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**FACULTY OF BUSINESS MANAGEMENT SCIENCES AND  
ECONOMICS**

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**EFFECTIVENESS OF RECRUITMENT AND SELECTION PRACTICES  
ON EMPLOYEE RETENTION IN THE 4<sup>TH</sup> INDUSTRIAL REVOLUTION:  
A CASE OF BINDURA NICKEL MINE.**

**BY**

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<b>EFFECTIVENESS OF RECRUITMENT AND SELECTION PRACTICES ON EMPLOYEE RETENTION IN THE 4<sup>TH</sup> INDUSTRIAL REVOLUTION: A CASE OF BINDURA NICKEL MINE.</b>			
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## **DEDICATION**

I would like to thank my wife Blessing for the support and my two sons Mafaro and Mazviitaishe for their unwavering support.

## **ACKNOWLEDGEMENTS**

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## ABSTRACT

The research was triggered by the upheaval of usage of technology human resources management practices of recruitment and selection in the 4<sup>th</sup> industrial revolution. The study aimed at unveiling how technological advancement of the 4th industrial revolution has affected recruitment and selection practices and the ultimate effect on employee retention at Bindura Nickel Mine. The objectives of the research were; to establish how the 4th industrial revolution has influenced employees' recruitment practices at Bindura Nickel Mine; to establish how the 4th industrial revolution has influenced employees' selection practices at Bindura Nickel Mine; to determine the relationship between 4th industrial revolution recruitment practices and employee retention at Bindura Nickel Mine and to determine the relationship between 4th industrial revolution selection practices and employee retention at Bindura Nickel Mine. The research used a positivism research philosophy and quantitative research methods. The study used an explanatory research design to assess the cause and effect relationship between recruitment and selection practices with employee retention. The research established that the 4th industrial revolution has limitedly influenced employees' recruitment practices at Bindura Nickel Mining Company. The company has adopted only a few ICT based tools in their recruitment practices. The company still has many 4th industrial revolution tools to incorporate it its human resources management practices of recruiting workers. In the same vein, Bindura Nickel Mining Company has slightly been influenced by the 4th industrial revolution in its employees' selection practices. The company has adopted only a few ICT based tools to use in their selection practices. There are still has many 4th industrial revolution driven tools that the company can incorporate it its human resources management practices of selecting workers. The research established a strong positive and significant correlation between recruitment practices in the 4th industrial revolution and employee retention. There is a strong positive and significant correlation between selection practices in the 4th industrial revolution and employee retention. The researcher therefore recommends that Bindura Nickel Mining Company incorporates in its recruitment practices online tools to extract informal personal information about prospective employees which helps to expand its pool of potential candidates. The company should invest its efforts in tracking and following applicants across media such as on social media so as to improve the recruitment efficiency of the company. The company is also recommended to use data mining techniques to enhance effective recruitment process. Future researchers are recommended to conduct in-depth research using interviews and focus group discussions as data collection strategies to have a comprehensive overview of recruitment and selection practices of Bindura Nickel Mining Company. Future researcher can unveil the impediments to the adoption of 4<sup>th</sup> industrial revolution driven recruitment and selection practices.

**Key words/phrases:** recruitment, selection, 4<sup>th</sup> industrial revolution, employee retention

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

GDP: Gross Domestic Product

CZMI: Confederation of Zimbabwe Mining Industry

ICT: Information and Communication Technology

BNC: Bindura Nickel Corporation

HR: Human Resources

HRM: Human Resources Management

RSS: Real Simple Syndication

# CHAPTER I

## INDRODUCTION AND BACKGROUND

### 1.1 Introduction

Human resources departments in organisations ensure that organisations have adequate human resources necessary for the organisation to meet its objectives and goals (Armstrong, 2016). Human resources management is concerned with staffing the organisation with competent employees who can sustain their performance and it consists of activities aimed at recruiting, selecting, retaining, motivating and developing employees to achieve organizational goals (Boxall and Purcell, 2016). The two stages of recruitment and selection are key aspects that this study intends to research on focusing on how technological advancement of the 4<sup>th</sup> industrial revolution has affected recruitment and selection practices and the ultimate effect on employee retention at Bindura Nickel Mine. This chapter covers the background of study, the research problem and the specific objectives of research. The latter sections of the chapter presents the research significance, research delimitations, structure of the dissertation and chapter conclusion.

### 1.2 Background of the Study

At global scale, there is evidence that recruitment and selection have benefited from the advent of technological solutions in the last decades (Georgiou and Nikolaou, 2020). With technological advancement, at global scale 57% of business and human resources managers are using new technologies and recruitment tools and 32% are ready to use them to speed up the recruitment process (Jeffay and Bohannon, 2019). The effects of industrial revolution on recruitment and selection and the role of e-HR first appeared early in the 2000s (Georgiou and Nikolaou, 2020). Businesses traditionally employed newspapers, intra-organizational recruitment and simple posting in firms' neighbourhoods to advertise prospective job vacancies. Such criteria were wanting because the most qualified applicants did not get the information regarding the job opportunities (Jeffay and Bohannon, 2019). Consequently, businesses had no options but to fill the vacant positions with available, mostly under-qualified, personnel. Such advertisement criteria in fact pooled a limited number of candidates who were either politically correct, lucky enough to



get vacant job information or lived near the firms. With the great development and progression of technology available, particularly involving telecommunication and Internet, organizations and job candidates have immensely gained. Organizations are now placed in excellent positions to advertise their vacancies to a significantly wide pool of qualified individuals (Georgiou and Nikolaou, 2020).

The 4<sup>th</sup> industrial revolution has transformational effects in the manner recruitment and selections are carried out. The past years have seen a remarkable increase in the number of people who use the Internet. In developed countries such as Australia, as at 2008, 66% of households had access to the Internet and over 70% of business firms had Internet by 2001. 99% of large businesses had access to the Internet, while 81% had a company website (Cook et al., 2020). Companies that have websites offer job postings on their websites. Companies that do not have websites post their job vacancies on job search sites. Recruiting employees by means of corporate websites has become a common practice in most countries, although most companies admit recruitment is not the objective purpose of hosting a website.

Most firms identify advertising, public relations and marketing as the main reasons they host Internet corporate websites and employee recruitment only represented a paltry 2% of the reasons some firms hosted a website. In Australia, 75% of firms use online recruitment (Cook et al., 2020). Recruitment of personnel through corporate websites can either be described as basic or e-centric recruiting. At least 30% of Australian firms employ the basic recruitment and the majority of firms in excess of 46% use the e-centric method which entails the exclusive use of resume builders in the corporate website or sending softcopy resumes via e-mail (Cook et al., 2020).

The most popular ways through which 4<sup>th</sup> industrial revolution has significantly impacted on recruitment and selection is through the internet. Organizations are increasingly making use of the internet technology, particularly the World Wide Web, as a platform for testing and recruiting potential candidates (Baron and Austin, 2018). Social networking websites, software and online job boards has helped in linking applicants to hiring professionals with focus on knowledge, skills and abilities (Baron and Austin, 2018). Social networking sites such as LinkedIn, CareerBuilder, monster.com and universe.jobs hold millions of jobs and resumes in their databases (Neil 2017). These professional networking sites play a significant role in the process of recruitment and selection. LinkedIn, for example, is used as a business-oriented social networking site whereby

applicants are linked with the employers. LinkedIn is widely used globally as a professional network service and has currently 90 million users (Georgiou and Nikolaou, 2020). It is currently valued at over \$2.51 billion USD and operates in more than 200 countries (Georgiou and Nikolaou, 2020).

