THE NATURE AND VALUE OF RECRUITMENT AND TALENT MANAGEMENT ANALYTICS: A SYSTEMATIC LITERATURE REVIEW

by

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DECLARATION

I, Roelien van Niekerk, declare that *The nature and value of recruitment and talent management analytics: A systematic literature review* is my own unaided work both in content and execution. All the resources I used in this study are cited and referred to in the reference list by means of a comprehensive referencing system. Apart from the normal guidance from my study leader, I have received no assistance, except as stated in the acknowledgements.

I declare that the content of this dissertation has not been used before for any qualification at any tertiary institution.

I, Roelien van Niekerk, declare that the language in this thesis was edited by Rev Claude Vosloo.

Roelien van Niekerk

September 2016

Signature	Date

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ABSTRACT

Introduction: In the current rapidly changing world of work, organisations are investing increasingly in workforce planning. Throughout times, recruiting and retaining talented employees have been one of the most complex problems facing employers. Human Resource (HR) metrics and analytics is still a relatively untouched tool used by HR managers. However, HR practitioners are engaging in an era where recruitment and talent retention processes are becoming predictive and provide several benefits to both the employer and employee. By understanding how data can be used for insightful decisions that generate business results, HR professionals need to exploit the gap. Currently, they have the opportunity to utilise their extensive data sets by providing the organisation with the relevant and strategic analytics for informed decision-making.

Research purpose: The purpose of the systematic literature review was to investigate the nature and value that metrics and analytics on recruitment and talent management add to organisations.

Motivation for the study: Throughout history, people were considered as the most valuable assets in which an organisation can invest. However, HR failed to take responsibility for the programmes and initiatives which they developed and implemented. By developing a means to measure HR programmes and initiatives and assess the performance and development of employees, HR professionals will be able to demonstrate its effect on the business's 'bottom line'. Consequently, top management would then be more willing to invest money and time in HR-related activities. HR metrics and analytics will allow top management to make informed decisions on HR initiatives and programmes such as recruitment and talent management. In a volatile business environment HR departments need to prove the monetary value of the HR functions to top management. For HR analytics to be effective, it is vital that the organisation applies the correct metrics that is aligned with the overall business strategy and objectives.

Research design, approach and method: For the purpose of the present study, a systematic literature review was conducted to determine the nature and value-add of recruitment and talent management analytics in an organisation.

Main findings: The first objective was to determine the importance of recruitment and talent retention metrics and analytics. Results show that organisations currently struggle to recruit and retain talented employees, a factor that ultimately impacts the success of the organisation. The review provided evidence of organisations that realised the importance of recruitment and talent retention analytics by also using it to inform their human capital planning. The second objective assessed the use of metrics and analytics to manage recruitment and talent. The research indicated that organisations apply various recruitment and talent retention metrics in different ways and for diverse purposes. A possible reason may be that organisations have different data sets and also use these sets differently to develop HR-related metrics suited for the specific company. The third objective was to identify standards for metrics on recruitment and talent management. The research indicates that there is no systematic approach to evaluate recruitment and talent management. This is a topic for future research. The fourth and final objective investigated the role of recruitment and talent retention analytics in management's decision-making. Here the literature indicates that organisations have invested highly in HR analytics, and even appoint an analytics team within the company with the sole purpose of evaluating the organisation's data sets. This attest to the value management attaches to HR analytics as important contribution to the business's decision-making process, and ultimately the success of the organisation as a whole.

Limitations/future research: The present research had to factor in several delimitations related to the context, constructs and theoretical perspectives of the study. The researcher firstly identified that the research context was limited to the Human Resources (HR) segment of organisations and business sector. Secondly, only HR-related analytics were used for the purpose of this study. The researcher searched, analysed and made assumptions about this research topic by consulting mainly recent (over the past 10 years) and authentic resources. Lastly, the assumptions made in the study are based on data the researcher incorporated from selected literature.

Conclusion: It is evident from the findings that HR professionals began understanding the impact of recruitment and talent retention analytics on validating HR contributions to the organisation. Furthermore, it is clear that, on the other hand, management does acknowledge the importance and value that recruitment and talent retention analytics add

to the organisation's 'bottom line'. This allows management to make insightful decisions, and ultimately retain a competitive edge in the market.

Key words: human resources; talent management; recruitment; metrics; analytics; human capital metrics, ROI, bottom line.

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CHAPTER 1: INTRODUCTION TO THE STUDY

1.1   BACKGROUND

Over the past 30 years, Human Resource (HR) professionals and academics have accentuated the need for HR metrics. According to Dulebohn and Johnson (2013), all the core functions of a business use metrics as measuring unit. Seeing that HR is also striving to be recognised as a core function, there is a need to use metrics within this field. HR metrics and analytics are considered an evolving discipline that can help HR to be acknowledged as a strategic partner in the business enterprise. There has been a significant increase in HR metricises and scorecards since the beginning of the 21st century. Nevertheless, HR still needs the power of HR analytics to determine which measures will make a difference within the organisation.

Although HR metrics and analytics is a unique concept it is not a new one. This notion can be traced back to 1911, where the practice of measuring employees' effectiveness in an organisation became more prominent. The link between quantitative analysis and decision-making were discovered and developed during the 1940's. The development in units of measurement continued during the post-World War II era into the 1970's. Many of the HR measurements that were developed during this period are still in use currently and can be traced back to the initial work of Dr Jac Fitz-enz (Carlson & Kavanagh, 2011).

During last quarter of the 20th century, HR practitioners were encouraged to implement an improved measuring system in order to determine the impact their function has on the organisation. It is essential that HR practitioners do not only focus on measuring the efficiency of HR tasks, but also the effectiveness of HR functions. According to Jamrog and Overholt (2005), there is only one way that HR practitioners can be involved in the strategic planning team of an organisation, and thus earn the respect they deserve. This is if they can provide evidence of their contribution to and their impact on the organisation as a whole.

Before investigating HR metrics in more detail, a brief definition is provided of the concept. This is done by distinguishing it from HR analytics below. HR Analytics can be defined as "demonstrating the direct impact of people data on important business outcomes" (Mondore, Douthitt, & Carson, 2011). On the other hand, HR metrics entails calculations or a score on a company's performance on various levels, such as: percentage improvement in workforce productivity and average performance appraisal score of new hires (Mathews, 2010).

It has become more common to use HR metrics and analytics as an interchangeable term, even though it actually denotes two different concepts (Strickland, 2011). HR metrics is focused more on information. This entails counting, tracking and presenting past data. This method makes use of tangible data, providing the organisation with an inside perspective of the business. However, it should be taken into consideration that data obtained from HR metrics only provide basic information (Strickland, 2011). On the other hand, HR analytics has a more strategic nature than HR metrics. The analytics focuses on past and present data, but places more emphasis on intangible data. This allows powerful insights, optimisations and predictions. HR analytics give an outside-in perspective as it use both external and internal sources of data (Strickland, 2011).

Unfortunately, not all organisations are using HR metrics to determine the effectiveness of the HR initiatives. In 2009, Jamrog and Downey conducted a survey to determine how many organisations utilise HR measurements. According to their findings, only 75% of the respondents reported that their organisation is using HR measurements, but only to measure the efficiency of certain sections of HR. Very few organisations were measuring the impact of HR on the organisation (Jamrog & Downey, 2009).

HR is considered in many organisations as merely an overhead cost. The perception is that HR does not bring tangible monetary value to the organisation, but is seen rather as an unnecessary expense to the company. Thus, it is vital for the HR practitioners to participate as important role-players in the organisation. To accomplish this, they must provide the organisation with proof of the value they add (Baron & Armstrong, 2007). This is explained aptly by the following quote: "When you learn to speak the universal language of business,

you can have meaningful discussions with anyone in the company, at any level" (Charan, 2001, p. 22).

By implementing a strategy for recruiting and retaining talent, the HR function can have a major impact on the middle- to long-term success of a company. A high staff turnover can severely hinder the quality, stability and efficiency of a company. It takes time and continuous training for employees to perform optimally. These processes can be measured and tracked over an extensive period (Burdon & Harpur, 2014).

1.2 PROBLEM STATEMENT

It has been acknowledged for a long time that people are the most valuable asset in whom an organisation can invest. However, there is a distinct problem with HR, which causes management only to see it as an overhead cost. The HR department has been held unaccountable for programmes and initiatives they develop and implement within the business. The result is that neither the organisation, nor management are aware of the impact of the initiatives and programmes that HR has developed and implemented, albeit it positive or negative. The reason is that HR is not providing management with relevant HR metrics that formally illustrate the impact and the value added by these HR initiatives and programmes (Abeysekera & Guthrie, 2004). In this regard, such metrics will thus enable HR practitioners to demonstrate the connection between the value they added and the overall success of the organisation.

Biro (2014), stresses that it is important to collect and maintain the correct HR-related employee data in the business enterprise. However, this data is mere information captured by a software programme and in reality does not disclose applicable information. According to Biro (2014), comparing the data against specific goals will transform it into insight. Therefore, the metrics are only meant to help the organisation measure progress in meeting its strategic goals by reflecting the critical factors that contribute to success.

Furthermore, it is important to understand HR metrics and analytics as different concepts (Strickland, 2011). According to Visier (2015), the two methods can be distinguished clearly. On the one hand, HR metrics provides a standard system of measurement. This is done in the following way: it measures single data points; provides information; guides tactics and

operations; states the past and present; and delivers tabular outputs of counts and rates. On the other hand, HR analytics are concerned more with the following aspects: provides systematic computational data analyses, connects multiple data points, gives insight, drives strategy, states the past, presenting and predicting the future; and visualising patterns and trends.

According to Boudreau and Ramstad (1999), HR metrics can be applied for three reasons: persuasion, fashion setting and decision support.

- *Persuasion* entails influencing the receivers (e.g., employees, managers, shareholders) of HR information in such a way that the sender of the information will benefit from it.
- *Fashion setting* means convincing the receivers of the HR information that the HR practices are innovative and based on the latest research.
- *Decision support* refers to the value that HR metrics add by improving decisions that are made and providing valuable input on them.

Farley (2005) suggests that for organisations to compete in the market, it is essential that its HR practitioners have an in-depth understanding of people as the key drivers of profit and success within such a company. In addition, it became one of the HR responsibilities to manage the organisation's talent in order to retain business goals. However, in the past, HR functions usually only focused on transactional operations and not on driving business performance by using the people within the organisations. According to Farley (2005), it is important that the HR practitioners prove to top management that the HR function can deliver the information they need to make strategic decisions. For this reason, HR currently is positioned in a demanding position within many organisations with a strong obligation to provide the correct strategic information to decision makers. Notwithstanding this position, HR lack the credibility or, in most of the cases the skills, to deliver the required information.

