

**UNIVERSITY OF KWAZULU-NATAL**

**The perceptions of employees on the use of human resource information systems in recruitment and selection functions at the School of Management, IT and Governance.**

**By**

**Noxolo Precious Magagula**

**211559533**

**A dissertation submitted in partial fulfilment of the requirements for the degree of**

**Master of Commerce - Coursework in Human Resource Management.**

**College of Law and Management Studies**

**School of Management, IT and Governance**

**Supervisor: Dr Loganathan Narayansamy Govender**

**2020**

## **Declaration**

I Noxolo Precious Magagula declare that:

- i. The research reported in this dissertation/thesis, except where otherwise indicated, is my original research.
- ii. This dissertation/thesis has not been submitted for any degree or examination at any other university.
- iii. This dissertation/thesis does not contain other person's data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- iv. This dissertation/thesis does not contain other person's writing, unless specifically acknowledged as being sourced from other researchers, where other written sources have been quoted, then:
  - (a) their words have been re-written, but the general information attributed to them has been referenced;
  - (b) where their exact words have been used, their writing has been placed inside quotation marks, and referenced.
- v. Where I have reproduced a publication of which I am an author, co-author or editor, I have indicated in detail which part of the publication was written by myself alone and have fully referenced such publications.
- vi. This dissertation/thesis does not contain text, graphics or tables copied and pasted from the internet unless specifically acknowledged, and the source being detailed in the dissertation/thesis and in the references sections.

Signature: N.P Magagula

Date: 05/12/2020

## **Acknowledgements**

To God be all the glory, honor and adorations for now and forever Amen. I would not have been able to accomplish this great and amazing work without relying on divine strength from above. I am forever grateful to the Lord Almighty for giving me this opportunity to study and acquire knowledge.

My greatest appreciation goes to my Supervisor, Dr L.N Govender for all the support, guidance and expertise that he has granted me. I know I would be too busy at times, with work, ministry and business and not do things on time, but your patience and kindness towards me always pushed me to carry on and do more.

Lawrence Abiwu, thank you so much sir for always availing yourself when I needed your expertise, thank you for believing in me and always pushing me to do more, I really thank the Lord for you sir.

To the employees of School of Management, IT and Governance, thank you so much for taking time in your busy schedules and filling my questionnaires, this study would not have been possible without your help, thank you so much.

Finally, a special appreciation goes to my dearest husband Bishop K.W Magagula, thank you so much for allowing me to spread my wings. Thank you for allowing me not to be at home at times, thank you for not complaining when I returned home at the odd hours of the morning from the library. Thank you for allowing me to pursue my dreams. I am forever grateful to the Lord for you.

## **Dedication**

This dissertation is dedicated to my spiritual family, Grace Impact Church International. Thank you so much for understanding when I would not attend certain services because I was studying. Your support and prayers have really carried me throughout this great and amazing journey. A big thank you to my two mothers in the Free State and Swaziland, thank you so much for understanding when I would not come home during the holidays because I wanted to meet certain deadlines. To the Men and Women of God, thank you so much for your prayers and encouragement, you are indeed true brothers and sisters. To the body of Christ as a whole, I did this for the glory of God our Father.

## **Abstract**

There has always been a growing need for organizations to achieve organizational goals and functionality in the work environment. Studies conducted over a long time show that traditional ways of doing things in human resource management have been moved to strategic human resource management using substantial involvement of Information Technology. This research explores University of Kwazulu-Natal employees' perceptions towards the use and functionality of Human Resource Information Systems in recruitment and selection functions in the School of Management, IT and Governance in Pietermaritzburg and Westville Campus. The main objectives were to explore employees' perceptions on the design and use of human resource information systems, identify the advantages of using HRIS in selection and recruitment functions, and their overall perceptions of its use on selection and recruitment functions. Descriptive research was conducted to provide an accurate description of the subject matter. The quantitative research method was conducted to provide a more comprehensive statistical and graphical understanding of the information collected. The target population was 61, where 52 respondents were selected as the sample for the study. Due to the COVID-19 pandemic, remote data collection was adopted. The questionnaires were captured on the Google Form, and the link was subsequently sent to each of the respondents via email. The responses were downloaded and re-coded in Excel, which was later exported into the SPSS, version 26. Based on the data, only 42 of the respondents completed the questionnaires online. This represents 86.77% active response rate. The measuring instrument reliability was determined using Cronbach's alpha efficient, while the validity was determined through exploratory factor analysis. The results showed a significant relationship between the perceptions on the use and design of HRIS and benefits of HRIS ( $r = 0.236, p < 0.05$ ). Furthermore, there was a significant positive correlation between the benefits of HRIS and the perceptions on the use of HRIS in the recruitment process ( $r = 0.464, p < 0.05$ ). Lastly, there was a significant positive relationship between the perceptions of HRIS in the recruitment and selection process ( $r = 0.550, p < 0.05$ ). The study recommends that the University continue to integrate HRIS into its HR activities such as recruitment and selection, job analysis, human resource planning, training and development, compensation, and succession planning.

**Keywords**    **Human resource information system, perception, recruitment, selection**

## Table of Contents

Declaration.....	i
Acknowledgements.....	ii
Dedication.....	iii
Abstract.....	iv
Table of Contents.....	v
List of Figures.....	x
List of Tables.....	xi
List of Acronyms.....	xii
Chapter One: Introduction.....	1
1.1 Introduction.....	1
1.2 Background of the Study.....	2
1.3 Purpose/Aim of the Study.....	3
1.4 Problem Statement.....	3
1.5 Significance of the Study.....	4
1.6 Research Objectives.....	4
1.7 Research Questions.....	5
1.8 Limitations of the study.....	5
1.9 Structure of the Dissertation.....	5
1.10 Conclusion.....	7
Chapter Two: Chapter Two: Human Resource Information System.....	8
2.1 Introduction.....	8
2.2 Definitions of Human Resource Information System.....	8
2.3 Development of HRIS in South Africa.....	9
2.4 Uses of Human Resource Information System.....	10
2.4.1 It provides accurate information.....	10
2.4.2 Provides quick and easy access to information and saves cost.....	10
2.4.3 Easy and sound decision-making.....	12
2.4.4 Generating and sharing of information.....	15
2.5 Different Types of Human Resource Information System.....	15
2.6 Different Human Resource Information System Configurations.....	17

2.6.1	Effective human resource information system.....	17
2.6.2	Tactical human resource information system .....	17
2.6.3	Strategic HRIS .....	17
2.7	Advantages of Human Resource Information System.....	18
2.7.1	HRIS enhances competitiveness by improving HR practices.....	18
2.7.2	HRIS offers superior quantity and diversity of HR operations.....	18
2.7.3	HRIS moves the attention of HR from the handing out of communications to tactical HRM 19	
2.7.4	Make employees part of HRIS.....	19
2.7.5	Reengineer the entire HR function.....	19
2.8	Factors Influencing the Adoption of Human Resource Information System.....	19
2.8.1	Organizational factors .....	20
2.8.2	Technological factors.....	21
2.8.3	Environmental factors .....	22
2.9	Contributing factors to the failure of HRIS adoption.....	23
2.9.1	Limited budget .....	23
2.9.2	Limitations due to time frames .....	23
2.9.3	Lack of knowledge and training.....	23
2.10	Issues of Privacy and Security Around HRIS Adoption.....	24
2.10.1	Policies on privacy.....	24
2.10.2	Unauthorised access to information.....	24
2.10.3	Issues on the accuracy of data.....	25
2.11	Conclusion .....	25
Chapter Three: Recruitment And Selection.....		26
3.1	Introduction.....	26
3.2	Distinction Between Recruitment and Selection.....	26
3.3	Steps in the Recruitment Process .....	27
3.4	Impact of HRIS on Recruitment Process in Organizations.....	28
3.5	The impact of HRIS on recruitment objectives.....	30
3.6	Human resource information system and the selection systems .....	33
3.7	Steps in the selection process.....	34
3.8	The use assessments in Organizations .....	34
3.10	Conclusion .....	35

Chapter Four: Research Methodology .....	36
4.1 Introduction.....	36
4.2 Research Philosophy .....	36
4.3 Research Design.....	37
4.4 Research Method .....	37
4.5 Research Location.....	37
4.6 Target Population.....	37
4.7 Sampling Strategy .....	38
4.8 Sample Size.....	38
4.9 Instrument for Data Collection .....	39
4.10 Pilot study .....	39
4.10.1 Reliability of the Research Instrument-Cronbach’s Alpha Coefficient .....	40
4.10.2 Validity of the Research Instrument-Factor Analysis .....	41
4.11 Data Measurement Scale.....	44
4.12 Data Analysis .....	44
4.13 Ethical Considerations .....	44
4.14 Limitations to the Study.....	45
4.15 Conclusion .....	46
Chapter Five: Data Presentation and Analysis of the Results.....	47
5.1 Introduction.....	47
5.2 Demographic Variables.....	47
5.2.1 Age group of the respondents .....	47
5.2.2 Gender of respondents .....	48
5.2.3 Population group of the respondents.....	49
5.2.4 Respondents positions within the Organization.....	50
5.4.5 Tenure of the respondents .....	51
5.6 Respondents campus .....	51
5.3 Reliability of the Research Instrument: Cronbach’s coefficient alpha .....	52
5.4 Validity of the Research Instrument: Factor Analysis .....	53
5.4 Descriptive Statistics.....	56
5.5.1 Perceptions on the use and design of HRIS .....	58
5.5.2 Benefits of HRIS .....	59
5.5.3 Use of HRIS in recruitment function .....	59

5.5.4 Use of HRIS in selection function .....	60
5.6 Inferential Statistics .....	61
5.6.1 Spearman correlations.....	61
5.6.2 Analysis of variance.....	62
5.6.2.2 ANOVA: Benefits of HRIS and demographical variables.....	63
5.6.2.3 ANOVA: Use of HRIS in recruitment and demographical variables .....	64
5.6.2.4 ANOVA: Use of HRIS in selection and demographical variables .....	65
5.6.3 One sample T-test .....	67
5.7 Conclusion .....	67
Chapter Six: Discussion Of Results .....	69
6.1 Introduction.....	69
6.2 Perceptions towards the Design and Use of Human Resource Information System.....	69
6.3 Benefits of Human Resource Management System.....	72
6.4 Uses of Human Resource Information System in Recruitment .....	75
6.5 Impact of Human Resource Information System on Selection Process.....	78
6.6 Conclusion .....	79
Chapter Seven: Conclusion And Recommendations .....	80
7.1 Introduction.....	80
7.2 Reiterating the Objectives of the Study .....	80
7.3 Background of the Study.....	80
7.4 Problem Statement .....	81
7.4 Purpose/Aim of the Study .....	82
7.5 Summary of the Research Methodology.....	82
7.6 Conclusion of the Study.....	83
7.6.1 Perceptions on the design and use of human resource information system .....	83
7.6.2 Benefits of using human resource information system .....	84
7.6.3 Perceptions on the use of human resource information system on recruitment functions ..	84
7.6.4 Perceptions on the use of human resource information system on selection functions .....	84
7.7 Recommendations of the Study .....	85
7.7.1 Recommendation 1- Provision of training and development for staff.....	85
7.7.2 Recommendation 2- Top management support and commitment .....	85
7.7.3 Recommendation 3- Employee participation and involvement in human resource information system.....	86

7.7.4	Recommendation 4- Adoption and integration of advanced technologies.....	86
7.7.5	Recommendation 5- Cooperate culture that support new innovations .....	86
7.8	Conceptual Model.....	87
7.9	Limitations and Directions for Future Research .....	88
9.10	Conclusion .....	89
REFERENCES .....		90
Appendix A: Questionnaire .....		98
Appendix B: consent Form .....		104
Appendix C: Ethical Approval.....		107
Appendix D: Similarity Index Report.....		<b>Error! Bookmark not defined.</b>
Appendix E: Supervisor Permission to Submit.....		<b>Error! Bookmark not defined.</b>

## List of Figures

Figure 5.1	Age group of the respondents.....	48
Figure 5.2	Gender of the respondents.....	49
Figure 5.3	Population groups of the respondents.....	50
Figure 5.4	Respondents positions.....	50
Figure 5.5	Tenure of the respondents.....	51
Figure 5.6	Respondents campus.....	52
Figure 5.7	Key dimensions of the study.....	57

## List of Tables

Table 2.1	Different types of human resource information system.....	16
Table 3.1	Steps in recruitment process.....	28
Table 4.1	Reliability of the research instrument-Cronbach's alpha coefficient.....	40
Table 4.2	Component matrix.....	41
Table 4.3	KMO and Bartlett's Test.....	43
Table 5.1	Reliability of the Research Instrument: Cronbach's coefficient alpha.....	52
Table 5.2	Reliability of the Research Instrument: Cronbach's coefficient alpha.....	54
Table 5.3	KMO and Bartlett's Test.....	55
Table 5.5	Descriptive statistics.....	56
Table 5.6	Spearman correlations.....	61
Table 5.7	ANOVA: Perceptions of the use and design of HRIS and demographical variables.....	62
Table 5.8	Post Hoc Scheffe's Test: Position and perceptions of the use and design of HRIS.....	63
Table 5.9	ANOVA: Benefits of HRIS and demographical variables.....	64
Table 5.10	ANOVA: Use of HRIS in recruitment and demographical variables.....	64
Table 5.11	Post Hoc Scheffe's Test: Position and use of HRIS in recruitment.....	65
Table 5.12	ANOVA: Use of HRIS in selection and demographical variables.....	66
Table 5.13	Post Hoc Scheffe's Test: Position and use of HRIS in selection.....	66
Table 5.14	T-Test: All dimensions and gender.....	67

## **List of Acronyms**

ANOVA	Analysis of variance
HR	Human resource
HRIS	Human resource information system
SPSS	Statistical Packages for Social Scientists
UKZN	University of KwaZulu-Natal

## **Chapter One: Introduction**

### **1.1 Introduction**

The purpose of this chapter was to provide a broad overview of the study in terms of the perceptions of employees on the use of human resource information systems in recruitment and selection functions. The chapter addressed the background of the study, problem statement, aims of the study, significance of the study, research questions and objectives, limitations of the study, and structure of the dissertation. There has always been a growing need in many organizations to achieve organizational goals and functionality in the work environment. Studies that have been conducted over a long period of time show that traditional ways of doing things in human resource management have been moved to strategic human resource management using a substantial involvement of Information Technology. When these two important elements are combined and put together, they are called human resource information system-HRIS (Teo, Lim & Fedric, 2001).

HRIS can be considered as an integrated system that can be of help to collect, pile up and evaluate data relating to an organization's human resource. It contains data components, computer components, information database elements needed for the purpose of gathering, recording, collecting, managing, delivering, and employing information for human resource purposes (Bal, Bozkurt & Ertemsir, 2012). Other theorists also confirm that HRIS is an organized method for assembling, keeping, conserving, recovering and endorsing data needed by a company about its human resource personnel functions and business unit structures (Chauhan, Sharma & Tyagi, 2011).

In any organization, it is very important to acknowledge that operational and effectual administration of information systems can produce data supply, determine which establishments are needed for functioning and provide planned and deliberate preparations and resolution-making that can promote employee performance and lead to future growth (Achua, 2008). Other significant benefits and reasons of introducing Human Resource Information System is the effective and efficient functioning of human resource department and also the advantage of yielding an opportunity to human resource employees to become considered partners with the top members of the board (Moritz, 2003).

Cascio (2013) states that the most important function of recruitment is to discover, attract and employ the most skilled workforce. However, this goal has become difficult as there is constant and ever-increasing demand and competition in the labor market.

Most organizations are forced to extend their search for most suitable employees beyond local boundaries and that is where the need for internet comes in (Kavanagh, Thite & Johnson, 2015). Previous studies that have conducted research on using internet for recruiting and selection state that over 90% of the biggest organizations in the United states use internet in order to search for the best suitable candidates for any job opening (Kavanagh et al, 2015). Pew Internet (2006), revealed that there is more than 46 million people who are job searching over the internet, hence many organizations are resorting to e-recruitment. This study therefore aims to investigate the perceptions of employees on the use of Human Resource Information System in Recruitment and Selection functions at the School of Management, IT and Governance.

## **1.2 Background of the Study**

The biggest challenge in today's global market is to remain competitive at all costs, therefore organizations are looking for ways and strategies of attaining and keeping a more efficient and highly qualified staff. One of the well-known and highly efficient way of realizing this role is the use of technology (Kavanagh et al, 2015). Amongst the technological innovations, HRIS has been considered as the commonly used tool by many organizations to perform diverse functions. According to Al Mamun and Islam (2016), HRIS can be defined as an information system that collects, stores, processes and retrieves HR information to purposely assist an organization achieve its strategic objectives. Shyaa (2019) observes that HRIS could be used to collect, to record and store, to examine and recover data relate to a firm's HR activities. Moreover, Shyaa (2019) argues that HRIS represents the solution for the many human resource (HR) problems. The use of an HRIS offers incremental leaps in efficiency and in the response time of many human resource jobs that are traditionally labor intensive. Also, HRIS helps to reduce the duplication of efforts and to better organise the efforts of the HR staff. Today, HRIS allows the HR departments in organizations to shift from data maintenance to the strategic use of human resources. For example, a survey shows that most institutions highly depend on HRIS for recruitment and selection processes in order to measure the applicant's abilities, their personality traits, the knowledge that they possess, the acquired skills and also their ability to type amongst other things (Kavanagh et

al, 2007). With regards to the recruitment process, any institution aims to address the specific aims of the process of recruitment and looks at whether the HRIS will be able to assist in achieving such goals (Kavanagh et al., 2015).

Research (Tursunbayeva, Bunduchi, Franco & Pagliari, 2017) suggests that supports a variety of HRM function including but not limited to recruitment and performance management. It provides managers with crucial information guiding effective capacity planning and resource allocation. HRIS can take various forms, ranging from dedicated stand-alone packages (payroll) to components of integrated enterprise resource planning. Another study conducted by reveals that HRIS can be utilised to perform diverse HR functions such as human resource planning, staffing, training and development, performance management, and compensation (Al-Shawabkeh, 2015). Notwithstanding this, the study focused only on the perceptions of the employees on the use of HRIS in recruitment and selection.

Zhao et al. (2020) believe that selection and recruitment practices are critical in the growth of a business as they ensure that the right people join organizations. Recruitment creates a pool of qualified applicants to apply for work in the institution. On other hand, involves choosing the most suitably qualified candidates who meet the requirements of the job (Dany and Torchy, 2017).

### **1.3 Purpose/Aim of the Study**

The broad aim of the study was to examine the employees on the use of human resource information systems in recruitment and selection functions at the School of Management, IT & Governance in the University of KwaZulu-Natal. Besides, the study aims to provides practical recommendations to the management of the University of how to implement HRIS more effectively and efficiently.

### **1.4 Problem Statement**

There is no doubt that many studies have focused on the diverse use of HRIS in organizations. For example, Udekwe and Andre (2017) investigated into the use of HRIS in two retail organizations in Western Cape. Siengthai and Udomphol (2016) studied the impact of human resource information system (HRIS) on organizational effectiveness. Moreover, Dilu, Gebreslassie and Kebede (2017) assessed the HRIS implementation readiness in the Ethiopian health sector.

Research that has been conducted on the introduction of a new technology reveals that the focus is usually directed towards the organizational point of view. The main focal point is usually on how the organizational activities and processes will be enhanced by the introduction of a new system rather than focusing on how the end-user's preferences and needs will be changed by the new system (Bernstein, McCreless and Cote, 2007). The organization may start and fund the adoption of a new Human Resource Information System, but it is the end user who uses the system daily. Therefore, it is very crucial that the end users be involved in the evaluation of any new system and that their perceptions and experiences towards the use of the system needs to be taken into consideration (Bernstein et al, 2007). Thorough review of the literature suggests that although few studies (Al Mamun & Islam, 2016; Motwani, 2015; Sanjeev & Makkar, 2014) have examined the respondents perceptions towards the effectiveness of HRIS in organization, there is a lack of research on the perception of employees concerning the use of HRIS in recruitment and selection, especially within academic institutions.

Therefore, this research aims at investigating the perceptions of employees on the use and adoption of human resource information systems in recruitment and selection functions at the school of Management, IT and Governance. The School of Management, Information Technology & Governance is based on the Pietermaritzburg and Westville campuses, and also offers limited support and modules to students based at Howard College. It is the largest school in the College of Law and Management Studies, and the second-largest school overall at UKZN.

### **1.5 Significance of the Study**

The study is important because it will allow the employees to highlight any areas that they think are of great concern and suggest strategies to improve the system and by so doing the University of KwaZulu-Natal will get an opportunity to re-evaluate its E-recruitment and selection systems and improve any areas that need improvement in order to help the University to have a competitive advantage over other universities and institutions.

### **1.6 Research Objectives**

The main objectives of this study are:

- To explore the perceptions of employees on use of Human Resource Information Systems.
- To identify the advantages of using HRIS in recruitment and selection functions

- To examine the perceptions of employees on the use of Human Resource Information System on Recruitment functions.
- To assess the perceptions of employees on the use of Human Resource Information Systems on selection functions

### **1.7 Research Questions**

The research questions are:

- What are the perceptions of employees on the design and use of Human Resource Information systems?
- What are the advantages of using Human Resource Information Systems on recruitment and selection functions?
- What are the perceptions of employees on the use of Human Resource Information systems on recruitment functions?
- What are the perceptions of employees on the use of Human Resource Information Systems on selection functions?

### **1.8 Limitations of the study**

This study was limited to some selected academics and professional service staff at UKZN in the School of Management, IT and Governance. By implication, the results of the study cannot be extended or generalized to other universities in South Africa. Therefore, future studies should focus on more than one institution of higher learning in South Africa. Moreover, this study was limited to only quantitative research. Mixed methods research would have been more appropriate in obtaining divergent perceptions of the participants on the adoption and use of HRIS.

### **1.9 Structure of the Dissertation**

The dissertation is structured into eight (8) chapters as follows:

- **Chapter One: Introduction**

The chapter one provides broad overview of the study focusing on HRIS, recruitment and selection. It discusses the background of the study and follows by the problem statement. It highlights the aims, the significance, the research questions, the objectives and the limitations. Besides, it describes the structure of the dissertation.

- **Chapter Two: Human Resource Information System**

The chapter two comprises of literature review on HRIS. It contains the development of HRIS in South Africa, the uses of HRIS, the type of HRIS, the different HRIS configurations, the advantages of HRIs, the factors influencing the adoption of HRIS, contributing factors to the failure of the adoption of HRIS, and the issues of privacy and security around HRIS adoption.

