridge^{TM} and Talent maturity model. The next chapter will consider the empirical literature of people analytics.

CHAPTER THREE. EMPIRICAL LITERATURE REVIEW

3.1 Introduction

The current chapter explored the extant literature on people analytics, the relations between people analytics with the strategic business decisions, the sources of successful analytics in an organisation. The various names given to people analytics and general understanding of the concept will be explored in this chapter. To guarantee this familiarity an evaluation of the research literature is done. This evaluation helps and allows the researcher to recognise the amount of work done in area of concern (Creswell, 2014). The current chapter will also consider the current uses of people analytics; the state of position as well as the benefits that are likely to be derived from employing people analytics. Lastly, a precision of the research problem is probable with the extensive understanding of the information generation in the research area.

3.2 Definition people analytics

According to Gustafsson (2012), analytics targeting human resources has been given many names in the past - from Talent Intelligence (Snell, 2011), Talent Analytics (Davenport, Harris & Shapiro, 2010), people analytics (Mondore, Douthitt & Carson, 2011) or Workforce Analytics (Hoffmann, Lesser & Ringo, 2012). Bassi (2011) suggest that people analytics ranges from basic reporting of HR management information or metrics, to the end of the spectrum being that of predictive HR. To the predictive modelers, people analytics involves forecasting, determining consequences of policy changes and looking into "what if" scenarios. People analytics is sometimes referred to as workforce analytics and involves using statistical models that integrate HR data

to predict future employee-related behaviour and events (Deloitte, 2011). Hoffman et al. (2012), further contend that the answer is probably both – that people analytics is basic reporting as well as predictive modeling, not either. Bassi (2011) assert that people analytics is that it is the application of methodology for improving the quality of people–related decisions, using HR metrics all the way to predictive modeling, for organisational performance improvement. Given all the various definitions and descriptions offered, it is perhaps Levenson, Boudreau and Lawler (2005) who offer the most comprehensive definition of people analytics:

"People analytics transforms HR data and measures into rigorous and relevant insights. It includes statistics and research design, but it goes beyond them to include identifying and articulating meaningful questions, gathering and using appropriate data from within and outside the HR function, setting the appropriate standards for rigour and relevance, and enhancing the analytical competencies of HR throughout the organisation" (p. 2)

However, Chrysler-Fox (2011) determines that it is clear from his study that there is a conceptual confusion regarding the meaning and understanding of people analytics as presented in literature and applied in practice.

3.3 Understanding the evolution of people analytics

The application of analytics to human resources is not new. For decades, Gibbons and Woock (2007) state that statistics have been used to track such things as the costs of labour and employee benefits, manufacturing downtime, and worker productivity. However, the use of measurement in human resources was revolutionised in 1984 when pioneer Jac Fitz-enz and his firm, The Saratoga Institute,

produced the first national study on HR metrics. Bassi (2011) mentions Fitz-enz as advocating that HR activities and their impact on business activities can and should be measured.

Fitz-enz had legendarily lamented that the times of subjective analytic reporting are over, and that evidence based reporting is the new dialect. This was the start of what is presently usually alluded to as people analytics. The response to Fitz-enz's proposition was then met with "apathy, disagreement and disbelief" (Bassi, 2011 p. 50). Boudreau makes the stride ahead in his book 'Retooling HR', by making an interpretation of HR discourses into the dialect that business experts now speak (Boudreau, 2011). Visier Inc. (2012), additionally prescribe that when putting forth the justification to senior leadership for a major investment in HR solutions, credibility is important and HR needs to speak the language of the executive audience.

The late 1980's and 1990's brought many studies that attempted to link HR practices to organisational performance. However, many of these studies lacked the empirical vigour required as they were limited to finding correlations between two variables, and still left the question of correlation not equating causality open (Bassi, 2011). Many articles have been written about HR's role and in the last decade its aspiration to be a strategic partner and the often quoted 'HR's rightful place at the boardroom table'. Boudreau and Ramstad (2003) frames the distinction in terms of a three-stage evolution of the HR function. In this framework, there was a personnel stage that was focused on control and compliance, the current human resources stage that focuses on delivering HR services and an emerging 'talentship' stage that will focus on making good decisions around human capital.

Boudreau and Ramstad (2003) concede that the HR profession has grown in elegance and sophistication over the years, the trend does not seem to be yielding desired results. Business leaders are measured on success based on qualities such as turnover, employee attitudes, and bench strength, and not on creating organisational change. The authors argue that many organisations seem to be doing the 'right' things, but there seems to be an increasing gap between what clients expect in terms of measurement systems and their true effects on organisational performance. Lawler III, Levenson and Boudreau (2004) contend that at least one possibility for this lack of progress could be that HR lacks the type of analytic and data-based decision-making capability needed to influence strategy, thus the HR fraternity has not caught up with using the right metrics and analytic models found in other business functions. Lawler et al. (2004) further notes that having analytics data about strategy is a sure way to gain a seat at the table, while only having data about HR function's efficiency is not.

The current status quo points to the fact that many organisations have good efficiency data; however, this kind of data does not associate with HR being a strategic partner. This made Bassi and McMurrer (2007) to propose that HR professionals need to be working in new, more proactive roles as these roles are necessary to bridge the theoretical knowledge gap so that formal training is more consistent with the expectations placed upon them by organisations. Organisations seem to be 'hitting a wall' and on the brink of a paradigm shift and recent research suggests that not much progress has been made in this regard according to Gardner, McGranahan and Wolf (2011).

Mondore et al. (2011) echo the widely held view that the HR profession can evolve into a true decision science of talent and seek to the level of disciplines such as finance and marketing. The authors believe that the banking industry already uses predictive models for assessing consumer credit risk, market researchers utilise customer demographics and psychographics to predict buying patterns. The use of people analytics to understand impact of HR practices and policies on organisational performance is a powerful way for HR to prove its worth in organisations. Statistical tools and techniques can be used to establish causal relationships as well as predict behaviour (Lawler et al., 2004).

The predictability of HR has been a subject of discussion for many years, La Grange and Roodt (2001) studied predictability in the HR field by conducting a study to determine whether a measure of cognitive ability would significantly predict job performance among insurance sales people. The study used the statistical method of regression analysis and found that certain dimensions did predict job performance or success in a role, but that 'verbal reasoning ability' did not have a significant impact. On the other hand, Bakker, Demerouti and Verbeke (2004) made use of job demands-resources model being to predict the relationship between job demands and job resources.

However, Ingham (2011) is convinced that predictive analytics is not all about running statistical models. The author cites Fitz-enz's conversation with Creelman (2010) when he said:

"…. when we talk about predictive analytics everyone thinks you need to be doing statistics, but that is not necessarily the case. There are two steps, which are a need

for a logical framework or mental model, to think through what your problem is and identify the key variables. Then you may need statistics or metrics to help determine the best decision; but people forget the first part and fixate on the metrics" (p. 3).

According to Fitz-enz et al. (2012) predictive analytics moves the human capital practice further by answering questions such as "what could happen" and 'when could it happen". It is not only critical for HR departments to embrace analytics, but to move analytics from beyond analysing what happened or what is happening to predicting and prescribing solutions that align with enterprise-wide goals.

In its recent report, the Institute for Corporate Productivity (2012) argues that predictive analytics are underused for human capital measures - even by high performing organisations. The report noted, however, that while there is a strong interest in predictive analytics, the practice in still in its infancy. The Institute for Corporate Productivity (2012) believes that the list of HR predictive possibilities is endless as HR organisations can use predictive modeling to better identify candidates for succession planning and career development programs. The Institute believes that with predictive people analytics, organisations will be able to answer questions such as:

- Where can we find new hires that are more likely to be superior performers?
- Who is most likely to select any new benefit offerings?
- Which employees are at the highest risk of voluntarily leaving the organisation?
- Which reasons have the statistical significance to why employees leave?
- What is the profile of employees most likely to leave?

Fitz-Enz et al. (2012) describe the three levels of analytics as descriptive, predictive and prescriptive. Descriptive analytics answers questions such as "what happened" and "what is happening now". It is the realm of common people analytics for many companies which report on people and events in the past or, as they exist today. The second level of analytics is predictive. Alluding to Bassi and McMurrer (2007), Chrysler-Fox (2011) defines prediction as the production of statistics linked to the organisation's desired business results. This helps an organisation predict where it is headed, and is an important attribute of an HR measurement system that will maximise decision support for executives. The ultimate, most rigorous level of people analytics according to Fitz-enz et al. (2012) is prescriptive analytics. In this case, the data answers the question - what is the best course of action? This level of analytics combines predictions and decision making while considering the impact of those decisions.

The difference with predictive analytics is that predictive describes what is possible given factors, while prescriptive suggests which course of action would be optimal given all the potential combinations of options and outcomes. According to Deloitte (2016) people analytics is on the agenda of almost every HR team that was surveyed, with three in four participants rating it as "important" or "very important." Therefore, the understanding of people analytics is a high priority and a tremendous opportunity, but progress is slow in organisations particularly in South Africa(Chrysler-Fox,2011). This therefore clinches on the notion of its importance in improving organisational success.

3.4 Common uses of people analytics

Lawler et al. (2004) state that HR functions often collect data to measure their own

efficiency, but do not measure the business impact of their practices. They argue that three different kinds of metrics are needed by organisations to better understand and evaluate the impact of HR activities on business performance and organisational strategy. Boudreau and Ramstad (2005) define the three anchor points within the HC Bridge^{TM} being efficiency, effectiveness and impact as points that connect decisions about resources such as money and people to organisational effectiveness.