To reach this goal, Farley (2005) proposes that organisations make a transition from activity-based HR metrics to value metrics. However, the essential aspect is to connect HR strategies and actions to real business results. Farley (2005) explains that to realise this outcome, HR must take responsibility for achieving results from its investments. This implies that when HR practitioners plan to implement a programme that will increase the retention of the business, they must be able to indicate the impact in terms of the 'bottom line' and

the expected reduction. In this regard, HR typically falls short as it fails to create a concrete link between the implemented HR programmes and the metrics measuring the performance. The HR practitioners will remain struggling with credibility before top management, unless the HR function is willing to create the link and be held accountable if they fail to achieve the postulated results (Farley, 2005).

1.3   PURPOSE STATEMENT

The purpose of the systematic literature review was to investigate the nature and the value of analytics applied to manage recruitment and talent in organisations.

1.4   RESEARCH OBJECTIVES

The following objectives guided the present research:
- Identify the importance of HR analytics for recruitment and retention of in the success of the organisation.
- Identify the use of HR metrics for recruitment and talent retention in different organisations.
- Ascertain whether standards exist for recruitment and talent retention HR analytics.
- Determine the role of HR analytics for recruitment and talent retention in management's decision-making.

1.5   ACADEMIC VALUE AND CONTRIBUTION OF THE STUDY

As was mentioned previously, people are considered as the most valuable asset for an organisation's investment. However, the HR function failed to take responsibility for the programmes and initiatives it developed and implemented. The result is that HR practitioners do not provide management with the relevant metrics and analyses to confirm the impact HR makes and the value it adds through their HR input. In this regard, HR analytics demonstrate the connection between the value that HR added and its contribution to the success of the organisation.

If HR practitioners fail to provide decision-makers with relevant, accurate data that measure the value of their input to the business, then management will keep on undervaluing HR's and leaving it out as strategic partner. Therefore, experts advocate that HR professionals should make use of the data they obtain from normal HR activities. The HR practitioners also need to learn and realise how they can apply HR metrics and analytics to ensure that the HR function will be included when business decisions are made. This will not only benefit the organisation, but HR will also be able to help management solve the 'people problems'.

If the HR practitioners develop a means to measure the return on investment (ROI) of initiatives for recruiting and retaining talent, then top management will be more willing to invest money and time in these related activities. It will also allow management to make improved decisions on these programmes.

In today's continually changing business environment HR departments need to prove the monetary value of their programmes and initiatives. For analytics on recruitment and talent retention to be effective it is vital that the organisation apply the correct metrics, which is aligned with the overall business strategy and objectives.

1.6   DELIMITATIONS

The present study has several delimitations related to the context, constructs and theoretical perspectives of the research. Firstly, the research was limited to the Human Resources (HR) segment of the organisation and business market. Secondly, only HR-related analytics were used for the purpose of this study. The researcher as far as possible searched, analysed and made assumptions on the specific research topic by utilising mainly recent (over the past 10 years) and authentic resources. Lastly, the assumptions made in the study were based exclusively on the information that was gathered from the literature.

1.7   DEFINITION OF KEY TERMS

The present study utilises a number of key concepts, namely Human Resources (HR), HR metrics, HR analytics, Human Capital (HC), and Strategic Human Resource Management

(SHRM). The specific use and definition of these terms for the *purpose of this study* is explained below.

Human Resources (HR): This concept refers to the workforce pool of employees who function under the control of the business. The HR function is responsible for the activities that manage the organisation's workforce and ensure that individuals are employed who will help achieve the organisation's goals (Bratton & Gold, 2012).

HR metrics: This is the method of utilising the data that were collected from business processes, in order to quantify the cost as well as the impact of the HR interventions and employee programmes. The aim is to determine the value that HR adds to the business (Mathews, 2010).

HR analytics: This concept can be defined as demonstrating the direct impact of people data on important business outcomes (Mondore et al., 2011).

Strategic Human Resource Management (SHRM): This refers to the pattern of strategic HR deployment and activities to help an organisation achieve its goals (Wright, McMahan, 1992).

Recruitment and talent retention analytics: This method can be defined as demonstrating the direct impact of recruitment and talent retention initiatives and programs on the organisation bottom line (Mondore et al., 2011).

Table 1: *Abbreviations used in this document*

Abbreviation	Meaning
HR	Human Resource
HRM	Human Resource Management
HC	Human Capital
SHRM	Strategic Human Resource Management
HCM	Human Capital Management
ROI	Return On Investment

(Source: Researcher's own compilation)

CHAPTER 2: LITERATURE REVIEW

In the present business environment, there is a wide-ranged debate on measuring the value that a HR department adds to the organisation. However, according to Ulrich (1997) and Farley (2005), these conversations gradually lose its meaning, seeing that most of the time the issues at hand are difficult to measure.

A specific problem that HR departments encounter in the current fluctuating business environment, is the fact that they do not receive sufficient recognition for the initiatives and programmes that they develop, promote and implement across the organisation (Levenson, 2014). In most of the cases, top management are not even aware of the impact (positive or negative) of such HR input in the organisation. As was explained previously, this is partly due to the fact that the HR practitioners were not yet able to present a measuring system that explains the value they add to the business. It is, therefore, crucial for management to realise the connection between the value of the HR function and the success of the organisation as whole (Mukherjee, 2012).

2.1   THE IMPORTANCE OF MEASURING THE VALUE OF HR

For HR professionals to become a strategic partner of the organisation, it is important to know whether HR does impact the business's outcomes (Mukherjee, 2012). The reason is that: "you cannot manage what you cannot measure" (Ulrich, 1997, p. 304).

Typically, in an organisation, the HR function is seen as a strategic partner by simply conducting abstract and conceptual conversations about aspects such as employee commitment, turnover and morale. Conversely, in the current business environment, HR professionals need to replace these conversations with measured proof before their opinions will be considered as meaningful when key business decisions need to be made (Ulrich, 1997).

Before the development of HR metrics, HR professionals found it challenging to measure their HR activities and processes. Therefore, they could not fully understand and reproduce

the real employee costs associated with each HR activity (Mukherjee, 2012). This raises strategic questions regarding HR measurements, as aptly explained by Ulrich:

- "What do we need to measure?
- How do we measure it?
- When do we measure it?
- Where do we measure it?"

(Ulrich, 1997, p. 3)

When attempting to answer the questions above, it is evident that is not an easy task to measure the value of HR. Mukherjee (2012) used the following example to demonstrate this challenge: "A decade ago, if someone wanted to determine the turnover rate by performance category, it would have become a two-week project." In time however, HR metrics and recruitment metrics allow HR professionals on a continual basis to measure variables such as turnover rate, recruitment costs, talent management, or the financial impact of employee turnover (Mukherjee, 2012).

2.2   DEFINING HR METRICS AND ANALYTICS

For the purpose of the present study, the two key concepts of HR metrics and analytics need to be distinguished clearly as is done subsequently.

HR metrics can be defined as the method to utilise the data collected from business processes. This is done to quantify the costs and explain the impact of HR interventions and employee programmes. The aim is to determine the value that HR add to the business (Mathews, 2010). The purpose of HR metrics, therefore, is to provide an internal and external assessment of deliverables and to understand their impact on the organisation's strategies and goal (Chhinzer & Ghatehatehorde, 2009). Ultimately, an organisation can apply three levels of HR metrics: effectiveness, efficiency and impact. These levels of HR metrics will be examined closer in the following subsection.

HR analytics can be defined as "demonstrating the direct impact of people data on important business outcomes" (Mondore et al., 2011). The ultimate purpose of HR analytics is to create predictive business indicators that help CEO's of organisations to chart the

course of the business and manage the impact of the workforce on the results (SHRM Foundations, 2016).

2.3   LEVELS OF HR METRICS

HR professionals and academics identify multiple levels of HR metrics. The first level is efficiency metrics, followed by the human capital metrics, HR effectiveness or HR cost benefits metrics; and lastly the impact or strategic HR metrics (Dulebohn & Johnson, 2013).

The levels of HR metrics is described in more detail below.

Efficiency metrics: The main focus is on productivity and cost. These metrics measure the quality of HR's performance on basic administrative duties. The purpose on this level is to measure the efficiency of the HR function and allocate HR resources so that it maximises the performance and productivity of this function. Examples of these metrics are: cost per hire; cost per employee of employer-sponsored health plans; and HR expense per employee (Dulebohn & Johnson, 2013).

Human capital metrics: Its main aim is to measure the value of human capital within the organisation. This is more complex since employees do not have a 'purchase price' or 'market value'. Seeing that the employee adds value to the business it becomes more important to measure the human capital. This will help provide evidence of the value each individual adds to the organisation. Examples of these metrics entail: expense factor, profit per employee; added revenue for the labour-cost factor and the value of human capital (Dulebohn & Johnson, 2013).

HR effectiveness metrics: These are also known as HR cost-benefit metrics, and measure whether the programmes and practices implemented by HR did impact the groups for whom it was intended. Examples of these are: firm-salary/competitor-salary ratio; number and quality of cross-functional teams; progression of employees through development plans; and percentage of total salary at risk (Dulebohn & Johnson, 2013; Levenson, 2014).

Impact HR metrics: These are also termed strategic HR metrics, and entail the highest level of HR metrics. These metrics measure the effect of HR on the success of the organisation. In more detail, the metrics measure the impact HR of on the financial, customer, process and people outcomes of the organisation. Such metrics do not only make use of ratios but integrate the data with other information related to the organisation's processes (Dulebohn & Johnson, 2013; Levenson, 2014).

2.4   THE FOCUS OF HR METRICS

Regarding SHRM, Puerto Rico's President, Nilda Guerrero, argued that HR professionals apply metrics to measure the operations of a company, but should rather focus on measurements that will help the organisation to be more financially tuned in the long run. There is a strategic reason for creating, tracking and analysing HR metrics. These measurements allow HR professionals to provide management with information and proof on company issues, needs and ideas, in order to predict future events (Lloréns Vélez, 2012).

For HR metrics to advance in any way, it should be driven by a strategic focus that enables the HR professionals to identify key measures, its necessary characteristics, and the strategic linkages required to assess and enhance the quality of the HR function (Boudreau & Ramstad, 1999). In this regard, Davenport and Harris (2010b) pose the following questions:

- "How do investments in your employees actually affect workforce performance?
- How do you identify your top performers?
- How can you empower and motivate other employees to excel?"