- **Chapter Three: Recruitment and Selection**

The chapter three reviews existing literature pertaining to recruitment and selection. The chapter includes the impact of recruitment in an organization, steps in recruitment, advantages of using HRIS in recruitment, impact of HRIS on recruitment objectives, relationship between HRIS and selection, steps in selection process, and types of selection assessments and tests

- **Chapter Four: Research Methodology**

The chapter four discusses the research methodology employed to investigate the subject matter. It addresses the research philosophy, the research design, the research method, the location of the study, target population, sampling procedures and sample size, pilot study, data collection instrument, data analysis, ethical considerations and the limitations of the study.

- **Chapter Five: Presentation and Analysis of the Data**

This chapter focuses on the data presentation and analysis. The chapter presents the results using both descriptive and inferential statistics. The presentation and analysis of the data are done in accordance of the research objectives that were formulated.

- **Chapter Six: Discussion of the Results**

The chapter six discusses the results that emerge from the study, which includes the comparison and contrast with previous studies. The discussion of the results was also done in accordance with the research objectives.

- **Chapter Seven: Conclusion and Recommendations**

The last chapter of the study address the conclusion and recommendations of the study. The conclusion and recommendations are done in relation to the stated objectives. The first part of the

chapter provides the summary of the key findings, follows by the recommendations. It also highlights the directions for future research.

### **1.10 Conclusion**

This first chapter entails the introduction and the background of the study. It sets out the research problem, the importance of the study, the research objectives, research questions and limitations of the study. It also tables out the structure of the entire study. The next chapter will look at the literature review.

## **Chapter Two: Chapter Two: Human Resource Information System**

### **2.1 Introduction**

This chapter reviews existing literature on HRIS. The chapter covers the definitions of the development of HRIS in South Africa, the uses of HRIS, the type of HRIS, the different HRIS configurations, the advantages of HRIS, the factors influencing the adoption of HRIS, contributing factors to the failure of the adoption of HRIS, and the issues of privacy and security around HRIS adoption.

### **2.2 Definitions of Human Resource Information System**

Modern and current expansions in knowledge have come up with a better way of formulating authentic, information-rich, easily accessed and cooperative work setting. Human Resource structures have advanced from the programmed personnel record protection from the 1960's into more multifaceted recording and decision structures nowadays (Ankrah & Sokro, 2012). Human resource information systems have made the shift from manual record keeping to a more efficient and effective data handling and record keeping, as it is able to understand the needs of a numeral organizational functions and investors (Ankrah & Sokro, 2012).

Human resource information system can be defined as an integrated system that can be of help to collect, pile up and evaluate data concerning an organization's human resource that contains data components, computer solicitations, information database elements needed for the purpose of gathering, recording, collecting, managing, delivering, and employing information for human resource purposes (Bozkurt, Bal & Ertemsir, 2010). In the same breath other literature also confirms that HRIS is an organized method for assembling, keeping, conserving, recovering and endorsing information required by a company concerning its human resource personnel functions and business unit structures (Chauhan, Sharma & Tyagi, 2011).

The main three stakeholder's that benefit more from the introduction of human resource information systems are the HR Professionals, managers of different divisions in a company and the employees. The HR specialists depend on the Human resource information systems for accomplishing their job roles such as report writing, compensation analysis, selection, recruitment, pension, benefits etc. Since the employees play a vital role in economic improvement, Manager's assume that human resource information systems will offer smooth functions to meet the employee's day to day work activities, and lastly, managers also rely on the human resource

information system's abilities to offer greater information gathering and investigation in order to make informed, accurate and timeous decisions (Ankrah and Sokro, 2012).

According to Kovach, Huges, Fagan and Maggitti, (2009), there are quite a few important mechanisms of any HRIS: participation, information maintenance and production. Regarding the participation component, during olden days the entering of data was only done in one way and that is putting the data into the computer manually, however nowadays scanning technology allows scanning and the storing of real images out of a real document which also includes initials and notes written by hand into the computer. The second part of the human capital instrument components is data maintenance. Maintenance component updates and improves new information to the information folder after such information has been captured into the system. Lastly, the third part of the component is productivity. Productivity helps to yield important outcomes for the end users. In this stage, the human capital instrument must bring about that productivity and come out with essential designs and then plan the demonstration in a way that can be easily understood by the end users (Kovach, Hughes & Fagan, 2002)

### **2.3 Development of HRIS in South Africa**

Many organizations in South Africa are arising to the challenge of keeping up with the times and embarking on improved and innovative HR system as they shift away from the traditional administrative tasks that were done by the HR department s only. HR managers are now putting more effort on strategic HR than on administrative tasks. Big companies like Nestle have adopted the use of human resource information system in their HR functions such as payroll and administration. This adoption has had not so good impact as it has led to a decline of HR employees required to perform certain functions (Krisandra, 2010).

Research has revealed that South African Organization have adopted quite several human resource information systems which are used for HR functions such as training and development, recruitment and selection and performance management. This allows organization to be able to recruit and select the best candidates for new openings and develop and retain them using HRIS. Other South African organization make use of the intranet and HRIS to outsource new skills and raw competencies (Krisandra, 2010).

## **2.4 Uses of Human Resource Information System**

Research reveals that nearly all HR processes are conducted through the use of HRIS which is a benefit to an organization in more ways than one as it diminishes the utilization of resources such as financial resources, material costs and the workforce (Chakraborty & Mansor, 2013).

### **2.4.1 It provides accurate information**

One of the most important uses of HRIS is its ability to provide accurate and reliable information which helps the HR managers in the formulation of strategic decisions. HRIS helps in the capturing of data and information as it also introduces the process of structure to unstructured data handling (Krisandra, 2010). HRIS is mostly used for formation of rich data which can be accessed by all managers in different departments. It can also be used for the construction and creation of knowledge, which includes brainstorming and the application of tacit knowledge to existing challenges as it has unique techniques and procedures (Becerra-Fernandez, Gonzalez and Sabherwal, 2004). Other studies conducted on the use of HRIS reveal that information technology can assist in the transfer of explicit knowledge, however it is difficult to disseminate tacit knowledge using technology (Haladin-Herrgard, 2000). In Ethiopia, a study conducted by Tomanna, Gerbi, Hossin and Zhang (2018) reveals that HRIS an integrated system mostly used to collect vital information. Furthermore, another use of HRIS includes improved precision, provides information timeously and swiftly and reduces costs.

### **2.4.2 Provides quick and easy access to information and saves cost**

The use of HRIS for administrative purposes helps to reduce time and cost and provides solution for information analytic processes. HRIS provides increased effectiveness, speed in handling HR functions and reduces errors and administration costs (Ball, 2001). HRIS can also be used for coordinating other information systems in order to accumulate valuable information and make it available in a quicker and easier way (Bussler, 2001). HRIS can be custom made to fit to the requirements of any organization and suit the needs of end-users and enable smooth communication in different departments within the organization no matter how far apart the departments are. HRIS has made the processing of employee records to be easy and accessible at any given time (Ulrich, 2001). Silva and Lima (2018) argued that HRIS saves costs through the elimination of paperwork.

Barišić, Pejić Bach and Miloloža (2018), in their study, confirmed that HRIS is an inevitable element of contemporary organization's setup which provides better ways of reducing labor costs. Kumar and Parumasur (2013), similarly, found that HRIS significantly improves overall organizational efficiency and its sub-dimensions such as HR functions, time management, cost management and managerial satisfaction with the system in an inter-related and holistic manner, though in varying degrees in South African municipality. Akman (2010) acknowledges that HIRS operations could lead to saving stationary expenses and costs of searching, for example, job applicants, risk management, financial planning personnel planning, promotion planning, accident reporting and prevention. Wiblen, Grant and Dery (2010) also agree with other scholars that HRIS reduces organizational costs through automation of the previous labour related operations in Australian organizations.

Johnson and Guentel (2011) concurs that HRIS prevents costly benefits error thus saving organizations on costs otherwise incurred. Also, HRIS enables firms reduce their administrative and operation costs through the automation of previously labour related activities. Additionally, it has been argued that HRIS removes work duplication and various work processes are streamlined thus leading to efficiency. HRIS contributes to incremental leaps in efficiency and response time of traditionally labour related HR activities (Dery, Grant & Wiblen, 2006). Moreover, evidence suggests that when the HR functions was computerized into HRIS, faster decision making was carried out on the development, planning and administration of HR because data became much easier to store, update, classify and analyze (DiPietro, Shani & Tesone, 2010; Sergio, Pez, Sebasti & Ugarte, 2010).

Lucerna (2013) claims that HIRS enhances the ability of an organization to create reports and analyze information speedily and accurately, thereby making the workforce easier to manage. Khera and Gulati (2012) argues that although many organization view HIRS as a long-term investment, however, it reduces costs when it is implemented due to less paper been used, less space being taken up, and due to the system being faster and more accurate. Therefore, it can be argued that HRIS brings return on investment.

In Australia, Chugh (2014) found that HRIS ensures the improvement in traditional HR processes and enhance strategic decision making in educational institutions. Likewise, Kumar and Parumasur (2013) explored the impact of HRIS on organizational efficiency in South African municipality.

The results of the study revealed managers have a positive view of the impact of the HRIS on organizational effectiveness with the greatest degree of confidence being placed on the impact of HRIS on time management and on HR functions. The results confirm that a well implemented and managed HRIS enables readily available information to be translated into more information sharing, greater knowledge transfer and management. The overall findings of the study indicate the HRIS has the potential to enhance the speed and quality of decision making and the realization of the HR strategy, thereby enhancing organizational effectiveness.

Shibly (2011) explains that the cost of a HRIS system is extensive and hence, it is important that the benefits derived from its implementation is assessed. Shibly (2011) points out that if HRIS can provide the organization with a competitive advantage by improving the HR decision making process, this would have diverse benefits on productivity, cost reductions and product quality. However, Shani and Tesone (2010) observe that although HRIS provides both administrative and strategic advantages, it is expensive to acquire and implement.

According to Karikari, Boateng and Ocansey (2015), HRIS saves time and increases efficiency by merging the HRIS application with the website in the hospitality industry in Accra-Ghana. It has been argued that HRIS can be used to conduct online recruitment, hence the speed of time can run efficiently, and the job activities can be faster. Furthermore, research (Pandya, 2013) shows that the implementation of HRIS helps organizations in reducing HR costs through the automation of information. Recent study conducted by Suharti and Sulistyo (2018) among managers and staff working in HR department of companies in Central Java and Yogyakarta suggests that the implementation of HRIS affects time efficiency and managerial satisfaction. Moreover, a study conducted by Ngwenya, Aigbavboa and Thwala (2019) in South African Construction Organization reveals that HRIS provides a clear vision of the business and saves time. In addition, it reduces errors that are caused by human factor (Ngwenya et al., 2019). The subsequent section discusses the results on the benefits of HRIS to the organization as well as employees.

### **2.4.3 Easy and sound decision-making**

Naicker (2010) examines HRIS the perceptions of HRIS usage for knowledge management in the context of human resource management at retail organizations within South Africa. The study states that one of the uses of HRIS is its ability to help in making fast and sound decisions. HIRS helps in the growth and training of HR management since data is easily accessible, timeously

updated, well categorized and analyzed. Moreover, it gives organization a competitive advantage of making strategic decisions timeously over other organization that are not using HRIS. By making data and information more accessible, HRIS helps organization to be more successful and cost-effective as they spend less time on research, trying to solve problems and time-consuming decision-making sessions. Sound decision making and timeous tracking of information can enhance any organization's effectiveness in handling day to day HR processes (Edwards, 2008).

HRIS supports decision-making processes to achieve competitive advantage (Broderick & Boudreau, 1992). Similarly, it was observed that effective utilization of HRIS in combination with policies and people could give competitive advantage to the organization (Hendrickson, 2003). HRIS system has been found to elicit a superior amount and diversity of HR processes by making it easy to navigate through different HR operations in a shorter period of time, of which it would take days, weeks or even months if such would be done manually (Beckers & Bsai, 2002). According to Similarly, Zhang and Wang (2006), an important way in which the organization can obtain competitive advantage through using HRIS. Troshani, Jerram, and Gerrard (2010) investigated into the organizational adoption of HRIS of 16 Australian public sectors. The study revealed that HRIS can be used as a source for achieving cost savings and inimitable competitive advantage.

Chartered Institution of Personnel and Development (2006) observes that technology like HRIS is supporting the HR activities and processes in many organizations worldwide. HRIS aims to improve HRM functions with comprehensive expert or decision-support systems. It provides opportunity for efficient decision-making. It further provides a clear business vision and transparency in the process of hiring and firing of employees. Morley, Florkowski and OlivasLuján (2006) also believe that HRIS is transforming HR service-delivery in North America and Europe. Nawaz (2013) suggests that in the last decades HRIS has been designed and implemented by many organizations as it contributes to organizational efficiency thereby helping HR managers to take effective decisions and gain a competitive advantage. Kariuki (2015) also confirms that HRIS had a significant influence on profitability, public image and overall competitive advantage in Nairobi Securities Exchange.

Ngai and Wat (2006), in their study, observed that more than 60% of Fortune 500 companies used HRIS to support daily HR operations. Ngai and Wat (2006) contend that HRIS is not only used for administrative purposes, but it is also used for strategic and business decision making purposes.

Sergio et al. (2010) argues that when HR functions are loaded into computers within a HRIS, more rapid decision-making can be achieved in development, planning and management of HR in terms of sorting, classifying and analyzing of the data. Buzkan (2016) contends that HRIS provides significant support to HR functions regarding the impact of information technology on human resources. HRIS provides opportunity for many organizations to solve and manage their different issues through effective decision-making process. HRIS can be used for diverse purposes, particularly in human resource processes including recruitment and selection, performance management and appraisal, compensation and benefits, training and development, coaching and mentoring, succession planning, health and safety, employee relations and legal issues, employee retention as well as work life balance (Buzkan, 2016).

Mureithi, Gachunga and Burugu (2014) states that effective HRIS has significant impact on HR activities such as compensation, skill inventory, performance evaluation, training and development, HR planning, recruitment and career planning in listed commercial banks at Nairobi Securities Exchange. It also allows HR functions to become more efficient and provides better information for decision making. Gupta (2013) concurs that the goal of HRIS is to integrate the different aspects of HR, including payroll, labour productivity, and benefit management into a less capital-intensive system than the mainframes used to manage activities in the past. Gupta (2013) argues that HRIS improves efficiency of HR activities such as compensation, training and development, succession planning, performance appraisal and recruitment and selection. In Indian, evidence suggests that service organizations apply HRIS in key HR areas such as performance and reward management (Kundu & Kadian, 2012). Evidently, HRIS is having a drastic effect globally on the functions of HRM.

Kumar and Parumasur (2013) claim that HRIS has a spillover effect to almost all HR activities in as organization including application tracking in recruitment and selection, personnel information and identification, salary administration, absenteeism analysis, turnover analysis, work scheduling, training and development, performance appraisal and management, succession planning, compensation, conflict resolution and HR planning. Shiri (2012) asserts that HRIS provides HR

practitioners with more opportunities to improve their contribution to the strategic direction of the firm. On the contrary, Beadles II, Lowery & Johns (2005) believe that HRIS no evidence suggest that HRIS contribute to the strategic direction of an organization.

#### **2.4.4 Generating and sharing of information**

An organization can advance and be well effective through the sharing and distribution of information to all the relevant segments of the company. This is one of the advantages of having HRIS in an organization as it equips the organization to disseminate the right information to the right people at the right time and at the various segments where such information is much needed (Krisandra, 2010).

Previous studies conducted on information sharing and distribution suggests that it is very crucial that employees are not coerced into sharing their personal details with anyone, however the availability of great innovations like HRIS allows the information sharing and generating process to be smooth and easily manageable in an organization (Tsoukas & Vladimirov, 2001). Moreover, a study shows that there is a significant and predictable variation in the level of information sharing and HRIS adoption in firms from different countries, and that national differences, including cultural and institutional contexts, have an impact on information sharing. The study also indicates that the level of HRIS adoption is positively associated with information sharing (Chae, Prince, Katz & Kabst, 2011).

#### **2.5 Different Types of Human Resource Information System**

There are many different types of HRIS, however focus will be given to the basic types of systems that are used on a day to day HR context. There is quite a number of ways to categorize information systems, and the most important one is to put more focus on the level of Organizational processing that the system supports, which amongst many can be, daily functions, managerial operations, strategies and processes on the executive level, as well as the functions on the Organizational level (Kavanagh *et al*, 2015). Table 2.4 will demonstrate how the different types of HRIS function and the different Organizational levels and its major goals and focus.

**Table 2.1 Different types of human resource information system**

<b>Organizational Level</b>	<b>Type of System</b>	<b>Major goals and Focus</b>	<b>HRM examples</b>
Operational	Transaction Processing System	Better transaction speed and accuracy Improved effectiveness of HRIS	Payroll Process Attendance entry and time
Managerial	Management Information System	Allows key data to be available to managers.	Provides EEO3 reports to managers
Executive	Executive Information System	Supplies collective high-quality data	Succession planning Collective data
Boundary Spanning	Decision Support System	Collaborative and iterative managerial decision making	Staffing needs assessment
Expert System	Embed human knowledge into information systems	Resume keyword searches	

**Source: Kavanagh, Thite and Johnson, 2015**

## **2.6 Different Human Resource Information System Configurations**

According to Chauhan, Sharma and Tyagi, (2011), HRIS can be classified into three main configurations namely; effective HRIS, tactical HRIS and strategic HRIS. These HRIS configurations are discussed as follows.

### **2.6.1 Effective human resource information system**

This kind of HRIS helps the manager with data to enhance day to day HR routine work and decision making (Chauhan et al, 2011). Operational HRIS involves four subsections; employee data system ( the system where the details such as name, address, sex, salary rate etc. are included), position control system (a system that contains information such as the kind of a position and level that each employee holds), applicant placement information system (a system whereby the system locates in which post has the employee been placed into after job selection) and management information system (a system which includes monitoring and evaluation of the manner in which all employees perform) (Chauhan et al, 2011).

### **2.6.2 Tactical human resource information system**

This kind of HRIS helps the managers to access information on the allocation of resources and make the right decisions thereafter (Chauhan et al, 2011). This type of HRIS also involves four critical steps as well. Job design and analysis; which includes job description and work specifications. Recruitment information system; this process helps the managers to get correct information on vacant posts and jobs that are to be filled and advertised. Compensation and benefit information system; this process helps in the productivity of the employees as they get motivated to work hard because of the stipulated compensation and benefits, and lastly Employee training and development system, which is where the managers get to identify training gaps and conduct training or workshops relevant to the Organization's needs (Chauhan et al, 2011).

According to Kumar (2012), tactical HRIS provides managers with support for decisions that relate with allocation of resources. Key decisions in HRM include recruitment and selection, job analysis and design, training and development, and rewards.

### **2.6.3 Strategic HRIS**

According to Chauhan et al. (2011), SHRIS has three important processes: information system for planning (this system helps manager's in planning for the future for example, knowing the number of workers and the skills that they possess helps a great deal when managers are thinking of

expansion), labour negotiations system (it is very important that in each Organization there is a system that supports labour activities and negotiations), and specialised HRIS software such software is very important for Organization to have as they help a lot in other training needs that may be identified (Chauhan et al, 2011). Kumar (2012) explains that SHRIS helps the organization to implement strategic human resource management.

## **2.7 Advantages of Human Resource Information System**

Previous studies (Kovach et al., 2002) show that there are five strategic advantages why companies should utilise the HRIS. These strategic advantages are discussed below.

### **2.7.1 HRIS enhances competitiveness by improving HR practices**

Contemporary human resource information system are widespread, precise and reachable systems for storing employee and work records necessary for human resource employees. Human resource information systems increase competitiveness by its value-added planning and software package improvement using support software, by more rapid data handling and upgraded comeback time, by reduced secretarial and HR expenditures, by precision of figures and enriched communication at all levels (Kovach et al., 2002).

Aggarwal and Kapoor (2012) argue that the competitive business environment has increased the need of information system and technology in HRM for competitiveness. Aggarwal and Kapoor (2012) found that HRIS has become a critical factor in making business competitive and effective. Kovach (2002) points out that HRIS increases competitiveness by improving human resource operations. The HRIS increases competitiveness by reengineering HR processes and functions. According to Kumar (2012), HRIS Increases competitiveness by improving HR operations and improving management processes and collecting appropriate data and converting them to information and knowledge for improved timeliness and quality of decision making.

### **2.7.2 HRIS offers superior quantity and diversity of HR operations**

Human resource information system has been formulated to elicit a superior amount and diversity of HR processes by making it easy to navigate through different HR operations in a shorter period of time, of which it would take days, weeks or even months if such would be done manually (Beckers & Bsath, 2002). According to Kumar (2012), the HRIS provides managers with data to support routine and repetitive human resource decisions. The HRIS provides a complete support in the management of all processes, activities, data and information required to HRM in a modern

company. According to Course (2018), HRIS supports the strategic, tactical and operational use of the human resource of an organization.

### **2.7.3 HRIS moves the attention of HR from the handing out of communications to tactical HRM**

Because of the advancement in technology, human resource information system has shifted the processing of transactions such as benefits administration, revising and development of organizational policies to a more strategic and efficient component which is strategic HRM (Beckers et al, 2002). According to Kumar (2012), HRIS provides managers with support for decisions that relate with the allocation of resources, including recruitment, job analysis and design, training and development, and employee compensation plan decisions.

### **2.7.4 Make employees part of HRIS**

As mention earlier in the literature that there are three main stakeholders in the development of HRIS, and that is the HR professionals, the Managers and employees of the company at large (Ankroh et al, 2012). It is very important that employees be counted in the running and improvement of the HRIS system as they are the ones who will work on it in a daily basis, and even the support and buy in of the managers makes it very easy for the employees to accept the challenge and run with it.

### **2.7.5 Reengineer the entire HR function**

The introduction of Human capital instrument has brought about a comprehensive turnaround in the functionality of HR operations, by bringing time saving and cost-effective methods, accuracy in data collection and analysis and other major HR operations (Kovach, et al, 2002). A study conducted by Thite, Kavanagh and Johnson (2012) reveals that HRIS helps to reengineer HR processes and functions and improve employee satisfaction by delivering HR services more quickly and accurately to them.

## **2.8 Factors Influencing the Adoption of Human Resource Information System**

There have been several studies that have been conducted on the adoption and implementation of HRIS in Organization. Most studies have been focusing on both the Organization and individual levels (Chakraborty & Mansor, 2013). In previous studies there were five contextual factors that were revealed that have a huge impact on adoption and implementation. These five factors were, characteristics of innovation, characteristics of the Organization, characteristics of the

environment, task characteristics and the characteristics of the individual, however (Teo, Lim & Fedric, 2007) were able to break them down into three categories namely: Organizational factors, technological factors and environmental factors.