Efficiency – described as productivity metrics such as time to fill position, headcount ratios, and cost metrics such as administrative cost per employee– the measures that Lawler et al. (2004) say reveal little about the value added by HR practices.

Effectiveness – measures whether programs and practices have the intended effect on the people to which they are directed, for example - not measuring training participation, but the impact of that intervention on organisational success.

Impact – demonstrates a link between what HR does and effects on the organisation's ability to gain competitive advantage, for example - are HR programs and practices applied to the talent pools where they have the greatest effect on our strategic and organisational effectiveness.

According to Boudreau and Ramstad (2003) the Impact measures go beyond simply showing that HR has reduced its administration costs and improved the quality of the service by measuring the ability of the HR function to show an impact of their activities on the bottom-line. Lawler et al. (2004) concurred by putting forward that this set of impact metrics assist in developing the strategic role for the HR function. The

authors maintain that most organisations currently focus on efficiency measures, even though there is some attention to effectiveness as well, by focusing on turnover, attitudes, and bench strength (Lawler et al., 2004). However, organisations often do not usually consider the impact, defined by Boudreau and Ramstad (2003) as the relative effect of different talent pools on organisational effectiveness. Put differently, too often organisations focus on inputs such as hours of training completed rather than outputs and results such as improvements in workforce performance because of training (Harris et al., 2010).

Mondore et al. (2011) believe the two ways that organisations can use to execute on people analytics namely cause-effect analysis and regression analysis. Cause-effect analysis is an approach that allows organisations to consider multi-independent and dependent variables that lead to organisational effectiveness, imply cause-and-effect relationships and calculate a more robust return on investment. On the other hand, regression analysis is used to show for example, correlations between survey variables to turnover intentions or with productivity.

3.5 Common HR measures in use

Gustafsson (2012) contend that over the past three decades, scholars and practitioners have given attention to the need for HR metrics. Metrics are used by all core business functions and since HR represents a core function, a need exists for metrics. They define a metric as an accountability tool that enables the assessment of a function's results. With respect to HR, a primary idea has been that through metrics, HR units could build a business case for their work and this could contribute to an increased partnership between HR and the broader business functions.

Fitz-enz (2010) outlines three levels of measurement that need to be integrated when using metrics to predict future outcomes: Strategic, HR Operations, and Leading Indicators; each level includes a variety of metrics that are all interrelated with each other. Fink (2010) goes further and found that participants reported a variety of areas where research and analytics were influential in their organisations. Common focus areas for analytics were employee surveys, linkages, manager and leadership assessment, recruitment quality, selection and staffing, retention and turnover, performance management, on-boarding/lifecycle management as well as culture and employee value proposition matters. This means that with people analytics, HR organisations will be able to better understand the connections between these variables and track workforce data in a variety of areas including engagement, absenteeism/turnover, revenue per FTE (full time employee), and other productivity statistics that can be effectively tied back to strategic planning initiatives (Lee, 2011).

Nonetheless, Chrysler-Fox (2011) warns that there are no best measurements or metrics. He found that the importance of measurement and metrics is mediated by an exploratory approach to human capital potential and the unique organisational context and strategic validity. Visier Inc. and Fisher Vista (2013) took the idea further by recommending that before moving onto more advanced workforce metrics, companies should focus on the three fundamental HR areas - Turnover, Recruiting and Employee Performance. They warn that the reality is that the most commonly measured workforce metrics do very little to help HR professionals and business leaders achieve real insight into maximising their human capital investment.

3.6 The state of people analytics: Stuck in Neutral?

Harris et al., (2010) postulate that people analytics involves both the quantitative and qualitative analysis conducted as part of an on-going research effort in talent management. It uses measurement and analysis techniques to understand, improve, and optimize the people side of business(Fitz-enz,2010). Even though people analytics is not new in other continents, it is still evolving in Africa particularly in South Africa. It has the potential to change the way HR will work; however, HR organisations appear to be slow in developing the capabilities to take advantage of analytics' potential (Deloitte, 2015). For decades, Gibbons and Woock (2007) state that statistics have been used to track such things as the costs of labour and employee benefits, manufacturing downtime, and worker productivity. This implies that HR ought to now make genuine interests to utilise data to settle on people decisions. Harris et al. (2010), notes that HR departments are now beginning to look beyond historical data that is a by-product of transaction and compliance reporting systems.

They are asking important questions about what really matters and these are questions such as:

- do our recruiting processes create an adequate leadership pipeline?
- do we currently have the right skills mix to achieve our goals?
- what skills will we need in five years?; and
- which people and what positions create the most value for our organisation?

It follows then the ability to effectively manage the organization's investment in human capital can spell the difference between success and failure. Deloitte (2016) notes a quantum move where people analytics revolution is gaining speed. The author writes

that HR organisations are now talking about building analytics teams, and this evidences a major leap forward in capabilities. Bersin and Associates (2016) corresponds by saying organisation are now realising that data is needed for them to figure out what motivates people to join, perform well in, and stay with an organisation; who will likely be successful; who will make the best leaders; and what is required to deliver the highest-quality customer service and innovation. The authors propose that all these competencies are directly informed by people analytics and therefore organisations are employing people analytics staff, cleaning up their data, and developing models that help transform their businesses.

3.7 Benefits of people analytics

When an organisation's HR department uses analytics properly, aggregated in clean, unified formats; the data becomes information that can provide valuable insights to the organisation (Boudreau & Ramstad,2003). In addition, people analytics, is known to help HR department with provision of job grades; trends in job titles; identifying Human Capital ROI; revenue by employee; training and development expenses; employee performance ratings; benchmarking key indicators and best practices against those competitors with similar size, revenue, growth and or location (Mondore et al., 2011; Chaundary, Subramanian, & Battacharya, 2012). All this information is important to management since this enable HR department to clearly demonstrate its contribution to achieving corporate goals and quantifying bottom-line impact on HR processes.

People analytics is in this manner imperative since HR executives can't have a proportionate level of impact in corporate choices and strategies until they offer

convincing and clear information that backings reality based basic leadership. Analytics in HR subsequently makes it simple and no compelling reason to look at various systems and databases as data is put together into meaningful information and measures. It helps HR managers in adjusting individuals, procedures and innovation around shared objectives in this manner helping clients comprehend progress on key performance indicators. The errand is as of now finish, sparing time, assets and cash (Deloitte, 2015). Outfitted with this data, personnel managers can now think deliberately (proactively), instead of responsively (reactively).

Harris, Craig and Light (2010) pointed out that executive management in functions of HR, marketing, information technology and finance are becoming aware that big-data can be used to enhance impressive business decisions. This is very important for HR because they are regarded as the leader for acquiring, developing and helping to deploy talent (Boudreau & Ramstad, 2004). To support the view, Davenport et al. (2010), exhibit that in USA and UK successful companies like Procter and Gamble, Google, Intel, Royal Bank of Scotland and Tesco use people analytics to gather 'big data' (large data sets containing a variety of data types such as hidden patterns, unknown correlations, workforce market trends, employee preferences and other useful business information) to make strategic decisions. However, personnel departments in South Africa are still lagged in such a way that they collect information such as employee turnover yet finding it difficult to connect it with healthier expert performance. More than 80 percent of HR professionals score themselves low in their ability to analyze a troubling fact in an increasingly data-driven field (Deloitte, 2015). According to Deloitte (2016) survey, many organisations are still new to this discipline,

and many suffer from poor data quality, lack of skills, and a weak business case for change.

 While people analytics programs can deliver a high ROI, HR leaders have difficulty building an integrated plan. People analytics teams struggle to build this capability, vendors are starting to fill the gap. Today, nearly every HR software vendor is eager to sell packaged predictive analytics tools, often built right into their talent and HR management software. Nevertheless, buying more data-driven HR and talent management software is just the first step it will take several years for businesses to fully absorb this technology. Companies with leading capabilities in HR and people analytics have been building these capabilities for three years. Some possible areas of analytics include:

- ***Understanding and predicting retention:*** With retention and engagement now becoming a CEO-level issue, understanding why people leave a company has become a top priority. One vendor we know of has become so sophisticated at this analysis that it can predict retention within weeks, simply based on data available from an individual's behavior on social media. This type of data-driven insight has become a hot commodity in Silicon Valley's new race to attract and retain top software engineers.

- ***Boosting employee engagement:*** While changing behavior among managers often proves harder than simply uncovering facts, many companies are using analytics to identify ways to increase engagement and/or boost retention. One company, for instance, found that its compensation was too evenly distributed, pleasing mid-level performers but leading high achievers to depart for greener pastures.

- *Expanding the sources of talent and improving the quality of hires:* After years of forcing job candidates to endure endless rounds of interviews and tests, Google used data to discover that, after the fourth interview, every following interview is largely a waste of time. Not only did this discovery streamline recruiting, it also helped the company understand what management factors led to the best job performance. Based on insights from its "people science" work, Google wrote its manifesto on leadership.

- *Profiling high performers in sales and customer service:* Companies such as Oracle and ADP analyze sales performance based on talent characteristics. They can now better decide who to hire, how to set quotas, and who should become a sales leader.

Beyond those more common applications, people analytics is beginning to be used in more advanced ways. Many financial services firms, for instance, have turned to analytics to understand and predict ethics and compliance problems. As new government regulations place greater burdens on financial institutions to prevent misconduct, a tool that accurately forecasts which employees are most at risk of committing ethical transgressions offers a critical insight. Analytics reaches into other exciting areas as well, such as how people learn and progress in their career. Learning management systems vendors now offer new tools that use data to "recommend learning" in the same way as Amazon and Netflix recommend books and movies.