Market-leading companies are beginning to embrace refined methods to analyse their employees' data and helping the organisation gain a competitive advantage in the market. These organisations are focused on understanding ways to achieve the maximum productivity, engagement and retention from their top talent. The reason is that the companies intend to replicate their success. Organisations have too high a financial investment in their employees merely to use their gut feeling on this matter. Davenport and

Harris (2010b) suggest that organisations utilise analytics to assist them in important decisions, such as identifying talent.

According to Davenport and Harris (2010b), companies presently use HR metrics and analytics to take responsibility for aspects that have a significant value to their employees. In their opinion, happier and healthy employees are more productive workers.

2.5   CURRENT AND FUTURE CAPABILITIES OF HR TO REPORT ON HCM

Lloréns Vélez (2012) concur with Weiss and Finn (2005) regarding taking a more strategic and operational approach HCM. The research of Weiss and Finn (2005) focused on the *current* capabilities of HR to report on human capital metrics (HCM) and the capabilities needed to report on HCM in the *future.* They concluded that HR professionals are currently making use of HCM, for example, headcount changes, however they need to focus more on operational HCM. Such an approach will allow these professionals to focus more on strategic measures linked to the organisation's goal and strategies, hence ensuring that the company becomes more productive and successful.

To date, HR professionals and academics have struggled to convince business leaders that HCM is a critical aspect that contributes to the success of organisations. Although business leaders only recently began conceding that HCM is critical to the success of the organisation, they want it measured. In recent times, HR professionals also convinced managing directors that HCM provides them with quality information, which helps support their decisions. The top management, however, only fully recognise the significance of HCM once they see the data and the value it adds to the success of the organisation (Davenport & Harris, 2010b).

In the *future,* business leaders would need to focus more on strategic measures, as they already understand the value and importance of managing people to improve productivity. In this regard, management would seek assistance from HCM when making current business decisions. In addition, they will use HR metrics to support them with key future decisions in the business (Davenport & Harris, 2010b).

2.6 HOW MEASURING THE VALUE OF HR CAN CONTRIBUTE TO THE SUCCESS OF THE ORGANISATION

According to Chhinzer and Ghatehatehorde (2009), HR professionals and personnel are confident that the 'people strategy' of an organisation can improve its profitability significantly. However, top management wants to see proof of the link between people and profit. More than 50% of managing directors believe that measurement is one of the most important aspects of HR management. In this regard, measurements help identify the possibility whether HR costs can be justified and whether the programmes they implement contribute to the success of the organisation and lead to profit (Chhinzer & Ghatehatehorde, 2009). Chhinzer and Ghatehatehorde (2009) also point out that for an HR function to emphasise its strategic and operational importance to an organisation, the HR professionals must provide measurements of their core activities. In this way they will gain recognition within the organisation for the intangible human assets they provide to the organisation as a major source of value or to help ensure a competitive advantage.

The research of Feather (2008) proves that HR departments can play a more strategic role in the organisation by using HR metrics to measure employee's engagement. Feather (2008) furthermore proposes that the findings can be used mainly in three ways. Firstly, HR metrics can identify areas of improvement. Secondly, HR professionals can demonstrate to management the impact that employees have on the organisation. Lastly, management can be convinced to invest in internal processes and programmes that will ultimately contribute to the success of the organisation.

According to Krummer (2008), research shows that between 50% and 75% of most mergers and acquisitions fail due to deficient handling of people issues. Krummer (2008) suggests that HR metrics should be used to identify, quantify and measure these issues. HR metrics can also provide assistance during mergers and acquisition. The reason is that such metrics create a sense of awareness by identifying the underlining issues and aspects that should be examined in more detail. HR metrics can further assist with the integration phase by identifying the necessary preparations before, and the aspects to monitor during, integration (Krummer, 2008).

In 2005, Jamrog and Overholt point out that in current organisations, it is vital that the HR strategy is aligned with the business strategy. Therefore, the success of an organisation depends on the role-players' ability to turn a well-planned strategy into a productive performance. It was found that over 40% of CEO's have been removed from their position due to their inability to execute the organisations strategy (Jamrog & Overholt, 2005). To execute a business strategy successfully, three key aspects of the organisation need to be aligned: strategy, operations and people. According to Jamrog and Overholt (2005), it is easy to align strategy and operations since it has a logical flow to it; however, aligning people is a different matter altogether.

2.7   BENEFITS OF HR ANALYTICS

Mondore et al. (2011) identify five benefits for HR departments that invest in HR analytics. Firstly, it avoids expenditure on unimportant employee initiatives and redirects it to initiatives that provide more benefits to employees, especially those directly related to the success of the organisation. Secondly, the investments focusing mainly on employees will result in tangible outcomes providing an advantage to the shareholders, customers and employees themselves. Thirdly, the impact of the investments mentioned above can be measured to determine its contribution to the success of the organisation. Fourthly, HR departments currently are also responsible for impacting the 'bottom line' of the organisation by helping to turn human capital into business or product leaders in the market. Lastly, the HR function will thus also be included as a strategic partner, seeing that the HR professionals can quantify the impact they have on the business.

2.8   PERCEPTION OF THE EFFECT HR METRICS AND ANALYTICS HAVE ON AN ORGANISATION

Gates and Langevin (2010) researched HR professionals' perception of HCM. The aim was to establish whether these analytics are linked to organisational strategy, and to ascertain the impact it have on the success of the business. Their finding was that HR managers perceive organisational performance to be linked positively with the level of HCM development in an organisation. The more developed an organisation's HCM is, the higher

the performance, seeing that it allows the organisation to measure and manage its own performance. The results of Gates and Langevin (2010) also indicate that HR professionals are interested in developing HC metrics that are customised to fit their strategy. Companies following a differentiation strategy, tend to have HR professionals who are focused on innovative indicators. On the other hand, companies who follow a cost-reduction strategy, tend to be more focused on efficiency indicators (Gates & Langevin, 2010).

2.9   HR AS A STRATEGIC PARTNER

In light of the current volatile business environment, top management are expecting more from their stakeholders internally and externally. In this regard top management has the following needs: revenue and productivity; reduced costs with improved value delivered to stakeholders; and responsible employees who are able to adapt to a changing environment and stay focused on their clients. Furthermore, management expect of the HR function to assure them that the leaders have the right skills to lead the business and that future leaders are already being groomed (Loutfi & Ibrahim, 2015).

2.10   RECRUITMENT AND TALENT MANAGEMENT AS HR METRICS

For HR to help indicate return on investment (ROI) it is important for the HR professionals to gather and analyse recruitment metrics. According to Haeberle and Christmas (2006), businesses who are experiencing a high turnover need to investigate how this is achieved. This will help them develop or improve models within the organisation to address the identified issue. Haeberle and Christmas (2006) also explain that HR professionals can learn from this recruitment data, seeing that it will help them develop and maintain an effective recruitment process and be able to track the costs of this process.

Haeberle and Christmas (2006) point out that the measuring of recruitment will ultimately reveal the retention concerns of the business. This will enable management to deal with these concerns proactively through interventions that will have a positive effect on the organisation's turnover in the long run.

In conclusion, it became evident that the value of HR within an organisation is difficult to measure. However, such measurements are important as it will allow the HR function to become a strategic partner. HR and recruitment metrics allow HR professionals to measure HR variables continually (Mukherjee, 2012). According to Chhinzer and Ghatehatehorde (2009), HR professionals and personnel should present the confidence that the people strategy of an organisation can significantly improve the profitability of its enterprise.

CHAPTER 3: RESEARCH DESIGN AND METHODS

3.1 DESCRIPTION OF INQUIRY STRATEGY AND BROAD RESEARCH DESIGN

First a description is provided of the broad research design, after which the method of data collection is elaborated on.

3.1.1 DESCRIPTION OF THE BROAD RESEARCH DESIGN

For the purpose of the present study, a systematic literature review was conducted. The aim was to determine the nature of HR analytics and its value for managing recruitment and talent within an organisation. Kitchenham (2004) defines a systematic literature review as a way of identifying, evaluating and interpreting the relevant and available resources of a specific topic or phenomenon of interest. This scholar also explains that individual studies supporting the systematic literature review is called primary studies, whereas the systematic literature review itself becomes a secondary study.

According to Kitchenham (2004), a systematic literature review can be conducted to summarise existing research on a specific topic or phenomenon. This is done to determine whether further research is needed as there are identifiable gaps in current literature. Such a review will also help provide an overall understanding of a certain topic or phenomenon in order to position new research activities.

Conducting a systematic literature review requires significantly more effort than the typical traditional literature reviews. Kitchenham (2004) identifies the following advantages of a systematic literature review: information is gathered on the effects of a specific topic or

phenomenon across an extensive range of settings and empirical methods; evidence is examined whether the topic or phenomenon is robust and transferable; combined data are presented by applying meta-analytics techniques.

3.1.2   DATA COLLECTION

The data used in a systematic literature review is usually qualitative and the result of individual studies. Data collection and record keeping play an important role in a systematic review such as conducted in this study. This role is depicted in Figure 1 below.

Systematic literature review

↓

Sources of data
Electronic databases
hand-searched

↓

Data collection and abstraction
Applying the inclusion and exclusion criteria to:
Title; Abstract and full text (in sequence)

↓

Identify relevant themes
Read through relevant articles and identify themes that would lead to answering research objectives.