### **2.8.1 Organizational factors**

Organizational factors can be described as those factors that represent the Organization as a whole and its characteristics which has a high impact on the adoption of HRIS. Organization that show high level of centralization where the management has the power to make adoption decisions whether the subordinates agree or not has a high chance of influence when it comes to adoption (Yang, Lee & Lee 2007). The size of the Organization, conducive Organizational environment and highly skilled employees are crucial factors for the success of HRIS adoption (Chakraborty et al, 2013).

Hendricks (2003) states that the different types of HRIS were not invented in the same way and therefore, they do not have to be treated as if they are the same as each HRIS usage solely depends on the size of the Organization, therefore it can be stated that effective HRIS needs a firm balance between practical and important needs of the HR processes to be specifically aligned according to the size of the Organization.

Previous studies reveal that only large Organization have attempted to implement and adopt all three types of HRIS. Small and middle Organization on the other hand have only managed to implement operational and relational HRIS even though the two types cannot achieve HR functions like the transformational HRIS would do (Chakraborty et al, 2013). Another important factors that has an influence on the adoption of HRIS besides the size of the Organization is top management support. Studies reveal that the top management's attitude and perceptions towards HRIS play a vital role in the successful adoption and implementation of the system. Furthermore, there is another important element in the successful adoption and implementation of HRIS which is the employee involvement (Teo et al, 2007). When the top management engage with the employees from the early stages of the planning, the employees feel important and valued and make sure that they commit fully to the successful implementation and adoption of the system.

The last point in the factors having an influence in the adoption and implementation of HRIS in Organization is that of expertise and human capability. Employees expertise and knowledge of the usage of HRIS can determine the success and the failure of the HRIS for adoption (Teo et al, 2007).

Successful adoption of HRIS requires that skilled and competent workers be available because lack of such from the users can lead to resistant and failure of its adoption and implementation (Chakraborty et al, 2013).

Al-Dmour, Love and Al-Zu'bi (2013) identify the organizational factors that influence the adoption of HRIS in Jordan, including organizational readiness, organizational technical support, employee structure and levels of educations, size of the organization, organizational structure, type of business, organizational specialisation, the institutionalisation of HRM, top management support and commitment, and corporate culture. Alam, Masum, Beh, and Hong (2016) discover the organizational factors that affect the adoption of HRIS in industry of Bangladesh, including infrastructure, top management support, IT capabilities of staff, perceived cost, and competitive pressure. Similarly, Rahman, Qi and Jinnah (2016) observe that social influence of market leader and behavioral intention of the management of the Organization have a significant effect on the intent to adopt HRIS in Bangladeshi banking and financial sector. Noutsu, Famba and Kamdjoug (2016) found that factors that affect the adoption of HRIS in SMEs in Cameroon such as performance expectancy and internal social influence.

Moreover, Aksoy and Sallam (2018) found that the research factors performance expectancy, effort expectancy, social influence, facilitating condition as well as the extended factors of Unified Theory of Acceptance and Use of Technology model employee involvement and training support ( $p < 0.05$ ) had a weighty influence on HRIS adoption in Bangladesh organizations. Nyame and Boateng (2015) argue that denominators for adoption and use of HRIS in Ghanaian firms include firm size, Organization type, age, and the industry to which firms belong.

### **2.8.2 Technological factors**

Technological factors are more focused on a way in which technology can have an impact on Adoption. Experts involved in the adoption process evaluate innovation characteristics and try to determine any possible gains and barriers that may surface. Gains can be described as any benefits that the Organization is anticipating receiving once the process of adoption is complete and these benefits include the quality of the service, efficiency and the reliability of the new innovation being introduced. While on the other hand, barriers can be seen as complexities of innovation and looking at how at compactible is the new technology with the Organizational structure and systems (Rogers, 2003).

Previous studies conducted on technology readiness reveal that readiness is solely dependent on the Organization's technological infrastructure and the Organization's IT and human resources. Taking into consideration the expertise of IT, skill and knowledge that the Organization has in terms of building a web application, it becomes easier for any new innovations to be well embraced and to be implemented (Oliveira and Martin, 2010).

HRIS can therefore become a vital part of any Organization if infrastructure and technical skills are there in an Organization. Having such skill and infrastructure permits the technological capacity of an Organization to be able to implement and adopt HRIS. Since the Organization with high level of technological readiness are at an advantage of being able to adopt HRIS, small companies with less or no technological infrastructure find it very challenging to adopt HRIS, therefore technological readiness can be viewed as a major factor that influences HRIS adoption and implementation (Oliveira et al, 2010).

Chakraborty et al. (2013) further alludes that other technological factors that can be considered in HRIS implementation and adoption: Organization fit, adoption cost, complexity or user friendliness, efficiency, and image. According to Alam et al. (2016), IT capabilities is one of the critical success factors that affects the adoption of HRIS in in the hospital industry of Bangladesh. Al-Dmour et al. (2013) argue that the IT related factors affecting the adoption of HRIS in private hospitals in Bangladesh include relative advantage, perceived complexity, perceived compatibility, perceived trialability, perceived observability.

### **2.8.3 Environmental factors**

Environmental factors can be described as a place where the Organization operates its business. This includes the characteristics of the industry, rules and regulations of the government and also the available infrastructure (Oliveira et al, 2010). Government plays a significant part in encouraging the adoption and implementation of technology through conducting awareness campaigns, conducting training, support and making funding available. As more Organization are embarking on technological adoption, a demand to reduce cost arises and the need to fulfil strategic roles and effectively manage workers in the Organization, companies are becoming more aware that in order to stay competitive and relevant, they need better and effective ways of managing their human resources (Teo et al, 2007). Therefore, this realization has led many Organizations to utilize HRIS more as it assists in making more strategic decisions, better manage HR processes

and allocate human resource effectively. Taking this into consideration, it is evident that competition plays a major role in influencing the adoption of HRIS.

Furthermore, there are six major environmental factors that have been identified by other researchers as playing major role in influencing HRIS adoption (Chakraborty et al, 2013).

These factors are as follows:

- Competition
- Technological development
- HRM state of art
- Labour market
- Societal developments and
- Governmental regulations

## **2.9 Contributing factors to the failure of HRIS adoption**

Available literature on the use and adoption of human resource information systems highlighted several contributing factors to the failure of the system.

### **2.9.1 Limited budget**

Literature highlights that the cost that is involved in the adoption and repairs of human resource information system can be very costly (Beckers & Bsat, 2002). The failure can also be attributed to lack of funds from the Organization and lack of management involvement makes it very hard for adoption to be a successful process (Kovach et al., 1999).

### **2.9.2 Limitations due to time frames**

It is very crucial in the implementation stage that time frames and deadlines are adhere to, failure to do this may result in unforeseen extensions that were never budgeted for and that may result to management support being compromised (Ngai & Wat, 2006).

### **2.9.3 Lack of knowledge and training**

One of the reasons that may cause many employees to reject the HRIS is that of lack of knowledge on how to use the system. Although many might have been taken through training courses, but when it comes to real life application, many might need refresher courses. Lack of knowledge may

even cause some to think that the system comes as a form of replacement for their jobs and think that many might lose their employment (Ngai et al., 2006).

## **2.10 Issues of Privacy and Security Around HRIS Adoption**

Privacy can be defined as the degree to which individual's personal information is being protected from unauthorized users (Lukaszewski, Stone & Johnson, 2016). Issues of privacy and security in terms of information handling are crucial aspects in HRIS adoption compared to any other Organizational system that is utilized in a company (Kovach, et al, 2002). HRIS deals with confidential information about employees which includes amongst other details, employee employment numbers, medical aid details, information about bank accounts, information on employee salaries, employment history and details, family details and performance evaluations (Kovach, et al, 2015).

### **2.10.1 Policies on privacy**

It is very crucial that Organization establish policies on the protection of employee's personal information. Employees are very sensitive to the invasion of their privacy and value any initiatives designed for information control. They tend to think that lack of control of information may result in negative outcomes (Lukaszewski et al, 2016).

Previous studies reveal that, irrespective of the employee's cry about privacy in HRIS, about 70 percent of companies still do not have any policies that have established for the purposes of protecting employee information (Lukaszewski et al, 2016). Wilkie, (2015) further states that even though other companies might have these policies in place, about 30 percent of these companies hardly communicate such policies to the employee.

### **2.10.2 Unauthorised access to information**

The employees growing concern towards the storage of information on HRIS is that they are afraid that the system might give access to their private information to unauthorized users (Kovach, et al, 2015). Many employees may fear that if unauthorized users gain access to their employee work numbers or gain access to information on their banking details, they might experience identity theft (Lukaszewski et al, 2016).

### **2.10.3 Issues on the accuracy of data**

Employees might be concerned about the level of accuracy of data as HRIS might contain inaccurate or outdated employee data. The privacy model that was established by Stone and Stone (1999), states that the employee's ability to check the accuracy of HRIS information is a very crucial aspect in determining their perceptions on privacy because when employees have access to information, they are able to correct errors on the system and exercise control over their personal information (Lukaszewski et al, 2016).

It is of paramount importance that data on the HRIS is always accurate because if importance details such as background checks, credit records check, criminal records checks and the lifestyle of an individual in social media is captured in accurately, this might result to permanent employee records on the HRIS which might have negative impact such as loss of opportunities (Kovach, et al, 2015).

### **2.11 Conclusion**

The purpose of this chapter was to look at the background and development of HRIS in South Africa, the different uses of HRIS, Different types of HRIS, Different HRIS configurations, advantages of HRIS, factors contributing to the failure of HRIS and lastly, the issues of privacy and security around HRIS. When taking into consideration all the literature gathered from the previous studies, it is quite evident that HRIS adoption plays a very crucial role in the effectiveness and efficiency of any Organization. However HRIS can also have severe disadvantages when issues of privacy and security are not handled accurately, for example when looking at the issue of unauthorized access to information, a number of employees may fear that if unauthorized users gain access to their employee work numbers or gain access to information on their banking details, they might experience identity theft and also inaccurate entering of information on the system might lead to employees loosing on serious opportunities, such as promotions or being entrusted with even bigger projects. The next chapter will look at the impact of HRIS on Recruitment Selection and functions.

## **Chapter Three: Recruitment And Selection**

### **3.1 Introduction**

This chapter reviews empirical research that relates to recruitment and selection and HRIS. The chapter focuses on recruitment and selection, including the conceptualisation of recruitment and selection, importance of HRIS recruitment and selection, steps in recruitment, advantages of using HRIS in recruitment, the impact of HRIS on recruitment objectives, importance of HRIS on selection process, steps in the selection process, and types of selection assessments and tests,

### **3.2 Distinction Between Recruitment and Selection**

Over the past years, recruitment and selection have been viewed as traditional HR processes functioning mainly in psychometric tests, without much importance in the running of human resource functions but now they are more intensive, significant and inclined to the smooth running of human resource management (Abraham, Kaliannan & Mohan, 2015). The recruitment and selection processes are very significant elements that work together in identifying, attracting and getting the right people with the needed competencies to apply for vacancies of their chosen careers. This process entails finding and selecting applicants whom the Organization perceives as fit and able to contribute to the ultimate success of the Organization (Abraham *et al.*, 2015).

Recruitment and selection are vital activities of HRM for any type of business organization. Ofori and Aryeetey (2011) contend that primary aim of recruitment and selection within the organization is to obtain the number and quality of employees that are required to satisfy the strategic objectives of the Organization, at minimal cost. Recruitment can be defined as an HR function that is able to identify, attract and employ a high quality candidate in order to meet the Organizational goals of any Organization (Handlogten, 2009). Opatha (2010) explains recruitment as the process of searching and attracting suitably qualified people to apply for job vacancies in the organization.

According to Pilbeam and Corbridge (2006), recruitment is a very broad term but it can be defined as a HR function that is used to identify, attract and get the most qualified candidates for the purposes of filling in vacancies within an organization. Sangeetha (2010) opines that recruitment process involves the sourcing, advertising and interviewing of future employees. Selection systems can be defined as specific systems that have been designed for the management of information in organization in order to ensure a smooth and accurate decision making and administration (Kavanagh et al, 2015).

On other hand, selection process entails the staffing and training of new employees on the role of their new job (Sangeetha, 2010). According to Pilbeam and Corbridge (2006), selection can be defined as a process that is used to come to a decision as to whom is suitable to be taken in. It entails the process of choosing from a pool of candidates, a specific individual most suited for a position. For Ofori and Aryeetey (2011), selection is the procedure by which particular instruments are locked in to look over the pool of people most appropriate for the activity accessible.

### **3.3 Steps in the Recruitment Process**

This part of literature will investigate the steps in the recruitment process done in a traditional way and in the electronical way. The first thing to do in a recruitment process is that of identifying a vacant post within the Organization. Thereafter, the recruiter needs to obtain authorization whether to fill the post or not (Chapman & Webster, 2003). After the authorization has been granted to fill the post, the recruiter then needs to carefully analyze the post which includes, identifying the necessary skills, knowledge and experience needed in order to carry out the job specifications and duties (Handlogten, 2009). Lastly, after the vacancy has been successfully been identified and analyzed, it then can be placed in newspapers or the internet (Handlogten, 2009).

The second step in recruitment is sorting applications. This step entails the process of using sophisticated and standardized online tests in order to sort out and screen the potential candidates and it entails the cutting down of the application pool in order to manage and control numbers (Handlogten, 2009).

The third step requires the recruiter to contact the potential candidates. The recruiter needs to contact the desirable candidates quickly. This can be achieved using internet. Organizations need to work and act immediately using an automated hiring system for potential candidates very fast in order to avoid losing the candidates to competitors (Chapman *et al*, 2003). The fourth step in the recruitment process is closing the deal. This step entails making a phone call to the candidate, arranging for a meeting and lastly, shaking the hand of a successful candidate (Cappelli, 2001).

Table 3.1 shows the steps that are followed in the recruitment process using the traditional recruitment method as well as the E-recruitment method.

**Table 3.1 Steps in recruitment process**

<b>Recruitment Process</b>	<b>Traditional recruitment</b>	<b>E-recruitment</b>
<b>Attracting candidates</b>	Using traditional ways of advertising such as flyers, newspapers.	Maximizing on the Organization's reputation and product line
<b>Sorting applications</b>	Utilizing a traditional paper based test for applications.	Using sophisticated, standardized tests available on the internet.
<b>Making contact</b>	Contacting the sorted applicants by phone or mail and having face to face conversations.	Using the automated hiring management systems to contact the most desirable candidates.
<b>Closing the deal</b>	Making a phone call, arranging for a meeting with the successful applicant.	Making the phone call, arranging for a meet the successful applicant

**Source: Adopted from Handlogten, 2009**

### **3.4 Impact of HRIS on Recruitment Process in Organizations**

In order to stay abreast of times and have a competitive advantage over other Organization, it is very crucial that Organizations look for more competent and effective ways of getting and retaining a highly qualified employees (Kavanagh, Thite & Johnson, 2015). A strategic way that can be employed in making sure that this goal is fulfilled is the use of technology. According to Gitari (2019), recruitment and selection subsystem of HRIS helps to select the right persons to be trained at the right time in Nairobi securities exchange, Kenya.

Khashman and Khashman (2016), in their study, observe that HRIS has a significant positive effect on recruitment practices and processes within the Organization. Similarly, research (Mararo, 2017) reveals that the application of HRIS in job profiling showed improvements on the quality of candidate pool for recruitment and on the duration of hiring by an Organization. The study observes that the adoption of HRIS improved the recruitment of the most suitably qualified applicants into the Organization with HRIS being useful in the screening and selection processes. Moreover, Matsiko (2019) found that there was a significant positive relationship between HRIS and recruitment within the ministry of health in Uganda.

It had been argued that HRIS helps prospective employees to submit their applications and resumes online, which saves costs associated with printed applications and helps to keep the hiring process much more organised. Using HRIS for hiring may attract more qualified applicants that are comfortable using technology. A study shows that intellectual capital is an extremely valuable resource and is the ultimate source of core competitive advantage (Wei & Feng, 2013). Khashman & Khashman (2016), in their study, observe that HRIS has a significant positive effect on recruitment practices and processes within the Organization. Similarly, research (Mararo, 2017) reveals that the application of HRIS in job profiling showed improvements on the quality of candidate pool for recruitment and on the duration of hiring by an Organization. The study observes that the adoption of HRIS improved the recruitment of the most suitably qualified applicants into the Organization with HRIS being useful in the screening and selection processes. Moreover, Matsiko (2019) found that there was a significant positive relationship between HRIS and recruitment within the ministry of health in Uganda.

A study shows that intellectual capital is an extremely valuable resource and is the ultimate source of core competitive advantage (Wei & Feng, 2013).

Research reveals that several Organizations use HRIS in recruitment for several reasons (Handlogten, 2009; Parry, 2006 & Chapman et al, 2003).

- It helps the Organization in terms of cost savings.
- It provides a larger pool of candidate
- It provides an increased speed of hiring.

- It helps in keeping ahead of competitors.

### **3.5 The impact of HRIS on recruitment objectives**

There are several recruitment objectives that have been identified for recruitment process (Breaugh & Starke, 2000). These objectives are as follows:

#### **❖ The cost involved in filling a job vacancy**

The most significant goal of recruitment processes in Organization is to lower down any costs involved in the filling in of vacancies. Studies that have been conducted on online recruiting reveal that human resource information systems do have an ability to reduce costs (Kavanagh et al, 2015). Studies conducted on online recruitment revealed that other Organization saved approximately 95% of costs usually involved in recruitment when online recruitment was used compared to the old ways such as placing advertisements in newspapers and other traditional methods.

Such findings on the impact of human resource information systems and recruitment are promising and tempting and would persuade many companies to consider the online recruitment, however it is very crucial that the HR personnel should look closely to the fine details of their recruitment objectives and not just conclude that online recruitment has the potential to save money for all Organization. HR managers need to think outside the box and look at a greater picture and consider other ways to be employed should there be applicants who do not have the qualifications needed without generating greater financial burdens to the HR department and Organization at large (Kavanagh et al, 2015).

#### **❖ The speed of filing job opening**

One of the primary ways in which human resource information system has a positive impact on recruitment is the speed and efficiency in job vacancies. Internet usage is readily available and accessible for 24 hours a day and 7 days a week which makes it easy and possible to advertise a vacancy online (Singh & Finn, 2003). This speed of filling vacancies through the internet helps the recruiter to save as much as five days off the time it would generally take to fill a vacancy. Another advantage is that this shortens the response time from the interested applicants. Research shows that some companies have confirmed that they receive resumes immediately after they have posted a vacancy as people are always on the internet looking for job openings (Singh et al, 2003).

Human resource information system is quite interesting in facilitating work processes considering the speed in which it operates under to get things done. The use of HRIS makes it possible to make a request for new applicants to be entered into a system, which enables the HR personnel to view such requests on the system and select a number of qualified applicants from the resumes which are stored on-line. The interview process can therefore be planned out and letters inviting candidates can be sent out, making the whole process taking less time (Singh et al, 2003).

❖ **Impact on the fulfilment of psychological contract and Employee satisfaction and retention**

Fulfilment of psychological contract, employee satisfaction and employee retention are very crucial goals in the recruitment process. Psychological contract can be described as the employee's beliefs about the mutual responsibility and promises between the employee and the Organization. The employee is more likely to be discouraged and demotivated to continue working in any Organization when they feel that their psychological contract has been breached. Therefore, it is very crucial to make sure that human resource information system can meet and fulfill the employee's psychological contracts (Kavanagh et al, 2015).

The amount of information collected and circulated during the recruitment process can shape the expectations concerning the fulfilment of psychological contract which carries the power to impact on employee satisfaction and retention rates (Breaugh et al, 2000). There are quite a number of expectations that might have an impact on psychological contract, such expectations include, job responsibilities such as skills usage and performance at work, employee relationships such as interaction with colleagues and customers, financial expectations such as salary adjustments and incentives and lastly, organizational culture (Breaugh et al, 2000).

❖ **Quantity of applicants**

Recruitment that is conducted online is very convenient for applicants as it is readily available to them 24 hours a day and seven days a week. This function enables the applicants to fill out applications and put in their resume for different vacancies in a short space of time. A danger about this convenience is that it may lead many applicants into applying for positions without evaluating their qualifications for the intended post leading to a huge number of people applying in each post (Chapman & Webster, 2003). In order to ensure that there is no large number of unqualified

applicants, Organization need to devise ways and methods that can screen out applicants that do not have the necessary qualifications needed for an opening. Research studies show that many companies are implementing a resume management tracking system which uses keyword searches to tone down the huge number of applications (Kavanagh et al, 2015). Although the keyword searches seem to be a solution, extra caution needs to be considered for example, some applicants may master the keyword search process by aligning their resume to fit in to the job descriptions with the hope of standing a chance to go through the resume screening process (MacMillan, 2007).

#### ❖ **Diversity and quality of the applicants**

The quality and diversity of applicants play an integral part in the process of recruitment. It is of utmost importance that recruiters get highly qualified and diverse applicants, though this is solely dependent on the applicants available online. Most research studies show that online recruitment processes put an unrealistic limitation on the possible applicants. A high number of applicants who use online recruitment are computer efficient, highly educated and highly motivated individuals with the need to succeed in life which is shown by aiming for high-level jobs (McManus & Ferguson, 2003). However, there might be a disadvantage to such as research also shows that such applicants might be hopping from one job to another than those applicants who rarely use online recruitment in looking for jobs.

Even though online recruitment may be preferred by highly educated applicants, research studies reveal that there are a few discrepancies when it comes to ethnic groups that use online recruiting. These discrepancies in ethnic groups using recruitment through the internet may be caused by lack of access to the internet, poverty and being computer illiterate (Kuhn & Skuterud, 2000).

Another discrepancy in online recruitment may be the gender and age factors. Men that are already employed are likely to show more interest on internet job searching than females. This could be attributed to the fact that women are might have anxiety when it comes to using computers and are less computer driven compare to males (Kuhn et al, 2000). Research also reveals that older people who are 50 or above are less likely to show interest in computers than younger individuals, which may lead to older individual's lack of interest to use online recruitment. Considering such findings, it is evident that online recruitment might have limitations when it comes to the process of attracting a diverse pool of applicants (Kuhn et al, 2000).

### **3.6 Human resource information system and the selection systems**

Human resource information systems play a very crucial role in a development and use of such systems. One of the most significant purposes of human capital instrument is database development. It is of paramount importance that the selection processes make sure that the database have been developed in a manner that enables the storage and accurate tracking of the selection data prior to the hiring of the employee and also after the employee has been hired (Kavanagh et al, 2015).