3.8 Discussion

A standardised financial approach to people analytics that can remove HR professional's most prevalent barrier to making effective contributions in the workplace is a lack of business intelligence and data. By demonstrating a clearer relationship between people analytics and overall firm performance, HR practitioners will be able to demonstrate the significant value people and their support programs add to any business enterprise. Even better, financially credible metrics will make it possible to consistently track performance of the human capital investment over time, identify specific opportunities to increase productivity, ROI and shareholder value, and project the economic result of changes in human capital strategy. These exciting new people analytics capabilities can close the empirical gap between firm performance and HR, allowing them to speak the same language and collaborate as true strategic partners in the C-suite (DiBernardino, 2011).

New analytical capabilities will help HR professionals discern what's working, what's not, how and why. That knowledge provides a competitive edge. As observed in a recent review of current trends in human capital research and people analytics, the challenge and opportunity faced is to move beyond the data to deliver compelling insight and influence. Organisations that can make this transition will gain significant advantages in their markets (Deloitte, 2016).

However, there seems to be a lot of confusion regarding what people analytics is, is not, should be or could be. Many writers and academics agree on its importance – but there are marked differences in the nuances of the 'what it is' and 'why do it', and thus the purpose for the research. In summary, it is evident from the literature

review that the impact of people analytics on business activities and investment decisions where people analytics data enables organisations to assess the current workforce and performance and make future projections of what they have at their disposal. The question that remains is to gather the perceived meaning, uses and benefits of people analytics in South Africa, which will be probed in the study.

3.9 Concluding remarks

The foregoing chapter described and discussed the people analytics literature. The chapter explored the extant literature on people analytics, the relations between people analytics with the strategic business decisions, the benefits of analytics in an organisation. The relationship between people analytics and the success of an organisation was highlighted. Chapter 4 will focus on the research design and methodological procedures used in the research study.

CHAPTER FOUR. RESEARCH METHODOLOGY

4.1 Introduction

Chapter Four describes the research paradigm, approach, design and methodology choices that were used to answer the research questions for the study. This Chapter outlines the research plan in terms of its approach, rationale and sampling. The details of the research instrument, data analysis methods employed, data coding and strategies to ensure data quality are also discussed.

4.2 Objectives

This part will discuss the synopsis of the study objectives as stated in section 1.4 of Chapter one. The objectives are meant to answer the research question. The main objective of this study was to gain an understanding of the perceived meaning and benefits of people analytics in selected organisations in South Africa. This implies that the research was gathering information from practical perspective of people analytics.

4.3 Research paradigm

Within the realm of research exists two broad paradigms namely positivism and interpretivism and these will be discussed about below.

4.3.1 Positivism

The positivist paradigm of exploring social reality is based on the philosophical ideas of the French philosopher August Comte, who emphasized observation and reason as means of understanding human behaviour. According to August Comte, true knowledge is based on experience of senses and can be obtained by observation and

experiment. Positivism is in accordance with the empiricist view that knowledge stems from human experience. "It has an atomistic, ontological view of the world as comprising discrete, observable elements and events that interact in an observable, determined and regular manner" (Easterby-Smith, Thorpe, & Jackson, 2008). Positivistic thinkers adopt scientific method as a means of knowledge generation. Hence, it has to be understood within the framework of the principles and assumptions of science. These assumptions, as Cohen, Lawrence and Morrison, (2000) noted, are determinism, empiricism, parsimony, and generality. Creswell (2009) defined it as philosophy guided by cause and effect situations. Positivists view the world as factual and rely only on one correct answer (Thanh & Thanh, 2015). Since positivism emphasises on objectivist approach to studying social phenomena, it gives importance to research methods focusing on quantitative analysis, surveys, experiments and the like. Therefore, it does not support the current study since this study was seeking new insights into the subject of people analytics by academics and practitioners which is subjective rather than objective information (Saunders and Lewis, 2012).

4.3.2 Interpretivism

For the purposes of this research, the researcher made use of the interpretive paradigm. The justification behind the decision of choosing the interpretive research paradigm is because the researcher seeks to understand the way the surrounding society defines and interprets information and solutions (Bell, 1993; Thanh & Thanh, 2015). In the case of this study, the researcher sought to interpret the information that has been collected through interviews with 10 senior HR practitioners who hold managerial roles in their organisation. Rowlands (2005, p. 81) suggests that "the

foundation assumption for interpretive research is that knowledge is gained, or at least filtered, through social constructions such as language, consciousness, and shared meanings". This implies that interpretive research does not rely on the testing of hypotheses but rather on creating an understanding of a social context phenomenon (Walsham, 1995).

Yanow and Schwartz-Shea (2011) suggests that unlike the positivist paradigm, the interpretive paradigm allows the researcher to discover different realities from the participants' views and contribution, whereas a positivist paradigm only accepts only one correct answer. For this reason, the researcher chose the interpretivism paradigm because the study relies on the different opinions of the participants. Willis (2007) argues that although interpretivist research makes an accommodation for the different views from the participants, it does however promote subjectivity and biasness. The researcher dealt with biasness and subjectivity by considering every participant's contributions and exhausted every piece of information into themes.

4.4 Research design

Based on the theories, concepts and frameworks discussed in the literature review, it was decided to use an exploratory, qualitative method as the primary means of data collection for the study.

The reason for the exploratory approach is that the research was seeking new insights into the subject of people analytics, asked new questions and assessed the topic in a new light (Saunders and Lewis, 2012). Myers (2009) supports this view and says qualitative research is best used if one wants to study a particular subject in-depth, for

example in one of a few organisations.

This research method is best used when the topic is new or there is not much previously published material on that topic–as was the case for this topic. Myers (2009) contends that qualitative researchers believe that it is virtually impossible to understand why someone did something or why something happened in an organisation without people talking about it. The author says many crimes would not be solved if police relied on quantitative data, thus the need to talk to suspects or witnesses. The same can be said for the legal professions who must cross-examine witnesses in court. Myers (2009) further cites Kaplan and Maxwell (1994) who stated that understanding a phenomenon from the point of view of participants and their context is mainly lost when textual data is quantified. Thus, the primary motivation for conducting this research in a qualitative way rests in what Myers (2009) believes is the one thing that distinguishes humans from the natural world - the ability to talk.

4.5 Data collection method

The question of how many interviews are adequate for qualitative interviews has been debated ad-nauseum in the academic world. Baker and Edwards (2012) offer that the riposte to the question of 'how many' from most contributors is 'it depends'. In considering what 'it depends upon' however, the responses offer guidance on the epistemological, methodological and practical issues to consider when conducting research projects. According to Couch and McKenzie (2006), a small number of cases - and they suggest less than 20 - will facilitate the researcher's close association with the participants, and enhance the validity of fine-grained, in-depth inquiry in naturalistic settings. Based on this, a sample size of a minimum of 10 and maximum 20 interviews

were targeted, and the ultimate number of interviews conducted for this study was 10, because saturation was reached. According to Siegle (2002), the adequate average for qualitative interviews is at which point the research reaches saturation point. Data saturation is the point at which no new information is being obtained, a point at which the researcher may end his or her research or he or she may change his or her methodology.

In-depth interviews with senior HR practitioners and their analytics experts were conducted to ascertain the role and uses of people analytics in their organisations. One-on-one, face-to-face interviews were conducted with the participants at a time convenient to them. The in-depth nature of senior HR practitioner's interviews in the study since the subject matter seemed unclear and broad, was possibly complex and there was a need to dig deeper into the context. Consequently, insights were sought rather than verified and with qualitative, the research was open to new concepts being discovered that may not otherwise have been established during quantitative research.

4.6 Unit of measurement

Qualitative research relies primarily on words as its unit of analysis and its means of understanding (Creswell, 2014). It can use voice tone, loudness, cries, sighs, laughs, and many other ways of human communication. Creswell argues that these words may be spoken in individual interviews or groups or they may be written, so that the researcher may have to analyse the spoken words of an interview or diary record.   In the present study, the unit of analysis are the perceptions of HR practitioners on people analytics in South Africa.

4.7 Research instrument

Data was collected using an interview guide in order to ensure that all the topics were covered during the interview (Saunders and Lewis, 2012). In-depth interviews using a semi-structured interview guide were conducted for this research. Questions were themed to cover the three main research focus areas:

- What is the perceived meaning of people analytics in South African organisations?
- What are the uses of people analytics in selected organisations in South Africa?
- What are the benefits of people analytics in selected organisations in South Africa?

4.8 Population and Sample

The universe comprises of all research elements that meet all requirements for consideration in the study (Butler, 2008). It incorporates the whole storehouse of data where research discovers answers to an issue. Butler (2008) postulates the universe to be reliant on what the inquiry is and its relationship with the investigation. Therefore, the population for this study comprised of senior, experienced HR practitioners in South Africa and people analytics experts. Senior was defined as operating at middle or senior management level in an HR role for at least the last five years. Participants came from large organisations from the Eastern Cape and Free-State provinces. Most of the participants were drawn from Multi-national corporations (MNC's). The reason for this sample population choice was that people analytics is still new and difficult to implement to get deeper insights, so it was therefore believed that only big corporate organisations would be using people analytics in South Africa. The research was undertaken mostly on large organisations in South Africa in the most prominent

sectors of the economy.