↓
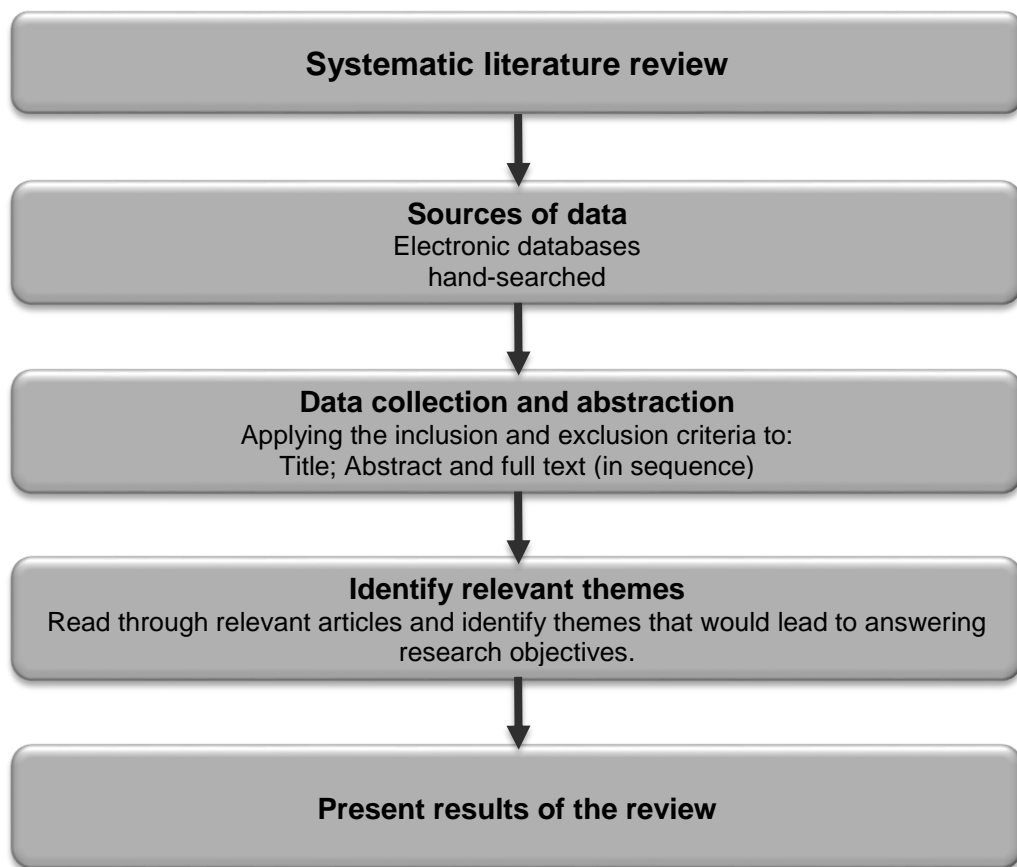
Present results of the review

Figure 1: *Research process*
Source: Researcher's own depiction

Selected data sources

The researcher employed Google Scholar to trace articles on analytics for the management of recruitment and talent. Thereafter, the researcher determined which databases were

used to conduct this systematic review. The study population comprised articles in 15 electronic databases available from the University of Pretoria Library. Furthermore, the researcher consulted the list of references from the relevant articles to identify literature that may have been overlooked in the keyword search.

Databases searched

The systematic review was conducted based on the following identified databases: ABI/Inform Global, Emerald, EbscoHost, IngentaConnect, JStor, MasterFile Premier, ProQuest, PsychInfo, Sage, Science Direct, SpringerLink, Wiley-Intersience, Wiley Online Library, Taylor and Frances. The researcher also worked through two journals: *South African Journal of Human Resource Management* (SAJHRM) and *South African Journal of Industrial Psychology* (SAJIP). These mentioned searches where conducted from March to April 2016.

Keywords

The overarching theme of this review is HR metrics. Therefore, synonyms of this construct were used to trace suitable articles. "Recruitment" and "Talent Management Metrics" were also used as keywords.

The terms used to search for HR metrics were: "Human Resource Analytics; HR Analytics; Human Capital Analytics; Workforce Analytics; Human Capital Management and Human Capital Measures". To narrow down the search, the following terms were used in combination with similar terms as mentioned above for "HR Analytics": "Recruitment Analytics; Recruitment; Hiring; Talent Management Analytics; Talent Management; Talent Analytics; Talent Retention Analytics and Talent Retention". The keywords formulated for the present study are listed in Table 2 below.

Table 2: *Keywords/Search terms*

Recruitment analytics	Talent management analytics
Recruitment metrics	Talent management analytics
Recruitment analytics	Talent analytics
Recruitment ROI	Talent retention analytics
	Talent ROI

Source: Researcher's own depiction

Type of literature consulted

For the purpose of this systematic review, national and internationally published articles were consulted, searching for relevant information in journals, theses, dissertations and textbooks.

Inclusion and exclusion criteria

For the systematic review, only English, published, national and international articles were studied. The inclusion and exclusion criteria is shown in Table 3 below.

Table 3: *Inclusion and exclusion criteria*

Inclusion	Exclusion
Literature from the past 10 years (2006 – 2016)	Metrics other than recruitment and talent management metrics
Original work of people (now time limit)	Metrics other than HR-related recruitment and talent management metrics
National and international literature	Articles that are not recognised published pieces (with some exceptions)
English literature	
Published literature (with some exceptions)	
Conference proceedings	
Only peer reviewed and/or accredited journals	

Source: Researcher's own depiction

Pilot study

When conducting the search within the selected databases, each one offered various search options, ranging from a 'basic' to an 'advanced' search. Before starting with an in-depth search within each database, the researcher first used a pilot study to establish which of the above-mentioned research strategies would deliver a larger number of relevant articles. The researcher employed both the 'basic' and the 'advanced' search option. Then the option that provided the largest number of relevant articles where selected for the actual search. The researcher utilised the 'basic' search option where both options yielded the same results.

Method of searching

As mentioned above, Google Scholar was used first to establish where articles could be sourced on human resource (HR), recruitment and talent management metrics. Thereafter, several tables were developed to keep record of the searches. Tables 4-6 below presents the following aspects: the databases/journals/articles that were searched, date of search, keywords used, number of hits and the number of relevant articles.

Table 4: *Record keeping system for searched databases*

DATABASE SEARCHED	DATE	KEYWORDS USED	NUMBER OF HITS	NUMBER OF RELEVANT ARTICLES	DATABASE SEARCHED	DATE	KEYWORDS USED	NUMBER OF HITS	NUMBER OF RELEVANT ARTICLES
ABI/Infrom Global	2016/03/24	Recruitment & Metrics	1	1	ProQuest	2016/03/30	Recruitment & "Metrics"	59	5
		Recruitment & Analytics	0	0			Recruitment & Analytics	9	0
		Recruitment & ROI	80	2			Recruitment & ROI		
		Talent Management & Analytics	2	1			Talent Management & Analytics	1	0
		Talent & Analytics	10	2			Talent & Analytics	0	2
		Talent Retention & Analytics	0	0			Talent Retention & Analytics	0	0
		Talent & ROI	20	2			Talent & ROI	0	0
Emerald	2016/03/24	Recruitment Metrics	13	0	PsychInfo	2016/03/30	Recruitment & Metrics	0	0
		Recruitment Analytics	3	1			Recruitment & Analytics	0	0
		Recruitment & ROI	14	1			Recruitment & ROI	10	0
		Talent Management Analytics	1	1			Talent Management & Analytics	1	0
		Talent Analytics	10	3			Talent & Analytics	0	0
		Talent Retention Analytics	0	0			Talent Retention & Analytics	0	0
		Talent & ROI	10	3			Talent & ROI	2	0
EbscoHost	2016/03/24	Recruitment & Metrics	2	1	Science Direct	2016/03/30	Recruitment & Metrics	0	0
		Recruitment & Analytics	0	0			Recruitment & Analytics	2	0
		Recruitment & ROI	30	0			Recruitment & ROI	0	0
		Talent Management & Analytics	0	0			Talent Management & Analytics	2	0
		Talent Analytics	2	2			Talent & Analytics	5	0
		Talent Retention Analytics	0	0			Talent Retention & Analytics	0	0
		Talent & ROI	30	1			Talent & ROI	0	0
Ingenta Connect	2016/03/24	Recruitment & Metrics	1	0	Wiley Online Library	2016/03/30	Recruitment & Metrics	15	0
		Recruitment & Analytics	0	0			Recruitment & Analytics	0	0
		Recruitment & ROI	19	1			Recruitment & ROI	8	0
		Talent Management & Analytics	0	0			Talent Management & Analytics	8	0
		Talent & Analytics	0	0			Talent & Analytics	0	0
		Talent Retention & Analytics	0	0			Talent Retention & Analytics	0	0
		Talent & ROI	5	1			Talent & ROI		

JOURNAL SEARCHED	DATE	KEYWORDS USED	NUMBER OF HITS	NUMBER OF RELEVANT ARTICLES	JOURNAL SEARCHED	DATE	KEYWORDS USED	NUMBER OF HITS	NUMBER OF RELEVANT ARTICLES
JStor	2016/03/24	Recruitment & Metrics	2	0	Taylor and Frances		Recruitment & Metrics	2	0
		Recruitment & Analytics	0	0			Recruitment & Analytics	0	0
		Recruitment & ROI	0	0			Recruitment & ROI	1	0
		Talent Management & Analytics	0	0			Talent Management & Analytics	0	0
		Talent & Analytics	0	0			Talent & Analytics	2	0
		Talent Retention & Analytics	0	0			Talent Retention & Analytics	0	0
		Talent & ROI	0	0			Talent & ROI	3	0
MasterFile Pemier	2016/03/24	Recruitment & Metrics	0	0					
		Recruitment & Analytics	0	0					
		Recruitment & ROI	5	1					
		Talent Management & Analytics	0	0					
		Talent & Analytics	5	2					
		Talent Retention & Analytics	0	0					
		Talent & ROI	11	0					

Table 5: *Record keeping system for searched journals*

JOURNAL SEARCHED	DATE	KEYWORDS USED	NUMBER OF HITS	NUMBER OF RELEVANT ARTICLES	JOURNAL SEARCHED	DATE	KEYWORDS USED	NUMBER OF HITS	NUMBER OF RELEVANT ARTICLES
SA Journal of HRM	2016/03/30	Recruitment & Metrics	13	0	SAJIP	2016/03/30	Recruitment & Metrics	2	0
		Recruitment & Analytics	2	0			Recruitment & Analytics	0	0
		Recruitment & ROI	4	1			Recruitment & ROI	2	0
		Talent Management & Analytics	2	0			Talent Management & Analytics	2	0
		Talent & Analytics	4	0			Talent & Analytics	2	0
		Talent Retention & Analytics	4	1			Talent Retention & Analytics	1	0
		Talent & ROI	5	1			Talent & ROI	1	0

Table 6: *Record keeping system for articles found in list of references*

		ARTICLE FOUND IN DATABASE			RELEVANT ARTICLES FOUND IN LIST OF REFERENCE			
	YEAR	AUTHOR	DATABASE	TITLE	YEAR	AUTHOR	TITLE	
1.	2010	Vaiman, V., Scullion, H. and Collings, D.	ABI/Infrom Global	*Talent management decision making*	2010	Davenport, T.H., Harris, J. & Shapiro, J.	Competing on talent analytics: What the best companies know about their people – and how they use that information to outperform rivals,	
2.	2012	Doke, D D	ProQuest	*Quality of hire to top next decade of recruitment metrics*	2011	Industry Research Unit	Recruitment – 2022: The effect of social media and technology on future recruitment	
3.	2015	Mayo, A	Emerald	*Strategic workforce planning – A vital business activity*	2011	Harris, J.G., Craig, E., & Light, D.A.	Talent and analytics: New approaches, higher ROI	

Data-analysis method

The identified keywords were utilised to search articles in the selected databases. After each search, the listed articles were examined to determine whether it contained information relevant to the research topic. Three basic criteria determined the relevance of a particular article.