Advances in technology have indeed shaped the process of recruitment and selection. Online ads are now the lead recruitment methods employed by employers. Recruitment and selection via the web has enabled the employers to build a ‘talent pool’ of qualified candidates and lessen their reliance on conventional print media (Thompson et al., 2008). This has led to significant cost savings as employers lessen their reliance on recruitment agencies (Thompson et al., 2008). In this regard, Harris and Dewar (2000) noted a significant reduction on the cost per-hire from \$ 3,295 (for the conventional recruitment methods) to \$377 (for internet based recruitment).

### **1.3 Overview of the Mining Sector in Zimbabwe**

Zimbabwe is a country richly endowed with mineral reserves; it has more than 35 mineral commodities of which the most notable are Gold, Platinum Group Metals (the world’s second largest source after South Africa), Nickel, Cobalt, Chromium, Diamonds, Coal and Asbestos. Most of Zimbabwe’s mining occurs along the Great Dyke. The mining sector contributed 27% of Zimbabwe’s GDP in 2020 and despite economic pressure and political instability, “has the potential to contribute around a third of total export earnings”. There are approximately 1 000 small-scale mines in Zimbabwe; these have been hardest hit with numerous mines closing since 2000. Platinum Group Metals have grown with the opening of a new mine in 2003 and substantial expansion from Zimplats and Camec.

Mining engineers are well sought after all over the world. In Zimbabwe this is a threat to the mining industry with the straining conditions in the country. The brain drain is certainly a phenomenon that is considered problematic and exacerbates the crisis in Zimbabwe since it represents a loss in monetary terms mainly for the government (Confederation of Zimbabwe Mining Industry Survey Report, 2021). The investment that has been made so that individuals have been educated is lost at the moment they decide to exercise in another destination. On the other hand, it is also a loss in terms of human capital, since there is a decline in the number of qualified individuals in the different areas that require a degree of preparation for the jobs available. While

most of the sectors do not seem to have ready statistics, they all concede that skills flight is accelerating as the economic woes continue to mount almost on a daily basis. Brain drain in Zimbabwe affects the capacity of all sectors of the economy to deliver their mandates. It also runs across all categories of human resources from top, middle and low level experts, technical, entrepreneurial and managerial experts, general workers and the unemployed. Some sectors such as health, accounting, education, ICT, mining, engineering seem to be much more susceptible to the brain drain phenomenon than others.

In 2019, the mining sector lost more than 1500 mining engineers who joined mining companies in the neighbouring countries as a result of poor working conditions. According to the Confederation of Zimbabwe (2021) the Zimbabwe mining sector is losing its skilled personnel to some of the world's biggest mining countries, mainly Australia and Canada, as they search for better remuneration. Naturally, the mining sector relies on skills that are demanded at global scale and when remuneration becomes uncompetitive it loses skills. Employers' Confederation of Zimbabwe Mining Industry Survey Report (2021) blames the increased movement of people out of the country on the rapid deterioration of the value of the local currency over the past year or so. Some people are now earning as little as 10 to 20% of their 2017 to 2018 salaries. A lot of employees are complaining of loss of purchasing power.

The mining sector employees are attracted to stable countries. According to Confederation of Zimbabwe (2021) findings the biggest market for professionals is South Africa and Canada and then other countries in the region and even Mauritius. Mining companies end up having second rate and inexperienced employees as highly skilled employees are flying to countries abroad. Since 2009 mining production is recovering constrained by the shortage of skilled labour as experienced employees migrated to the diaspora.

## **1.4 Bindura Nickel Corporation (BNC) Limited**

### **1.4.1 Overview of Bindura Nickel Corporation**

Bindura Nickel Corporation (BNC) Limited is a mining company engaged in nickel production found in Zimbabwe, incorporated in June 1979, the company is based in Mashonaland Central. Trojan Nickel Mine Ltd and Shangani Nickel Mine Ltd are operating subsidiaries of BNC, having

hoisting and treatment capacity of 1.1Mt and 1.0Mt a year respectively. BNC also owns and operates the Bindura Smelter and Refinery Complex which produces nickel cathodes, copper sulphide, and cobalt hydroxide. Bindura Nickel Corporation Limited engages in the mining of nickel and the extraction of related by-products in Zimbabwe (Bindura Nickel Corporation Internal Report, 2021). The company owns interests in the Trojan mine located to the north east of Harare, as well as in a mine located near Insiza. Its by-products comprise copper and cobalt. The company was founded in 1966 and is based in Bindura. Bindura Nickel Corporation Limited is a subsidiary of Zimnick Limited.

**1.4.2 Vision of Bindura Nickel Corporation Limited**

To be a fully integrated low cost world-class business, producing and selling finished nickel metal and associated by-products.

**1.4.3 Mission of Bindura Nickel Corporation Limited**

To economically exploit our mineral resources in a safe and sustainable manner.

**1.4.4 SWOT Analysis of Bindura Nickel Corporation Limited**

In this section, the researcher presents SWOT Analysis of Bindura Nickel Corporation Limited.

**Table 1. 1: SWOT Analysis of Bindura Nickel Corporation Limited**

<p><b>Strengths:</b></p> <ul style="list-style-type: none"> <li>- Strong Safety, Health, Environment and Quality programmes resulting in strong results.</li> <li>- Strong cost cutting measures in place resulting in costs going down by 6%.</li> <li>- Good company employee relations; high motivation and skills retention.</li> <li>- Sales growing by 18% Financial Year 2021.</li> <li>- Board diversity and good corporate governance practices.</li> </ul>	<p><b>Weaknesses:</b></p> <ul style="list-style-type: none"> <li>- Poor funding prospects for the shaft re-deepening project.</li> <li>- Negative working capital in 2017.</li> <li>- Going concern threatened (i) High power costs (ii) High dependency on overdraft (iii) Delays in completion of smelter project</li> </ul>
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<b>Opportunities:</b>	<b>Threats:</b>
<ul style="list-style-type: none"> <li>- Increased international demand if the Philippines are restricted</li> <li>- Growth in global prices by \$730/tonne</li> <li>- London Metal Exchange cash settlement rose by 29%.</li> <li>- World decline in the production of ore o High prospects of demand due to: (i) Growth in the Chinese stainless steel market (ii) Growth in use of nickel in batteries (iii) Chinese production cut down.</li> <li>- Huge mineral base o Compound minerals</li> </ul>	<ul style="list-style-type: none"> <li>- Unclear mining bill or act e.g. Indigenisation.</li> <li>- Existing threats to property rights</li> <li>- General macro-economic challenges.</li> <li>- Currency challenges</li> </ul>

**1.4.5 Market analysis of Bindura Nickel Corporation Limited**

Bindura Nickel Corporation is in the mining index under the basic material sector. The sector is made up of four companies, RioZim, Falcon Gold Zimbabwe, BNC and Border Timbers.

**Table 1. 2: Market analysis of Bindura Nickel Corporation Limited**

<b>Company</b>	<b>Market Capitalisation (Size)</b>
RioZim	\$244.4m
BNC	\$130.16m
Border Timbers	\$8.5m
Falcon Gold Mine	\$2.78m

BNC being second from RioZim in terms of size shows positive perception from investors. This is also evidenced by an upward trend its share price from March 2016 to date which has a direct relationship with size. The bulky of BNC products are sold to South Africa hence it is not only exposed local competition but international competition as well. As competition increase so does market sensitivity. The industry is very sensitive to quality, price and delivery time. BNC uses these three as its tools for advertising and this gives a competitive edge to its competitors (Bindura Nickel Corporation Internal Report, 2021). Its business environment is highly unstable because it has a large number of players at international level who can easily manipulate variables like prices and regulations. The industry requires a huge investment in capital assets and technology, this makes it difficult for new players to enter the market. Compliance regulations by government tight

distribution channels also make the industry unattractive to investors though the returns are high (Bindura Nickel Corporation Internal Report, 2021).