4.9 Sampling method

The sampling technique used for this study was non-probability judgement and purposive sampling. Zikmund (2003) pronounces that this sampling technique is most appropriate if the sample is selected based on the researcher's judgment about suitability of each respondent. This sampling technique is best suited when collecting qualitative data where the researcher will use their judgment to actively select those that will be able to assist and meet research objectives.

Using non-probability sampling, 10 participants drawn from the sampled companies within the prominent sectors of the South African economy were selected, which included government, telecommunications, manufacturing, construction, state-owned enterprises, financial industry and mining. Senior level HR practitioners were deemed suitable, as they possessed the institutional memory and in-depth knowledge of the level, challenges and practice of people analytics within their human resource divisions. Purposive sampling was used to select the participants.

Purposive is when subjects are selected because of who they are and what they know, rather than by chance (Siegle, 2002). Unlike the various sampling techniques that can be used under probability sampling, the goal of purposive sampling is not to randomly select units from a population to create a sample with the intention of making generalisations from that sample to the population of interest. This is the general intent of research that is guided by a quantitative research design. The main goal of purposive sampling is to focus on characteristics of a population that are of

interest, which will best enable the researcher to answer the research questions.

According to Creswell (2009), maximum variation sampling, which is also known as heterogeneous sampling, is a purposive sampling technique which was used to capture a wide range of perspectives relating to the meaning, use and benefits of people analytics. Maximum variation sampling method is best suited when one is in search for variation in perspectives, ranging from those conditions (i.e., people, cases/organisations, events, and pieces of data) that are viewed to be typical through to those that are more extreme in nature. These units may exhibit a wide range of attributes, behaviours, experiences, incidents, qualities, situations, and more (Creswell, 2014).

Therefore, the basic principle behind maximum variation sampling is to gain greater insights into a phenomenon by looking at it from all angles. According to Creswell (2009; 2014), maximum variation sampling often help the researcher to identify common themes that are evident across the sample. However, in the current study the researcher was aware of the inherent risk with this method of sampling being that of homogeneity, and took care to mitigate this risk by varying organisations and sectors as far as possible.

4.10   Strategies to ensure data quality and reporting

To test reliability and validity, and to determine the construct validity of the instrument and to enhance its effectiveness; a pilot study of the survey was conducted among a few HR professionals including senior executives, HR managers, and HR generalists. Participants were asked to review the discussion guide and provide feedback on the

usefulness of the questions, recommend additional questions or eliminate questions. This was done to make sure that the questions will help to collect the appropriate data needed to fulfill the purpose of the study. Items that were consistently identified by the pilot study focus group were included in the final interview guide

The study was especially careful not to use leading questions that imply the response that was being sought. The research avoided loaded questions that contain words, which may bias the responses. Lastly, the way people were asked for their responses was simple, was conducted in a comfortable environment, and with respect and integrity. All participants signed the required research consent forms to assure the participants of confidentiality and of their voluntary participation. In assuring anonymity and confidentiality, pseudonyms were used instead of their real names.

4.11   Data analysis

Data analysis usually involves the reduction of accumulated data to a manageable size, obtaining summaries, looking for patterns in order to make conclusion based on the trends found in the data (Zikmund & Babin, 2007). It also involves the interpretation of research findings in the light of the research questions, which helps to determine the consistency between results and the research hypotheses and theories. It is thus clear that data analysis involves the gathering, modeling, and transforming data in order to highlight useful information, suggest conclusions, as well as support decision making (Cooper & Schindler, 2006; Emmel, 2013). However, one of the challenges with dominant qualitative research is the large amounts of unstructured data it presents, and the researcher's task of making sense of that. In this study, the researcher embraced narrative analysis.

4.12   Narrative analysis

Narrative analysts put more weight on examining the story meanings and aim to infer and better comprehend specific encounters. Bamberg (2012) concurs with Rhodes (2000) who argues that narratives try to explain the sequence of how life events or things occurred. This implies that narratives allow a researcher to gain an in-depth understanding of participants' experiences through listening to their stories. McCormack, (2000) postulates that when a narrator tells a story, they seek to offer a narrative of an experience or experiences which entail a recalling process what has happened. Bamberg (2012) infers that narratives are used to gain a more comprehensive description of phenomena. The author argues that narratives are used to understand the way people create meaning in their lives. Stories, autobiography, letters, conversations, interviews, family stories, and other people's life experience are units of analysis and can be used in understanding more about people and therefore it can provide useful information.

To narratively break down the information, the researcher considered the levels of meaning making employed in the past research. A data analysis procedure based on three levels of meaning making was used as adopted from (Chinyamurindi, 2016; Chinyamurindi, 2012; McCormack, 2000), hence Level 1 involved building up a decent comprehension of the understanding of the different meanings of people analytics by each participant. This was done through rehashing every interview and listening to recordings. Level 2 comprised of categorising responses from participants into themes (Nachmias and Nachmias, 1996). In the final level, the researcher examined the substance of the gathered narrative accounts and themes (McCormack, 2000). This

was executed by sorting themes and application of quotes depending on similarities in participant versions (Rhodes, 2000).

4.13 Ethical Considerations

There are numerous ethical issues that researchers encounter during the various stages of a research project. Creswell (2009) defines ethics as a set of principles prescribing behaviours that are morally correct. Saunders, Lewis and Thornhill (2003) provide a list of key ethical issues that normally require adherence when undertaking a research project and these include:

- Voluntary nature of participation and the right to withdraw partially or completely from the process.
- Consent and possible deception of participants.
- Maintenance of confidentiality of data and provided by individuals or identifiable participants and their anonymity.
- Privacy of possible and actual participants
- Reactions of participants to the way in which you seek to collect data
- Effects on participants on the way, in which you use, analyse and report your data.

To successfully conduct the study, several ethical issues were addressed while collecting data. To avoid breaching ethics the researcher firstly, approached the University of Fort Hare Research Ethics Committee in order to approve the study and grant a letter to allow for data collection. To avoid the damaging effects that may be accrued after the research output is published or presented, most critical ethical issues

were considered. According to Creswell (2009), basic moral issues in managing human members incorporate informed consent, anonymity and confidentiality.

Before interviews were conducted, the researcher took into consideration the issue of informed consent. Participants were informed in a language that they reasonably understand about the true nature of the research, reasons, aims and purpose of the investigation (American Psychological Association, 2003). More so the participants were asked to sign an informed consent form acknowledging their participation in the study (Creswell, 2009). This provided potential participants with time and knowledge to decide whether they want to take part in the study or not. For these reasons, the research participants had the right to withdraw anytime from participating with no justification should they feel so and their information was then to be discarded.

In addition, participants were not required to disclose their identity, thereby making sure that data collected will not be linked to participants' personal names. The same applies to the names of the organisations since such information was regarded as highly privileged and usually inaccessible for everyone. In this study pseudonyms were used in place of participants' and organisations name were not used instead the study used the type of industry. Therefore, anonymity and confidentiality of the research participants was highly respected. Therefore, research participants and communities were accorded the respect they deserve as this ensured that the research had social value and subjects were fairly chosen whereas participants were fully informed about the research project (Creswell, 2014).

4.14 Concluding Remarks

The chapter provided a description of the research methodology used in this study. Details of the scope of the study, the research method, research instrument, and the sampling technique in this study, were outlined. Furthermore, the chapter provided a detailed description of the data analysis process followed in this study, as well as the strategies to ensure data quality and reporting. The findings are outlined and discussed in next chapter, Chapter five.

CHAPTER FIVE. RESEARCH FINDINGS AND LITERATURE CONTROL

5.1 Introduction

The purpose of this research was to find the perceived meaning of people analytics as well as the use and benefits derived from applying people analytics in selected organisations in South Africa. The main themes emerging from the raw data and the discussions were selected to provide with a better understanding of the meaning and benefits of employing people analytics within HR practice within organisations. This phase in the study explored meaning and described the uses of people analytics and its benefits to the selected organisations in South Africa. The analysis of the data collected in the study is presented in this chapter. This Chapter starts with an account of the sample and then explores the research responses grouped by research question.

5.2 Sample description

As already alluded to in Chapter 4, ten (10) participants from four (4) organisations representing prominent sectors of the South African economy were interviewed for this study. The participants were all interviewed around East London and Port Elizabeth in Eastern Cape; Bloemfontein in Free State and Johannesburg in Gauteng, South Africa. It is prudent to repeat that given the small sample reflective of qualitative research, the research is laden with rich data nevertheless.

5.2.1 Biographic profile of participants

Participants were requested to provide biographic data. Table 5.1 depicts the biographical profile of the South African HR practitioners in organisations using people analytics who participated in this research.

Table 5.1: Particulars of participants

Participant	Gender	Marriage Status	Tenure	Position	Industry
1	**Female**	**Married**	**5**	OD Officer	**MNC-Consulting**
2	**Female**	**Single**	**9**	Head Human Capital	**Motor Industry**
3	**Male**	**Married**	**7**	Head People Analytics	**Banking**
4	**Female**	**Single**	**4**	HRIS Officer	**MNC-Consulting Service**
5	**Male**	**Single**	**4**	HR Analyst	**MNC-Consulting Service**
6	**Female**	**Married**	**8**	OD Manager	**Banking**
7	**Male**	**Single**	**4**	HR officer	**Retail**
8	**Male**	**Single**	**3**	Junior HRIS Officer	**Retail**
9	**Female**	**Married**	**7**	Head People Analytics	**MNC – Consulting Service**
10	**Male**	**Single**	**6**	Head Talent Analytics	**Motor Industry**

In terms of gender distribution, it was not a priority as it was not reflected in the research sample; however, this study showed up to struck a gender balance where an equal split of five males and five females was experienced. The sample was (n=10). Saturation was reached as addressed in Section 4.5. Out of the 10 participants only six (6) had an experience of more than five years in their roles using people analytics, this shows that participants were relatively senior in their roles and although this was

not asked, four (4) participants indicated that they were married. The academic and professional qualifications of participants indicated that participants were all highly qualified professionals with lowest education level being a bachelor's degree. From the total, two (2) of the participants held MBA and Master's degree, while two of the participants with basic degrees were pursuing studies at Master's level.