Human resource information systems should also be able to facilitate integration amongst the institutions several HR systems. Such integration should allow HR users to navigate between the needed information in two or more systems freely without having to do it the traditional way (Kavanagh et al, 2015).

Assessments are very crucial for HRIS because when they are used in selection, they have value in assisting Organization in finding those individuals that have the potential to do well on the job and avoid hiring those that do not have the potential to succeed. This section looks at the importance of assessments through the help of HRIS.

The process of acquiring the best talent on the market has dramatically changed over the past few years. Before the rise in technology use, Organization used to advertise the available posts, interested candidates would apply and there would be a group of employees designated for screening the applications and select promising for interviews and after the process of conducting the interviews, an offer would be made to the prospective candidate and the candidate would usually accept (Staines, 2012). However, in today's world, quite a number of job openings are entirely advertised online. Interested candidates' complete forms online which may require them uploading their resumes, qualifications and motivation letters. Larger Organization rely on the help of HRIS to pre-screen potential candidates, to check and verify qualifications and select qualified candidates for interviews which may also take place via phones, and for long distances, platforms like Skype can also be of great help, saving the Organization travelling costs, accommodation costs and also save the Organization from having to spend on meals (Staines, 2012).

Quite a number of jobs that are available on the market often require that a candidate may possess certain skills, attributes and abilities that will enable that candidate to be able to multitask, take on several projects at the same time and be able to learn new skills and innovative ways of working.

According to the research done on the employee's abilities, skills and personal attributes as major traits for success, the results revealed that there are five main important abilities that most employers are looking for in employee (Staines,2012). These abilities are:

- I. The ability to be a team worker.
- II. The ability to communicate well.
- III. The ability to make sound decision and problem-solving skills.
- IV. Good information gathering and research skills
- V. Good planning skills and ability to organize and work under pressure

### **3.7 Steps in the selection process**

According to Kumari (2012), selection process must done according to the following steps:

- Receiving the candidate's applications
- Screening and shortlisting for interviews
- Selection tests and assessments
- Selection interview
- Medical examinations
- Background check and references
- Hiring decision.

### **3.8 The use assessments in Organizations**

The use of assessments in Organization can come in a form of resumes and interviews. Many Organization that have hired one or more employees have in some way or the other used assessments in order to make correct hiring decisions. The role of human resource information systems is that of ensuring and helping the Organization in identifying the most suitable and most qualified individual for a certain job opening. Many Organizations have shifted from depending only on one form of making a suitable decision which is mainly interviews but have incorporated other tools which involves HRIS (Kavanagh et al, 2015).

### **3.9 Types of selection assessments and tests**

Kavanagh et al, (2015), makes mention of different kinds of tests and assessments that are used in a selection process which are useful in measuring the ability, personality and knowledge of a potential candidate suitable for a specific kind of job. These assessments and tests are as follows:

1. **Skills test:** This is the kind of a test that is made up of a practical activity or simulation, which assesses how effective is a certain candidate in terms of using Microsoft Word software.
2. **Knowledge test:** This kind of a test comprises of a multiple-choice kind of questions which assesses the knowledge of an individual concerning the tools, equipment and machines that might be used in a certain factory or Organization. This test seeks to find out how much of knowledge does the candidate possess that was taught in a classroom training session.
3. **Ability test:** Ability test is designed to test the level of critical thinking and reasoning capability of a candidate. In this kind of a test, the candidate is required to read a short passage and from that passage the candidate should be able to draw logical conclusions about the statements that they have read and also be able to choose the answer that makes the best logical sense out of a number of possible answers.
4. **Personal attributes test:** This kind of a test might be in a Likert scale form, which assesses the personality traits of a candidate. The test may comprise of statements such as “I enjoy interacting with people from different walks of life” and the candidate would be required to indicate the degree in which he/she agrees or disagrees with the statement.
5. **Work simulation test:** In this kind of a test the candidate might be required to do exercises that will in a variety of kinds of information where the candidate will be given an opportunity to intermingle with simulated coworkers, employees and other associates where the ability to make work-related decisions, ability to work under pressure and interpersonal attributes will be evaluated.

### 3.10 Conclusion

This chapter looked at the impact of HRIS on Recruitment and Selection processes such as the steps in recruitment process, the advantages of using HRIS in recruitment, the impact of HRIS on recruitment objectives, the impact of HRIS on selection systems, the steps in the selection process, the use of assessments in Organizations as well as types of selection assessments and tests. The next chapter entails the research methodology.

## **Chapter Four: Research Methodology**

### **4.1 Introduction**

This chapter has focused on outlining different aspects on how the study was conducted. The first aspect that has been discussed is the research philosophy, research objectives of the study, the rationale for selecting the chosen research method, the research instrument, the sampling design, sample, population of this study, data collection methods and data analysis methods. This chapter has further discussed the results of the pilot study that was conducted prior to the main study and the issues of validity and reliability of the research instrument.

### **4.2 Research Philosophy**

Research philosophy can be described as a collection of beliefs, views and theories that can form basis for the development of knowledge (Saunders, Lewis and Thornhill, 2009). Sekaran and Bougie (2013) state that over the past 2000 years, many researchers and philosophers have had different views on knowledge construction based on questions such as what exactly is knowledge? And how does an individual acquire it. However, over a period of time, many experts on the field of business research have agreed on the following different types of research philosophies namely, positivism, constructionism, critical realism and pragmatism (Bougie et al, 2013). This study will follow the positivism approach.

Positivism approach is highly recommended for believing that there is always an objective truth out there (Bougie et al, 2013). Positivism philosophers always try to make sure that their observations are reliable so that the findings can be able to be generalized to the entire population (Bougie et al, 2013). Positivism was chosen because it plays a vital role in the interpretation of the findings as it allows the research to be objective and not personally interfere with any findings. Moreover, positivism was selected because it is associated with quantitative research, as in the case of this study. Furthermore, the positivism was chosen since it explains and predicts what happens in the social world by looking for regularities and causal relationships between its constituent elements.

### **4.3 Research Design**

Research design is an overall plan of the study which outlines how the study will be carried out (Sekaran & Bougie, 2013). It describes into more detail the methods and ways in which the data was collected, the measurement instrument that was used to collect the data and the data analysis procedure that was employed. There are three types of research design namely: exploratory design, descriptive design and causal design. A descriptive research study was conducted to gain more insight about the perceptions of employees on the use of Human Resource Information Systems in Recruitment and Selection functions in the school of Management, Information Technology and Governance at UKZN (Westville and PMB campuses).

According to Sekaran and Bougie (2013), a descriptive study can either be quantitative or qualitative in nature. This kind of study can be undertaken to collect data that describes certain occurrences, people or even events. Thus, it describes a population, situation, or phenomenon that is being studied. A descriptive study was carried because it answers multiple questions such as ‘how’, ‘what’, ‘when’, and ‘where’. Besides, a descriptive study was conducted because a proper understanding of what a research problem is about before investigating.

### **4.4 Research Method**

There are three types of research methods; quantitative research method, qualitative research method and mixed research methods. This study will use a quantitative research method as it provides a more comprehensive statistical and graphical understanding of the information collected. Sekaran and Bougie (2013) state that quantitative research study can be achieved through the gathering of data using a structured research instrument whereby the researcher can have clearly defined questions and embark on seeking objective answers.

### **4.5 Research Location**

This research study was conducted at the School of Management, Information Technology and Governance at the university of KwaZulu-Natal. The research used two campuses namely: Westville and Pietermaritzburg.

### **4.6 Target Population**

Literature describes target population as the total number of people or units that possess characteristics that the researcher is looking for (Trochim, 2006). It consists of components that are specified in order to meet the intended criteria for being included in the study (Sekaran and

Bougie, 2013). The population for this study was comprised of academics, non-academics and HR employees. The total population for the study was 52. Academics, especially those from the IT department were selected because it was assumed that they use HRIS in teaching. The HR employees and non-academics were involved in the study because it is believed that they are familiar with the use and adoption of HRIS

#### **4.7 Sampling Strategy**

A sample can be described as a subsection of the total population in which the researcher chooses from in order to come up with generalization that will represent the entire population (Neuman 2011). A sample from this study will be chosen from the employees of School of Management, IT and Governance at the University of KwaZulu-Natal in Pietermaritzburg and Westville campus. This study is quantitative in nature and the population comprised of academics, non-academics and HR employees. The type of sampling that was used was probability sampling. Stratified random sampling was employed in which data is divided into various sub-groups which share common characteristics. 52 respondents were selected as the sample for the study. The questionnaires were captured on the Google Form and the link was subsequently sent to each of the respondents via email. The responses were downloaded and recoded in Excel, which was later exported into the SPSS, version 26. 42 respondents completed the questionnaires online. This represents 86.77% active response rate

#### **4.8 Sample Size**

According to the studies conducted, sampling can be defined as a process of gathering the needed data using small set of units that will represent the entire population (Neuman, 2011),

While a sample size can be described as total number of participants that will take part in the study. The researcher used 42 out of 52 employees from the School of Management, IT and Governance in both Pietermaritzburg and Westville campus. According to Krejcie & Morgan, (1970) and Sekaran et al (2015), this number is a good representation of the entire population, for example 42 employees can be drawn from a population of 52 employees.

The selection criteria that was employed in order to select the participants was as follows: The list and contact details of the research participants was obtained from the Registrar of the campus. The participants were contacted through email and visit to their appropriate offices in each campus for participation in the study. An informed consent form was attached to the research instrument to

seek for the participant's voluntary participation in the study and the participants that consented to participate voluntarily in the study were recruited.

#### **4.9 Instrument for Data Collection**

Data can be defined as a piece of information that has been gathered in the research process (Rubin, 2008). Data collection is an important part of the research process. This study employed a data collection instrument which is questionnaires to collect the needed data. The data collection process begun from March 2020 to July 2021. The participants used Google form in order to put in their responses. After the approval to conduct the study was obtained from the UKZN humanities and social Sciences Research Ethics Committee, the Researcher used the following criteria in terms of distributing questionnaires: Firstly, the list and contact details of the research participants were collected from the HR Manager and the Registrar. Secondly, the participants were contacted through email and through a visit to their respective offices for participation in the study. Thirdly, an informed consent form was attached to the research instrument (questionnaire) to seek for the participant's voluntary participation in the study. Fourthly, the participants who consented to participate voluntarily in the study were recruited. Lastly, the approximate time to fill the questionnaire was 30 minutes.

The questionnaire was made up of the following four sections:

**-Section A (General Information: Demographics of the participants)**

**-Section B (Perceptions on the use and design of HRIS)**

**-Section C (Perceptions on the benefits of HRIS)**

**-Section D (Perceptions on the use of HRIS in Recruitment functions)**

**-Section E (Perceptions on the use of HRIS in Selection functions)**

#### **4.10 Pilot study**

A pilot study represents a small or mini version of a large-scale research project. It is conducted to determine the feasibility of the full-scale research. A pilot study can also be conducted to assess or measure the research instrument prior to the data collection. One important benefit of a pilot study is that it helps to determine whether a study is worth pursuing. In this study, a pilot study was conducted among three (3) participants at the University of KwaZulu-Natal at PMB campus

in April 2020. The participants who took part in the pilot study were excluded from the sample size. The pilot was conducted to determine the reliability and validity of the questionnaire. After the pilot study was conducted, some of the items were deleted. The results from the pilot study are presented as follows.

#### **4.10.1 Reliability of the Research Instrument-Cronbach’s Alpha Coefficient**

The reliability of the research instrument was determined by computing the statistical tool commonly known as Cronbach’s alpha coefficient. Sekaran and Bougie (2016) suggested that the Cronbach’s alpha score of 0.70 and above should be considered as reliable and a score below 0.70 should be considered as unreliable. The results of the reliability test are shown in the Table 4.1

**Table 4.1 Reliability of the Research Instrument-Cronbach’s Alpha Coefficient**

<b>Statement</b>	<b>Number of items</b>	<b>Cronbach’s alpha coefficient score</b>
Perceptions on the use of HRIS	10	0.99
Perceptions on benefits of HIRS	4	1.00
Perception on HRIS and recruitment	4	1.00
Perception on HIRS and selection	4	0.70
<b>Total Items</b>	<b>22</b>	<b>0.74</b>

As shown in the Table 4.10, there were 10 items which measured the perceptions of the participants on the use HRIS was 0.99. Per the rule of thumb, it can be argued that the items which measured the perceptions on the use of HRIS was reliable, hence they should be accepted.

Also, 4 questions measured perceptions on the benefits of HRIS and the Cronbach’s alpha coefficient score was 1.00. Since the Cronbach’s alpha score of the 4 items exceeded the recommended score, it can be argued that the items are reliable and should be adopted for the same or similar purpose. Again, there were 6 items on the questionnaire measuring

perceptions on HRIS and recruitment. When the reliability test was computed it was found that the items were not reliable. To ensure the reliability, 2 items (3 & 6) were deleted. The remaining 4 items produced the reliability score of 1.00. According to the rule of thumb, the reliability score of the 4 items has exceeded the recommended score and can be regarded as reliable. Moreover, there were 6 items on the questionnaire measuring perceptions on HRIS and selection in the University. When the first test was computed, it was discovered that the reliability score was very low. In order to ensure a high level of reliability score, 2 items (2 & 6) were deleted and produced the score of 0.70. The items which measured the perceptions on HRIS and selection can be adopted by researchers for the same or similar purpose. In all, there were a total of 22 items which measured the reliability of the research instrument which produced the score of 0.74. The rule is that the entire questionnaire is reliable, hence they can be adopted by researcher in studies which relate to HRIS. The proceeding section shows the validity results of the study.

#### 4.10.2 Validity of the Research Instrument-Factor Analysis

To determine the validity of the questionnaire, the factor analysis was computed. In this study, two sets of factor analysis were computed, namely: The principle component analysis and Kaiser-Meyer-Olkin Measure of Sampling Adequacy Bartlett's Test (KMO). Regarding the principle component analysis, only items with loadings  $> 0.5$  were considered very significant. The KMO and Bartlett's Test was used to the adequacy of the sample size selected for the study. The score ranges from 0 to 1. When the score reaches 1 it means that there was no error in the sample size. The interpretations of the scores are:  $\geq 0.80$  (meritorious);  $\geq 0.70$  (middling);  $\geq 0.60$  (mediocre);  $\geq 0.50$  (poor);  $< 0.50$  (unacceptable). The results of the factor analysis are presented as follows.

**Table 4.2 Component Matrix<sup>a</sup>**

Items	Components			
	1	2	3	4
BUF2	.960	.280	.000	.000
BUFB	.960	.280	.000	.000

BUFC	.960	.280	.000	.000
BUFD	.960	.280	.000	.000
BCIA	.723	-.691	.000	.000
BCIB	.960	.280	.000	.000
BTSA	.960	.280	.000	.000
BTSB	.960	.280	.000	.000
BTSC	.960	.280	.000	.000
BTSD	.960	.280	.000	.000
C1	-.723	.691	.000	.000
C2	-.723	.691	.000	.000
C3	-.723	.691	.000	.000
C4	-.723	.691	.000	.000
D1	.960	.280	.000	.000
D2	.960	.280	.000	.000
D4	.960	.280	.000	.000
D5	.960	.280	.000	.000
E1	-.237	-.971	.000	.000
E3	-.971	.237	.000	.000
E4	-.723	.691	.000	.000
E5	.723	-.691	.000	.000
Eigenvalue	16.63	5.37	2.44	2.40

% of Variance	75.61	24.38	1.11	0.98
---------------	-------	-------	------	------

Extraction Method: Principal Component

Analysis. a. 4 components extracted.

From the Table 4.10.2 fifteen (15) items on the questionnaire loaded significantly on Factor 1 and accounts for 75.61%. Out of the total, 10 items relate to the perceptions on the use of HRIS, 4 items also relate to perceptions on HRIS and recruitment and the remaining 1 item relates to perceptions on HRIS and selection. It can be seen that the majority (10) of the items on Factor 1 relate to perceptions on the use of HRIS. Therefore, Factor 1 may be named as such.

The results showed that five (5) on the questionnaire loaded perfectly on Factor 2. Of the total, 4 items relate to the perceptions on the benefits of HRIS and the rest of the 1 item related to perceptions on HRIS and selection. Since most of the items (4) were related to the perceptions on the benefits of HRIS, Factor 2 can be called perceptions on the benefits of HRIS. The validity was further determined by KMO and Bartlett's Test and the results are shown in the Table 4.3

**Table 4.3 KMO and Bartlett's Test**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</b>	<b>0.815</b>
<b>Bartlett's Test of Sphericity Approx. Chi-Square</b>	<b>933.711</b>
<b>Df</b>	<b>120</b>
<b>Sig.</b>	<b>0.000</b>

From the Table 4.3, the KMO and Bartlett's Test score was 0.708. This means that the instrument used was. The results suggest that the questionnaire used in this study was valid (meritorious), hence, can be adopted by researchers in studies which relate to HRIS.

#### **4.11 Data Measurement Scale**

For the purposes of research, measurement can be defined as a means of collecting data by assigning numbers in the objects that need to be scaled (Sekaran and Bougie, 2013). A scale can be defined as a tool that is used in order to distinguish how individuals differ from each other in terms of their interest pertaining the study (Sekaran and Bougie, 2013). There are several scales in research, however the 5 -point Likert scale was employed in this study. The interpretation of the scale is as follows:

- Strongly Agree = 1
- Agree = 2
- Not sure =3
- Disagree= 4 - Strongly Disagree = 5

#### **4.12 Data Analysis**

Data analysis can be described as the process of scrutinizing raw data with the aim of coming up with deductions about that specific data (Rubin, 2008). According to the nature of the research work, the researcher has utilized Statistical Packages for Social Scientists (SPSS) for data entering, scrutinizing and explanation. Descriptive and inferential statistics has been used for the interpretation of data and findings. The descriptive statistics that the researcher used were the mean, the median, the mode, standard deviation and the variance. The study also made use of the inferential statistics which includes factor analysis, correlations and Cronbach's alpha coefficient.

#### **4.13 Ethical Considerations**

The researcher obtained ethical clearance approval for the study from the UKZN Humanities and Social Sciences Research Ethics Committee (HSSREC) and got a gate keeper's letter from the Office of the Registrar at the University of KwaZulu-Natal. Detailed attention was highly employed to guarantee that the dignity of the participants was prioritized at all costs. This included the following key points:

- Informed consent (Appendix B): The informed consent form explained to the participants that participation in the research is voluntarily. The purpose of the study was clearly stated in the form. It was also emphasized that no participant will be forced to take part in the

research should they be uncertain of continuing after the study has been explained into more details to them.

- **Privacy and Confidentiality:**

Confidentiality and privacy were maintained throughout the research process and the participants were ensured that their names will not appear in the research and that no private information will be leaked to anyone. The data collected from the participants will be kept by the Supervisor in a secure place at the School of Management, IT and Governance for a period of five years.

- Harm to participants

The study did not involve any risk and discomfort to any participant and the participants were informed that should they feel that they are at any risk, they are free to withdraw from the study without feeling any bad.

- Anonymity

The anonymity of the participants was protected by replacing their personal identities with pseudonyms and limiting their personal information in the dissertation. Furthermore, no participant will be forced to take part in the research should they be uncertain of continuing after the study has been explained into more details to them. Confidentiality and privacy will be maintained throughout the research process and the participants will be ensured that their names will not appear in the research and that no private information will be leaked to management.

#### **4.14 Limitations to the Study**

The greatest limitation to the study was that data collection was supposed to be done in March and April according to the timeframe of the researcher, however there was a great disruption in data collection as the whole world was struck with a pandemic called Covid-19, throughout the period of March the participants were not keen on taking anything from strangers as a way of protecting themselves from the virus, though a few were willing and participated. Even those that were emailed were unable to complete and return the questionnaire as the President announced a National lockdown from the 26th of March 2020 and many did not have access to the internet in their homes. Therefore, the response rate was very low compared to the number that was anticipated.

#### **4.15 Conclusion**

This chapter focused on outlining different aspects on how the study was conducted. The first aspect that was discussed was the research philosophy, research objectives of the study, the rationale for selecting the chosen research method, the research instrument i.e. the questionnaire, the sampling design, sample, population of this study, data collection methods and data analysis methods. This chapter has further discussed the results of the pilot study that was conducted prior to the main study and the issues of validity and reliability of the research instrument. The next chapter will entail data presentation and analysis of the results.

## **Chapter Five: Data Presentation and Analysis of the Results**

### **5.1 Introduction**

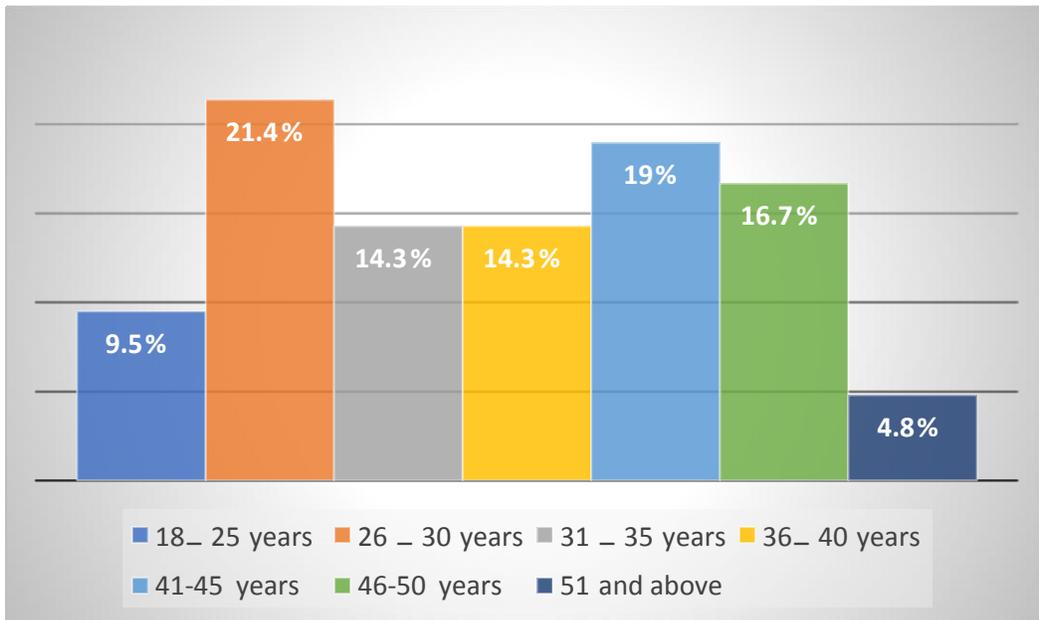
The purpose of this chapter is to present and analyze the results of the study. The presentation and analysis of the results are done in accordance with the research objectives which guide the investigation, namely: to explore the perceptions of employees on the design and use of HRIS; to identify the advantages of using HRIS in recruitment and selection functions; to explore the perceptions of employees on the use of HRIS on recruitment functions; and to explore the perceptions of employees on the use of HRIS on selection functions. With reference to the chapter three above, 52 respondents were selected as the sample for the study. The questionnaires were captured on the Google Form and the link was subsequently sent to each of the respondents via the email. The responses were downloaded and re-coded in Excel, which was later exported into the SPSS, version 26. Based on the data, only 42 of the respondents have completed the questionnaires online. This represents 86.77% active response rate. The analysis and interpretation of the results are done using descriptive (i.e. frequency, percentage, range, minimum, maximum, mean and standard deviation) and inferential statistics (i.e. Cronbach's coefficient alpha, factor analysis, correlations, analysis of variance and sample t-test). The results of the study are presented as follows.