#### **1.4.6 Employment and Labour Relations of Bindura Nickel Corporation Limited**

The company continues to respect the interests of employees and stakeholders and maintains its status of being an employer of choice in the country. The company actively endeavours to create opportunities to improve the work environment which user friendly to employees’ growth and to contribute to the well-being of employees. In this regard, the company maintained employee recognition schemes, performance bonuses as well as ensuring commitment to training programs in order to improve employee performance and satisfaction (Bindura Nickel Corporation Internal Report, 2021). Good employee relations continued to be an area of significance for the company and this has been realized by open communication policies as well as improved consultation with employees.

Employee participation has been prioritised through employee suggestion boxes where individuals have been rewarded for coming up with noble towards effective cost cutting initiatives. Works council meetings are being held every month and other communication forums such as liaison meetings are being maintained (Bindura Nickel Corporation Internal Report, 2021). Worker leadership was also trained in order to enhance its effectiveness in engagements with management. Essentially, this has helped in upholding the relationship that exists between employees and management and has enabled the company to amicably resolve issues. One of the key results of these communication forums is the change of the mining shift system which is still on trial but has been yielding positive results in terms of productivity as well as employee work life balance. The company, during the year embarked on a project to acquire stands for employees in Patterson grades A3-C4 in a quest to empower them and improve their satisfaction.

Although the company has managed to successfully resolve a number of employee concerns through the regular channels, there still remains a gap in the company’s human resources management practices of recruitment and selection in the 4<sup>th</sup> industrial revolution. The total labour complement as at 31 March 2019 was 979 which then fell to 784 in 2020 and further fell to 651 in 2021 (Bindura Nickel Corporation Internal Report, 2021). The loss of employees in the mining sector is attributed to intensive usage of technological advancement that has enabled engineers to

apply and seek jobs online ending up going abroad for greener pastures. It is against this background that this research attempts to assess the effectiveness of recruitment and selection practices on employee retention in the 4<sup>th</sup> industrial revolution at Bindura Nickel Mines so that an effective recruitment and selection framework can be developed to benefit Bindura Nickel Mine in particular and the Zimbabwean mining sector in general.

## **1.5 Problem Statement**

Technological advancement in the 4<sup>th</sup> industrial revolution affects recruitment and selection of workers. Evidence in other countries shows that technological advancement in the 4<sup>th</sup> industrial revolution benefits recruitment and selection activities in organisations. With technological advancement, at global scale 57% of business and human resources managers are using new technologies and recruitment tools and 32% are ready to use them to speed up the recruitment process (Jeffay and Bohannon, 2019). This suggests that technological advancement in the 4<sup>th</sup> industrial revolution has positive impact on recruitment and selection activities in organisations and the ultimate ability of the organisations in retaining their workers.

Despite of the advantages of technological advancement in the 4<sup>th</sup> industrial revolution on recruitment and selection practices, there are high levels of brain drain, high labour turnover, scarcity of skills and expertise in the labour market in the mining sector in Zimbabwe. This research assessed the effectiveness of recruitment and selection practices on employee retention in the 4<sup>th</sup> industrial revolution at Bindura Nickel Mines so that an effective recruitment and selection framework can be developed to benefit Bindura Nickel Mine in particular and the Zimbabwean mining sector in general.

## **1.6 Research objectives**

### **1.6.1 Main objective**

The primary objective of the research was to determine the effect of employees' recruitment and selection practices on employee retention in the 4<sup>th</sup> industrial revolution at Bindura Nickel Mine.

## **1.6.2 Secondary objectives**

1. To establish how the 4<sup>th</sup> industrial revolution has influenced employees' recruitment practices at Bindura Nickel Mine.
2. To establish how the 4<sup>th</sup> industrial revolution has influenced employees' selection practices at Bindura Nickel Mine.
3. To determine the relationship between 4<sup>th</sup> industrial revolution recruitment practices and employee retention at Bindura Nickel Mine.
4. To determine the relationship between 4<sup>th</sup> industrial revolution selection practices and employee retention at Bindura Nickel Mine.

## **1.7 Research Questions**

### **1.7.1 Main research question**

The primary research question was: What is the effect of employees' recruitment and selection practices on employee retention in the 4<sup>th</sup> industrial revolution at Bindura Nickel Mine?

### **1.7.2 Secondary research questions**

1. How has the 4<sup>th</sup> industrial revolution influenced employees' recruitment practices at Bindura Nickel Mine?
2. How has the 4<sup>th</sup> industrial revolution influenced employees' selection practices at Bindura Nickel Mine?
3. What is the relationship between 4<sup>th</sup> industrial revolution recruitment practices and employee retention at Bindura Nickel Mine?
4. What is the relationship between 4<sup>th</sup> industrial revolution selection practices and employee retention at Bindura Nickel Mine?

## **1.8 Research hypothesis**

**H<sub>0</sub>:** There is no statistically significant relationship between human resources management practices (recruitment and selection) and employee retention at Bindura Nickel Mine.



**H<sub>1</sub>:** There is a statistically significant relationship between human resources management practices (recruitment and selection) and employee retention at Bindura Nickel Mine

## **1.9 Significance of the research**

### **1.9.1 Bindura Nickel Mine**

The study is significant because it analyses the effectiveness of recruitment and selection practices on employee retention in the 4<sup>th</sup> industrial revolution at Bindura Nickel Mine. Therefore the study findings are beneficial to mining companies due to the fact that mining companies seem to be clueless as to what to do to curb loss of mining engineers despite of the advantages of technological advancement in the 4<sup>th</sup> industrial revolution on recruitment and selection practices which span to employee retention.

### **1.9.2 Mining Industry**

The study findings are beneficial to mining industry due to the fact that mining industry as a whole seems to be clueless as to what to do to curb loss of mining engineers despite of the advantages of technological advancement in the 4<sup>th</sup> industrial revolution on recruitment and selection practices which span to employee retention.

### **1.9.3 Theory**

There are several theories that explain the recruitment and selection of the right candidates for a job. These theories are general and are not specific to the mining sector in Zimbabwe. It was therefore believed that the findings of this study can be useful in modification of these theories. For example the Subjective Theory which states that applicants are not rational, but respond to social or psychological needs ignores technological factors that are dominant in the modern world. The research captures all internal and external challenges of recruitment and selection that account for technological aspect in HR in the 4<sup>th</sup> industrial revolution.

#### **1.9.4 Researcher**

The research was significant as it improved the researcher's understanding of recruitment and selection issues in the context of the mining industry. On a broader perspective the research helped the researcher in his managerial capacity by benefiting deep intellectual insights on the challenges affecting human resources management in mining companies. It sharpened the research skills of the writer and helps him to link theory to practice. The research was also a requirement for the award of a Master degree in Business Administration which the researcher was studying towards.

#### **1.10 Delimitation of the Study**

The research used secondary data from the CZI Mining Industry Surveys and Internal Reports from Bindura Nickel Mine for the period from 2016 to 2021. Primary data was also used, collected using semi-structured research questionnaires from HR people from Bindura Nickel Mine who had direct relationship with recruitment and selection issues at the companies. Geographically, the research was conducted without a defined restriction in terms of geography with the usage of Google Forms for data collection. Google Forms do not respect any geographical boundaries such that the researcher could send the research questionnaire to any HR people from Bindura Nickel Mine despite of where are during the time of data collection. Methodologically, the research was delimited to using a quantitative approach.

#### **1.11 Dissertation structure**

Chapter 1: The chapter introduces the general perspective of the 4<sup>th</sup> industrial revolution with regards to recruitment and selection as the key areas of study. The chapter houses background of the study and the specific study being carried out at Bindura Nickel Mine, giving an insight into the problem matter. The objectives, research questions, hypothesis and rationale of the study were also highlighted in Chapter 1.