To ensure that ethical standards are appraised as proposed, the real names of participants and organisations were replaced by pseudonym identities of which are shown in table 5.1 above. Confidentiality was ensured through participants providing necessary consent and coding of actual participants into fictional names such as participant 1 and participant 2. This process was not only ethically responsible; it assisted in obtaining unbiased responses from participants. The participants are shown in Table 5.1 above with detailed information on the participant's gender, marriage status, tenure of service, type of industry of the company they are attached to.

5.3 FINDINGS FROM THE DATA ANALYSIS

The sample achieved and input received has enabled each of the research questions to be answered and the researcher has therefore met the research objectives.

5.4 Research Question 1 Findings: What is the perceived meaning of people analytics in selected organisations in South Africa?

Results from the interviews indicate that there was a common or general understanding of what 'people analytics' means although different descriptions were

used to ascertain the meaning of people analytics. The differences were segmented by organisations that are in either progressive level of people analytics or those in low usage level. These were determined to either be in advanced stages of people analytics thus progressive people analytics organisations and those who are doing somewhat analytics and would like to do more hence the researcher termed them adolescent people analytics organisations.

5.4.1 Progressive people analytics organisations

From the few organisations deemed to be at an advanced stage of people analytics, the most common definitions deduced from the data are that people analytics is a quantification of the subjective, statistics to better understand people, as well as the combination of historical reporting and forecasting the future. Some of the comments made in this regard are shown below.

"*Lots of meanings: e-HR, HRIS, difficult part is people analytics – hidden but obvious things, stage of usage: basic historical reporting in HR hygiene factors, a little bit of forecasting*" (Participant 2).

"*For me people analytics is the quantification of all aspects of HR, either quantification of the subjective to make it comparable or the analysis and acquisition of metrics that are essentially quantifiable in nature, so it's all metrics but it also includes the quantifiable handling of qualitative material.* (Participant 4)

"*It incorporates reporting, it incorporates the systems that go with it, it incorporates the research, it incorporates the impartible research body, in other words helping to create the basis on which metrics are created*" (Participant 3).

"*The way I understand it is various statistics or analytics which helps you get an understanding of your people as components of your business especially in large organisations where you have so much data and so many people. You need something to tell you what is going on. I guess that's how I see it, different ratios and different analysis*" (Participant 5).

"*So for us is the combination of retrospective reporting and future forecasting. So we use transaction level data, based on human movement and human capital movement, as well as talent management data, to understand what's happened in the past, and we then statistically regress that to understand what will happen in the future, based on the current workforce. So we use a lot of analytics models that we've designed specifically for ourselves, so analytics for us is different from reporting so we separate, we see information management as the overall umbrella in information management*" (Participant 10).

"*Well people analytics for me, you could say another area of HR, where you produce statistics about the health of your organisation and your mean capital activities; you can start as basic as your number of leave days. Let me give you an example number where you capture leave days, where you capture and record trends around what's going on, areas of HR and then you are able to use that to analyse and understand what's going on then also start trying to, you can give you indicators where to intervene*" (Participant 7).

These organisations seemed to be at an advanced stage, their understanding of people analytics was informed by both understanding of what people analytics should be, as well as being informed by practice. Therefore, the common thread amongst

the sentiments above was that, they tended to come from Multinational Corporations (MNCs) because they use analytics as a strategic planning tool and they are into extensive use people analytics in their organisations.

5.4.2 Adolescent people analytics organisations

With regards to the majority of the organisations which were not at an advanced stage, their understanding of people analytics was informed by a general understanding of what people analytics should be, rather than being informed by practice. Therefore, the responses provided generally lacked as much detail as those of the former group although it is worth noting that some of these organisations do apply some level of what is termed 'HR metrics', which is a subset of people analytics.

"……*people analytics is the same methodology where you use data to get intelligence that could tell you about either past and probably try and predict certain things that you are looking for*" (Participant 1).

"*What I understand when I think about people analytics is almost understood fundamentally, where you are going with this organisation, where is your organisation in terms of maturity as far as HR practices are concerned*" (Participant 4).

"*My understanding on the subject is about HR information - this information can turn into various facets, be it turnover rate, average age of employees, performance measures. How many people are performing at the right level, it's a specific numbers game, you can you use it to determine where your training needs to be, where your interventions need to be directed*" (Participant 6).

"*My understanding is that people analytics to me is metrics, HR metrics. The ability to use data to come up with information that managers can use to inform their business decisions. That's my understanding of analytics*" (Participant 7).

Some of the comments made demonstrate that there is a general understanding of what the concept of people analytics should entail, and what it is supposed to achieve.

5.5 Research Question 2 Findings: What are the uses of people analytics?

This research question aimed to determine the uses of people analytics by organisations and usage levels of analytics in terms of level of sophistication.

5.5.1 People analytics use

There are some common trends in the responses regarding usage of people analytics amongst those firms that apply it in their operations. Firstly, it is undertaken for recruitment purposes; secondly, it serves as a tool that identifies and closes the gap in skills within the organisation; thirdly, it is used to identify the organisational training and developmental needs; fourthly, it is used for staff retention; fifthly, it enables the organisation to conduct cost-benefit analyses; and lastly, it is a useful tool for organisational restructuring and forecasting future trends.

"*We do standard analytics like; retention, turn-over, recruitment, what time to place, we look at learning hours and cost per individual* (Participant 5).

"*We report on the mechanics. Mechanics are the normal, usual metrics like turnover, tenure, age profile, salary scale, payroll admin, basics of HR*" (Participant 10).

5.5.2 Level of application

The results demonstrate that the highest level of analytics maturity in terms of application is rare in most organisations surveyed.

"*So that's my thinking of talent analytics and in terms of South African organisations, I believe we're very far behind the mark, I think*" (Participant 4).

For the large part of the participants, the data shows that their level of sophistication and development is still relatively low when it comes to their understanding and application of people analytics. In most instances, they use people analytics for standard historical organisational reporting purposes. However, the data shows that an increasing number of organisations are moving towards the application of people analytics.

"*We use it in all aspects of making HR decisions, we use it as a contributing factor to make other business decisions, from mergers and acquisitions, to retention and benefits, recognition schemes, reward, training and development, telecom management, organisational restructuring, productivity analysis, labour costs, management, can't think of anything we don't use it for*" (Participant 3).

The statement above indicates a broad and sophisticated use of people analytics is reporting. In this instance, their use of people analytics moves beyond the traditional HR data practice to involve areas which were thought to be outside of the scope of the HR process such as "mergers and acquisitions" and reducing costs whilst increasing business productivity and profitability.

What the results entail about the use of people analytics is that, it is used to meet legislative requirements such as employment equity targets, number of people employed, and performance scorecards.

"*So for me I think so far as people analytics is concerned, we as an organisation know how many people we employ, their identity numbers, who do they bank with, and all of those are general information you receive when you employ someone, and we have it on our books*" (Participant 4).

"*So part of it, yes, it is retrospective especially now. If you note the standard HR reporting like our EE Plan ...You know, like there is normal ones, movements on plans and it's all those that are reactive. I find that where we are more pro- active is when we are doing our talent analysis. So that is where we send the managers data to say this is what we require from you, so please send it back and we go back to them with the information to say this is type analysis of the people*" (Participant 2).

It was clear from the data that organisations' usage of people analytics is still limited, with some progress shown by some organisations in terms of application, maturity and levels of sophistication. This is further evidenced by Deloitte survey where participants plotted their organisations fair in terms of the Bersin's Talent Analytics Maturity Model which was discussed in Chapter 2.

5.5.3 People analytics systems used

Four out of the 10 interviewed HR practitioners indicated that their organisations rely on basic spreadsheets for developing their people analytics. Three organisations reported that they have Information Technology delivered Business Intelligence

systems and the same number reported that they have 'Integrated analytics from Human Resource Information Systems. From all the ten, some added that they also use a Dedicated Workforce Analysis solution. It is clear that organisations are already using some form of method for collecting people analytics data. To this end, the people analytics data used and reported on should strike a balance between using sophisticated data with the need to ensure that it is both understandable and user friendly. One participant from the research argued that:

"*…if you give a non-HR person rubbish data, but they understand the rubbish, you haven't got much. If you use fabulous data and they don't understand it you also haven't got much, its two sides of the same coin*" (Participant 1).

From the above it can be deduced that HR data should not be simply taken at face value but should be analysed with the same level of sophistication as with other line functions such as finance and marketing.

5.6 Research Question 3 Findings: What are the benefits of people analytics in selected organisations in South Africa?

Looking at the list of interviews conducted it can be concluded that few of the organisations make use of an advanced form of people analytics. Looking at the level of maturity none of the ten interviewed organisations have indicated to be in the fourth and highest level of maturity. In general, most organisations find themselves still in the basic phase of people analytics, more characterized as HR reporting. Popular data reported are age, gender, absenteeism, function, etc., all related to headcount. Besides this half of the organisations report about performance of their employees.