1. Assess whether the *title* of the particular article is relevant to the study.
2. Investigate the *abstract* to determine the relevance of the article.
3. Work through the full text of the article.

The articles that were identified as relevant were saved for further analysis. The reason why certain articles were not included in the study was that they include other types of metrics than those used for HR, recruitment and talent management.

A table was also developed to tabulate the relevant articles that were found during the searches. This table (Table 7 below) presents the following aspects: the author, database used, the title of the article, and a brief description of the article.

Table 7: *Relevant articles included*

AUTHOR	DATABASE/ JOURNAL	TITLE	BRIEF DESCRIPTION
Kapoor, B., Mihaylo Faculty Fellow, & Department of Information Systems & Decision Sciences California State University	ABI/Inform Global The Journal of Human Resource and Adult Learning Vol. 6, No. 2, December 2010	*Business Intelligence and Its use for Human Resource Management*	Business intelligence plays a crucial role in achieving a competitive edge over competitors in the challenging present-day economy. Organisations using a business intelligence methodology are able to develop intelligence-based information systems to gain useful business insight and make faster and more reliable business decisions. While many organisations are beginning to use business intelligence in various areas of their businesses and make substantial gains, they have not taken advantage of this in the area of HRM. This paper examines leading BI vendors to examine the business intelligence and data analytics features incorporated in their Human Resource Management modules.
Yapp, M.	ABI/Inform Global Strategic HR Review Vol. 8, No. 4 2009, pp. 5-10	*Measuring the ROI of talent management*	This paper aims to establish how effectively current organisations assess the return on investment (ROI) of their talent management initiatives. It investigates the question: How do they know whether the money they spend on recruitment, development and succession management generates a worthwhile commercial benefit to the organisation?
Peppet, S.R.	ABI/Inform Global Texas Law Review Vol. 93:85	*Regulating the Internet of Things: First steps toward managing discrimination, privacy, security, and consent.*	The consumer "Internet of Things" is suddenly reality, not science fiction. Electronic sensors are presently ubiquitous in smartphones, cars, homes, electric systems, health-care devices, fitness monitors, and workplaces. These connected, sensor-based devices create new types of detailed, high-quality information about people's everyday actions, habits, personalities, and preferences. Much of these undoubtedly increases social welfare.
Freemand, C	ABI/Inform Global HR Focus February 2014	*To maximize recruitment ROI, HR needs to adapts to changing landscape.*	In pursuing a successful recruitment strategy, HR must be aware of the changing dynamics between employers and applicants, and what current job seekers look for from an organisation
Giuffrida, M	Ebsco Host The Public Manager Fall 2014	*Unleashing the power of talent analytics in federal government.*	Nearly 100 government HR and talent management professionals gathered in March 2014 to discuss how talent analytics can be leveraged to meet agencies' needs for recruiting and hiring. Presenters also discussed the Pathways Programs, which provide federal agency-based internships for students and recent college graduates. While Pathways was the initial agenda driver for the event, the ensuing discussion reflected far broader concerns. Numerous attendees voiced concerns, saying, "We simply aren't doing enough to leverage organisational data as a talent-management asset to drive talent analytics." The core of the discussions focused on starting points for the best leverage of this asset.
Kinley, N. & Ben-Hur, S.	Emerald Strategic HR Review Vol. 13, No. 2 2014, pp. 63-68	*Four questions every leader needs to ask about talent management.*	The authors aim to examine the use of talent intelligence – businesses' understanding of the skills, expertise and qualities of their people – within talent management strategies. Beneath the succession plans and talent pools, talent management is built upon the foundation of talent intelligence. This forms the basis of every people decision that organisations make. Yet there is evidence that this basic foundation of talent management is broken. The authors examine reasons why talent intelligence is not being used to its potential, and explore strategies that businesses can follow to rectify the matter. Four practical steps are presented to help HR professionals assess the quality of their organisation's talent intelligence.
Mayo, A.	Emerald Strategic HR Review Vol. 14,	*Strategic workforce planning – a vital business activity.*	This paper makes the case for strategic workforce planning and outlines the key steps involved. It begins with a discussion of the cost of redundancies to the economy and argues that much of this costs could have been reduced through better planning. It goes on to describe the key steps in workforce planning. Thereafter it examines practical ways to assess demand and replacement needs and utilise productivity ratios to convert delivery units into human resource requirements.

	No. 5 2015, pp. 174-181		The paper concludes with a discussion on the supply of resources, and possible proactive actions that can close foreseen gaps.
Wroe, N.	MasterFile Premier American Society for Training & Development August 2012	*Innovation in talent analytics*	Talent analytics solutions are rapidly gaining traction as learning technology capabilities mature. Now is the time to explore how talent analytics can enhance the value that the learning function brings to the organisation. [until here last]
Sangeetha, K.	ProQuest The IUP Journal of Business Strategy, Vol. VII, Nos. 1 & 2, 2010	*Effective recruitment: A framework.*	The changing business scenario and vigorous talent hunt underline the need for new recruitment strategies. In this context, the importance of HR in any organisation has grown several fold. Its strong impact on return on investment (ROI) and company's success in the marketplace have placed significant emphasis on effective recruitment strategies from an individual, organisational and societal perspective, leading to increased ROI and economic viability of the organisation. In a nutshell, effective recruitment strategies help develop and engage a committed workforce whose talent and supremacy result in a competitive advantage and unmatchable business success in the marketplace.
Berry, M.	ProQuest HR Magazine December 2015/January 2016	*How to fail at HR analytics in 7 easy steps.*	A leading loser shares what he learned the hard way – so the reader knows what to avoid. The focus: positioning a programme as strategic even if you have done nothing that qualifies it as such; focus on the solution before defining the problem; invest most of the resources in technology rather than partnering with the right vendor; hire experts before they demonstrate any expertise; accept a role and reporting relationship that compromises your impact and integrity; delude yourself into believing that others value what you are as much you yourself; and believe your own press.
Magau, M.D. & Roodt, G.	SA Journal of HRM	*An evaluation of the Human Capital Bridge Framework*	The methodologies for achieving two important goals of human resource (HR) measurement, namely to enhance decisions on human capital and to connect HR and business strategy, are rarely investigated empirically. The aim was, therefore, to use the Human Capital (HC) BRidgeTM framework to compare the views of HR practitioners with those of line management on HC solutions for strategic business objectives. The study proposed the HC BRidgeTM framework as a method to connect human-capital processes with business strategy to leverage business results and demonstrate value-add.
Davenport, T.H., Harris, J. & Shapiro, J.	Hand-searched (See Table 6 above) Harvard Business Review October 2010	*Competing on talent analytics*	Leading companies such as Google, Best Buy, P&G, and Sysco use sophisticated data-collection technology and analysis for optimum value from their talent. These companies have taken the guesswork out of employee management. This is done by, e.g., leveraging analytics to improve their methods of attracting and retaining talent, connecting their employee's data to business performance, differentiating themselves from competitors. The article presents six key ways to track, analyse, and use employee data. These ways range from establishing simple metrics that monitor an organisation's overall health to identifying talent shortages and excesses well beforehand. Companies that want to compete on talent analytics must have access to high-quality data and manage these at an enterprise level, support analytical leaders, choose realistic targets for analysis, and hire analysts with a broad base of expertise.
Industry Research Unit	Hand-searched (See Table 6 above) Industry Research Unit	*Recruitment – 2022: The effect of social media and technology on future recruitment*	This research paper provides a wide range of conclusions explaining how the industry and employment will re-shape itself in coming years. Key aspects that stood out for the researcher are the continuing move towards freelance/contract careers with part time work increasing.

Table 8: *Summary of articles included*

DATE	DATABASE/ JOURNAL	NUMBER OF RELEVANT ARTICLES	ARTICLES INCLUDED
2016/03/24	ABI/Infrom Global	8	4
2016/03/24	Emerald	9	2
2016/03/24	EbscoHost	4	1
2016/03/24	Ingenta Connect	2	0
2016/03/24	JStor	0	0
2016/03/30	MasterFile Pemier	3	1
2016/03/30	ProQuest	7	2
2016/03/30	PsychInfo	0	0
2016/03/30	Science Direct	0	0
2016/03/30	Wiley Online Library	0	0
2016/03/30	Taylor and Frances	0	0
2016/03/30	SA Journal of HRM	3	1
2016/03/30	SAJIP	0	0
2016/03/31	Hand-searched (See Table 7)	3	2

Ethical considerations

The present research study obtained ethical clearance from the Departmental Postgraduate Committee.

This study is a systematic literature review and, therefore, made use of peer reviewed articles, hence no subjects were identified to take part in this research. For this reason, the ethical clearance with regard to human research subjects did not apply. However, certain ethical aspects were considered, as explained below.

Plagiarism

Plagiarism can be defined as using someone else's words, work, or ideas as one's own, not acknowledging their contribution to one's study content (Triggle & Triggle, 2007). The researcher avoided plagiarism by citing all the resources used in this research study in-text as well as in the list of references.

Publication bias

According to Dwan et al. (2008), publication bias occurs when information of certain studies are excluded. Data within articles or publications may be incomplete since a number of these studies were not published; or there may have been incomplete information or findings in published articles or studies (Dwan et al., 2008).

For the purpose of the present study, the researcher consulted a wide range of databases by means of primary and secondary keywords. This helped ensure that publication bias was minimised.

Validity and reliability

Validity refers to the degree the research does measure what it intends to do, whereas reliability refers to the degree to which the results of the study are consistent over time and provide an accurate representation of the entire population (Golafshani, 2003).

For the present study, the researcher ensured the integrity of the data that were collected by the following actions:

- By using the PRISMA Checklist, the researcher ensured that all the steps were followed that should be included in a systematic literature review.
- The researcher consulted more than one database as well as primary and secondary search terms.
- The researcher focused on including only studies and articles that resort under the inclusion criteria, which were established beforehand.