Chapter 2: Highlighting the work carried out by other researchers including theory and research matter where covered in this chapter. The basis of chapter 2 is to have a an understanding of the literature review on the subject matter

Chapter 3: Chapter 3 is the research methodology, it shows the analysis's of the data and the findings, thus making it possible to show methodology to be used in doing research. The systematic framework of the research design chosen would be analysed in the research methodology. The explanation and reasoning for using a single case study approach, the data collection including their sources and how it will be processed and analysed are shown in this chapter.

Chapter 4: The data analysis and the data findings are shown in Chapter 4. Chapter 4 applies theoretical framework shown in chapter 2 to the case study and analyses theory accompanied by the results obtained from the case study. The research questions asked in chapter 1 are answered in chapter 4 and a discussion of the case study findings shown in the chapter as well.

Chapter 5: This is the conclusion and it looks at the theory, its application and possible recommendations. This chapter concludes the dissertation.

## **1.12 Conclusion**

The chapter presented the background of the study showing considerations that are made in recruitment and selection. This problem statement emanating from the background was then used to generate the research objectives, research questions and the justification for the research. The chapter concludes by giving the roadmap for the whole research. The next chapter reviews the relevant literature on the Research topic.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Chapter one put discussed the introduction and background to the study. This second chapter presents a comprehensive review and discussion of theoretical propositions and empirical research findings related to the topic under study. The purpose of reviewing literature is to enable the researcher to understand the issues surrounding recruitment and selection of workers in organisations. It also works to guide the methodology to be adopted in this research borrowing from past researchers. The first section covers theories of recruitment and selection, this is followed by the conceptualisation of recruitment and selection and how these activities have been modified by technological advancement in the 4<sup>th</sup> industrial revolution. The last part gives the empirical literature and the research gap. The chapter ends with a chapter summary.

#### **2.2 Theories of Recruitment and Selection**

##### **2.2.1 Objective Theory**

The website states applicants use a very rational method for making decisions. Thus, the more information one can give them (benefits, salaries and working conditions) the better applicants weight these factors to arrive at a relative 'desirability' index. This statement clearly depicts the need for informative advertisement, in order to attract prospective candidates.

##### **2.2.2 Subjective Theory**

It states that applicants are not rational, but respond to social or psychological needs e.g. security, achievement, affiliation. Thus, play to these needs by highlighting job security or opportunities for promotion or collegiality of workgroup. This means the decision for applying an opening is not affected by the working conditions or employment terms, rather it is defined by job security and career advancement.

### **2.2.3 Critical Contact Theory**

This asserts key attractor is quality of contact with the recruiter or recruiter behaviour, e.g. (promptness, warmth, follow up calls, sincerity) research indicates that more recruiter contact enhances acceptance of offer, also experienced recruiter (e.g. middle-aged) more successful than young or inexperienced recruiter maybe especially important when recruiting ethnic minorities, women, etc.

### **2.2.4 Rodger Seven-Point Plan**

The seven point plan was devised by Professor A. Roger of the national institute of industrial physiology. The main features of the seven-point plan includes physical characteristics such as the ability to lift heavy loads or appearance, speech and manner, attainments educational, professional qualifications, work experience considered necessary for the job.

General intelligence such as the ability to define and solve problems, special aptitudes skills, attributes or competencies relevant to the job, interest work related or leisure pursuits that may have a bearing on the job. Disposition job-related behaviours, for example demonstrating friendliness. Circumstances for example domestic commitments or ability to work unsocial hours.

### **2.2.5 Munro Fraser Five-Fold Grading System (1950)**

Impact on other people similar to Rodger's Physical make-up. Qualifications and experience similar to Rodger's attainments. Innate abilities and aptitude similar to Rodger's general intelligence. Motivational person's desire to succeed in the workplace. Adjustment personality factors that may impact on things likeability to cope with difficult customers. Marchington and Wilkinson (2005) note how many companies use competency frameworks to outline the type of person that they are seeking. This is very imperative in filling open positions in an organization. The two models of person specification clearly state most of the necessary requirements, which must be adhered to.

## 2.3 Recruitment and selection process

Recruitment and selection form a core part of human resources management as it facilitates the acquisition, development and reward of workers. Recruitment and selection are often taken by non-specialists by the line managers. Recruitment and selection is often presented as a planned rational activity, comprising certain sequentially linked phases within a process of employee resourcing which itself may be located within a wider HR management strategy. Bratton and Gold (2007) differentiated the two terms establishing a clear link between them in the following way: recruitment is the process of generating a pool of capable people to apply for employment to an organization. Selection is the process of by which managers and others use specific instrument to choose from a pool of applicants a person or persons succeed in the jobs given management goals and legal requirements. The recruitment and selection process can be presented in a diagram as below.



**Figure 2. 1: Stages of recruitment and selection**

Source: Own construct guided by literature reviewed

Recruitment of workers and selection of employees play a pivotal important role in shaping an organizations effectiveness and performance, if work organizations were able to acquire workers who already possessed relevant knowledge, skills and aptitude and were also able to make accurate prediction regarding their future abilities. Effective recruitment and selection of staff cut undesirable costs for example those high staff turnover costs, poor performance and dissatisfied customers and gender a mutually beneficial employment relationship characterized, wherever possible, by high commitment on both sides. Recruitment and selection of employees is fundamental to the functioning of an organization and there are competing reasons for getting it right. Inappropriate selection decisions reduced organizational effectiveness, invalidate reward and development strategies are frequently unfair on the individual recruit and could be distressing for managers who had to deal with unsuitable employee.

Recruitment is effected on most of the employee retention. The fair recruitment significantly affects employee retention. The average recruitment of employees in an organization have the same recruitment system, differences relate to the process, decision-making responsibility in recruitment, employment package, and whether public or private recruitment agencies. Recruitment and retention is most influenced by the overall employment package. This includes salaries and allowances, the intrinsic aspects of the job, job security, work organization, autonomy, the development of family-friendly practices and work environment among other aspects. The increasingly attractive employment package, the more likely it will attract applicants and the greater employee retention (Maina, 2014).

## **2.4 Recruitment and selection in 4<sup>th</sup> Industrial Revolution**

This section presents the recruitment and selection practices showing how technological advancement in the 4<sup>th</sup> industrial revolution has affected recruitment and selection practices in companies.

### **2.4.1 Attraction of workers in 4<sup>th</sup> industrial revolution**

The process of recruitment and selection starts with the attraction phase. Chapman and Mayers (2015) emphasize the crucial but often undermined role of attraction, as the series of systems, processes and strategies designed to maximize the size and quality of the applicant pool. Attraction is not identical to recruitment, especially in today's digital era. Recruitment is broader, including different elements, important for the whole selection process, such as the different activities organizations undertake in order to identify a desirable group of candidates, attract them into their employee ranks and retaining them at least for the short term (Taylor and Collins, 2000).

Recruitment should be aligned with the organizations' strategic objectives, therefore especially today, it should include all technology-related activities that influence the recruitment and selection cycle, such as employer branding, candidate experience, etc. Internet-based, or on-line recruitment was one of the first technological developments in the field that has attracted increased attention both from researchers and practitioners (Bartram, 2000). Job sites offering employers the opportunity to advertise their job openings online to a wide audience were the first applications in on-line recruitment and are still used heavily nowadays, since they are often perceived as highly

effective from both recruiters and job applicants (Nikolaou, 2014). Similarly, companies have shown interest in developing specialized career sites where they advertise their own job openings.

Technology has enabled company career sites to become a very effective tool in attracting and maintain candidates' interest, supporting extensively the employer branding initiatives and policies a company may undertake (Lievens and Slaughter, 2016). For example, companies can include in their career sites video-testimonials of current employees describing what it means to work for this company, or recruiters explaining the hiring process to interested candidates. In addition, companies may undertake supplementary steps, such as measuring site visits, improving website characteristics, tracking and following applicants across different media, such as on social media, etc. Sooner rather than later job ads common in digital marketing but still new in human resources, such as SEO (search engine specialization) hiring co-ordinator and SEO career analyst will be in use.