However mostly not in a formal way or even not registered in the systems. Furthermore, five organisations report something about the efficiency of the HR function, related to metrics such as costs per hire or time to fill in a vacancy. Potential is measured by even less of the majority. A quotation of the OD officer of organisation summarizes what holds for in general for the interviewed participants is that:

'With regard to data we collect everything from age, education, experience, competencies, etc. Also, performance and potential. With regard to combining information it does not go that far. All this data will help us with competitive advantage' (Participant 1)

Taken all of this into account it will not be surprising that a large majority is not satisfied with the impact people analytics currently has in their organisation. Only five participants speak of some impact of people analytics on the performance of their organisation, but again limited to the use of basic metrics such as absenteeism and mobility, resulting in an increased efficiency regarding the HR function. For example:

'We have exit analytics and illness analytics. Those are good analytics they are also discussed with the business. Those reports affect the business and the HR strategy for example on illness and exit. The business is aware of exit reasons that is an advantage that we diagnosed the disease, what's left is to cure it. (Participant 7)

'It is important to have numbers, figures and facts to lead a discussion on a more objective level. Then you have evidence to discover real problems and to monitor the HR performance. Starting with this HR reporting process is the first step to move the

HR position in this business unit from more operational to an HR business partner, thus people analytics will help organisation with that information' (Participant 3).

"We want to get the basics right: improve data quality. Furthermore, we want to optimize the current landscape. We also we want to broaden our workforce productivity assessment (e.g., what is the investment you do to for example get or train your people, and what do you get out of it). Therefore, we look at how do you define your investment (which components do you consider) and outcomes (e.g., revenue, profit, growth). We are looking at factors that drive business decisions. This is all achieved by analytics in HR" (Participant 1).

"In the future, we want to link the data, e.g., how many females make it to top management. Measuring human drivers behind business performance requires success factors which are different and difficult to integrate in one system, but we want to improve it. We want to go to a situation wherein people analytics is a business driver" (Participant 6).

Although organisations are intended to work on their shortcomings, it does not result in improvements easily. For almost half of the organisations data quality keeps an issue. System errors and diverse data ownership are indicated as common reasons for it. Furthermore, four of the ten organisations have pointed out to be hindered by a lack of interested business leaders in their ambition for more advanced people analytics. One of the participants explains:

'*People analytics is not sufficiently used in the boardrooms. They look at figures such as how many people are joining/leaving the organisation and illness, but figures such*

as what does it cost if 1% of the high potentials leaves the organisation really matter. We sometimes show the percentage of high potential turnover to the board, but then nothing happens. The benefits are not clear enough.' (Participant 8)

"People analytics can be used in everything from hiring and recruiting to training, compensation, and even where employees work. My organisation has seen top employees leave and now apply concrete data to the situation to understand why they leave, which allows them to create retention strategies to entice them to stay. This includes adapting work environments, employee programs, and compensation and benefits packages intended to keep their loyalty." (Participant 5)

From the interviews, it is clear that organisations are using people analytics to get the best new employees. In many cases they look at their highest-performing current employees to create a detailed "profile" of an ideal employee, which they can then match to recruits. It has been exhibited that organisations have found that the factors recruiters have prized for years, like a prestigious degree or multiple letters of recommendation, aren't as indicative of lasting, strong employee performance as performance and personality tests. Essentially, people analytics is objective in its recruiting instead of focusing on more subjective qualifications. One of the participants said:

"People analytics can even be used in a beneficial way to measure the actions and habits of successful managers to determine the most effective programs to implement and promote people. If managers who oversee the most successful sales people send team-wide emails twice a day, meet one-on-one once a week, and allow their team members more flexibility with the schedules, executives can then look for other

managers with similar actions and qualities, or make those actions a company-wide initiative". (Participant 3)

Notwithstanding the benefits, the results of the interviews indicates that other turbulences of successful implementation of people analytics are money, lack of business need, and lack of analytical capabilities within HR.

5.7 DISCUSSION OF EMERGING THEMES AND LITERATURE CONTROL

This section starts by a discussion of the key themes emerging from the research study that were analysed in the previous section. The discussion is to ascertain whether the results addressed the research questions as outlined in Chapter 1 and if the results are congruent with emerging literature discussed in Chapter Two.

The key themes emanating from the results were that:

1. *There is an elementary perceptual understanding of the concept of people analytics in selected organisations in South Africa;*
2. *The usage of people analytics is still in its infancy in selected organisations in South Africa;*
3. *There are much benefits derived from employing people analytics in selected organisations in South Africa.*

5.7.1 There is a basic understanding of the concept of people analytics but usage still in its infancy

Results from the research have shown that there was a common, basic understanding of what 'People analytics' means although there are clear differences in the

descriptions of People analytics. This is in line with what was alluded to in Chapter Two of the literature review, there are various terms and concepts used to describe what is understood by the concept of analytics associated to human resources (Davenport, Harris and Shapiro, 2010; Mondore, Douthitt and Carson, 2011; Gustafsson 2012 and Hoffmann, Lesser and Ringo, 2012).

Research findings emerging from the research study showed that surveyed organisations used various terms in terms of providing their own definition of what they understood to be people analytics using various concepts and terms such as; human metrics, workforce analytics, predictive HR and quantification of all aspects of HR.

"Do we know our turnover, yes we do. Do we know what our HIV prevalence is? Yes we do. Do we know the absenteeism rate? Yes we do. Do we know how many people we train? Yes we do. Do we know how that feeds into the scorecard, yes we do? When you drop all the dots on a page, are they connecting and giving you a picture? I think that's the gap in people analytics" (Respondent 4).

The literature review indicates to the fact that people analytics ranges from basic reporting of HR management to the end of the spectrum of predictive HR (Bassi 2011). Research findings showed that a majority of those sampled were still applying basic historical reporting of HR data instead of further conducting predictive modelling with the data at their disposal.

Only a limited number of organisations surveyed in this study provided a comprehensive description of not only collecting traditional HR management data

but combining the use of statistical models to determining "what if" scenarios and developing predictive models that will then inform organisational business decisions at the board level. This is central to what people analytics is about, as alluded to by the Deloitte (2011). It enables organisations applying to integrate HR data to predict future employee-related behaviour and events that will enable executive management of the organisation to forecast and project future business decisions based on the people analytics data.

Furthermore, findings emerging from the research data and, in particular to larger South African-based multinational organisations found that these organisations not only use their people analytics data for basic reporting and predictive modelling but, further utilised their people analytics data to conduct research on human capital and using that research to make a scientific case for organisational business decisions (Boudreau & Ramstad, 2007; Davenport & Harris, 2006).

Another aspect that emerged from the analysis in terms of analytics associated with human resources was that there was more focus on inward looking of organisations rather than combining both inward and outward outlook for the organisation. Creelman (2005) posit that metrics is more focused with what the HR department is doing whereas the analytics is concerned with what is happening outside of the HR department and overall organisation. The findings emerging from research results is that only four organisations were adopting the human capital measures, that is people analytics focusing not within the HR department but combining trends and developing measures that included outward factors and determinants to both the HR department and the organisation as a whole. Though

the other six organisations did point out that they adopted or applied some form of measurement mostly were more inward focused on HR department such as traditional reporting and submitting compliance reports.

It was therefore clear from the research findings that there was lack of understanding from majority of sampled of organisations in that they mostly understood the concept people analytics to be the umbrella term or concept used to describe or define human capital measures and human metrics. The conceptual confusion as alluded to by Chrysler-Fox (2011) when he pointed out that with regards to the terms human capital and human metrics in the way it is presented widely in literature and what is understood in practice, was widespread.

What was found from the sampled organisations is that for the mere fact that organisations are already collecting HR data constitutes people analytics, hence the findings that they are already conducting some form of analytics. However, as pointed out in in the literature review, they fall short of making clear distinctions of what people analytics in academic terms and what it is understood to in practice, which where a majority of sampled organisations find themselves in terms of providing a clear distinction between reporting on traditional HR data and conducting a thorough people analytics as is described in the literature review (Boudreau & Ramstad 2007; Worth 2011).

Research findings emerging from the survey demonstrate that the majority of the surveyed organisations were still performing more of reactive role in terms of the collecting HR data for compliance and reporting. Lawler, Levenson and Boudreau (2004) state that HR functions often collect data to measure their own efficiency, but

do not measure the business impact of their practices. The majority of surveyed organisations were still operating at the reactive, operational reporting, versus the proactive or even strategic and predictive analytics. This was found to be true from the survey as many organisations did report using metrics f o r turnover, recruiting and performance, however, few going as far as interrogating and using the data to predict the future.

In conclusion, the survey findings demonstrated a relationship with the academic literature that many organisations are generally reporting on conventional metrics, and very few going beyond that.

5.7.2 The usage levels of people analytics are still in its infancy in selected organisations in South Africa

The research showed that the metrics most frequently in use and these were headcount and recruitment numbers, training and development, attrition, performance management, employment equity and time to recruit. These are the kinds of measures that Visier Inc. (2012) describe as the three fundamental HR areas - Turnover, Recruiting and Employee Performance that organisations should focus on before moving onto advanced workforce metrics.

The metrics used by organisations were also aligned to what Fink (2010) describes as common focus areas for analytics are employee surveys, linkages, manager and leadership assessment, recruitment quality, selection and staffing, retention and turnover, performance management, on-boarding/lifecycle management as well as culture and employee value proposition matters.