CHAPTER 4: RESULTS

In this chapter, the selection of studies for the literature review is discussed. The researcher based the selection on the articles' citations, abstracts and full text. Data extracted from the selected studies are provided below. The researcher structured the data in the following themes, which were identified in the selected articles. This is depicted in Figure 2 below.
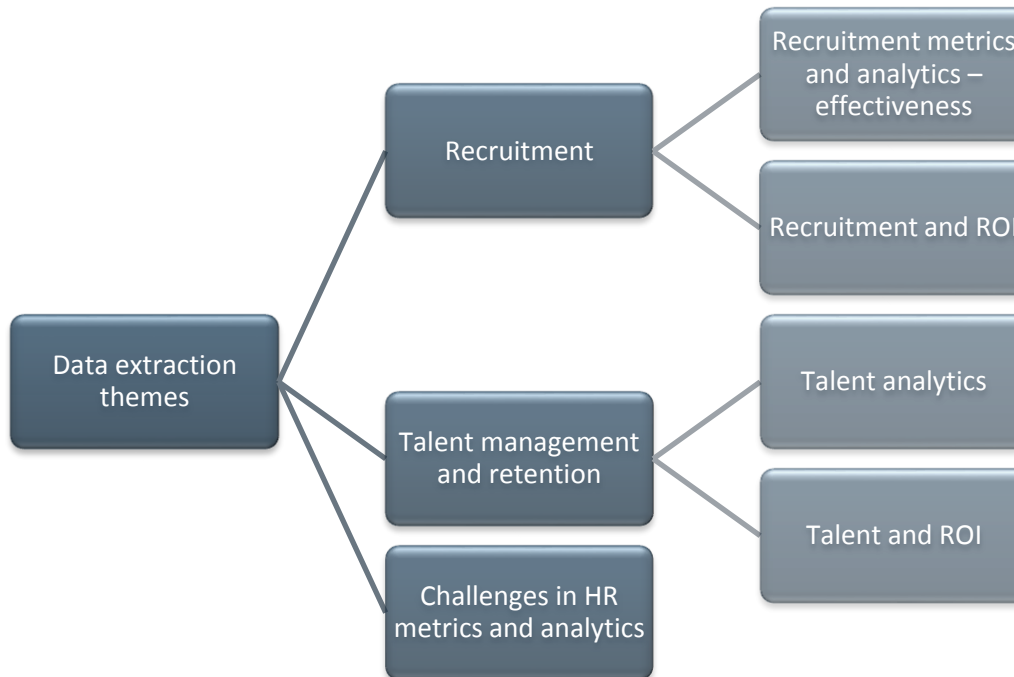

Figure 2: Data Structure

Source: Researcher's own compilation.

4.1   INTRODUCTION TO LITERATURE

In the current rapidly changing world of work, organisations are investing increasingly in workforce planning. According to Mayo (2015), such planning can be defined as the critical placement of employees and jobs by aligning business requirements with an individual's specific talent and skill. Mayo explains that workforce planning utilises HR metrics and analytics to recommend hiring, reduction and developmental actions within the organisation.

Throughout time, recruiting and retaining employees has been a challenge that employers faced. Traditionally, an employer's recruitment was based on the social processes of human

interaction. Employees usually applied for a post by submitting an application form. Thereafter, the manager would evaluate the application form and their CV and decide whether to arrange for an interview with the applicant (Burdon & Harpur, 2014; Davis, 2008; Kinley & Ben-Hur, 2014). However, it was soon recognised that new recruitment methods needed to be developed. It was identified that recruitment decisions needed to be based on statistical evidence rather than irrelevant and biased perceptions of people (Burdon & Harpur, 2014; Davis, 2008; Kinley & Ben-Hur, 2014).

HR metrics and analytics is still a relatively untouched tool in its usage by HR managers. However, HR practitioners are involved in an era where recruitment and retention processes are becoming predictive, and thereby provide several benefits to both employer and employee (Burdon & Harpur, 2014). Current business leaders no longer focus merely on organisational efficiency. They want to be in charge of the market, finance, information technology and customer relations. Data can be used to ensure insightful decisions that generate business results. By understanding this fact, HR professionals need to see and exploit the gap. This gives them the opportunity of utilising their extensive data sets to provide the organisation with the applicable analytics for informed decision-making (Harris, Craig, Light, & Harris, 2011).

With the world economy changing constantly, organisations mostly seem to be concerned about talent. Their primary goal is to attract the right talent, secondly, to retain top talent and lastly, ensuring that they develop future talent in order to retain a competitive edge in the market. Research suggest that management is beginning to realise that the quality of the talent does impact on the 'bottom line' of the organisation. When HR are able to provide management with data enabling them to make fact-based decisions, the business will be more competitive (Missildine, 2011).

According to Magau and Roodt (2010), the metrics that HR professionals applied provided organisations with limited information on the value-added and performance of the human capital. It is, therefore, vital that organisations find other metrics that will allow them to demonstrate the value added by the 'people-part' of the organisation and its impact on the 'bottom line'.

4.2 RECRUITMENT

Davis (2008) defines recruitment as a process in which an organisation has to identify and hire the most suitable candidate for a position by ensuring time and cost-effectiveness. He furthermore points out that an organisation that follows an efficient and effective recruitment process will ultimately prosper in the market.

For an organisation to adopt a successful recruitment strategy it is important that the HR department acknowledges the dynamic shift between the employer and the applicant (Freeman, 2014). Freeman states that organisations and senior executives are beginning to acknowledge that recruitment is one of the 'high value functions' within a business. He also stresses the importance that organisations develop metrics, which will help them determine where their resources are, and the time it takes the organisation to progress from a vacant position to 'hired status'.

According to *Recruitment Metrics* (2015), it is untenable for top management to depend on recruitment metrics to make up an organisation's recruitment strategy. This occurs even though research suggests that the effective use of such metrics can ensure that recruitment operations runs smoothly. Recruitment metrics can be used for the sole purpose of identifying the effectiveness of a single recruiter for the business's recruitment plan and strategy. By using technology, recruitment can be seen as one of the most important HR processes. The reason is that the recruiters will be able to assess the productivity and efficiency of all the employees within the organisation. The research pointed out that recruitment will shift their focus to hiring quality (REC Industry Research Unit, 2010).

4.3 UTILISING METRICS AND ANALYTICS TO ANALYSE RECRUITMENT'S EFFECTIVENESS

Recruitment metrics and analytics do not only assist organisations by improving their recruitment process. These methods also provide quality measurements of the new applicants (Sangeetha, 2010), and criteria to remove ineffective applicants. Sangeetha explains that recruitment analytics help the HR manager to determine whether recruitment contributes to the organisation's strategy and 'bottom line'. According to this researcher, if organisations underplay recruitment analytics, this would most likely deliver bad recruits.

Cook (2014), states that the success of an organisation's recruitment is frequently measured by the following two metrics: "time to fill quotas" and "cost per hire number." However, he adds that the only information these metrics provide is how quickly an organisation hired someone at the lowest possible rate. William Tincup, one of the leaders in HR research, point out that currently, HR managers only focus on what they can measure and not what they should be measuring (Cook, 2014). In other words, HR practitioners should move away from the common measures and begin to develop measures that will allow them to measure more organisation specific problem aspects.

According to Sangeetha (2010), an effective recruitment process is key to ensure that costly recruitment mistakes are avoided. A well-constructed recruitment process consisting of tests, assessments and an evaluation of the applicant, will ensure that the right person for the job will be appointed. Sangeetha (2010) proposes that for an organisation's recruitment process to be effective, the HR manager should apply the following four recruitment metrics: time-to-fill, cost-per-hire, new-quality hire, and source distribution.

- The *time-to-fill* metrics calculate the number of days between a new job opening and the applicant accepting the offer.
- The *cost-per-hire* metrics are determined by the total cost of recruitment divided by the number of filled job openings.
- *New-quality-hire* refer to the performance measurement of the new applicants during the first 90-180 days they occupy their position.
- *Source distribution*

After applying the recruitment metrics, an organisation must also use the following two recruitment analyses for an effective recruitment process (Sangeetha, 2010). Firstly, *person-job-fit* analysis focuses on the applicants' ability, skills, and knowledge required to perform the job successfully. Secondly, the *person-organisation-fit* determines the applicant's compatibility with the values, believes and culture of the organisation.

4.4 RECRUITMENT AND RETURN ON INVESTMENT (ROI)

A well-developed recruitment programme as discussed above, will provide the organisation with a large data set on the applicants work style, talents, skills, performance, and experience (Freeman, 2014; Sangeetha, 2010). An effective recruitment process will, therefore, ensure a favourable ROI for the organisation as their employees will be engaged, high performing, and delivering quality work. Freeman (2014) and Sangeetha (2010) agree that an ineffective recruitment process will impact negatively on the organisation's ROI. For example, new recruits will have to undergo intensive orientation and training and they may become disengaged from their job and the organisation which leads to lower productivity. According to the above-mentioned researchers, calculating the ROI on an organisations recruitment function will allow the HR department to participate in the strategic decision-making process.

4.4.1 CALCULATING ROI ON THE RECRUITMENT FUNCTION

By calculating the ROI on the recruitment function, the organisation is able to:
- Determine the actual cost of recruitment.
- Gain management's support to invest and optimise the recruitment function.
- Provide management with concrete proof that links the cost of recruitment to positive outcomes (Sangeetha, 2010).

Sangeetha (2010) explains that an organisation can calculate the ROI on recruitment in five ways. First, a business can perform an organisational and financial analysis to determine the outcomes of the recruitment process. Secondly, the method can determine the role the new recruits fulfilled in the latest success of the organisation. Freeman, (2014), also concurs with Sangeetha's third method, where the business can employ tracking software to quantify the recruitment process. Fourthly, a business can perform an analysis to determine whether candidates have the suitable qualities to perform the job effectively. Lastly, ROI can be calculated by assessing aspects that contribute to the success of the organisation, namely, the candidates' personality, motivation, aptitude, skills, and experience.

Another way in which organisations can insure ROI on recruitment is by using *internal referral programmes.* According to research, a referral programme is one of the best methods to deliver ROI in recruitment, because (1) it has a 50% faster hiring rate, (2)

employees are retained, and performance is 10% higher than that of an average employee (Freeman, 2014).

It is important that all the individuals who are part of the recruitment process are trained properly. Furthermore, induction, training, management and performance management should be connected to the recruitment process. This will help improve ROI on the recruitment (Sangeetha, 2010). Freeman (2014) and Sangeetha (2010) concur that utilising these methods will ensure ROI. They provide the following reasons: The methods recognise employees who perform; decrease the likelihood of employing the wrong people; and avoid losing money on recruitment and development.