Social media though and social networking websites have been the most important development in the field of digital attraction. A topic that has attracted extensive interest from practitioners worldwide but still remains an area which tries to catch up practice and has only recently received increased research interest. In one of the first studies on this topic we explored how job seekers and recruiters use Social Networking Websites (Nikolaou, 2014), arguing that social media offer the opportunity to candidates for increased networking in a cheap and effective way, but also how useful they can be for recruiters as a means of attracting passive candidates that is people who are not looking for a job, but who might pay attention to an interesting offer or suggestion by a recruiter. Nevertheless, recent studies challenge the wide acceptance of social media, raising major concerns about their usefulness among recruiters (Zhang et al., 2020) and job-seekers (Johnson and Leo, 2020). Evidence has shown that the advent of Covid-19 has shifted job seekers and recruiters towards extensive use of social media (Wilding, 2020).

#### **2.4.2 Recruitment tools in the 4<sup>th</sup> Industrial revolution**

The most used recruitment tools in the 4<sup>th</sup> industrial revolution are blogs, Online Social Networks, Virtual Worlds, Co-optation websites, Identity Management Websites, RSS feeds and Video Platforms that are described below.



#### **2.4.2.1 Blogs**

Blogs are personal editorial spaces that allow individuals to distribute content. A great number of the blogs are created by applicants and recruiters (Nikolaou et al., 2020). They use these blogs to broadcast their job offers and create their own job blog. For instance, Microsoft has developed blogs, such as Microsoftjobblog.com, for recruiting purpose. Micro-blog differs from a traditional blog because posts are limited to 140 characters. The famous example of a microblogging tool is Twitter. Tweets are displayed on the user's profile page and delivered to subscribers who are known as followers. Recruiters can use it to display job offers and source applicants (Cook et al., 2020).

#### **2.4.2.2 Online Social Networks**

These online social networks can be Facebook and Myspace or specialized like LinkedIn or Viadeo (the two main professional platforms). These sites make it possible to stay in touch with former friends but also to find customers, suppliers, partners and future employees. Recruiters can do head hunting and contact passive applicants (Dekay, 2019). A recommendation system makes it possible to put one's profile to advantage with the comments of former employers.

#### **2.4.2.3 Virtual worlds**

These are 3-D platforms, like SecondLife, where user create a character and evolve in a world of virtual reality (Nikolaou et al., 2020). It is a real place of expression that encourages the creation of communities. Virtual worlds offer a broad range of research opportunity (Mennecke et al., 2008). There are many issues: marketing, IT, legal, psychological, social and of course HR issues. In June 2007, the first French recruitment forum on Second Life, called NeoJobMeeting was organized (Cook et al., 2020).

#### **2.4.2.4 Co-optation websites**

These websites are based on a network of people who are motivated to find potential applicants within their entourage, are also a way of attracting new (Cook et al., 2020). These platforms are showing greater confidence.

#### **2.4.2.5 Identity management websites**

These websites make it possible to improve visibility on the internet by, for example, centralizing and synchronizing on one page: company blog, company social profiles and by promoting company's page through a Google commercial link (Nikolaou et al., 2020).

#### **2.4.2.6 RSS feeds (Real Simple Syndication)**

This is a web feed format used to publish content. It makes it possible to follow in real-time different kinds of information contained on several web sites, for instance blogs. Updated information is posted to company's navigator, on a search engine of job offers or on other Internet sites such as Netvibes and iGoogle. Applicants can select several RSS feeds and be informed about new job opportunities as they become available (Cook et al., 2020).

#### **2.4.2.7 Video platforms**

Platforms such as YouTube give companies opportunity to present their work and job offers, and applicants the possibility of introducing their CV. Another use of video is to allow interviews by means of web cams during a meeting or an online specialized event.

### **2.4.3 Screening of workers in 4<sup>th</sup> industrial revolution**

The second stage of the process includes screening candidates' available information regarding their suitability for the position. Traditionally, highly specialized companies were involved in difficult to handle and execute background screening, especially for sensitive positions, such as in the army, the security forces and in financial institutions. The emergence of social media has transformed the scene there as well. Cybervetting has been defined as the use of nongovernmental, non-institutional online tools or sites (search engines and social network sites) from employers in order to extract informal, often personal information about prospective or current employees (Berkelaar and Buzzanell, 2014).

Cook et al. (2020) described the development of a new scale measuring cybervetting. Cybervetting seems to have a strong negative impact on applicant reactions. Employee candidates expect that professionally-oriented websites, such as LinkedIn, are accessed by potential employers and often encourage this access by including their LinkedIn profile link in their CVs or application forms,

but they do not have the same attitude towards personally-oriented social media, such as Facebook or Instagram (Nikolaou et al., 2020).

Technological developments have also facilitated the administration and execution of many time-consuming tasks in the screening process. For example, the extensive use of applicant tracking systems (ATS) can reduce the duration of the screening process, providing effective resume storage, resume parsing and keyword search for very large numbers of applications. They can also offer additional opportunities of combining the information candidates provide themselves with the information publicly available for them on social media. Many HR start-up companies have focused on these issues recently, since they seem to provide increased opportunities for collaboration with computer/data scientists and the application of technologies, such as data mining, machine translation or even artificial intelligence.

### **2.4.3 Selection of workers in 4<sup>th</sup> industrial revolution**

Traditionally, work and organizational psychologists studying the impact of technology in employee selection have focused on on-line testing (Ryan and Ployhart, 2014). More recently though two new selection methods have attracted increased attention. These are the asynchronous interviewing and gamification/games-based assessment, especially in relation to applicant reactions and candidate experience.

The asynchronous interview, often also called video or digital interview, is defined as the type of interview where candidates are required to record their responses to a set of interview questions they are given and submit them on-line. The digital interview is more likely to be used during the initial steps of the selection process in order to assess minimum job requirements and reduce the applicants' pool. Managers might interview several applicants at the same time without being present, while multiple raters might view the interview afterwards in order to collectively reach to an agreement (Brenner et al., 2016). Companies specializing in data analytics in selection attempt to measure many indicators of the applicant during the digital interviews, such as the number of times they blinked, seconds between responses, body temperature changes, word speed, and so on (e.g., HireVue); sometimes with the use of sensor devices, automatic extraction and evaluation of data and visualization to automate the entire interview process (Langer et al., 2019). On the other hand, candidates have the opportunity to apply to international job positions, thus saving money and time (Guchait et al., 2014). However, the first studies exploring how participants perceive the

digital interview and also how effective it is compared to the traditional interview were not very supportive. Langer et al. (2017) showed no difference in organizational attractiveness levels, participants considered digital interviews to be creepier and less personal, reporting increased privacy concerns.

Another major development in employee selection methods has been gamification and games-based assessment. Gamification refers to the incorporation of game elements in non-gaming contexts, such as employee recruitment and selection (Georgiou et al., 2019). Gamifying a selection method often implies the conversion and adoption of an existing selection method, such as a personality test or a situational judgment test into a gamifying version. Using mobile or computing devices, candidates are exposed to a gamified environment or virtual world with questions that candidates have to answer. The use of game elements in the selection process might promote fun, transparency, challenge and interaction. On the other hand, in GBA and serious games, actual on-line or traditional games are used, sometimes specifically built for use in selection, albeit not necessarily. Gamification and GBA have recently attracted a lot of attention especially among practitioners, since they seem to offer a number of advantages compared to traditional selection methods. For example, they seem to appeal to younger candidates, not necessarily with past gaming experience. Early research in this field has shown that gamification can be a reliable and valid selection method (Georgiou et al., 2019; Nikolaou et al., 2019) raising positive reactions among candidates and improved employee retention (Georgiou and Nikolaou, 2020; Gkorezis et al., 2020).