The findings from the research were consistent with Lawler, Levenson and Boudreau's (2004) views that the HR function often collects efficiency data but does not collect data on the impact of HR programs on the bottom-line. The Visier Inc. (2012) report also reported revealed high levels of usage of HR efficiency metrics.

The research also showed that for the large part of the participants, the level of understanding and application of people analytics is still not where it could be. As was shown from the research results, most organisations use people analytics for standard historical organisational reporting purposes. However, the data shows that an increasing number of organisations are moving towards advanced application of people analytics (Deloitte, 2016).

In conclusion organisations 'movement towards more advanced analytics is supported by Vokic (2011) who advises that HR executives must do more than use data to report on past performance, generate compliance reports and process administrative tasks' but that they need to start using data to get to the heart of how employees contribute to business performance.

5.7.3 There are much benefits derived from employing people analytics in selected organisations in South Africa.

Research findings emerging from the research study showed that surveyed organisations saw and used people analytics for different purposes in their business operations. The findings coincide with Gibbons and Woock (2007), who believed that people analytics can be used in everything from hiring and recruiting to training, compensation, and even where employees work. From the survey, it is evident that

some top employees leave, hence it is important that the organisation must apply concrete data to the situation to understand why they leave, which allows to create retention strategies to entice talent to stay (Boudreau & Ramstad 2007). According to Boudreau and Ramstad (2007), the benefits are not limited to employees adapting work environments but also to bring the sense of management support through, employee programs, compensation and benefits packages which can help to keep employee loyalty.

According to Deloitte (2011), companies can also use people analytics to get the best new employees. The author coincides with Visier Inc. (2012) who points out that in many cases people analytics can aid in checking current highest-performing employees to create a detailed "profile" of an ideal employee, which they can then match to recruits. Bersin and Associates (2012) posit that many companies have found that the factors recruiters have prized for years, are focusing on more subjective qualifications such as prestigious degree or multiple letters of recommendation. According to Deloitte (2016) these factors are not as indicative of lasting, strong employee performance as performance and personality tests, hence people analytics is objective in its recruiting instead.

Companies that embrace people analytics tend to be more successful and have a stronger competitive advantage over companies that do not (Bersin & Associates, 2012). The authors assert that for one reason, people analytics streamlines HR and eliminates much of the wasted time of recruiting, hiring, and training the wrong people. It lessens wastage of resources by investing in employees and programs that statistics show they would not produce real and lasting results (Bersin & Associates, 2012;

Deloitte,2016). In addition, Hoffmann, Lesser and Ringo, (2012) proclaim that people analytics can also measure the optimal size of teams within a company, eliminating unnecessary positions and responsibilities. They believe that, it can be used to make maternity leave and employee incentive programs more applicable and appealing to employees, which increases overall employee satisfaction, decreases turnover, and creates an engaged workforce.

However, this is not to say that people analytics does not come without its share of challenges. According to Bersin and Associates (2016), for one, focusing almost entirely on objective performance means that other factors, like personality, team cohesiveness, and work ethic are placed on the back burner, which can create teams that do not gel as well personality-wise. While the overall goal is a successful company and happy employees, people analytics does turn every employee into a data point and makes business more cut and dry, which Fitz-enz, Phillips and Ray, (2012) believed to be difficult for some people to adapt to.

5.8 Concluding remarks

The following conclusions can be drawn from the results of the research:

In terms of the maturity levels of organisations, the research revealed that South African organisations have a long way to go to reach the desired level of maturity in terms of its full application and adoption. Only two organisations were operating at what Bersin (2012) regard as 'the ultimate level' of maturity being predictive analytics which involves predictive models, scenario planning and integrates with strategic planning.

Findings emerging from the data demonstrate that there is acknowledgement from surveyed organisations that people analytics is critically going forward in managing talent in organisations. The literature consulted in Chapter Two points to the fact that there will be increased intake in people analytics, particularly in large organisations (Harris, Craig and Light, 2010). However, within the South African context, the uptake of people analytics has been limited in favour of multinational organisations, as it has been argued in the previous sections that this is due to keeping up with the global trend in terms of increasing competitiveness and making future projections for organisations to be a step ahead of their counterparts.The arguments made by (Harris, Craig and Light, 2010) coincide with the research findings from the survey that there is acknowledgement of the role of people analytics in elevating the sector to a more strategic partner in the overall organisations and that this will lead to organisations appreciating the use of people analytics within the HR sector.

What emerged in terms of the lack of adoption within South African organisations is that the HR sector needs to become more technologically advanced and to possess the required competencies for the industry to move towards fully incorporating people analytics within their HR sector. It can be argued that South African organisations need to draw lessons from South African-based multinational organisations that have already somewhat adopted and applied people analytics. What the study showed is that HR needs to start with change from within if it is to be taken seriously. This is substantiated by Lawler and Boudreau (2009) who consider that the future of HR and analytics lies in HR organising itself so that it has skills and expertise to operate at a corporate level.

CHAPTER SIX. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The previous chapter presented the findings of this qualitative research study. The chapter provided a presentation of the demographic profile of participants and sample description. It also explored meaning and described the uses of people analytics and its benefits to the selected organisations in South Africa. The analysis of the data collected in the study was presented in the previous chapter. In Chapter 6 the results are discussed and conclusions are drawn regarding the research questions which were answered in the study. Limitations of the present study and recommendations for future research are also highlighted in this chapter.

6.2 General Discussion

It will be recalled that the purpose of this study was to investigate the perceived meaning, uses and benefits of people analytics to selected organisations in South Africa. The study was focused on answering the questions:

- What is the perceived meaning of people analytics in selected organisations in South Africa?

- What are the uses of people analytics in selected organisations in South Africa?

- What are the benefits of people analytics to selected organisations in South Africa?

This Chapter therefore provides a discussion of the findings of the study and seeks to answer these research questions of the study. This Chapter provides an overview of salient research findings emanating from the research. To contextualise the research,

comparisons are drawn with available literature on both academic and practical meaning, uses and benefits of people analytics to organisations. The chapter provides conclusions that can be drawn from the research and offers suggestions for future research into people analytics in organisations.

6.3 CONCLUSIONS

6.3.1 General Findings

The results of the research have been dealt with extensively in Chapters five. To summarise, the results show that there is a limited understanding of the concept of people analytics, the usage of people analytics in South Africa is still in its early stages, the benefits and importance of people analytics in organisations is understood, analytical skills challenge is proving to be one of the biggest challenges in implementing people analytics; and that overall, the outlook for people analytics overall is positive.

The research findings point to the fact that due to the lack of academic literature alluded to in Chapter Two, people analytics is still fairly a new and more needs to be done to clarify the concept and what constitutes people analytics. The lack thereof in academic literature can be attributed to the confusion emerging from the research findings where the concept of people analytics is used interchangeably by surveyed organisations with other constituting concepts such as HR metrics, workforce analytics and traditional HR data collected largely collected by organisations.

Therefore, surveyed organisations used the concept with the understanding that they were already collecting analytics associated with human resources, however, linking it back to the literature review conducted in Chapter Two, South African

organisations are still yet to fully adopt and apply people analytics.

This is not making a generalisation around surveyed South African organisations in that surveyed multinational organisations are already at a somewhat more advanced stage of adopting people analytics which was in line with the literature consulted in Chapter three, however, majority of the sampled organisations, mostly South African based organisations were still lacking in terms of their understanding of what constitutes people analytics. On the critical issue of analytical skills shortage, the study showed that organisations that were already advanced in terms of their adoption and application of people analytics were acquiring numerate skills and competencies through sourcing from other line functions to complement the work and data already collected by HR practitioners in organisations. This therefore enabled these organisations to integrate people analytics and complement the data that is already collected within organisations.

As already discussed, the study showed that many organisations were still very much reliant on traditional, historical HR data. Organisations that took part in the survey are already collecting HR data, however, what emerges from the survey findings is that they seem not to be able to utilise the data to incorporate into people analytics processes. The main inhibitor to this seems to be the somewhat limited awareness of people analytics in organisations as well as an analytical skills shortage within HR.

Bassi (2011); Boudreau and Ramstad (2007) argue that HR practitioners should not merely report and comply; rather they should prove value for investment or return on investment (ROI) for increased investment in HR sector and therefore, people analytics provides HR practitioners with the tool to make that case for increased investment either in strengthening their workforce with the required competencies and

skills to provide organisational management with strategy.

6.4 RECOMMENDATIONS

This section makes recommendations from the research results for use by organisations, the HR fraternity as well as for academics.

6.4.1 HR Professionals

It is imperative for organisations to understand that globally organisations are gaining a competitive edge over their counterparts through the use and adoption of people analytics in reporting and conducting predictive modelling which is critical to enabling the HR sector in being perceived as a strategic partner providing critical data in informing business decisions and for future planning. Therefore there is a need to reskill the current HR personnel by providing them with basic people analytics course on what entails people analytics.

HR professionals should bridge the knowledge gap and align that with formal training in order to meet to expectations placed upon them by potential investors. These are some of the lessons that can be adopted by organisations aspiring to graduate from collecting traditional HR data for compliance and reporting towards improved human capital data through the adoption and application of people analytics. As the research results have shown, some organisations have realised the skills shortage challenge among HR professionals and some have gone to borrow analytical skills from other parts of their organisations or externally to draw inferences, run statistical models and transform HR data to insight. This was found to be another approach which organisations could draw lessons from going forward with adopting and implementing people analytics to addressing the issue of the skills gap.