In a volatile global work environment it is important that recruiters understand the importance of utilising recruitment metrics (Freeman, 2014). This will allow them to prove the ROI that is generated by the recruitment process/function and to present annual and quarterly progress reports on this matter (Freeman, 2014). According to Freeman, organisations that neglect their recruitment strategy are being left behind in the rat race for survival in the competitive world of work.

4.5 TALENT MANAGEMENT AND RETENTION

Yapp (2009), and Vaiman, Scullion and Collings (2012), point out that the competition for talent remains a significant part of present day's rapidly moving, dynamic, and uncertain business environment. For organisations across the world, the hunt for employees with the right knowledge and ability to help the business in its strategic movements, is a brutal battle (Vaiman et al., 2012).

After McKinsey coined the expression, "the war for talent" in the 1990s, talent management became a growing discipline amongst senior managers as McKinsey stressed the important role of leaders and employees with high potential in the success of an organisation (Vaiman et al., 2012; Micheals, Handfield-Jones & Axelrod, 2001). Therefore, businesses are committed to invest in talent management activities. It helps them meet the organisation's resourcing needs, and thereby creating a channel for the future leaders. When organisations fail to invest in initiatives to manage talent, this will have a direct effect on HR. It may

influence aspects such as attraction and retention, or may impact business outcomes relating to productivity, quality, customer service and the organisation's brand (Yapp, 2009).

Researchers generally agree that there is no set definition for talent management. Some researchers view talent management mostly as an HR perspective, whereas others consider this form of management as the key success factor of an organisation (Vaiman et al., 2012). Furthermore, researchers point out that talent management is a key component to be aligned with an organisation's strategy and culture (Vaiman et al., 2012). Vaiman et al. (2012) also posits that the limited understanding of this field (talent management), can be due to the broad description and lack of definition.

For the purpose of the present study, the researcher will use the definition derived from Scullion, Sparrow, and Farndale, (2011): "talent management includes all organizational activities for the purpose of attracting, selecting, developing, and retaining the best employees in the most strategic roles (those roles necessary to achieve organizational strategic priorities) on a global scale."

Lavoie (2014) asserts that a business is only as good as its talent. Therefore, finding, hiring and retaining the talent are vital to ensure organisational success. However, before managing talent, the human capital needs to be assessed to find or retain the best employees for the strategic roles. For this purpose, talent analytics come into play.

4.6   TALENT ANALYTICS

Numerous top-performing organisations have appointed an analytics team within their company with the sole purpose of evaluating hundreds, if not thousands, of data sets (Wroe, 2012). These data sets contain information of employees across the organisation. The data is processed and used by top management for insight into the company's human capital, with a view to improve the effectiveness and overall success of the organisation (Wroe, 2012).

The discipline of talent analytics provides new opportunities. Employers are able to apply predictive techniques that will allow them to make more accurate decisions about the

recruitment and retention process (Burdon & Harpur, 2014; Wroe, 2012). According to Wroe (2012), several internal data sets that organisations use in talent analytics are produced by performance management programmes and learning management systems.

4.6.1 CHALLENGES IN TALENT ANALYTICS

Findings by Giuffrida (2014) indicate that organisations experience a lack of expertise to implement initiatives successfully for talent analytics. The scholar also found that the organisations do not have the necessary technology or systems in place to utilise talent analytics effectively. In this regard, Giuffrida (2014) identified five challenges that organisations face when attempting to use talent analytics in practice.

Firstly, HR departments only utilise analytics for a general purpose; therefore, the potential of this method still remains unknown. Secondly, an organisation needs 'full buy-in' for HR analytics to add value to the organisation. Thirdly, the data can be inaccurate. As Giuffrida (2014) explains, a talent analytic tool is only as good as the integrity of the data that are processed. Fourthly, the solution provided by technology is often too complex and inefficient as these media are not flexible enough to adapt to the uncertain nature of the HR function. Giuffrida (2014) posits that any solution should be able to fit any situation for any organisation. Therefore, if a method can provide more flexibility in an organisation, it will enhance the efficiency. Lastly, talent analytics get compartmentalised as being merely an operational function, and is not valued enough to support managerial and strategic functions of the organisation.

Wroe (2012) investigated organisations at the forefront of using talent analytics, and considered the lessons they learned. He found that one of the most important aspects in talent analytics is to ask the right questions, even if it queries current strategies and programmes. Wroe (2012) explains how Time Warner Cable (TWC), an American company, already invested financially highly in their recruitment and training programmes for key managers. They posed the question, "We know our managers are good, but are they good enough?" Wroe (2012) concludes that organisations are asking important and relevant questions, such as: How do we reduce turnover; how do we gain a competitive advantage? However, according to Wroe (2012), these questions are only treating the symptoms of the problem and not diagnosing its root cause.

Wroe (2012) and Berry (2015) also indicate that organisations have the tendency not to question internal data, but present it as evidence to support business decisions. Therefore, organisations must ensure that the system or company generating the data is not inconsistent as this would mean that the organisation bases its future steps on unreliable data.

Often decision-makers of organisations view talent analytics as too difficult to implement. The reason is that they want to develop their own integrated solutions, which makes the process resource consuming. Giuffrida (2014) explains that an organisation must include a proven IT partner that will help management recruit and develop employees through talent analytics. By using an external partner, the organisation's productivity and capacity of resources will not be impacted.

When they overcome these challenges, top management will be able to utilise data on talent management in such a way that it empowers top personnel leaders, midlevel supervisors, and frontline recruiters (Giuffrida, 2014). By doing more and spending less in the competitive world of work in which companies are currently functioning, these enterprises will be able to improve their ROI by means of talent analytics (Giuffrida, 2014). Figure 3 below demonstrates organisations that are considered "mature" in development of analytics constitutes of the following:

How HR benefits from Analytics

2 x — as likely to improve their recruitment efforts

2 x — as likely to improve their leadership pipelines

2.5 x — more likely to place the right people into the right jobs

3 x — more likely to realize cost reductions or efficiency gains

Figure 3: How HR Benefits from HR
Source: Giuffrida, 2014

4.6.2 TALENT INTELLIGENCE

Kinley and Ben-Hur (2014) point out that organisations invested extensively in talent management (finance and resources), but built on a defunct foundation. These scholars assert that before taking the succession plans and talent pools into consideration, talent management's main foundation is talent intelligence. These scholars define talent intelligence as the perception organisations have about the skills, expertise and quality of their people, and which is reflected in every aspect of 'people decisions' these organisations make.

Talent intelligence is one of the key drivers to deliver a competitive advantage (Kinley & Ben-Hur, 2014). According to Kinley and Ben-Hur (2014), research shows that when talent intelligence is used effectively, it will enhance an organisation's recruitment and promotion processes. This will result in reduced turnover, improved performance levels and lower

absenteeism. It stands to reason that organisations applying successful strategies to retain their talented employees, tend to outshine their competitors.

When an organisation is using talent intelligence data, it is important to ensure that the data collection is centralised and the information gathered from common data points (Kinley & Ben-Hur, 2014). Talent intelligence data can be used for more than merely making informed 'people decisions'. According to Kinley & Ben-Hur (2104), if data is collected effectively, it can also assist a company with onboarding, talent management and organisational learning.

4.7   TALENT MANAGEMENT AND RETURN ON INVESTMENT (ROI)

According to Yapp (2009), it is important that organisations determine whether the finances and resources they invest in talent management initiatives actually benefit the organisation. In this regard, it is important to understand how organisations track the performance of their appointed talent.

4.7.1   HOW ORGANISATIONS TRACK TALENT ROI

According Yapp (2009), and Parry and Tyson (2008), the majority of organisations use internally driven HR measures to track their quantitative business performance. In a study by Parry and Tyson (2008), they surveyed more than 600 UK companies on the type of methods they apply to measure their ROI on talent retention. The scholars' findings show that organisations focus predominantly on costs and not as much on the ROI. However, there is only one factor that links with organisational productivity.   These results are illustrated in Figure 4 below.

Methods used to assess the
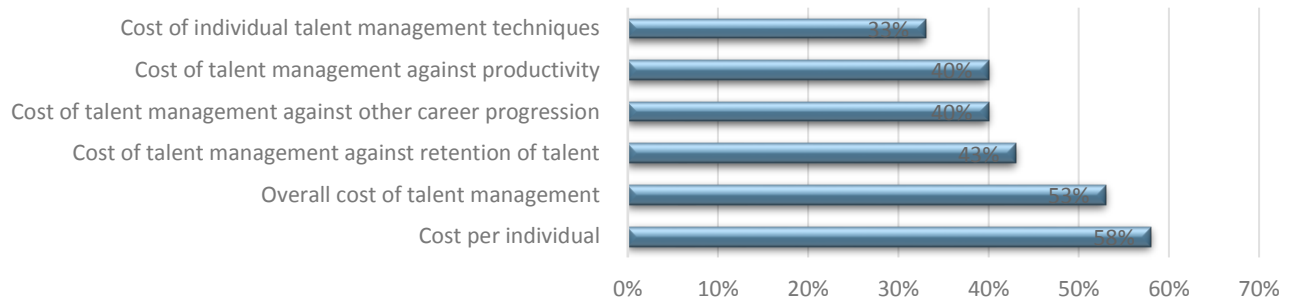## ROI on talent retention

Figure 4: 600 UK companies' methods used to assess the ROI on talent retention
Source: Parry and Tyson, 2008.

4.7.2   WHY COMPANIES INVEST IN TALENT MANAGEMENT

Yapp (2009) indicates that organisations invest in talent management for four reasons: address a shortage of talent; respond to competition for talent; secure a long-term leadership pipeline; and drive business transformation.

Firstly, organisations *address the shortage of talent* to ensure that they have the necessary resources that will help them gain and maintain a competitive advantage at the present and in the future. Organisations, secondly, also *respond to competition for talent* as it is important in the current business environment that a company's work is more diverse than that of its competitors'. Thirdly, it is also crucial for organisations to *ensure a strong leadership pipeline* since this strategy will secure their succession in the long run. Finally, organisations need to recruit and retain employees who have unique job abilities and leadership skills. Such employees will play a critical role in the strategic direction of the organisation and *drive the business transformation*.

According to Yapp (2009), when an organisation is able to identify and develop individuals who can work successfully while the company is experiencing a shift in strategy, this is an excellent indication to invest in initiatives for talent management. Peppet (2014) points out that organisations are beginning to collect and analyse extensive data about potential

candidates. This helps them determine which individual will be the most suitable for the organisation in terms of productivity, effectiveness and people skills. Peppet (2014) also states that 'Big Data' is one of the leading trends in current organisations. When organisations are able to apply science to improve the selection, management and alignment of their people, they can reach outstanding outcomes.