Applicant reactions research has become an important topic of study within the broader area of employee selection and assessment. McCarthy et al. (2017) describe applicant reactions, a the way job candidates perceive and respond to selection tools (e.g., personality tests, work samples, situational judgment tests) on the basis of their application experience. They include perceptions of fairness and justice, feelings of anxiety, and levels of motivation, among others. It is obvious that applicant reactions, often called in practice “candidate experience” is an important area where technology has a major impact. For example, the lack of a personal, face-to-face interaction with the interviewer, and the candidates’ perception of inability to influence the outcome of the interview process, as in the traditional interview (Nikolaou, 2011; Nikolaou and Judge, 2007), has been a drawback of digital interview and it will be difficult to change this in the future, despite the

obvious advantages they offer. Moreover, candidates nowadays have increased opportunities to share their experiences with other candidates. The selection process is not any more an isolated and behind the closed doors process, as it used to be in the past. More than 41 million people per month now use Glassdoor, a website providing for free company reviews, CEO approval ratings, salary reports, interview reviews and questions, office photos and more.

Applicants sharing their negative experiences with an employer in social media and other websites, such as glassdoor.com, are quite likely to generate a negative word of mouth and create a respective image of potential employers, negatively affecting the company's employer branding, or even its financial valuation. Thus, this information might affect candidates' job search activities and/or create negative word of mouth between potential job seekers, even without immediate experience of the organization's recruitment and selection process.

#### **2.4.4 On-boarding of workers in 4<sup>th</sup> industrial revolution**

The final stage of the selection cycle includes the day after the candidate joins an organization, as a newcomer. The importance of on-boarding and socialization have been widely explored as a significant factor of employee adjustment (Bauer et al., 2007). The use of socialization techniques, such as formal or informal training, on-the-job training, coaching-mentoring, etc. have proven to be very effective for the quick adjustment of newcomers in their new roles. Many companies now make extensive use of technology in order to improve the usefulness of these techniques, offering access to specialized company apps, on-line training, e-mentoring for career development, intranet resembling social-media sites, such as Microsoft's Yammer (Sharma and Bhatnagar, 2016). However, the potential of using technology in the whole cycle of the selection process, including on-boarding, fulfil its purpose when companies make effective use of not only HR metrics but computer science methods as well, such as data mining with the combination of external (pre-entry) and internal (post-entry) data bringing recruitment and selection in the big data era.

#### **2.5 Benefits of effective recruitment and selection process**

The recruitment and selection process helps the organization in a number of ways. The whole purpose of recruitment and selection process is for the organization to find and retain people who are a perfect match to the jobs for which they are employed and thereby ensuring that, as much as

possible, the organization is staffed with the right people with the right skills, knowledge, experiences and competences at the right time (Langer, König and Krause, 2017).

The recruitment and selection process helps the organization in making realistic decisions about a prospective candidate. It also provides the organization with the knowledge of sources of potential recruits (Langer, König & Papathanasiou, 2019). As part of the human resources planning system, the recruitment and selection process helps the organization in determining its future human resources requirements and its ability to meet its objectives in view of the work systems and technology in use. It is important for an organization to write accurate job descriptions before a vacancy is advertised. This ensures that precedence is given to the competencies that would make the most positive contribution to the achievement of the company's objectives (Langer et. al., 2017). If done properly the recruitment and selection process can attract good candidates and can provide the organization with useful indicators for future performance.

A good recruitment and selection process ensures conformity to legal requirements stipulated in the Labour Relations Act. The process should be transparent and should ensure privacy and observance of equal opportunity legislation. The process therefore ensures that the selection process is fair and meets legal requirements. A good recruitment and selection policy ensures consistency in hiring staff and reduces the risk of bias or discrimination.

Consequently, a good recruitment and selection process ensures that administrative procedures are handled efficiently (Langer, König & Papathanasiou, 2019). The process helps in injecting new blood to the organization. There is also need to ensure that the recruitment and selection process is transparent at every stage. Key stakeholders in the process (line managers, human resources department etc.) should be able to follow the process and develop confidence in the outcome. Some organizations initiate the recruitment process just to build up a "talent pool" or simply to gauge what the market holds. It can be used as a strategy for building the organization's capability in a changing market environment (Langer et. al., 2017). The recruitment and selection process also provides the organization with the knowledge of sources of potential recruits.

## **2.6 Recruitment and selection in Zimbabwean mining sector**

Conventionally, the Zimbabwean mining industry traditionally used recruitment methods such as contacting friends or employee referrals using newspaper ads. With the technological advancement

at global, mining industries have become more skill intensive. The recruitment of talented workers has become essential and selection the right applicants at the right time has become complicated. In the mining industry in Zimbabwe, the use of conventional recruitment methods is no longer enough and timely to attract sufficient pool of qualified applicants. Many mining companies in Zimbabwe including Bindura Nickel Mine have adopted sophisticated e-recruitment strategies to attract workers.

The growth in technology has brought changes in the mining industry in Zimbabwe. Many mining companies are adopting modern techniques for their recruitment and selection process to find the best suitable candidates. This is in line with Bartram (2020) who state that in the modern world, recruitment activities are incomplete without the word of internet. In early 2000, the concept of 'job boards' were introduced into the job market. Monster.com was the first recruitment site established in same 2020 (Ensher et. al, 2003).E-recruitment is the latest method of recruitment. Internet can be used as the latest equipment for recruitment and selection. It is a real technological innovation for job seekers and employers. (Parry, E. and Wilson, H. 2009). The concept of e-recruitment started in HR journals from the mid of 1980. Later on, the development in technology makes HR more effective. The concept of E-HRM was introduced in market in 2000 (Sills, 2014).

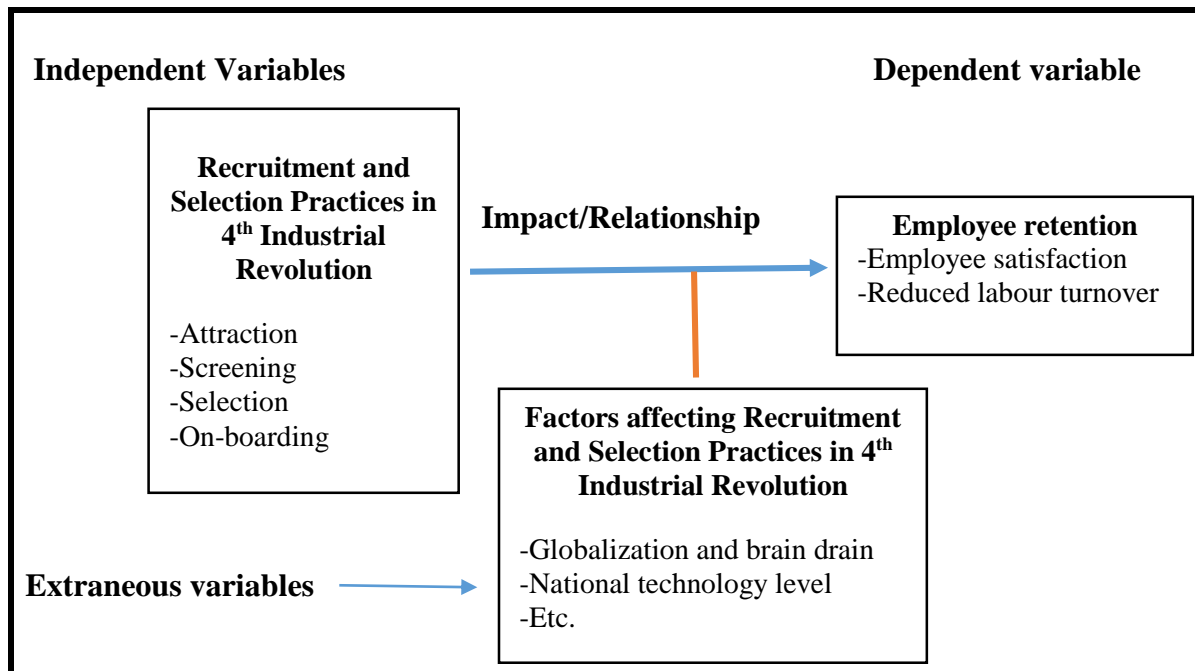
In the mining industry in Zimbabwe, many 'job boards' are working like LinkedIn. These jobs boards spread the awareness about the job amongst the job seeker. In light of these trends in the mining industry in Zimbabwe, it is the right time to explore if e-recruitment initiatives are having any impact on employee retention. This research study is a unique research effort, as few researchers have attempted to explore this area. The results of the study can benefit the HR departments of the mining companies in Zimbabwe and can facilitate them in designing and implementing e-recruitment technologies within their organizations that help to retain employees.