6.4.2 Organisations

The enablers listed below, adapted from a study by Cornell University (2010), are recommended for organisations to successfully implement people analytics:

- *Centralised and consistent, good quality data;*

- *Field training of HR in the area of analytics; and an educational drive to get the HR professionalise to internalise the viability of the possibilities offered through people analytics;*

- *Support from senior leaders—which brings credibility and resources;*

- *Enhanced technology; and*

- *Culture. An organisational culture that endorses people analytics at the highest levels, and communicates this widely, provides a supportive environment for employees to experiment and test hypotheses in real workforce situations.*

6.4.3 Academics

As it was pointed out in Chapter five, skills challenge in terms of HR practitioners not having the required competencies for the adoption and application of people analytics is one of the major themes coming out of the research. There is therefore a case to be made to the higher education sector to include people analytics course as part of any Human Resource qualification to provide HR students with the background around people analytics and application. This may require that HR students be compelled to study basic Statistics to become more relevant for the working world. It is therefore imperative for universities to start introducing people analytics in the HR course as people analytics is still a very much a scarce skill within many organisations as it was pointed out in the research findings.

6.5 LIMITATIONS OF RESEARCH STUDY

Given that the study was qualitative in nature, the results are indicative and not representative of organisations. There may be more organisations that are advanced in terms of having adopted and applied people analytics exist.

The literature review consulted was limited in that there was not adequate academic literature available and therefore, lack of accredited academic journals to provide an academically accepted definition of people analytics. These posed challenges for the research study to provide a detailed academic literature around the subject of people analytics; hence a dependence on   literature drawn from researchers and organisations that are experienced in the adoption and application of people analytics such as PwC, KPMG, and Deloitte etc. The study was conducted only in East London, Port Elizabeth, Bloemfontein and Johannesburg, and among participants from large organisations and with extensive HR experience. The limitation here is that the study did not extend beyond these three provinces or to smaller organisations or more junior HR members. The results may well have been different should that have been the case.

6.6 Recommendations for future research

This research project took a broad look at key research questions regarding people analytics in South African organisations. Furthermore, the findings from this exploratory study could feed into quantitative or could lay a platform for further research quantitatively Given that the subject of people analytics is still emerging, opportunities for further research are extensive, and the results offer several

opportunities for more in-depth analysis in terms of future research, which include:

i. Large-scale, quantitative survey across the country to determine usage and level of advancement of people analytics in South Africa;

ii. Research among HR data users (outside of HR) to understand what they would value beyond data and moving into insights;

iii. A study among those companies that do have developed people analytics functions, the governance around these – how are they organised, funded, and reporting structures;

iv. A case study on an organisation conducting world-class people analytics- like Google, Deloitte KPMG, Genesis Consultancy etc.- what different analytics techniques are being used? What are they finding most useful? How and by whom are these being actioned?

6.7 Concluding remarks

The research problem as set out in Chapter One and all the research questions were answered as per the research findings in Chapter Five. The study was able ascertain the meaning, uses in terms of levels of application and adoption of people analytics and its benefits to organisations in South Africa, which was the main objective of the paper. Although the concept of people analytics is being gradually embraced in diverse organisations, the idea full integration of the concept proved to be moving at a sluggish speed. The usage levels of people analytics is still in its infancy and that the concept and its implications are little understood in selected organisations in South Africa. Regardless of HR analytical abilities being a key deterrence to practice, there has been huge accord with regards to the significance for people analytics in

organisations. This seems to epitomize a challenge and would require that HR changes itself to guarantee that it pulls in the required aptitudes. This will call for vocational and tertiary education sector to further capacitate HR professionals in statistical analysis and metrics in an attempt to completely integrate the idea of people analytics in all levels of the HR system. From the outlook of things, the future of people analytics seems to be positive inside organisations and thus more research regarding this matter can therefore be expected.

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Appendix A: Interview Guide

VERSION 1.0
OCTOBER 3, 2016
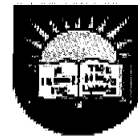
University of Fort Hare
Together in Excellence

THE PERCIEVED MEANING AND BENEFITS OF PEOPLE ANALYTICS IN SELECTED ORGANISATIONS IN SOUTH AFRICA

DESIGNED BY: JORAM MARAZANYE

INDUSTRIAL PSYCHOLOGY MASTER'S STUDENT

FACULTY OF MANAGEMENT & COMMERCE
SCHOOL OF BUSINESS AND ENTERPRISE

UNIVERSITY OF FORT HARE, ALICE CAMPUS

5700

INTERVIEW GUIDE

The perceived meaning and benefits of people analytics in selected Organisations in South Africa

Thank you for allowing me your precious time today. My name is Marazanye, Joram and I am currently in my final year of my M.Com Industrial Psychology (Coursework) with University of Fort Hare. The purpose of our discussion today is to gather your thoughts and opinions on the topic of people analytics as it is used in your organisation. I would like to go over a few logistical points before we begin the interview:

- The interview will last approximately one hour.
- This interview is for research purposes only. Please be assured that everything we discuss during this interview will be kept in strict confidence and your real name will not appear in any of our results. As such, please make every effort to be open and honest when responding to the questions.
- For data capturing purposes, I will need to record the interview on audio tape, and I will also be making notes as we go along. Would you be agreeable to this?
- If you would like to receive a copy of the research results please contact me via return e-mail.
- By agreeing to take part in this interview, you indicate that you voluntarily participate in this research.

Researcher: Mr. Joram Marazanye
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Supervisor: Mrs. NI Gcaza
Industrial Psychology Department
University of Fort Hare Bag X1314, Alice, 5700

Email: ngcaza@ufh.ac.za

ASPECTS OF DISCUSSION

1. Meaning of people analytics
2. Uses of people analytics
3. Benefits of people analytics

AREA 1

What do you understand by the concept of people analytics in South African organisations?

- *Probe the understanding in Human Resource Information System, HR Metrics and people analytics.*

- *Determine the meaning –According to Talent Maturity Model from basic reporting of HR management information; to the end of the spectrum being predictive HR using sophisticated statistical tools.*

- *Probe on- Some people have said that HR needs to move away from gut-feel to being more scientific. What are your thoughts about this statement?*

AREA 2

What are the uses of people analytics in your organisation?

Probe on

- *Do you have a properly structured people analytics function in your organisation? If yes- Does your organisation have dedicated people analytics department?*
- *Explore usage of people analytics in own organisation, for what purposes – differentiate between historical reporting and insights (evidence-based HR).*

- *Do you have adequate HR analytical ability within HR?*

- *What questions should analytics answer in your view?*

- *Skills required-in people analytics*

- *Typical person*

- *Reasons for low HR interest (on people analytics in other firms)(Not covered in objectives-to gain understanding why are others not embracing it)*

AREA 3

What are the benefits of people analytics?

- *Is there an appreciation for the value of people analytics in your organisation?*

- *Is there any value in statistical techniques such as predictive modeling and regression analysis in HR?*

- *Is people analytics the answer that HR needs to being rightfully seen as a strategic partner?*

- *Would you source analytical competence from elsewhere in organisation?*

- *How do you see this field developing in the next 10 years?*

  Probe on (for Snowball)
- *Can you name a few companies in SA who are leading in terms of people analytics?*
- *How is other leading SA organisations using people analytics?*

- *What do companies find most useful to do?*

*********************Thank you*****************

10/3/2016   4

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Appendix 2: Ethical Clearance Certificate

University of Fort Hare
Together in Excellence

ETHICAL CLEARANCE CERTIFICATE
REC-270710-028-RA Level 01

Certificate Reference Number: GCA031SMAR01

Project title: **The perceived meaning and benefits of people analytics in selected organisations in South Africa.**

Nature of Project: Masters in Industrial Psychology

Principal Researcher: Joram Marazanye

Supervisor: Ms N.I Gcaza

Co-supervisor: N/A

On behalf of the University of Fort Hare's Research Ethics Committee (UREC) I hereby give ethical approval in respect of the undertakings contained in the above-mentioned project and research instrument(s). Should any other instruments be used, these require separate authorization. The Researcher may therefore commence with the research as from the date of this certificate, using the reference number indicated above.

Please note that the UREC must be informed immediately of

- Any material change in the conditions or undertakings mentioned in the document
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research

The Principal Researcher must report to the UREC in the prescribed format, where applicable, annually, and at the end of the project, in respect of ethical compliance.

Special conditions: Research that includes children as per the official regulations of the act must take the following into account:

Note: The UREC is aware of the provisions of s71 of the National Health Act 61 of 2003 and that matters pertaining to obtaining the Minister's consent are under discussion and remain unresolved. Nonetheless, as was decided at a meeting between the National Health Research Ethics Committee and stakeholders on 6 June 2013, university ethics committees may continue to grant ethical clearance for research involving children without the Minister's consent, provided that the prescripts of the previous rules have been met. This certificate is granted in terms of this agreement.

The UREC retains the right to

- Withdraw or amend this Ethical Clearance Certificate if
    - Any unethical principal or practices are revealed or suspected
    - Relevant information has been withheld or misrepresented
    - Regulatory changes of whatsoever nature so require
    - The conditions contained in the Certificate have not been adhered to

- Request access to any information or data at any time during the course or after completion of the project.

- In addition to the need to comply with the highest level of ethical conduct principle investigators must report back annually as an evaluation and monitoring mechanism on the progress being made by the research. Such a report must be sent to the Dean of Research's office

The Ethics Committee wished you well in your research.

Yours sincerely

Professor Wilson Akpan
Acting Dean of Research

08 February 2017