4.7.3   COST OF FAILING TO INVEST IN TALENT MANAGEMENT INITIATIVES

The survey by Yapp (2009) indicated that organisations are well aware that poor investing in talent management initiatives will impact negatively on the business deliverables. The survey also identified potential problems, namely:

- failure to reach anticipated revenues;
- low deliverance ability;
- deviation from the project plan;
- loss of customers, further losses and reduced customer satisfaction;
- loss of repeat business;
- insufficient follow-through on strategies due to high turnover at senior level; and
- insufficient creativity and innovation to keep the organisation ahead in the market.

The respondents also pointed out that an effective and well-organised talent management process improves the reputation of the organisation (Yapp, 2009). Furthermore, organisations that increase investments in their leaders and encourage a stimulating and open work environment, have higher levels of engagement. Therefore, they attract and retain talented employees better (Yapp, 2009). Lastly, the survey also indicated the cost of replacing talent within an organisation mainly due to a deficient talent management process. In many cases organisations then have to enlist external recruitment agencies (Yapp, 2009).

4.7.4   CALCULATING THE ROI OF TALENT

Although the respondents in the study of Yapp (2009) indicated that there are commercial consequences for investing in talent, they did not acknowledge any systematic approaches

that evaluate the ROI of the resources spent on talent management. These responses correlate with the study by Parry and Tyson, 2008, who found that only 15% of organisations apply systematic measures to assess the ROI on their talent management process.

4.7.5   HOW TO MEASURE THE ROI OF TALENT

In the current business environment, it is not common any more to measure talent in a classical, commercial way. This is because it is extremely challenging to find a direct correlation between the resources invested in talent, and a business's outcomes (Yapp, 2009). According to Yapp (2009), research shows that while businesses are focusing on measuring the impact of initiatives for talent management, these measures are taken more internally with HR in view, rather than business outcomes.

4.8   CHALLENGES WHEN USING HR METRICS AND ANALYTICS

Davenport and Harris (2010a) identify the following potential challenges that organisations face when applying HR metrics and analytics:

- Attempt to justify the usage of analytics that treat individuals as interchangeable widgets.
- Keep on using a metric that does not add value to the organisation.
- Make use of only a few metrics to evaluate employee's performance.
- Insist on data that is 100% accurate before considering it for decision- making.
- Only utilise simple metrics, which tend to predict success not as accurately.
- Apply analytics for the purpose of hiring lower-level people, but not when assessing senior management.
- Disregard organisational changes and, therefore, end up with irrelevant, if at all accurate, information;
- Discount aspects of performance since it cannot easily be translated into quantitative measures.
- Focus only on metrics that measure HR efficiency, without recognising the effect of talent management on the business enterprise's performance.

CHAPTER 5: DISCUSSION

In certain instances, HR practitioners are still struggling to be included in the strategic decision-making process within the organisation (Abeysekera & Guthrie, 2004). For this reason, it is paramount that HR practitioners are able to provide evidence of the value and contribution they add to the overall success of the organisation. Researchers have found that one of the most complex problems organisations currently face, is recruiting and retaining talented employees.

In this regard, HR practitioners can brand themselves as recruitment and retention specialists. By utilising the information gathered from recruitment and talent retention analytics, these practitioners can improve and validate their recruitment and talent strategy since this proves to be beneficial to both employer and employee (Burdon & Harpur, 2014).

5.1 THE IMPORTANCE OF RECRUITMENT AND TALENT RETENTION HR ANALYTICS IN THE SUCCESS OF THE ORGANISATION

With regard to the first objective of the present study, the literature review pointed out that organisations currently are struggling with strategies to recruit and retain talented employees, a factor that ultimately influences the success of the business enterprise (Burdon & Harpur, 2014a; Davis, 2008; Kinley & Ben-Hur, 2014). The information gathered in the review describes the competitive world of work in the present-day's volatile business environment. Within this context, businesses realised that they have to develop new recruitment and talent retention methods to keep on competing in the market. From the literature is also clear that these methods had to be based on statistical evidence if management was to consider it in business decisions (Burdon & Harpur, 2014a; Davis, 2008; Kinley & Ben-Hur, 2014).

The review also provided evidence of organisations that did realise the importance of recruitment and talent retention analytics, which they could also use to assist in their planning of human capital. In this way it enabled organisations to recommend, hire, and reduce personnel, and also guide developmental actions within the organisation, thus ultimately add value to the organisation's 'bottom line' (Mayo, 2015).

The importance of recruitment metrics and analytics became evident when HR professionals realised that these metrics do not only help the organisation improve its recruitment process, but can also help measure the quality of new applicants (Sangeetha, 2010). The literature review for the present study, however, did not provide evidence of organisations that used talent retention analytics and recorded that this method eventually did contribute to the overall success of their business. Nevertheless, organisations are beginning to acknowledge the importance of retaining talent. Companies do not only require the most suitable talent, but should also retain the existing talent at present and for the future, to ensure a competitive edge (Missildine, 2011).

5.2 USE OF RECRUITMENT AND TALENT-RETENTION HR METRICS IN DIFFERENT ORGANISATIONS.

The second objective of the present study was to determine how organisations apply metrics and analytics to assess their recruitment and retention of talent. From the review it became clear that organisations use recruitment and talent retention metrics in different ways and for different purposes. Firstly, it was found that organisations have different data sets and secondly, they utilise these data sets differently, in order to develop HR-related metrics to help the organisation reach its specific goals.

For example, *Recruitment Metrics* (2015) states that certain organisations apply recruitment metrics for the sole purpose of evaluating the effectiveness of a single recruiter. Other organisations do, however, use these metrics to determine the productivity and efficiency of all its employees. According to Freeman (2014), organisations also use recruitment metrics and analytics to determine the organisation's resources, and to establish the time it takes to fill a vacant position. Cook (2014) explains that the success of an organisation's recruitment function is usually determined by two metrics, namely; "time to fill position" and "cost per hire number." Sangeetha (2010) adds two metrics to these, namely: "new quality hire" and "source distributions."

In light of the above-mentioned categories, certain types of metrics and analytics to calculate recruitment and retention of talent can be generic in origin whereas others are more

company specific. The present research also indicated that organisation can use the same metrics, but utilise the analytics for a different purpose. For example, when applying the metric of "time to hire", organisations can use the analytics to evaluate either their recruitment strategy, or only a single recruiter. The research identified popular recruitment metrics that most organisations use, for example "cost to hire" and "time to fill position." The reason may be that the data that are required to calculate these metrics are not that difficult and expensive to obtain. It only need to develop a database that captures the metrics' specific data.

5.3 POSSIBLE STANDARDS FOR RECRUITMENT AND TALENT RETENTION HR ANALYTICS

With regard to the third objective, the researcher expected some standard in the use of recruitment and talent retention analytics across organisations. However, according to the literature, only three articles provided evidence of standards for talent retention analytics. The research established that there is no systematic approach to the evaluation of talent management (Yapp 2009; Parry & Tyson 2008). Parry and Tyson (2008) indicate that only 15% of organisations utilised some form of systematic measures to assess the organisations talent retention. Giuffrida (2014) point out that organisations may enlist a proven IT partner to calculate their talent retention analytics for them.

The present research, therefore, did not provide evidence of specific standards for recruitment analytics. This may be because organisations develop recruitment and talent retention metrics for their own purposes and with the data sets available to them. This may be a topic for future research.

5.4 THE ROLE OF RECRUITMENT AND TALENT RETENTION HR ANALYTICS IN MANAGEMENT'S DECISION-MAKING

The fourth, and final, objective of the present study was to ascertain whether more organisations are beginning to take HR analytics into account when important decisions need to be made. The literature has shown that organisations have invested in HR analytics to such an extent that they appoint an analytics team within the organisation, with the sole purpose of evaluating the organisation's data sets (Wroe, 2012). This attest to the value that

management attaches to HR analytics, especially its contribution to the decision-making process of the business, and ultimately the success of the organisation. The review also pointed out that management does utilise the analytics gained from the data. This provides them with more insight into their human capital and, thereby helps to improve the effectiveness and overall success of the organisation.

Evidence gathered from the research, indicated that management is also beginning to acknowledge the value that recruitment and talent retention analytics holds for the organisation's 'bottom line' as well (Missildine, 2011 & Freeman, 2014).

The literature study revealed a clear trend throughout the literature that was consulted, namely the benefit of ROI. It is evident that management is more willing to invest in interventions regarding the recruiting and retention of talent when HR professionals can provide them with sufficient proof of its added value. Research has shown (e.g., Freeman, 2014; Sangeetha, 2010) that an effective recruitment process will ensure a positive ROI for organisations. The reason is that the employees will be more engaged, high performing, and delivering quality work (Freeman, 2014; Sangeetha, 2010). When HR professionals are able to provide management with proof of the ROI that the recruitment and talent retention process generates, the HR function will be included in the decision-making process of the business.

The present study, furthermore, revealed limitations in the research. Firstly, the studies that were undertaken were limited by the research objectives set out in the research design. Secondly, some of the databases that were searched required membership (which the university did not have) before the full text of articles could be viewed. Lastly, only articles were consulted that covered HR-related recruitment metrics and analytics.

CHAPTER 6:CONCLUSION

It is evident that HR professionals realised the impact that recruitment and talent retention analytics have by determining the value the HR function adds to the organisation. Furthermore, it became clear that management does acknowledge the importance of the mentioned analytics to the organisation's 'bottom line'. Management are beginning to

understand that these analytics provide valuable information that helps them make insightful decisions, and which ultimately provides them with a competitive edge in the market.

The position of the HR function as it is known can change significantly in the near future. There is a distinct possibility that HR practitioners can become one of the most important business partners to consult before imperative strategic business decisions are made. Therefore, if HR practitioners can find a method to measure and justify the value their initiatives and programmes bring to the organisation, they can soon take the chair next to the CEO.

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APPENDIX A: LANGUAGE EDITORS LETTER

WELLINGTON
7655

22 September 2016

TO WHOM IT MAY CONCERN:

I hereby confirm that the Master's dissertation *The nature and value of recruitment and talent management analytics: A systematic literature review* by Ms Roelien van Niekerk was edited and groomed to the best of my ability. This included recommendations to improve the language and logical structure, guide the line of argument as well as to enhance the presentation.

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