### **5.2 Demographic Variables**

This aspect of the chapter describes the demography of the respondents who took part in the study in relations to their age, gender, race, position, tenure and campus. In this study, only the key findings will be reported. The results are shown as follows.

#### **5.2.1 Age group of the respondents**

Figure 5.1 shows that age group of the research respondents who were involved in the study.

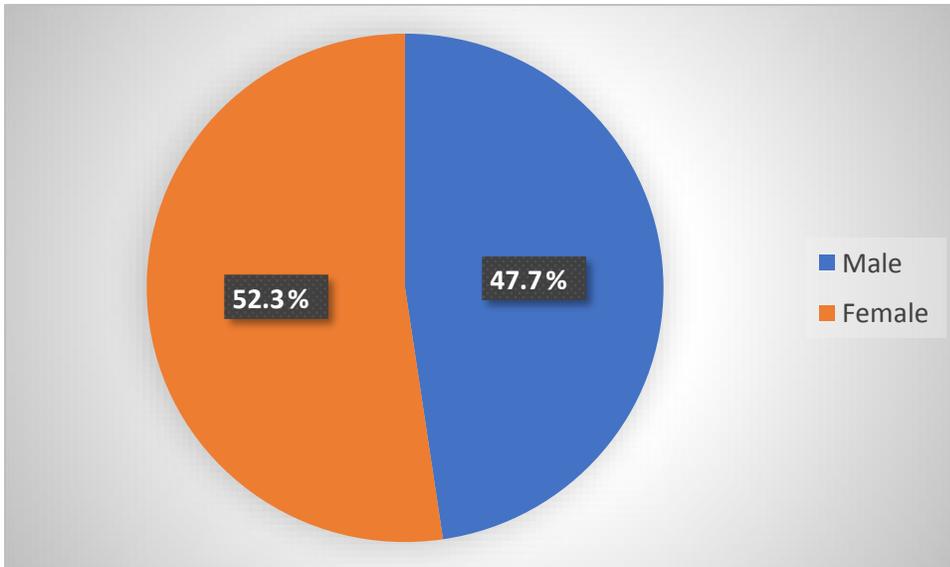


**Figure 5.1 Age group of the respondents**

Evidence from the Figure 5.1 shows that majority of the respondents who took part in this study were between the age group of 26-30 (21.4%), 41-45 (19%), 46-50 (16.7%), 31-35 (14.3%) and 36-40 years (14.3%), respectively. The next section of the chapter presents the gender of the respondents.

### **5.2.2 Gender of respondents**

The number of males and females who were involved in the study are shown in the Figure 5.2.

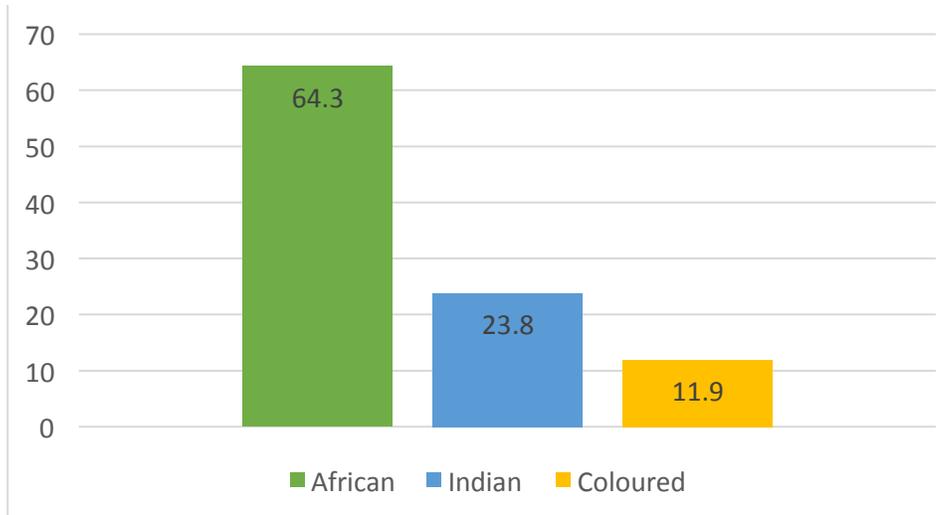


**Figure 5.2 Gender of the respondents**

The results of the study show that 52.3% of the respondents were females as against males, who also represented 47.7%. The following section of the chapter presents the results of the study in terms of the population groups of the respondents.

### **5.2.3 Population group of the respondents**

Figure 5.3 shows the various population groups of the respondents with respect to African, Indian, Colored and White.

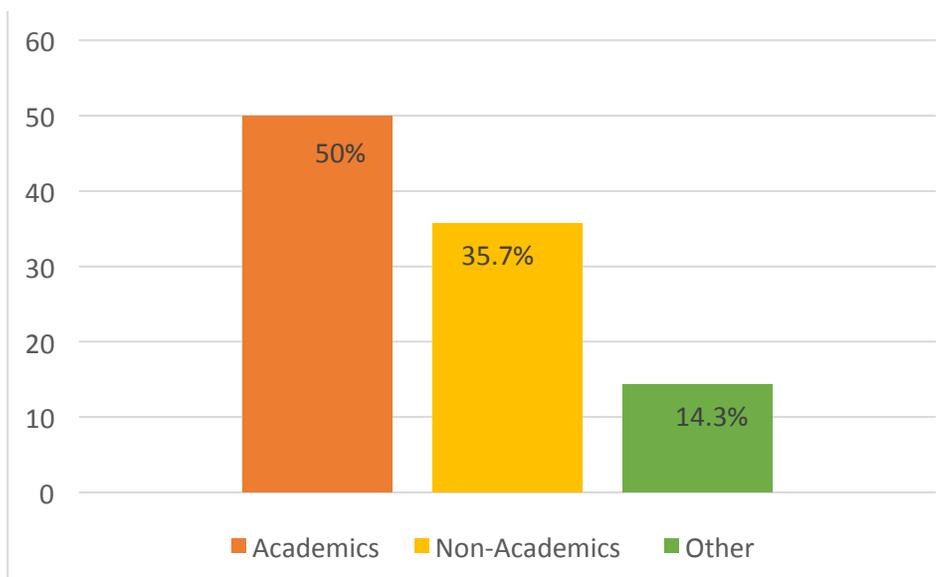


**Figure 5.3 Population groups of the respondents**

The statistics from the Figure 5.3 show that Africans (64.3%) represented the majority of the respondents and followed by Indians (23.8%) and Colored's (11.9%), respectively. The section that follows this shows the results of the study in terms of the respondents' positions within the University.

#### **5.2.4 Respondents positions within the Organization**

The Figure 5.4 depicts the respondent's positions within the Organization in relations to academics, non-academics and other.

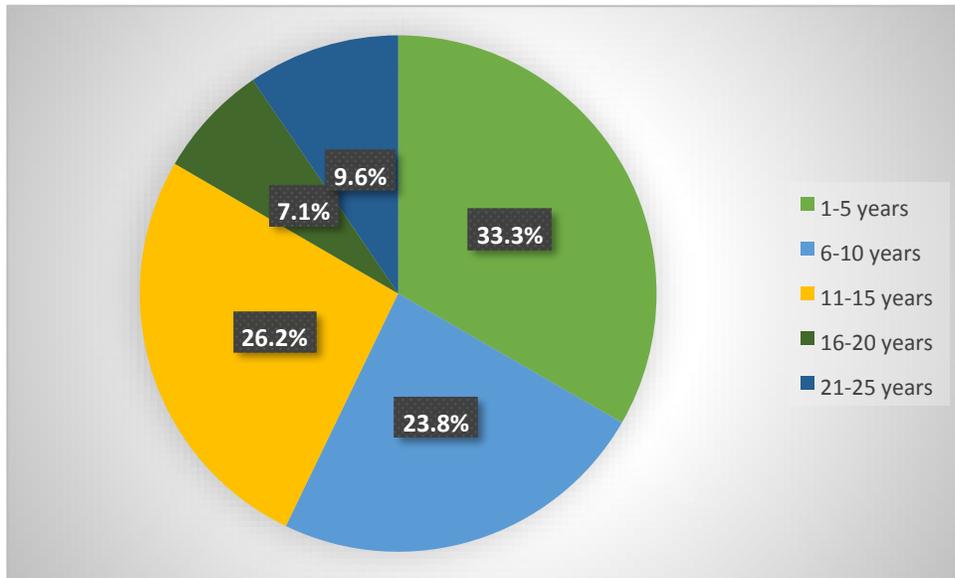


**Figure 5.4 Respondents positions**

The results from the Figure 5.4 reveal that Academics (50%) constituted the majority of the respondents, which is also followed by non-academic (35.7%) and other (14.3%). The section below describes the results of the study in terms of tenure of the respondents.

#### 5.4.5 Tenure of the respondents

The Figure 5.5 describes the tenure of all the respondents who were involved in the study.

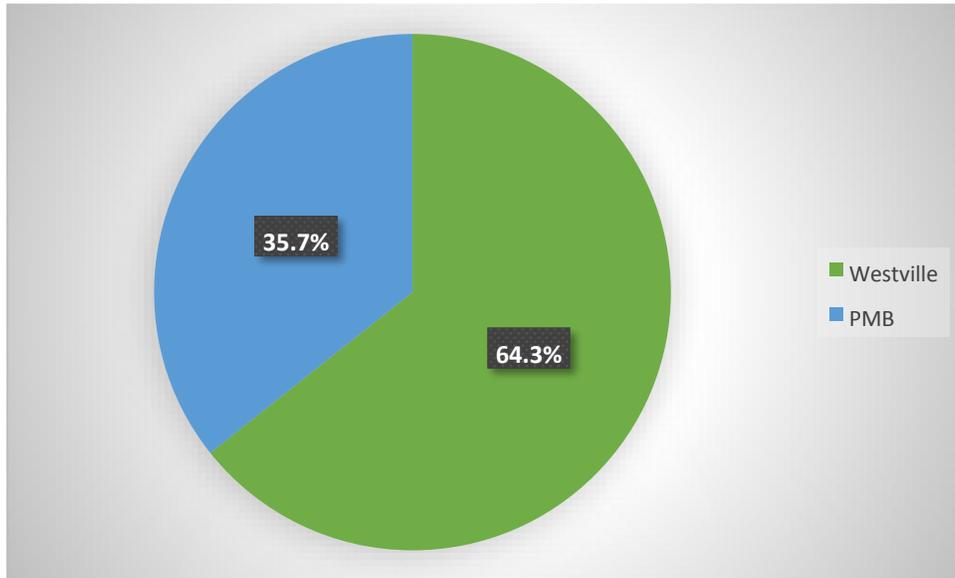


**Figure 5.5 Tenure of the respondents**

Evidently, more of the respondents worked between 1-5 years (33.3%), which is followed by 11-15 years (26.2%) and 6-10 years (23.8%). The section below describes the campus that the participant belongs to.

#### 5.6 Respondents campus

Figure 5.6 shows the various campuses that the respondents belong to.



**Figure 5.6 Respondents campus**

Figure 5.5.6 shows that a large proportion of the respondents were located at Westville campus (64.3%) as against respondents from PMB campus (35.7%). The following section of the chapter describes the results of the study in relations to the reliability and validity of the research instrument.

### **5.3 Reliability of the Research Instrument: Cronbach’s coefficient alpha**

To determine the reliability of the self-constructed questionnaires, the Cronbach’s coefficient alpha was used, and the results are shown in the Table 5.1

**Table 5.1 Reliability of the Research Instrument: Cronbach’s coefficient alpha**

<b>Dimensions</b>	<b>No. of Items</b>	<b>Coefficient alpha</b>
Perceptions on the use and design of HRIS	10	0.855
Benefits of HRIS	3	0.779
Use of HRIS in recruitment function	4	0.828
Use of HRIS in selection function	5	0.842
<b>Total Items</b>	<b>22</b>	<b>0.919</b>

The information the Table 5.1 shows that the 22 items which measured the various constructs in this stud were reliable and had a very high level of inter-item consistency score ( $\alpha = 0.919$ ). This means that the instrument used to collect the data was reliable, hence should be accepted and adopted for similar research. Besides, the study assesses the reliability of the construct, namely: perceptions on the use and design of HRIS; benefits of HRIS; use of HRIS in recruitment; and use of HRIS in selection process. The results show that 10 items which measured the perception on the use and design of HRIS had a very high level of inter-item consistency score ( $\alpha = 0.855$ ). Moreover, the statistics indicate that 3 items which determined the benefits of HRIS had a very high level of inter-item consistency score ( $\alpha = 0.779$ ). In addition, 4 items measured the use of HRIS in recruitment function and had a very high level of inter-item consistency score ( $\alpha = 0.828$ ). Furthermore, 5 items measured the use of HRIS in selection function and had a very high level of inter-item consistency score ( $\alpha = 0.842$ ). The overall results further indicate that the items which measured the various constructs had high level of inter-item consistency score. The next section of the chapter presents the findings of the study which determine the validity of the questionnaires.

#### **5.4 Validity of the Research Instrument: Factor Analysis**

The validity of the research instrument used to collect the data was determined by computing factor analysis. The study made use of two sets of validity including Rotated Component Matrix and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. With respect to Rotated Component Matrix, the study considered only items with loadings  $>0.5$  were considered significant. Mover, KMO and Bartlett's Test, determines the adequacy of the sample size, which ranges from 0 to 1 and reaching 1 when each construct in the questionnaire is perfectly determined with no error. The explanation of the various figures are as follows:  $\geq 0.80$  (meritorious);  $\geq 0.70$  (middling);  $\geq 0.60$  (mediocre);  $\geq 0.50$  (poor);  $< 0.50$  (unacceptable). The results of the study regarding rotated component matrix and KMO and Bartlett's Test are shown in the Table 5.2 and Table 5.3, respectively.

**Table 5.2 Validity of the research instrument: Rotated component matrix**

Items 1	Components			
	1	2	3	4
B1	0.698	-0.121	0.037	0.266
B2	0.703	0.133	0.341	0.070
B3	0.805	0.132	0.269	0.187
B4	0.771	-0.277	-0.045	0.264
B5	0.495	0.399	-0.101	0.040
B6	0.318	0.567	0.469	-0.190
B7	0.560	0.458	0.410	-0.117
B8	0.387	0.706	-0.239	0.035
B9	0.337	0.756	-0.229	0.164
B10	0.395	0.619	-0.176	0.198
C1	0.383	-0.525	0.489	0.193
C2	0.656	-0.204	-0.053	0.588
C3	0.557	-0.204	-0.069	0.616
D1	0.532	-0.353	-0.264	0.024
D2	0.737	-0.087	-0.442	-0.090
D3	0.772	-0.022	-0.347	-0.285
D4	0.803	-0.093	0.206	-0.289
E1	0.632	-0.292	0.248	-0.384
E2	0.811	-0.031	0.368	-0.305
E3	0.720	-0.065	-0.063	0.091
E4	0.694	-0.211	-0.358	-0.414
E5	0.654	-0.172	-0.373	-0.329
<b>Eigenvalue</b>	<b>8.74</b>	<b>2.93</b>	<b>1.87</b>	<b>1.76</b>
<b>% of Variance</b>	<b>39.74</b>	<b>13.34</b>	<b>8.51</b>	<b>8.02</b>

**Extraction Method: Principal Component Analysis.**

**a. 4 components extracted.**

The results of the study showed that 16 items at Factor 1 loaded significantly, which accounted for 39.74% of the total variance. With this regard, 5 items were attributed to the perceptions on the use and design of HRIS, 2 items also fell under the benefits of HRIS, 4 items were also linked to the use of HRIS in recruitment function and 5 items of fell under the use of HRIS in selection. The analysis suggests that the perceptions on the use and design of HRIS and the use of HRIS in selection. However, according to the rule of thumb, the perceptions on the use and design of

HRIS had the highest value, hence Factor 1 may be called ‘perceptions on the use and design of HRIS’. Moreover, 4 items were loaded significantly at Factor 2 and accounted for 13.34% of the total variance. All the 4 items belonged to perceptions on the use and design of HRIS, therefore, Factor 2 may be named as such. The results further showed that 2 items loaded significantly on Factor 3 and account for 8.51% of the total variance. The 2 items were associated with the benefits of HRIS; hence the Factor 3 may be named as such.

**Table 5.3 KMO and Bartlett's Test**

KMO Measure of Sampling Adequacy.	0.632
Bartlett's Test of Sphericity: Approx. Chi-Square df sig	862.483
	231
	0.000

Information from the Table 5.3 shows that the KMO score was 0.631. Statistically, the research instrument adopted in this study was mediocre ( $\geq 0.60$ ). Evidently, the instrument employed to collect the data was valid, hence, can be adopted by researchers for similar studies.

#### 5.4 Descriptive Statistics

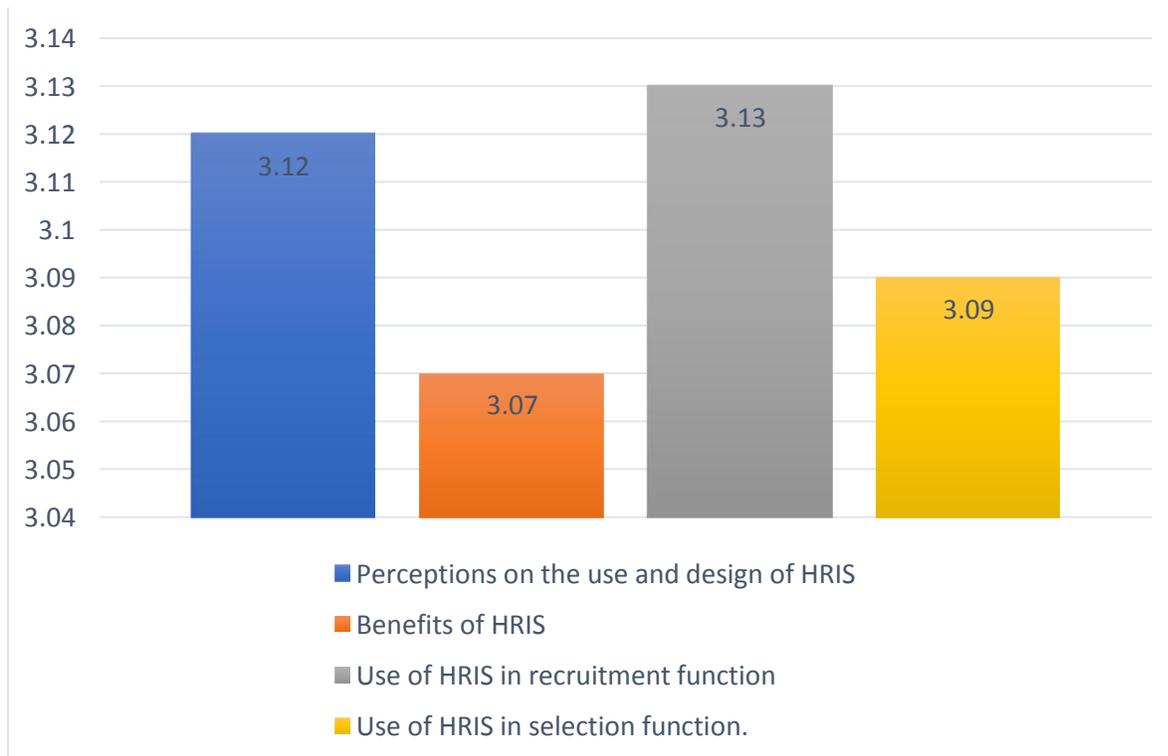
The study further adopts descriptive statistics such as range, minimum, maximum, mean and standard deviation to determine the perceptions on the various constructs such as perceptions on the use and design of HRIS, benefits of HRIS, use of HRIS in recruitment function, use of HRIS in selection function. The study has adopted the 5-point Likert scale where the respondents were required to respond to each of the item by indicating their level of agreement and disagreement. The interpretation of the scale is: Strongly Agree = 1, Agree = 2, Neutral = 3, Disagree = 4, and Strongly Disagree = 5. The results depicted in the Table 5.4.

**Table 5.5 Descriptive Statistics**

Dimension	Mean	95 % Confidence Interval		Std. Dev.	Min.	Max.
		Lower Bound	Upper Bound			
		Perceptions on the use and design of HRIS	3.12			
Benefits of HRIS	3.07	2.93	3.22	0.46291	1.00	5.00
Use of HRIS in recruitment function	3.13	2.97	3.29	0.51572	1.00	5.00
Use of HRIS in selection function	3.09	3.96	3.21	0.40534	1.00	5.00

From the Table 5.5, the results (Mean = 3.12) showed that the respondents had positive perceptions on the use and design of HRIS in terms of user-friendliness, cost effectiveness and time saving. Also, there was an agreement among the respondents that HRIS beneficial to the Organization (Mean = 3.07) due to the fact that it enhances

competitiveness by improving HR practices, provides reliable information for making strategic decisions and creates a larger number and variety of HR-related reports. In addition, the results of the study showed that there was an agreement among the respondents that HRIS had positive influence on recruitment function (Mean = 3.13). Moreover, the findings from the study showed that there was an agreement among the respondents that HRIS had a significant positive impact of selection function (Mean = 3.09) within the Organizations. These results are further shown in Figure 4.7.



**Figure 5.7 Key dimensions of the study**

To determine exactly where the improvement lies in each of the dimensions, frequency analyses were undertaken in terms of perceptions on the use and design of HRIS, benefits of HRIS, use of HRIS in recruitment function and use of HRIS in selection function. The results of the strongly agree and agree were merged and named as agree, whereas strongly disagree and disagree were also combined and named as disagree.

### **5.5.1 Perceptions on the use and design of HRIS**

‘Section B’ of the of the questionnaire (Appendix A) measured the perceptions on the use and design of HRIS in terms of its user-friendliness, cost effectiveness and time saving. The results are shown in the Appendix B.