## **2.7 Conceptual framework**

A conceptual framework helps the researcher to derive meaning from his or her subsequent findings. According to Grant and Osanloo (2019) conceptual framework is a central part of the plan for negotiation to be examined, tested, studied and transformed as a result of investigation and it explains the possible connections between the variables as denoted. In a statistical perspective, the conceptual framework describes the relationship between the main concepts of a

study. It is arranged in a logical structure to aid provide a picture or visual display of how ideas in a study relate to one another. The diagram that follows gives the conceptual framework that links human resources practices and employee retention/labour turnover.

**Figure 2. 2: Conceptual framework**



**Source: Adapted from Literature Reviewed**

The conceptual framework stipulates that if human resources management practices of recruitment and selection are done effectively, this positively affect employee retention. For example, where there is effective recruitment and selection in an organisation, it could be possible for the organisation to improve employee satisfaction which ultimately result in employee retention. It is therefore hypothesized that effective human resources management positively effects the capacity of an organisation to retain its employees. Extraneous variables indicate the possibility of disturbed effectiveness of human resources management on employee retention in the 4<sup>th</sup> industrial revolution by globalisation and brain drain.



## **2.8 Empirical Literature**

### **2.8.1 Ghana**

The research conducted by Chapman and Webster in (2016) on the impact of the latest advances in technology on recruitment and selection had the background that in the face of high competition in labour markets, garnering of qualified workforce is a key organizational goal. A commonly held view among the human resource managers is that the human resources are the most important assets of an organization and that they offer the non-imitative competitive edge. As the point of entry, the process of recruitment and selection of employees plays a crucial role in enhancing the success and survival of the organization in the extremely competitive and turbulent business environment. The study explored how the latest advances in technology have impacted on the process of recruitment and selection of employees. The study examined the use of new technology such as internet based recruitment, telephone and video conferencing, computer based testing and automated telephone interviewing.

The findings of the research showed that internet provides efficiency in the administration and scoring of test as the content can be easily modified and answers captured in electronic form. It enables routine checking of errors, automatic scoring of tests and provides instant feedback to the applicants. This administrative ease enables recruiters to save on costs and time giving them a competitive hedge in the tight labour market. It also provides for increased flexibility for the employer and applicants in the administration of tests and performance of work in varied geographical locations. Moreover, the widespread of information in a globalized market widens access to a diverse geographical labour pool. Additionally, there is a greater transparency in the selection process as candidates are selected based on their skills, experience and competence. This has an overall effect on the ability of the company to retain its employees.

On the downside, the research established that due to the high number of applicants, screening and checking the authenticity and mapping of skills may be a time consuming exercise. The large number of indistinguishable resumes from the various applicants coupled with inadequate software and procedures may lead to poor results in the selection of the ideal candidate. This problem can largely be attributed to the existing methods for parsing resumes which is dependent on software that truncates and exclude the totality of content. Failure by the industry software to produce

optimum candidate and position convergence may result in low retention rates of the new employees hence costing companies thousands of dollars.

Despite having automated assistance, managing the workload remains a daunting task for HR managers. While software has reduced on the number of resumes from the applicants, that would otherwise be manually reviewed, it has not been successful in narrowing candidate resume pools to the ideal qualified applicants (Harris and Dewar, 2000). It should be noted that most of the software employed in the process of recruitment and selection generally uses rudimentary lexical and semantic algorithms (Harris and Dewar, 2020). These algorithms tend to generate a large candidate pool with most candidates insufficiently suitable for effective use (Harris and Dewar, 2020). This is because the industry software lacks the ideal filtering capabilities necessary for the proper parsing of resume. Crucial data that could help in identifying ideal candidate and position convergence is therefore lost. Without sufficient data, there is not enough variance that could be used in distinguishing between candidate and position suitability (Harris and Dewar, 2020).

Concerning automated telephone interviewing/interactive voice response with its ability to allow for human interaction, applicants can initiate the interview at any time. The applicants or potential employees can initiate an interview by simply making a phone call to a toll-free phone number and be automatically interviewed without any intervention from the operator. They also help to eliminate interview biases. And lastly, it is cost effective in screening candidates. On the downside, the research established that the greatest challenges to using IVR systems in recruitment and selection of employees is that the users find it hard to follow telephone menus and lengthy instructions. Also, IVR screening is considered lower in terms of treatment and openness as well as in reconsideration opportunities than the conventional face to face interviewing (Thompson al 2008)..

The use of telephone and video conferencing which entails setting up of a conference telephone call between the selection committee and potential candidates results in a significant cost reduction for the applicant and employer as there is no need of travelling and associated costs of lodging and meals. There is also the added environmental benefit as a reduction in traveling implies a reduction in greenhouse gas emissions. Further, upon placement this technology allows for the continued collaboration with the team members from remote locations. However, with video conferencing there might be a difference in time zones when conferencing in remote geographical locations.

Also, some of the human ways to communicating may not translate well with video conferencing. For example, eye contact may not be easily delivered through a webcam, unlike in the conventional face-to-face interviewing where one can easily make eye contact and judge whether the interviewee is paying due attention. Computer based testing has impacted on recruitment and selection process. Computer based testing facilitates the selection process by pinpointing the candidates ability accurately. The online test provides a fast and accurate method of pinpointing candidates' ability and suitability to work by using adaptive testing techniques. This ensures that employees remain with the company for longer periods as a result of the transparency and exhibited fairness in recruitment and selection process, thus employee retention.

Sołek-Borowska and Wilczewska (2018) studied on new technologies in recruitment process. This study was in light of the fact that a well-conducted recruitment and selection process is important for organization, permitting in-depth and objective verification of candidates in terms of meeting employer's expectations and leads to their employment. The background of the study was that there has been little research on the impact of e-recruitment on the recruitment process as a whole. Qualitative research design was suitable for the investigation since it permits the use of multiple data sources which could provide the necessary insights. The recruitment process was used as the unit of analysis and focused on business process.

The data collection process was designed to capture the entire recruitment process in the case organizations in as much detail as possible, which would permit comparative analysis for each step of the recruitment process. Thus, a mix of qualitative methods, techniques, and data sources available at the time of the research was utilized during the study. The findings indicate that e-recruitment transforms the traditional recruitment process into a time-and space-independent, collaborative hiring process. Companies can increase efficiency of recruitment process and cut costs, by integrating e-recruitment systems such as LinkedIn and other websites in their HR management infrastructure. The use of modern technologies in recruitment and selection process causes an improvement in recruitment process, which enables the business sector to reduce labour turnover costs.