#### **i. User-friendliness**

The results of the study as presented in the Appendix B showed that 85.8% of the respondents agreed that HRIS was easy to use, 7.1% neither agreed nor disagreed that HRIS was easy to use, while another 7.1% disagreed that HRIS was easy to use. Moreover, 78.5% of the respondents agreed that (b) HRIS reduced data re-entry and data may be used immediately, 19% said that they neither agreed nor disagreed that HRIS reduced data re-entry and data may be used immediately, while 2.5% disagreed that HRIS reduced data re-entry and data may be used immediately. In addition, 71.4% of the respondents agreed that HRIS helped to make informed decisions, 23.8% of the respondents indicated that they neither agreed nor disagreed that HRIS helped to make informed decisions, the rest of 4.8% disagreed that HRIS helped to make informed decisions. The results further agreed that 83.3% of the respondents agreed that HRIS gave easy access to information, 11.9% neither agreed nor disagreed that HRIS gave easy access to information, and 4.8% disagreed that HRIS gave easy access to information.

#### **ii. Cost implications**

The results of the study that 78.6% of the respondents agreed that HRIS reduced paperwork, 11.9% of the respondents indicated that they neither agreed nor disagreed that HRIS reduced paperwork, while 9.5% of them disagreed that HRIS reduced paperwork. Also, the findings showed that 80.9% of the respondents agreed that HRIS improved data control, 14.3% of the respondents indicated that they neither agreed nor disagreed that HRIS improved data control, whereas 4.8% disagreed that HRIS improved data control.

#### **iii. Time saving**

The scoring patterns indicated that 90.4% of the respondents agreed that HRIS saved time, 4.8% of the respondents said that they neither agreed nor disagreed that HRIS saved time, while another 4.8% disagreed that HRIS save time. Moreover, the results showed that

69.1% of the respondents agreed that HRIS facilitated convenience in usage and administration, 28.6% of the respondents indicated that they neither agreed nor disagreed that HRIS facilitated convenience in usage and administration, on the contrary, 2.4% of the respondent dined the fact that HRIS facilitated convenience in usage and administration. In addition, the results revealed that 71.5% of the respondents agreed that HRIS allowed for fewer errors, 21.4% of them said that they were not sure whether HRIS allowed for fewer errors, whereas 7.1% of the respondents refute the claim that HRIS allowed for fewer errors. Furthermore, the results of the study revealed that 83.3% of the respondents agreed that HRIS delivered HR services more accurately, 14.3% of them said that they were not sure that HRIS delivered HR services more accurately, while 2.4% denied the fact that HRIS delivered HR services more accurately.

### **5.5.2 Benefits of HRIS**

‘Section C’ of the questionnaires (Appendix A) assessed the benefits of HRIS in the Organization. The scoring pattern showed that the respondents responded positively to all the items. The results showed that 78.6% of the respondents agreed that HRIS enhanced competitiveness by improving HR practices, 19% said that they neither agreed nor disagreed that HRIS enhanced competitiveness by improving HR practices, while 2.4% of the respondents disagreed that HRIS enhanced competitiveness by improving HR practices. Besides, the results indicated that 85.7% of the respondents agreed that HRIS provided reliable information for making strategic decisions, while 14.3% of them said that they neither agreed nor disagreed that HRIS provided reliable information for making strategic decisions. In addition, findings from the study revealed that 83.3% of the respondents agreed that HRIS created a larger number and variety of HR-related reports, however, 16.7% of them disagreed that HRIS created a larger number and variety of HR-related reports.

### **5.5.3 Use of HRIS in recruitment function**

The study also investigated the respondents’ perceptions on the use of HRIS in recruitment. The results of the study showed that 73.8% of the respondents agreed that HRIS minimized the cost of filling job openings, 23.8% of the respondents said that they neither agreed nor disagreed that

HRIS minimized the cost of filling job openings, while 2.4% disagreed that HRIS minimized the cost of filling job openings. Moreover, 76.2% of the respondents agreed that HRIS increased the speed of filling job vacancies, 19% of them neither agreed nor disagreed that HRIS increased the speed of filling job vacancies, however, 4.8% disagreed that HRIS increased the speed of filling job vacancies. Besides, the results of the study showed that 88.1% of the respondents agreed that HRIS was able to manage the quantity of applicants, 7.1% of the respondents said that they neither agreed nor disagreed that HRIS was able to manage the quantity of applicants, whereas 4.8% disagreed that HRIS was able to manage the quantity of applicants. In addition, the findings indicated that 85.7% of the respondents agreed that, HRIS helped in generating the quality and diversity of applicants from the pool, 9.5% of the respondents were of the view that they neither agreed nor disagreed that HRIS helped in generating the quality and diversity of applicants from the pool, while 4.8% disagreed that HRIS helped in generating the quality and diversity of applicants from the pool.

#### **5.5.4 Use of HRIS in selection function**

The study further explored the respondents' perceptions on the use of HRIS in selection process in the Organizations. The scoring patterns suggest that the respondents had responded positively to all the items. The results showed that 88.1% of the respondents agreed that HRIS had the ability to link information in interrelated systems such as: candidate's data, demographics, employment data, job movement and position histories, 7.1% said that they neither agreed nor disagreed that HRIS had the ability to link information in interrelated systems such as: candidate's data, demographics, employment data, job movement and position histories, 4.8% of the respondents disagreed that HRIS had the ability to link information in interrelated systems such as: candidate's data, demographics, employment data, job movement and position histories. Furthermore, the results of the study revealed that 88.1% of the respondents disagreed that HRIS helped in integrating the Organization various HR systems, 9.5% of the respondents said that they neither agreed nor disagreed that HRIS helps in integrating the Organization's various HR systems, while 2.4% disagreed that HRIS helps in integrating the Organization's various HR systems. Moreover, 85.7% of the respondents agreed that HRIS provided easy test access while ensuring tight security, whereas 14.3% of them said

that they neither agreed nor disagreed that HRIS provided easy test access while ensuring tight security. Besides, the findings revealed that 81% of the respondents agreed that HRIS allowed all candidates to gain access to the test, on the contrary, 19% of them said that they neither agreed nor disagreed that HRIS allowed all candidates to gain access to the test. Lastly, 81% of the respondents supported the view that HRIS provided testing policies that accommodate people with disabilities, however, 19% said that they were not sure that HRIS provided testing policies that accommodate people with disabilities.

## 5.6 Inferential Statistics

To draw valid conclusions from the study, inferential statistics were computed to evaluate all the four dimensions in the study. The kind of inferential statistics that are used in the study are correlations, ANOVA, Post Hoc Scheffe's Test and sample t-test. The section below presents the various inferential statistics that were computed.

### 5.6.1 Spearman correlations

Spearman correlations was computed to assess the type of relationship that exists between the various constructs in the study and the results shown in the Table 4.6

**Table 5.6 Spearman Correlations**

<b>Dimensions</b>	r/ p	Perceptions on the use and design of HRIS	Benefits of HRIS	Use of HRIS in recruitment	Use of HRIS in selection
Perceptions on the use and design of HRIS	R	1.000	-	-	-
Benefits of HRIS	R P	0.236 1.33	1.000	-	-
Use of HRIS in recruitment	R P	0.464** 0.002*	0.419** 0.006*	1.000	-

Use of HRIS in selection	<i>R</i>	0.550**	0.417**	0.814**	1.000
	<i>p</i>	0.000*	0.006*	0.000*	

**\*\*.** Correlation is significant at the 0.01 level (2-tailed).

The information from the Table 5.6 showed that there as a significant relationship between the perceptions on the use and design of HRIS and benefits of HRIS. There also existed a significant positive correlation between the benefits of HRIS and the perceptions on the use of HRIS in recruitment process. Lastly, there was a significant positive relationship between the perceptions on the use of HRIS in recruitment and selection process. The following section of the chapter presents the results using ANOVA.

### 5.6.2 Analysis of variance

To determine the influence of biographical variables such as age, race, position, tenure and campus on the constructs: perceptions on the use and design of HRIS; benefits of HRIS; use of HRIS in recruitment; and use of HRIS in selection, ANOVA was computed. The results are shown as follows.

#### 5.6.2.1 ANOVA: Perceptions of the use and design of HRIS and demographical variables

The results regarding the influence of the demographical variables (i.e. age, race, position, tenure and campus) are shown in the Table 5.7

**Table 5.7 ANOVA: Perceptions of the use and design of HRIS and demographical variables**

<b>Biographical Variables</b>	<b>F</b>	<b>P</b>
Age	1.075	0.396
Race	0.187	0.830
Position	4.319	0.02*
Tenure	1.386	0.258

Campus	0.384	0.539
--------	-------	-------

From the Table 5.7 the results showed that there was no significant difference in the perceptions of the respondents varying in biographical variables such as age, race, tenure and campus in terms of perceptions on the use and design of HRIS at the 5% level of significance, respectively. However, there was a significant difference in the perceptions of the respondents varying in position regarding the use and design of HRIS at the 5% level of significance. To determine exactly where the difference lies, Post Hoc Scheffe's test was computed and the results shown in the Table 5.8.

**Table 5.8 Post Hoc Scheffe's Test: Position and perceptions of the use and design of HRIS**

Dimension	Categories of work experience	N	Mean
Position	Academic	21	2.99
	Non-academic	15	3.12
	Other	6	3.57

As reflected in the Table 5.8, non-academic and others in different positions were more satisfied that position influenced the perceptions of the use and design of HRIS, whereas academic were least satisfied that position influenced perceptions of the use and design of HRIS.

#### **5.6.2.2 ANOVA: Benefits of HRIS and demographical variables**

The results of the influence of the demographic variable on the benefits of HRIS are depicted in the Table 5.9.

**Table 5.9 ANOVA: Benefits of HRIS and demographical variables**

<b>Biographical Variables</b>	<b>F</b>	<b>P</b>
Age	0.242	0.959
Race	1.514	0.233
Position	2.503	0.095
Tenure	0.405	0.804
Campus	.002	0.961

**\*\* p < 0.05**

The results of the study showed that there was no significant difference in the perceptions of the respondents varying in biographical variables such as age, race, position, tenure and campus in terms of the benefits of HRIS at the 5% level of significance, respectively.

### **5.6.2.3 ANOVA: Use of HRIS in recruitment and demographical variables**

The findings of the study regarding the influence of the demographic variables on the use of HRIS in recruitment process are shown in the Table 5.10.

**Table 5.10 ANOVA: Use of HRIS in recruitment and demographical variables**

<b>Biographical Variable</b>	<b>F</b>	<b>P</b>
	1.018	0.430
Race	0.235	0.792
Position	7.629	0.002*
Tenure	1.281	0.295
Campus	0.493	0.809

**\*\* p < 0.05**

The results of the study presented in the Table 5.10 showed that there was no significant difference in the perceptions of the respondents varying in biographical variables such as

age, race, tenure and campus in terms of the use of HRIS in recruitment process at the 5% level of significance, respectively. On the contrary, the statistics showed that there was a significant difference in the perceptions of the respondents varying in position with regards to the use of HRIS in recruitment process at the 5% level of significance. To determine exactly where the difference lies, Post Hoc Scheffe's test was computed and the results shown in the Table 5.11.

**Table 5.11 Post Hoc Scheffe's Test: Position and use of HRIS in recruitment**

<b>Dimension</b>	<b>Categories of work experience</b>	<b>N</b>	<b>Mean</b>
Position	Academic	21	2.91
	Non-academic	15	3.15
	Other	6	3.75

As reflected in the Table 5.11, the results of the study demonstrated that the non-academics and those at other positions were more convinced that position influenced the use of HRIS in recruitment, while academics were less convinced that positions influenced the use of HRIS in recruitment process.

#### **5.6.2.4 ANOVA: Use of HRIS in selection and demographical variables**

The findings of the study regarding the influence of the demographic variables on the use of HRIS in selection process are shown in the Table 5.12.

**Table 5.12 ANOVA: Use of HRIS in selection and demographical variables**

<b>Biographical Variable</b>	<b>F</b>	<b>P</b>
Age	0.493	0.809
Race	1.577	0.220
Position	6.118	0.005*
Tenure	1.802	0.149
Campus	0.015	0.902

\*\*  $p < 0.05$

The information from the Table 5.12 showed that there was no significant difference in the perceptions of the respondents varying in biographical variables such as age, race, tenure and campus in terms of the use of HRIS in selection process at the 5% level of significance, respectively. On the contrary, the statistics showed that there was a significant difference in the perceptions of the respondents varying in position with regards to the use of HRIS in selection process at the 5% level of significance. To determine exactly where the difference lies, Post Hoc Scheffe's test was computed and the results shown in the Table 5.13.

**Table 5.13 Post Hoc Scheffe's Test: Position and use of HRIS in selection**

<b>Dimension</b>	<b>Categories of work experience</b>	<b>N</b>	<b>Mean</b>
Position	Academic	21	2.99
	Non-academic	15	3.57
	Other	6	3.09

The statistics from the Table 5.13 revealed that the respondents at the non-academic and other position were more convinced that position influenced the use of HRIS in selection process, whereas those in academic positions were less convinced that position influenced the use of HRIS in selection process. The next section of the chapter presents the findings using sample t-test.

### 5.6.3 One sample T-test

The one sample t-test was computed to determine whether gender influences all the dimensions such as the use and design of HIRS, benefits of HRIS, use of HRIS in recruitment and use of HRIS in selection process. The results are shown in the Table 5.14.

**Table 5.14 T-Test: All dimensions and gender**

<b>All dimension</b>	<b>T</b>	<b>Df</b>	<b>p</b>
Perceptions towards the use and design of HRIS	15.886	42	<b>0.000**</b>
Benefits of HRIS	15.000	42	<b>0.000**</b>
Perceptions towards the use of HRIS in recruitment	14.212	<b>42</b>	<b>0.000**</b>
Perceptions towards the use of HRIS in selection	17.435	<b>42</b>	<b>0.000**</b>

\*  $p < 0.01$

The information from the Table 5.15 indicated that there was significant difference in the perceptions of male and female respondents regarding all the dimensions, respectively at the 1% level of significance.

## 5.7 Conclusion

The chapter presented the results of the study in accordance with each of the stated research questions outlined in the chapter one. The results of the study revealed the respondents had positive perceptions on the use and design of HIRS, benefits of HRIS, use of HRIS in recruitment and use of HRIS in selection process. The results further showed that the respondents positions had significant influence on the dimensions such as perceptions on the use and design of HIRS, perceptions on the use of HRIS in

recruitment and perceptions on the use of HRIS in selection process. The next chapter will be discussing the results of the data that was collected into more detail.

## **Chapter Six: Discussion of Results**

### **6.1 Introduction**

The purpose of this chapter was to render discussion on the results that emerged from the study as presented in the previous chapter. Discussion provides better understanding of whether the findings from this study agree with or refute the findings from existing studies. The discussion of the results are aligned with the research objectives, namely: to explore the perceptions of employees on the design and use of HRIS; to identify the advantages of using HRIS in recruitment and selection functions; to explore the perceptions of employees on the use of HRIS on recruitment functions; and to explore the perceptions of employees on the use of HRIS on selection functions. The results are presented and discussed as follows.

### **6.2 Perceptions towards the Design and Use of Human Resource Information System**

The study investigated the respondent's perceptions regarding the use of HRIS within the Organization. The overall results of the study revealed that the respondents had positive perceptions about the design and use of HRIS within the Organization. The study revealed that the participants responded positively to all the items that measured the perceptions on the design and use of HRIS. For example, when it comes to user-friendliness, majority of the respondents agreed that the HRIS was easy to use. Moreover, they indicated that HRIS reduced data re-entry and data may be used immediately. In addition, they agreed that HRIS helped to make informed decisions. Furthermore, they believed HRIS gave easy access to information. These findings are supported by existing studies (Bussler, 2001; Krisandra, 2010; Naicker, 2010). According to Sadri and Chatterjee Krisandra (2010), one of the uses of HRIS is its ability to help in making fast and sound decisions. Sadri and Chatterjee Krisandra (2010) argued that HRIS helps in the growth and training of HR management since data is easily accessible, timeously updated, well categorized and analysed. Findings also suggest that contemporary human resource information system are widespread, precise and reachable systems for storing employee and work records necessary for human resource employees (Kovach, et al 2002).

Furthermore, Ball (2001) contends that HRIS provides increased effectiveness, speed in handling HR functions and reduces errors and administration costs. Evidence suggests that technical HRIS helps managers to access information on the allocation of resources and make the right decisions thereafter (Chauhan et al, 2011). Moreover, it was found that allows key data to be available to managers (Kavanagh, Thite & Johnson, 2015). It has further been found that HRIS provides lower transaction costs in Organizations (Kavanagh et al., 2015). Moreover, Silva and Lima (2018) argued that HRIS saves costs through the elimination of paperwork. Barišić, Pejić Bach and Miloloža (2018), in their study, confirmed that HRIS is an inevitable element of contemporary Organization's setup which provides better ways of reducing labor costs. Kumar and Parumasur (2013), similarly, found that HRIS significantly improves overall Organizational efficiency and its sub-dimensions such as HR functions, time management, cost management and managerial satisfaction with the system in an inter-related and holistic manner, though in varying degrees. Akman (2010) acknowledges that HIRS operations could lead to saving stationary expenses and costs of searching, for example, job applicants, risk management, financial planning personnel planning, promotion planning, accident reporting and prevention. Wiblen, Grant and Dery (2010) also agree with other scholars that HRIS reduces Organizational costs through automation of the previous labor-related operations.

Johnson and Guental (2011) concurs that HRIS prevents costly benefits error thus saving Organizations on costs otherwise incurred. Also, HRIS enables firms reduce their administrative and operation costs through the automation of previously labor-related activities. Moreover, HRIS can be used to maintain and facilitate communication up and down the Organization and can be an instrument for greater efficiency (Johnson & Guental, 2011). Moreover, Chauhan, Sharma and Tyagi (2011) argues that HRIS has the following importance, namely: easy to use, accurate and accessible to ease HRM jobs like recording and working employee related data. HRIS is also perceived to be faster in processing information and providing feedback. It also streamlines workflow processes through control processes in their day-to-day tasks (Chauhan et al., 2011). Additionally, it has been argued that HRIS removes work duplication and various work processes are streamlined thus leading to efficiency. HRIS contributes to incremental leaps in efficiency

and response time of traditionally labor-intensive HR activities (Dery, Grant & Wiblen, 2006). Moreover, evidence suggests that when the HR functions was computerized into HRIS, faster decision making was carried out on the development, planning and administration of HR because data became much easier to store, update, classify and analyze (DiPietro, Shani & Tesone, 2010; Sergio, Pez, Sebasti & Ugarte, 2010).

Lucerna (2013) claims that HIRS enhances the ability of an Organization to create reports and analyze information speedily and accurately, thereby making the workforce easier to manage. Khera and Gulati (2012) argues that although many Organization view HIRS as a long-term investment, however, it reduces costs when it is implemented due to less paper been used, less space being taken up, and due to the system being faster and more accurate. Therefore, it can be argued that HRIS brings return on investment.

Chugh (2014) found that HRIS ensures the improvement in traditional HR processes and enhance strategic decision making. Likewise, Kumar and Parumasur (2013) explored the managerial perceptions of the impact of HRIS on Organizational efficiency. The results of the study revealed managers have a positive view of the impact of the HRIS on Organizational effectiveness with the greatest degree of confidence being placed on the impact of HRIS on time management and on HR functions. The results confirm that a well implemented and managed HRIS enables readily available information to be translated into more information sharing, greater knowledge transfer and management. The overall findings of the study indicate the HRIS has the potential to enhance the speed and quality of decision making and the realization of the HR strategy, thereby enhancing Organizational effectiveness.

Shibly (2011) explains that the cost of a HRIS system is extensive and hence, it is important that the benefits derived from its implementation is assessed. Shibly (2011) points out that if HRIS can provide the Organization with a competitive advantage by improving the HR decision making process, this would have diverse benefits on productivity, cost reductions and product quality. However, Shani and Tesone (2010)

observe that although HRIS provides both administrative and strategic advantages, it is expensive to acquire and implement.

According to Karikari and Ocansey (2015), HRIS saves time and increases efficiency by merging the HRIS application with the website. It has been argued that HRIS can be used to conduct online recruitment, hence the speed of time can run efficiently, and the job activities can be faster. Furthermore, research (Pandya, 2013) shows that the implementation of HRIS helps Organizations in reducing HR costs through the automation of information. Recent evidence (Suharti & Sulisty, 2018) suggests that the implementation of HRIS affects time efficiency and managerial satisfaction. Ngwenya, Aigbavboa and Thwala (2019) also discovers that HRIS provides a clear vision of the business and saves time. In addition, it reduces errors that are caused by human factor (Ngwenya et al., 2019). The subsequent section discusses the results on the benefits of HRIS to the Organization as well as employees.

### **6.3 Benefits of Human Resource Management System**

The study investigated into the benefits associated with the implementation and use of HRIS in the University. The overall findings from the study suggest that HRIS offers diverse benefits to the University. It was found that HRIS enhanced competitiveness by improving HR practices. Furthermore, the findings revealed that provides reliable information for making strategic decisions. Moreover, the results of the study indicated that HRIS creates a larger number and variety of HR-related reports. The results of this study also reaffirm the findings from similar research that was conducted by several scholars (Dorel & Bradic- Martinovic, 2011; Sadri & Chatterjee, 2010). According to Dorel and Bradic- Martinovic (2011), an effective HRIS makes HR processes and practices more efficient and faster. Kovach et al. (2002) believe that contemporary HRIS is widespread, precise and reachable systems for storing employee and work records necessary for human resource employees. It has been suggested that HRIS increases competitiveness by its value-added planning and software package improvement using support software, by more rapid data handling and upgraded comeback time, by reduced

secretarial and HR expenditures, by precision of figures and enriched communication at all levels (Kovach, et al 2002).

HRIS supports decision-making processes to achieve competitive advantage (Broderick & Boudreau, 1992). Similarly, it was observed that effective utilization of HRIS in combination with policies and people could give competitive advantage to the Organization (Hendrickson, 2003). HRIS system has been found to elicit a superior amount and diversity of HR processes by making it easy to navigate through different HR operations in a shorter period of time, of which it would take days, weeks or even months if such would be done manually (Beckers & Bsai, 2002). According to Similarly, Zhang and Wang (2006), an important way in which the Organization can obtain competitive advantage through using HRIS. Troshani, Jerram, and Gerrard (2010) investigated into the Organizational adoption of HRIS of **16 Australian public sectors**. The study revealed that HRIS can be used as a source for achieving cost savings and inimitable competitive advantage.

Chartered Institution of Personnel and Development (2006) observes that technology like HRIS is supporting the HR activities and processes in many Organizations worldwide. HRIS aims to improve HRM functions with comprehensive expert or decision-support systems. It provides opportunity for efficient decision-making. It further provides a clear business vision and transparency in the process of hiring and firing of employees. Morley, Florkowski and OlivásLuján (2006) also believe that HRIS is transforming HR service-delivery in North America and Europe. Nawaz (2013) suggests that in the last decades HRIS has been designed and implemented by many Organizations as it contributes to Organizational efficiency thereby helping HR managers to take effective decisions and gain a competitive advantage.

Seemly, Sadri and Chatterjee in Krisandra (2010) argue that an important benefit of HRIS is its ability to help in making fast and sound decisions. It has been found that helps in the growth and training of HR management since data is easily accessible, timeously updated, well categorized and analyzed (Sadri & Chatterjee in Krisandra, 2010). Moreover, HRIS

enables Organizations to obtain competitive advantage by making strategic decisions timeously over other Organizations that are not using HRIS. By making data and information more accessible, HRIS helps Organization to be more successful and cost-effective as they spend less time on research, trying to solve problems and time-consuming decision-making sessions. Kariuki (2015) also confirms that HRIS had a significant influence on profitability, public image and overall competitive advantage. Edwards (2008) observes that through HRIS sound decision making and timeous tracking of information can enhance an Organization's effectiveness in handling day to day HR processes. It has further been found that HRIS can be utilized for HR development in employee profile training requirements, succession planning, career interest and planning. Moreover, HRIS assists in staffing, acting as a source of recruitment and in application tracking and job offer refusal analysis. Additionally, HRIS is useful in planning of compensation such as pay structure, compensation administration and incentive plans analysis and legal regulations implementation. Besides, it is useful in performance appraisal functions like employee competency records and comparing actual performance with standards. Ngai and Wat (2006), in their study, observed that more than 60% of Fortune **500 companies** used HIRS to support daily HR operations. Ngai and Wat (2006) contend that HRIS is not only used for administrative purposes, but it is also used for strategic and business decision making purposes.

Sergio et al. (2010) argues that when HR functions are loaded into computers within a HRIS, more rapid decision-making can be achieved in development, planning and management of HR in terms of sorting, classifying and analyzing of the data. Buzkan (2016) contends that HRIS provides significant support to HR functions regarding the impact of information technology on human resources. HRIS provides opportunity for many Organizations to solve and manage their different issues through effective decision-making process. HRIS can be used for diverse purposes, particularly in human resource processes including recruitment and selection, performance management and appraisal, compensation and benefits, training and development, coaching and mentoring, succession planning, health and safety, employee relations and legal issues, employee retention as well as work life balance (Buzkan, 2016).

According to Mureithi, Gachunga and Burugu (2014), effective HRIS has significant impact on HR activities such as compensation, skill inventory, performance evaluation, training and development, HR planning, recruitment and career planning. It also allows HR functions to become more efficient and provides better information for decision making. Gupta (2013) concurs that the goal of HRIS is to integrate the different aspects of HR, including payroll, labor productivity, and benefit management into a less capital-intensive system than the mainframes used to manage activities in the past. Gupta (2013) argues that HRIS improves efficiency of HR activities such as compensation, training and development, succession planning, performance appraisal and recruitment and selection. In Indian, evidence suggests that service Organizations apply HRIS in key HR areas such as performance and reward management (Kundu & Kadian, 2012). Evidently, HRIS is having a drastic effect globally on the functions of HRM.

Kumar and Parumasur (2013) claim that HRIS has a spillover effect to almost all HR activities in as Organization including application tracking in recruitment and selection, personnel information and identification, salary administration, absenteeism analysis, turnover analysis, work scheduling, training and development, performance appraisal and management, succession planning, compensation, conflict resolution and HR planning. Shiri (2012) asserts that HRIS provides HR practitioners with more opportunities to improve their contribution to the strategic direction of the firm. On the contrary, Beadles II, Lowery & Johns (2005) believe that HRIS no evidence suggest that HRIS contribute to the strategic direction of an Organization.

#### **6.4 Uses of Human Resource Information System in Recruitment**

The study further investigates the usefulness of HRIS in recruitment process within the Organization. The overall findings from the study revealed that HRIS had significant impact on recruitment process in the University. The findings further showed the respondents have responded positively to all the items which relate to the effect of HRIS on recruitment process. For instance, most of the respondents agreed that HRIS minimized the cost of filling job openings. In addition, it was found that HRIS increased the speed of filling job vacancies. Besides, the results of the study indicated that HRIS was able to

manage the quantity of applicants. Moreover, findings showed that HRIS helped in generating the quality and diversity of applicants from the pool. The results of this study are in support of existing studies (Kavanagh et al., 2015; MacMillan, 2007; Singh & Finn, 2003;).

Research (Kavanagh et al., 2015) suggests that goal of recruitment processes in Organizations is to lower down any costs involved in the filling in of vacancies. It has been found HRIS can reduce the cost of recruitment in an Organization. Kavanagh et al. (2015) argue that through HRIS Organizations can save approximately 95% of costs usually involved in recruitment as compared to the old ways such as placing advertisements in newspapers and other traditional methods. Such findings on the impact of HRIS and recruitment are promising and tempting and would persuade many companies to consider the online recruitment, however it is very crucial that the HR personnel should look closely to the fine details of their recruitment objectives and not just conclude that online recruitment has the potential to save money for all Organizations. HR managers need to think outside the box and look at a greater picture and consider other ways to be employed should there be applicants who do not have the qualifications needed without generating greater financial burdens to the HR department and Organization at large (Kavanagh et al., 2015).

According to Singh and Finn (2003), one of the primary ways in which HRIS positively impact on recruitment is the speed and efficiency in job vacancies. Evidence suggests that internet usage is readily available and accessible for 24 hours a day and 7 days a week which makes it easy and possible to advertise a vacancy online (Singh & Finn, 2003). This speed of filling vacancies through the internet helps the recruiter to save as much as five days off the time it would generally take to fill a vacancy. Moreover, HIRS shortens the response time from the interested applicants. Research shows that some companies have confirmed that they receive resumes immediately after they have posted a vacancy as people are always on the internet looking for job openings (Singh & Finn, 2003). It can be argued that the use of HRIS makes it possible to make a request for new applicants to be entered into a system, which enables the HR personnel to view such requests on the

system and select a number of qualified applicants from the resumes which are stored on-line.

Furthermore, research (Chapman & Webster, 2003) indicates that HRIS can be used to attract the number of job applicants required by an Organization. HRIS allows job applicants to fill out applications and put in their resume for different vacancies in a short space of time. However, a danger about this convenience is that it may lead many applicants into applying for positions without evaluating their qualifications for the intended post leading to a huge number of people applying in each post (Chapman & Webster, 2003). Research studies show that many companies are implementing a resume management tracking system which uses keyword searches to tone down the huge number of applications (Kavanagh et al, 2015). Although the keyword searches seem to be a solution, extra caution needs considered for example, some applicants may master the keyword search process by aligning their resume to fit in to the job descriptions with the hope of standing a chance to go through the resume-screening process (MacMillan, 2007). A high number of applicants who use online recruitment are computer efficient, highly educated and highly motivated individuals with the need to succeed in life which is shown by aiming for high-level jobs (McManus & Ferguson, 2003). Khashman & Khashman (2016), in their study, observe that HRIS has a significant positive effect on recruitment practices and processes within the Organization. Similarly, research (Mararo, 2017) reveals that the application of HRIS in job profiling showed improvements on the quality of candidate pool for recruitment and on the duration of hiring by an Organization. The study observes that the adoption of HRIS improved the recruitment of the most suitably qualified applicants into the Organization with HRIS being useful in the screening and selection processes. Moreover, Matsiko (2019) found that there was a significant positive relationship between HRIS and recruitment **within the ministry of health** in Uganda.

A study shows that intellectual capital is an extremely valuable resource and is the ultimate source of core competitive advantage (Wei & Feng, 2013). Therefore, through the adoption of HRIS talented human resources could be attracted and recruited into the

Organization. HRIS has a spill- over effect on nearly all the HR functions including recruitment process.

### **6.5 Impact of Human Resource Information System on Selection Process**

The impact of HRIS on selection process was also investigated in this study. The results of the study showed that HRIS and selection process are positively correlated. Thus, the adoption of HRIS had a significant positive effect on selection process. The results of the study further revealed that HRIS had the ability to link information in interrelated systems such as: candidate's data, demographics, employment data, job movement and position histories. Moreover, it was found that HRIS provided easy test access while ensuring tight security. Besides, the findings revealed that HRIS allowed all candidates to gain access to the test. Furthermore, the results showed that HRIS provided testing policies that accommodate people with disabilities. The results of this current study are in support of existing studies (Kavanagh et al, 2015). It has been found that one of the most significant purposes of human capital instrument is database development. Therefore, it is of paramount importance that the selection processes make sure that the database have been developed in a manner that enables the storage and accurate tracking of the selection data prior to the hiring of the employee and also after the employee has been hired (Kavanagh et al, 2015). It is suggested that HRIS should be able to facilitate integration amongst the institutions several HR systems. Such integration should allow HR users to navigate between the needed information in two or more systems freely without having to do it the traditional way (Kavanagh et al, 2015). It has further been proposed that assessments are very crucial for HRIS because when they are used in selection, they have value in assisting Organizations in finding those individuals that have the potential to do well on the job and avoid hiring those that do not have the potential to succeed.

It has been found that larger corporations rely on the adoption of HRIS to pre-screen potential candidates, to check and verify qualifications and select qualified candidates for interviews which may also take place via phones, and for long distances, platforms like Skype can also be of great help, saving the Organization travelling costs, accommodation costs and also save the Organization from having to spend on meals (Staines, 2012).

The role of HRIS is that of ensuring and helping the Organizations in identifying the most suitable and most qualified individual for a certain job opening. It has been found that many Organizations have shifted from depending only on one form of making a suitable decision which is mainly interviews but have incorporated other tools which involves HRIS (Kavanagh et al, 2015). In a related study, Khashman and Khashman (2016) found that HRIS has a positive association with all HR functions including selection process. Masum, Beh, Azad and Hoque (2018), in their conceptual model, suggests that HRIS can be used to monitor recruitment process within an Organization.

## **6.6 Conclusion**

The aim of this chapter was to give discussion on the results that emerged from the study as presented in the previous chapter. The Discussion provided a better understanding of whether the findings from this study agreed with or refuted the findings from existing studies. The discussion of the results were aligned with the research objectives, namely: to explore the perceptions of employees on the design and use of HRIS; to identify the advantages of using HRIS in recruitment and selection functions; to explore the perceptions of employees on the use of HRIS on recruitment functions; and to explore the perceptions of employees on the use of HRIS on selection functions. The next chapter will look at the conclusion and recommendations.

## **Chapter Seven: Conclusion And Recommendations**

### **7.1 Introduction**

This chapter draws the conclusions as well as presents the recommendation of the study. The conclusion and recommendations are done in accordance with the stated research objectives and results of the study. The chapter includes the research questions, background of the study, problem statement, purpose of the study, significance of the study and research methodology. Moreover, the chapter includes the conclusion and recommendations. It also presents the conceptual model upon which the entire study will be predicated. It concludes with the outline of the directions for future research.

### **7.2 Reiterating the Objectives of the Study**

The objectives of the study are reiterated to ensure that each of them is addressed adequately in this chapter. These objectives were duly investigated and achieved as evident in the chapter five of the study. These objectives include, namely:

- to explore the perceptions of employees on the design and use of HRIS;
- to identify the advantages of using HRIS in recruitment and selection functions;
- to examine the perceptions of employees on the use of HRIS on recruitment functions; and
- to assess the perceptions of employees on the use of HRIS on selection functions

### **7.3 Background of the Study**

The biggest challenge in today's global market is to remain competitive at all costs, therefore organizations are looking for ways and strategies of attaining and keeping a more efficient and highly qualified staff. One of the well-known and highly efficient way of realizing this role is the use of technology (Kavanagh et al, 2015). Amongst the technological innovations, HRIS has been considered as the commonly used tool by many organizations to perform diverse functions. According to Al Mamun and Islam (2016), HRIS can be defined as an information system that collects, stores, processes and retrieves HR information to purposely assist an organization achieve its strategic objectives. Shyaa (2019) observes that HRIS could be used to collect, to record and store, to examine and recover data relate to a firm's HR activities. Moreover, Shyaa (2019) argues that HRIS represents the solution for the many HR problems. The use of an HRIS offers incremental leaps in efficiency and in the response time of many human resource jobs that are traditionally labor intensive. Also, HRIS helps to reduce the duplication of efforts and to better

organize the efforts of the HR staff. Today, HRIS allows the HR departments in organizations to shift from data maintenance to the strategic use of human resources. For example, a survey shows that most institutions highly depend on HRIS for recruitment and selection processes in order to measure the applicant's abilities, their personality traits, the knowledge that they possess, the acquired skills and also their ability to type amongst other things (Kavanagh et al, 2007). With regards to the recruitment process, any institution aims to address the specific aims of the process of recruitment and looks at whether the HRIS will be able to assist in achieving such goals (Kavanagh et al., 2015).

Research (Tursunbayeva et al., 2017) suggests that supports a variety of HRM function including but not limited to recruitment and performance management. It provides managers with crucial information guiding effective capacity planning and resource allocation. HRIS can take various forms, ranging from dedicated stand-alone packages (payroll) to components of integrated enterprise resource planning. Another study conducted by reveals that HRIS can be utilised to perform diverse HR functions such as human resource planning, staffing, training and development, performance management, and compensation (Al-Shawabkeh, 2015). Notwithstanding this, the study focused only on the perceptions of the employees on the use of HRIS in recruitment and selection.

Zhao et al. (2020) believe that selection and recruitment practices are critical in the growth of a business as they ensure that the right people join organizations. Recruitment creates a pool of qualified applicants to apply for work in the institution. On other hand, involves choosing the most suitably qualified candidates who meet the requirements of the job (Dany & Torchy, 2017).

#### **7.4 Problem Statement**

There is no doubt that many **studies** have focused on the diverse use of HRIS in organizations. For example, Udekwe and Andre (2017) investigated into the use of HRIS in two retail organizations in Western Cape. Siengthai and Udomphol (2016) studied the impact of human resource information system (HRIS) on organizational effectiveness. Moreover, Dilu et al. (2017) assessed the HRIS implementation readiness in the Ethiopian health sector.

Research that has been conducted on the introduction of a new technology reveals that the focus is usually directed towards the organizational point of view. The main focal point is usually on how the organizational activities and processes will be enhanced by the introduction of a new

system rather than focusing on how the end-user's preferences and needs will be changed by the new system (Bernstein et al., 2007). The organization may start and fund the adoption of a new Human Resource Information System, but it is the end user who uses the system daily. Therefore, it is very crucial that the end users be involved in the evaluation of any new system and that their perceptions and experiences towards the use of the system needs to be taken into consideration (Bernstein et al, 2007). Thorough review of the literature suggests that although few studies (Al Mamun & Islam, 2016; Motwani, 2015; Sanjeev & Makkar, 2014) have examined the respondents perceptions towards the effectiveness of HRIS in organization, there is a lack of research on the perception of employees concerning the use of HRIS in recruitment and selection, especially within academic institutions.

Therefore, this research aims at investigating the perceptions of employees on the use and adoption of human resource information systems in recruitment and selection functions at the school of Management, IT and Governance. The School of Management, Information Technology & Governance is based on the Pietermaritzburg and Westville campuses, and also offers limited support and modules to students based at Howard College. It is the largest school in the College of Law and Management Studies, and the second-largest school overall at UKZN.

#### **7.4 Purpose/Aim of the Study**

The broad aim of the study was to examine the employees on the use of human resource information systems in recruitment and selection functions at the School of Management, IT & Governance in the **University** of KwaZulu-Natal. Besides, the study aims to provides practical recommendations to the management of the University of how to implement HRIS more effectively and efficiently.

#### **7.5 Summary of the Research Methodology**

The study adopted the positivist paradigm to provide the objective analysis and interpretation of the phenomenon. A descriptive research was carried to collect data that best describes the research phenomenon. A quantitative research method was employed provides a more comprehensive statistical and graphical understanding of the information collected. The study was carried out in the School of Management, IT and Governance in the University of KwaZulu-Natal. The target population of the study was 52, including lecturers, non-academics and HR employees. The stratified random sampling was

employed to select 42 respondents for the study. The data was collected using questionnaire. A pilot study was conducted among three (3) participants at the University of KwaZulu-Natal at PMB campus to determine the reliability and validity of the research instrument prior to the data collection. The study adopted the 5 -point Likert scale. The SPSS (version 26.0) was used to analyze the data. Descriptive and inferential statistics were used for the interpretation of data and findings. The ethical approval for the study was obtained from the UKZN Humanities and Social Sciences Research Ethics Committee (HSSREC). The ethical considerations addressed in the study were. The ethical considerations addressed in the study include informed consent, confidentiality and privacy, harm, and anonymity.

## **7.6 Conclusion of the Study**

The following are the conclusions drawn from the study based on the key findings.

### **7.6.1 Perceptions on the design and use of human resource information system**

The study explored the perceptions of the respondents on the design and use of HRIS within the University. The overall results of the study showed that the employees working at the University perceived HRIS positively. It was found that the HRIS in place was user-friendly. For instance, most of the respondents agreed that the HRIS was easy to use. Moreover, it was found that HRIS reduced data re-entry and data may be used immediately. Additionally, when it comes to user-friendliness, the results indicated that HRIS helped in decision-making process. Furthermore, it was found that HRIS gave easy access to information.

The respondents further perceived HRIS as cost effective. The study showed that HRIS reduced paperwork within the University. Moreover, it was found that HRIS improved data control in the Organization. Besides the use-friendliness and cost effectiveness, it was found that HRIS save time in the Organization. In relations to time saving, it was found that HRIS facilitated convenience in usage and administration in the Organization. In addition, the results showed that HRIS allowed for fewer errors in the Organization. Moreover, the results revealed that HRIS delivered HR services more accurately.

### **7.6.2 Benefits of using human resource information system**

The study further investigated the benefits of the adoption of HRIS in the Organization. The results of the study showed that the University derived several benefits from the adoption of HRIS. For instance, it was found that HRIS enhanced competitiveness by improving HR practices. Furthermore, the results indicated that HRIS provided reliable information for making strategic decisions. In addition, the findings suggested that that HRIS created a larger number and variety of HR-related reports. Based on the analysis of the results, it can be concluded that HRIS delivers diverse benefits to Organizations.

### **7.6.3 Perceptions on the use of human resource information system on recruitment functions**

The respondent's perceptions on the use of HRIS on recruitment functions was further investigated in the Organization. The overall findings from the study revealed HRIS improved recruitment process within the University. In relations to recruitment, it was found that HRIS minimized the cost of filling job openings. Moreover, the findings showed that HRIS increased the speed of filling job vacancies. Besides, the findings from the study indicated that HRIS was able to manage the quantity of applicants. Furthermore, the results of the study revealed that HRIS helped in generating the quality and diversity of applicants from the pool.

### **7.6.4 Perceptions on the use of human resource information system on selection functions**

The respondent's perceptions on the use of HRIS on selection functions was also explored in this study. The overall results of the study indicated that the adoption of HRIS in the Organization facilitated selection process. For instance, it was found that RIS had the ability to link information in interrelated systems such as candidate's data, demographics, employment data, job movement and position histories. Moreover, the results revealed that HRIS helped in integrating the Organization various HR systems. In addition, the results of the study indicated that HRIS provided easy test access while ensuring tight security. Besides, it was found that HRIS allowed all candidates to gain access to the test.

Furthermore, it was discovered that HRIS provided testing policies that accommodate people with disabilities.

## **7.7 Recommendations of the Study**

The following recommendations are necessary based on the results of the study.

### **7.7.1 Recommendation 1- Provision of training and development for staff**

Broadly speaking, training and development aims at improving the skills and abilities of employees to enable them to perform in the most effective and efficient manner. Moreover, the training and development aims to deliver the mission of the Organization and support workers to learn the culture of the Organization. For the University to implement HRIS in the most effective and efficient manner it is imperative for staff to be trained and developed on how to use the system. However, prior to the training and development, the University needs to assess its training needs and that of the employees. The training and development goals must also be clearly defined. Moreover, the effectiveness of the training programme must be evaluated.

### **7.7.2 Recommendation 2- Top management support and commitment**

Top management plays an important role in shaping an organization. Active involvement and commitment of top management is considered as one of the critical elements in the implementation and adoption HRIS. Thus, top management support and commitment is the most critical indicator of the successful implementation of HRIS. For HRIS to be successful, top management within the University needs to demonstrate its commitment and support towards its implementation. Top management should affirm the importance of the implementation and adoption of HRIS in the Organization. Besides, the need to commit resources towards the implementation of the HRIS. Moreover, management of the University should communicate to all members of the Organization that HRIS function should not be treated competitively by other departments or units.

### **7.7.3 Recommendation 3- Employee participation and involvement in human resource information system**

The need for employee involvement arises from the fact that one head can never be better than two good heads. Employee participation is a management initiative or process in which employees are given opportunity to take part in decisions relating to their work or discuss issues to influence managerial decisions. Employee involvement deals with sharing decision making authority between management and workers in the work situation. Employee participation and involvement represents the active involvement of employees in planning and implementing HRIS. This participatory approach to decision-making implies that the employees are involved in planning, implementation and adoption of HRIS. For HRIS to be successful, employees within the University should be involved in making decisions about the implementation and adoption of HRIS. Employees in the University should be consulted by management prior to the implementation of HRIS.

### **7.7.4 Recommendation 4- Adoption and integration of advanced technologies**

In recent times, HR functions have been revolutionized or transformed by advanced technologies. Organizations that successfully adopt sophisticated HR technology tools outperform those that do not. It is important for Organizations to determine how to use technology to transform their HR practices and market their HR brand. For HRIS to function in the important effective and efficient manner, it must be supported by sophisticated technologies. Therefore, the University should harness technological advancement to support the implementation and implementation of HRIS.

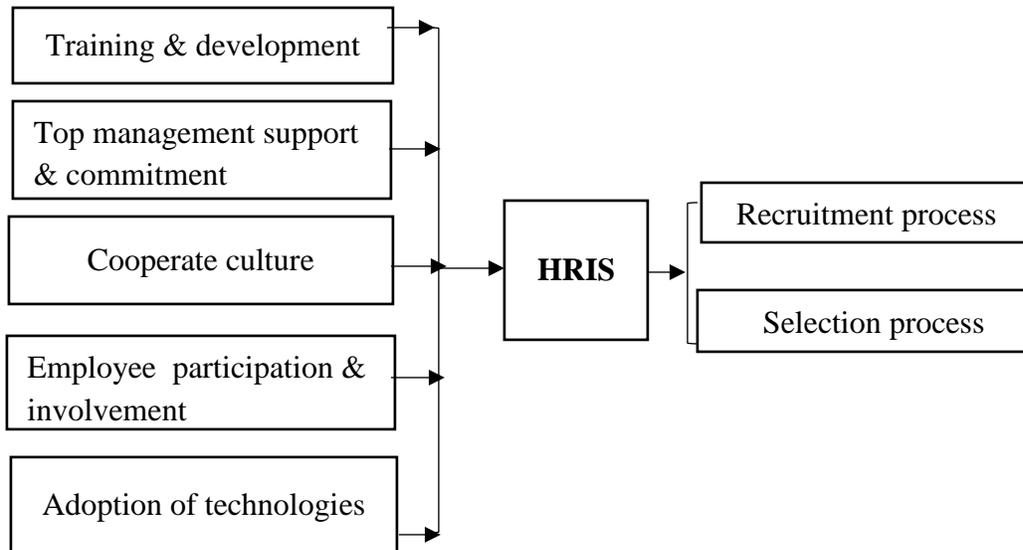
### **7.7.5 Recommendation 5- Cooperate culture that support new innovations**

Corporate culture denotes the pattern of shared values and beliefs that help individuals understand Organizational functioning and thus provide them with the norms for behavior in the Organization. It lies at the heart of Organization innovation. Successful Organizations are those that have the capacity to absorb innovation into their Organizational culture and management processes. For an innovation like HRIS to occur and be successful there must be a perception among managers and other users that the Organization can adapt and implement the new processes. These perceptions are likely to

derive from the prevailing Organizational climate or culture, and whether it embodies norms and expectations that support openness, change, and risk-taking. Organizations with open and flexible corporate cultures adapt easily to new technology and the changes that come with it, as their employees at all levels tend to view changes positively and are more willing to adapt to the changes. Organizational cultures with a more supportive climate and flexible structures might be more advantageous to successful deployment of new technologies, than Organizations with less flexible and more mechanistic cultures. Although some staff may be resistant to changing their ways, empowering them gives a sense of involvement in the shift away from manual systems. As far as this study is concern, employees who perceive the culture of their Organization as open are more inclined to have a positive attitude toward Organizational change, and subsequently will more readily accept future changes. To ensure the implementation and adoption of HRIS, it must be integrated into the cooperate culture. The following section presents the conceptual model which guides the study.

## **7.8 Conceptual Model**

Based on the conclusion and recommendations, the following conceptual model has been developed to assist in the implementation and adoption of HRIS in Organizations including higher education institutions.



**Figure 7.1 Implementation and adoption of HRIS**

**Source: Authors' compilation**

As reflected in the Figure 7.1, the critical success factors for the implementation of HRIS include employee training and development, top management support and commitment, cooperate culture, employee participation and involvement and adoption of technologies. The conceptual model suggests that HRIS, when properly implemented, will deliver several benefits for the Organization including but not limited efficient and effective recruitment and selection processes. For an Organization to derive the full benefits from the implementation and adoption of HRIS, it should consider the factors enumerated above.

### **7.9 Limitations and Directions for Future Research**

This study was limited to some selected academics and professional service staff at UKZN in the School of Management, IT and Governance. By implication, the results of the study cannot be extended or generalized to other universities in South Africa. Therefore, future studies should focus on more than one institution of higher learning in South Africa. Moreover, this study was limited to only quantitative research. Mixed methods research

would have been more appropriate in obtaining divergent perceptions of the participants on the adoption of HRIS. Future research should adopt mixed methods approach.

### **9.10 Conclusion**

The chapter covered the conclusion and recommendations of the study. The results showed that there as a significant relationship between the perceptions on the use and design of HRIS and benefits of HRIS. Moreover, there existed a significant positive correlation between the benefits of HRIS and the perceptions on the use of HRIS in recruitment process. Besides, there was a significant positive relationship between the perceptions on the use of HRIS in recruitment and selection process. The following practical recommendations were made to the University: provision of training and development for staff, top management support and commitment , employee participation and involvement in human resource information system, adoption and integration of advanced technologies, and cooperate culture that support new innovations. In addition, the conceptual model upon which the study rest was part of the chapter.

## REFERENCES

- Achua, J. K. (2008). Corporate Social Responsibility in Nigerian Banking System. *Society and Business Review*, 3, 1, pp. 57-71.
- Akman, V. (2010). İnsan Kaynakları Bilgi Sistemleri Sakarya İlinde bir araştırma. *Unpublished Master's Thesis, Sakarya Üniversitesi, Sakarya*
- Al-Somali, S; Gholami, R & Clegg, B. (2010) "An investigation into the adoption of electronic business in Saudi Arabia using the technology-Organization- environment framework". UK Academy for Information Systems Conference Proceedings 2010. 6.
- Ankrah E & Sokro E (2012) Human Resource Information System as a strategic tool in Human Resource Management: *Problems of management in the 21st century*, Vol 5.
- Bal Y., Bozkurt, S. & Ertemsir, E. (2012). The importance of using human resources Information systems (HRIS) a research on determining the success of HRIS. *Management, Knowledge and Learning International Conference*, Yildiz Technical University, Turkey, pp. 53-62.
- Ball, K.S (2001). The use of human resource information systems: A survey. *Personal Review*. 30. (6). P 677-693.
- Barišić, A. F., Pejić Bach, M. & Miloloža, I. (2018). Human Resources Information Systems: Transactional and Strategic Paradigm. In *Proceedings of the ENTRENOVA-ENTERprise REsearch InNOVation Conference, Split, Croatia, 6-8 September 2018* (pp. 168-174). Zagreb: IRENET-Society for Advancing Innovation and Research in Economy.

- Beadles-II, N. A., Lowery, C. M. & Johns, K. (2005). The impact of human resource information systems: An exploratory study in the public sector. *Journal of Communications of the IIMA*, 5(4), 39-46
- Becerra-fernandez, I., Gonzalez, A. & Sabherwal, R (2004). Knowledge Management: Challenges, Solutions and Technologies. 1<sup>st</sup> edition. New Jersey: *Pearson Prentice Hall*.
- Beckers, A.M & Bsat M.Z (2002). A DSS classification model for research in human resource information systems. *Information Systems Management*. 19 (3) p 41-50.
- Beh, L.S, Azad, A.K & Hoque, K. (2018). Intelligent Human Resource Information Systems (IHRIS): A holistic decision support framework for HR excellence. *The International Arab Journal of Information Technology*, Vol 15, No 1.
- Bernstein, M.L., McCreless T & Cote, M.J. (2007). *Five constants of Information Technology Adoption in Healthcare*. Research and Perspectives on Healthcare, Vol.85, no 1.
- Broderick, R. & Boudreau, J.W (1992). Human Resource Management, Information Technology and Competitive edge. *Academy of Management Executive*. 6. (2). P 7-17.
- Bussler, L. & Davis, E. (2001). Information Systems: The quiet revolution in human resource management: *Journal of Computer Information Systems* .42 (2) 17-20.
- Buzkan, H. (2016). The role of human resource information system (HRIS) in Organizations: a review of literature. *Academic Journal of Interdisciplinary Studies*, 5(1), 133.
- Cascio, W.F. (2013). *Managing human resources: Productivity, quality of work life, profits* (9<sup>th</sup> ed.). New York: McGraw-Hill.

- Chakraborty, A.R & Mansor, N.A.A (2013). Adoption of Human Resource Information System: A Theoretical analysis Procedia. Social and Behavioral Sciences, Vol 75 no 3 p 473-478.
- Chapman, D.S & Webster, J. (2003). The use of Technologies in the Recruiting, Screening and Selection processes for job candidates. *International Journal of Selection and Assessment*.
- Chauhan, A., Sharma, S. K., & Tyagi, T. (2011). Role of HRIS in improving modern HR operations. *Review of Management*, 1(2), 58-70.
- Chugh, R. (2014). Role of human resource information systems in an educational Organization. *Journal of Advanced Management Science*, 2(2), 149-153
- CIPD Report (2006). *HR and technology CIPD*. Chartered Institution of Personnel & Development.
- Dery, K., & Wiblen, S. (2006) Human resource information systems (HRIS) replacing or enhancing HRM.
- Dorel, D. & Bradic-Martinovic, A. (2011). The role of Information Systems in Human Resource Management.
- DiPietro, R. B., Shani, A., & Tesone, D. V. (2010). Have human resource information systems evolved into internal e-commerce? *Worldwide Hospitality and Tourism Themes*.
- Edwards, D. (2005). A look at the top knowledge management. *Knowledge Management Review*. 10 (6).
- Fayyazi, M. & Afshar, & Z. (2013). *E-recruitment in Iran*. New Marketing Research Journal.
- Florkowski, G.W & Olvas-Lujan M.R (2006). Adoption of Human Resource Information System. *A Theoretical Analysis of social and behavioral sciences*. Vol 75, p 473-478
- Gupta, B. (2013). Human resource information system (HRIS): important element of current scenario. *IOSR Journal of Business and Management*, 13(6), 41-46.
- Hendrickson, A. R. (2003). Human resource information systems: Backbone technology of contemporary human resources. *Journal of Labor Research*, 24(3), 382-394.

- Johnson, R. D., & Gueutal, H. G. (2011). Leveraging HR technology for competitive advantage. *SHRM Foundation Executive Briefing*.
- Kavangah, M.J, Thite, M & Johnson R.D. (2013). *Human Resource Information Systems. Basics, Applications and Future Directions* (3<sup>rd</sup> ed). SAGE publications, Inc.
- Karikari, A. F., Boateng, P. A., & Ocansey, E. O. (2015). The role of human resource information system in the process of manpower activities. *American Journal of Industrial and Business Management*, 5(06), 424-434.
- Kariuki, M. M. (2015). Human Resource Information System and competitive advantage of companies listed on Nairobi Securities Exchange in Kenya. *European Journal of Business and Management*, 7(21), 198-207.
- Khashman, I. M. A., & Khashman, A. M. (2016). The impact of human resource information system (HRIS) applications on Organizational performance (Efficiency and Effectiveness) in Jordanian private hospitals. *Hospitals*, 8(3), 31-44.
- Khera, S. N. & Gulati, K. (2012). Human resource information system and its impact on human resource planning: A perceptual analysis of information technology companies. *Journal of Business and Management*, 3(6), 6-13.
- Kovach, K. A., & Cathcart, C. E. Jr. (1999). Human resource information systems (HRIS): Providing business with rapid data access, information exchange and strategic advantage. *Public Personnel Management*, 275-81.
- Kovach, K. A., Hughes, A. A., Fagan, P., & Maggitti, P. G. (2002). Administrative and Strategic advantages of HRIS. *Employment Relations Today*, 29 (2), 43-48.
- Kumar, A. N., & Parumasur, B. S. (2013). The impact of HRIS on Organizational efficiency: random or integrated and holistic? *Corporate Ownership and Control*, 11(1), 567-575.
- Kumar, N. A., & Parumasur, S. B. (2013). Managerial perceptions of the impact of HRIS on Organizational efficiency. *Journal of Economics and Behavioral Studies*, 5(12), 861-875
- Kundu, S. C. & Kadian, R. (2012). Applications of HRIS in human resource management in India: A Study. *European Journal of Business and Management*, 4(21), 34-41.

- Lengnick-Hall, Mark L., & Moritz, S. (2003). The Impact of e-HR on the Human Resource Management Function. *Journal of Labor Research*, 24 (3), 365-379.
- Mamanus, M.A. & Ferguson, M.W (2003). Biodata, Personality and demographic Differences of Recruits from three sources. *International Journal of Selection and Assessment*.
- Mararo, R. K. (2017). *Effect of adopting human resource information systems on recruitment process in Barclays Bank Nairobi County* (Doctoral dissertation, KCA University).
- Masum, A. K. M., Beh, L. S., Azad, M. A. K., & Hoque, K. (2018). Intelligent human resource information system (i-HRIS): a holistic decision support framework for HR excellence. *Int. Arab Journal of Information Technology*, 15(1), 121-130.
- Matsiko, I. (2019). *Human resources information system (HRIS) and the recruitment process in ministry of health* (Doctoral dissertation, Uganda Management Institute).
- Morley, M., Florkowski, G. W., & Olivás-Luján, M. R. (2006). The diffusion of human-resource information- technology innovations in US and non- US firms. *Personnel Review*, 35(6), 684-710.
- Murethi, J. G., Gachunga, H., and Mburugu, C. K. (2014). Effects of human resource information systems on human resource management practices and firm performance in listed commercial banks at Nairobi Securities Exchange. *European Journal of Business and Management*, 6(29), 47-55.
- Naicker, K. (2010). *Perceptions of human resource information system usage for knowledge management in the context of human resource management* (Master dissertation).
- Nawaz, M. N. (2013). Human Resource Information Systems-A Review. *International Journal of Management, IT and Engineering*, 3(1), 74-98.
- Neuman, W.L. (2011). *Social research methods*. Pearson Education, Boston.
- Ngai, E. W. T. & Wat, F. K. T. (2006). Human resource information systems: A review and empirical analysis. *Personnel Review*, 35(3), 297-314.

- Ngwenya, L., Aigbavboa, C., & Thwala, W. (2019). Benefits of human resource information systems in a South African construction Organization. In *IOP Conference Series: Materials Science and Engineering* (Vol. 640, No. 1, p. 012007). IOP Publishing.
- Pandya, A. (2013). The impact of Human Resource Information System. *Accessed from the World Wide Web: <http://www.empowernetwork.com/wealthyashish/blog/potentialbenefitsof-hris/>*. [17 June 2019]
- Patton, M.L. (2005). *Understanding research methods*. Glendale, California, CA: Pyrczak.
- Rubin, A. (2008). *Practitioner's guide to using research for evidence-based practice*. Hoboken, New Jersey, NJ: John Wiley.
- Sadri, J. & Chatterjee, V. (2003). Building organizational character through HRIS. *International Journal of Human Resource Development and Management*. 3. (1) p 8498.
- Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research for Business Students* 4<sup>th</sup> edition. London: *Prentice Hall*.
- Shani, A & Tesone, D. (2010). Have human resource information systems evolved into e-commerce? *Worldwide Hospitality and Tourism Themes*
- Sekaran, U. & Bougie, R. (2016) *Research Methods for Business: A 7<sup>th</sup> Edition*, Wiley, New York.
- Sergio, B., Pez, G., Sebasti, M., & Ugarte, N. (2010). On the quest of choosing an effect HR Information system—assessing its role and key success factors. *Horizontes Empresariales*, 9(1), 49-54.
- Shibly, H. (2011). Human resources information systems success assessment: An integrative model. *Australian Journal of Basic and Applied Sciences*, 5(5), 157–169.
- Shiri, S. (2012). Effectiveness of human resource information system on HR functions of the Organization – a cross sectional study. *US-China Education Review*, 1 (9), 830-839
- Silva, M. S. A. E. & Lima, C. G. D. S. (2018). The role of information systems in human resource management. *Management of Information Systems (InTech)*, 113-126.

- Simons, H. (2009). *Case study research in practice*. Los Angeles: Sage.
- Singh, P & Finn, D. (2003). The effects of Information Technology on Recruitment. *Journal of Labor Research*.
- Stone, R.J (2002). *Human Resource Management: A critical text*. 2<sup>nd</sup> edition. London. *Thomson Learning*
- Stringer, E.T. (2007). *Action Research*. Thousand Oaks, California, CA: Sage.
- Suharti, L., & Sulisty, P. R. (2018). The implementation of human resources information system and it's benefit for Organizations. *Diponegoro International Journal of Business*, 1(1), 1-7.
- Thomas, R.M. & Brubaker, D.L. (2000). *Theses and dissertations: A guide to planning, Research, and writing*. Westport, Connecticut, Conne: Bergin & Garvey.
- Teo T.S, Lim G.S, & Fedric S.A. (2001). The adoption and diffusion of human resources information Systems in Singapore. *Asia Pacific Journal of Human Resources*. 2007; 45(1):44–62
- Tornatzky, L.G., & Fleischer M. (1990). *The process of technological innovation*, Lexington Book (Lexington Mass).
- Troshani, I., Jerram, C., & Gerrard, M. (2010). Exploring the Organizational adoption of Human Resource Information Systems (HRIS) in the Australian Public Sector. 21<sup>st</sup> *Australian Conference on information Systems*.
- Tsoukas, H. & Vladimirov, E. (2001). What is Organizational knowledge? *Journal of Management Studies*. 38. (7) p. 973-993.
- Ulrich, D. (2001). Human Resource Champions, from e-business to e-HR. *HRM Journal*.5 p 90-97.
- Wei, F. (2013). Research on Technology Development of Human Resource Management Information System. *Management Science and Engineering*. 3 (2) p 34-37.
- Wiblen, S. L., Dery, K & Grant, D (2010). Transitioning to a new HRIS: The reshaping of human resources and information technology talent. *Journal of Electronic Commence Research*, 11 (4): 251-267
- Yin, R.K. (2009). *Case study research: Design and methods*. Los Angeles, Nelson Press

Zhang L. and Wang H. (2006). Intelligent information processing in human resource management: an implementation case in China. *Expert Systems*, 23 (5), 356-3

Zhang, X., Prybutok, V.R & Haung, A. (2006). An empirical study of factors affecting e-service satisfaction: *Human Systems Management*.

## Appendix A: Questionnaire

The study aims the perceptions of employees towards the use of **Human Resource Information Systems in Recruitment and Selection functions.**

### SECTION A: GENERAL INFORMATION 1 Age

18– 25 years				
26 – 30 years				
31 – 35 years				
36– 40 years				
41-45 years				
46-50 years				
51 and above				

### 2 Gender

Male	
Female	
Other	

### 3 Race

African	
Indian	
White	
Coloured	

### 4 Position

Academic	
Non-Academic	
HR Manager	
Other	

**5 Tenure**

1-5 years	
6-10 years	
11-15 years	
16-20 years	
21-25 years	
26-30 years	
31 and Above	

**6 Campus**

PMB	
Westville	
Other	

**SECTION B: PERCEPTIONS ON THE USE AND DESIGN OF HRIS**

Please use the following Likert scale for your rating. Mark with a tick  in the box of your choice.

Perceptions on the use of HRIS	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
<b>1. User-friendliness:</b>					
(a) HRIS is easy to use.					
(b) HRIS reduces data re-entry and data may be used immediately.					
(c) HRIS helps to make informed Decisions.					
(d) HRIS gives easy access to Information.					
<b>2. Cost implications</b>					
(a) HRIS reduces paperwork.					
(b) HRIS improves data control.					
<b>3. Time saving:</b>					
(a) HRIS saves time.					
(b) HRIS facilitates convenience in usage and administration.					
(c) HRIS allows for fewer errors.					

( d) It delivers HR services more  Accurately					
---	--	--	--	--	--

**SECTION C: PERCEPTIONS ON THE BENEFITS OF HUMAN RESOURCE INFORMATION SYSTEM**

<b>Perceptions on the benefits of HRIS</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Not Sure</b>	<b>Disagree</b>	<b>strongly Disagree</b>
1. HRIS reduces the administrative workload on HR departments by allowing employees to have updated access to their records.					
2. HRIS enhances competitiveness by improving HR practices.					
3. HRIS provides reliable information for making strategic decisions					
4. HRIS creates a larger number and variety of HR-related reports.					

**SECTION D: PERCEPTIONS ON THE USE OF HRIS IN RECRUITMENT FUNCTIONS.**

**Please use the following Likert scale for your rating. Mark with a tick ✓ in the box of your choice.**

<b>Perceptions on HRIS and Recruitment</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Not Sure</b>	<b>Disagree</b>	<b>Strongly Disagree</b>

1. HRIS minimizes the cost of filling job openings.					
2. HRIS increases the speed of filling job vacancies.					
3. HRIS is able to manage the quantity of applicants.					
4. HRIS helps in generating the quality and diversity of applicants from the pool.					

**SECTION E: PERCEPTIONS ON THE USE OF HRIS IN SELECTION FUNCTIONS.**

**Please use the following Likert scale for your rating. Mark with a tick  $\surd$  in the box of your choice.**

<b>Perceptions on HRIS and Selection</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Not Sure</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1. HRIS has the ability to link information in interrelated systems such as: candidate's data, demographics, employment data, job movement and position histories.					
2. HRIS helps in integrating the organization's various HR systems.					
3. HRIS provides easy test access while ensuring tight security.					

4. HRIS allows all candidates to gain access to the test.					
5. HRIS provides testing policies that accommodate people with disabilities.					

## **Appendix B: consent Form**

### **UNIVERSITY OF KWAZULU-NATAL School of Management, IT and Governance**

Dear Respondent,

#### **Research Project**

**Researcher:** Noxolo Precious Magagula (Telephone number: 071 948 2235) (Email: 211559533.stu@ukzn.co.za)

**Supervisor:** Dr LN Govender (Telephone number: 073 691 8364 (Email: [govenderln@ukzn.ac.za](mailto:govenderln@ukzn.ac.za))

**Research Office:** Humanities & Social Sciences Research Ethics Administration,  
Govan Mbeki Building,

Westville Campus, Tel: + 27 (0)31 260 8350, Email: [hssreclms@ukzn.ac.za](mailto:hssreclms@ukzn.ac.za)

I, Noxolo Precious Magagula, am a Master in Commerce and Management student in the of Management, Information Technology & Governance , at the University of KwaZulu-Natal. You are invited to participate in a research project entitled: *The perceptions of Human resource employees on the use of Human Resource Information Systems in Recruitment and Selection functions at the University of KwaZulu-Natal*. The aim of this study is to: examine the perceptions, challenges, strategies, advantages and disadvantages of adopting and using HRIS in Recruitment and Selection.

Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. There will be no monetary gain from participating in this research project. Confidentiality and anonymity of records will be maintained by the researcher and School of Management, Information Technology

& Governance, UKZN. All collected data will be used solely for research purposes and will be destroyed after 5 years.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number \_\_\_\_\_).

The questionnaire should take about 10-20 minutes to complete. Thank you for your time.

Sincerely

Researcher's signature \_\_\_\_\_ [N.P Magaula] \_\_\_\_\_ Date \_\_\_\_\_



## Appendix C: Ethical Approval



21 February 2020

Mrs Noxolo Precious Magagula (211559533)  
School Of Man Info Tech &Gov  
Pietermaritzburg Campus

Dear Mrs Magagula,

Protocol reference number: HSSREC/00001054/2020

Project title: The perceptions of employees on the use of Human Resource Information Systems in Recruitment and Selection functions at the School of Management, IT and Governance

Degree: Masters

### Approval Notification – Expedited Application

This letter serves to notify you that your application received on 18 February 2020 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 21 February 2021.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close out report