### **2.8.2 Indonesia**

In another study by Kurniawan and Sutanto (2016) who studied on the impact of e-recruitment, on employee retention in Indonesia. The research established that a good recruitment program can attract workers from other local and foreign similar industries, it can provide a positive influence to increasing employee commitment, productivity and the employee retention. Besides recruitment and employee retention, the labour relations can also affect the employee performance, where the problems usually arise from the difference of work, age and demographics. The results of the study indicate that the recruitment, retention and labour relations found a significant effect on employee performance. On the other hand, the recruitment and employee retention found a significant effect on employee performance. As well as recruitment and employee retention, labour relations found significant effects to the employee retention. The results also found the recruiting and employee retention have a significant impact on employee performance through the labour relations. As well as the e-recruitment significantly influence on labour relations through employee retention.

### **2.9 Research Gap**

The available literature reviewed shows that little is known about human resource management processes within the small scale mining companies and how modernization in the 4<sup>th</sup> industrial revolution has shaped, and is shaping, management philosophies and practices, and the goal of this study is to create a better understanding of the effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution. The studies that have been conducted do not reflect rigorous statistical tests to unveil the effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution. This current research study uses rigorous statistical analysis tests to establish the effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution at Bindura Nickel Mine.

### **2.10 Conclusion**

The chapter reviewed related literature to the effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution. The chapter looked at theoretical and empirical literature on the effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution. The reviewed literature enabled the researcher to expose

the research gap which this research contributes towards filling. The next chapter looked at the methodology used to carry out the research.

## CHAPTER III

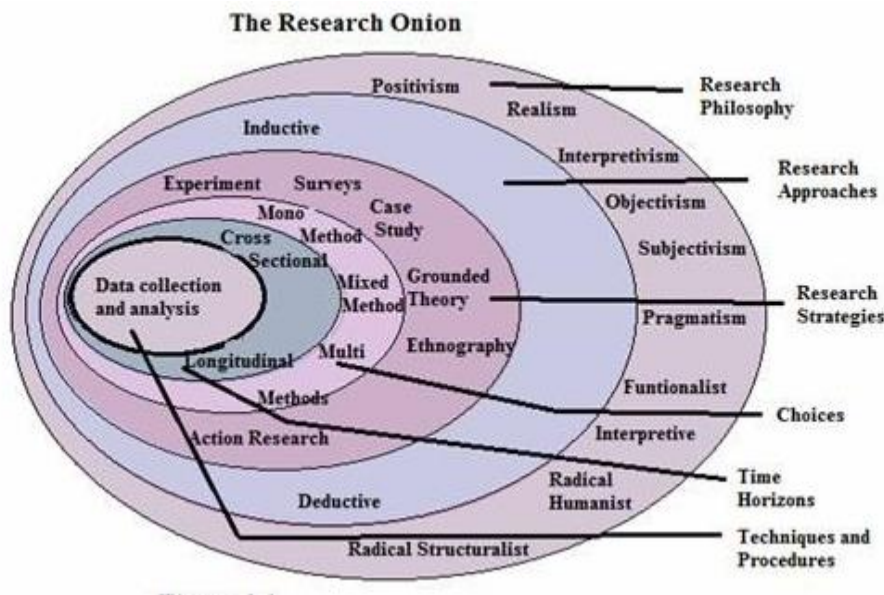
### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter focuses on research methodology used to carry out the research. It looked at the research philosophy adopted, the research approach, the research design, the population of the study, sampling methods, sample size taken, research instruments used, data collection methods, data validity and reliability enhancements, research ethics observed, among other aspects. The methodology basically was a way of ensuring that data related to the study was collected for analysis, from the relevant subjects for answering the research questions and fulfilling the research objectives outlined in chapter 1.

The researcher adopted the research onion proposed by Saunders, Lewis and Thornhill (2016) as illustrated below.

**Figure 3. 1: Research onion**



**Source:** Saunders, Lewis and Thornhill (2016), p.124

### 3.2 Research Philosophy

Saunders, Lewis and Thornhill (2012) define research philosophy as a set of assumptions underpinning a research strategy employed by the researcher. The main research philosophies are the positivism, interpretivism and pragmatism. According to Kothari (2014), positivism research philosophy is more appropriate when the research uses quantitative methods in analysing data, whereby interpretivism philosophy is more appropriate when purely qualitative methods are being used to analyse data and pragmatism philosophy is whereby the research employs mixed methods, that is, both qualitative and quantitative methods of data analysis. This research adopted a pragmatism approach to accommodate both qualitative methods and quantitative methods. Balnaves (2020) states that pragmatism philosophy is chosen when they argued that best researches are neither purely quantitative nor purely qualitative, but somewhere between the two continuums in order to allow the researcher to study anything considered relevant to the study. Guba and Lincoln (2014) also supported that the adoption of one position becomes unrealistic; hence the researcher adopted pragmatism philosophy to be realistic.

This research sought to assess the effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution. Therefore, positivist philosophy was considered more appropriate because due to the nature of the research problem, an in-depth analysis of the effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution would be clearly articulated or analysed if quantitative data was employed. Qualitative and quantitative methods were used in a complementary fashion.

In carrying out his study, the researcher held in particular the following beliefs;

**Ontological beliefs:** the research was carried out from an ontological belief that it is reasonable to generalize findings from the sample of HR people drawn from Bindura Nickel Mine who participate in recruitment and selection of workers. The researcher believes there is one truth on the effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution. Summary measures, statistical analysis and results from the views of the surveyed sample population were used to generalize results to the stakeholders.

**Epistemological belief:** the research was anchored on facts gathered through a disciplined scientific research approach by using established methods to gather data in order to establish “*one*

*truth*". The research instrument used (structured questionnaire) contained structured questions that did not require much of opinions or perception of the researcher himself or HR people in the mining sector as it would pose bias and conflicted results by evaluating their own actions.

**Axiological belief:** Research values which guided how the research was carried out were critical for the outcome of the research. The researcher maintained a distance with respondents and had low interaction with the respondents since the study required the actual views of the respondents not the researcher's.

### **3.3 Research Approach**

According to Saunders, Lewis and Thornhill (2016) research approach is the extent to which the researcher understands the theory at the start of his/her research. There are more than one research approaches, which include inductive, deductive and abductive approaches (Martin, 2020). Inductive approach is when the researcher collects data and develops a theory from the analysis of the data, whereby deductive approach is when the researcher collects data in order to test a theory and abductive approach is when both inductive and abductive approaches are mixed (Bryan, 2014). According to Bryan (2014), deductive approaches are more appropriate when doing quantitative researches and inductive approaches are more appropriate when carrying out qualitative approaches.

The researcher sought to assess the effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution, hence he adopted a deductive approach. This approach enabled the researcher to answer the research objectives which were: How has the 4th industrial revolution modified the recruitment and selection practices at Bindura Nickel Mine?; Is Bindura Nickel Mine able to retain its employees?; What is the effect of recruitment and selection practices on employee retention at Bindura Nickel Mine?; and what recruitment and selection framework can be developed for Bindura Nickel Mine for effective retention of its employees in the 4th industrial revolution?

### **3.4 Research strategy**

Denscombe (2016) notes that the choice of a research strategy is based on the research questions and the research objectives, on existing knowledge as well as on cost and time constraints. There



are many research strategies that can be adopted, including surveys, experiments, cases studies, ethnography and grounded theory (Easterby-Smith, Thorpe, Jackson and Lowe, 2018). The research strategy employed was a case study at Bindura Nickel Mine of the different functions/departments. A case study was adopted as it enabled the researcher to collect data from different functions/departments of Bindura Nickel Mine that were important in the study in order get information which would enable the obtaining of meaning results within a shorter period of time.

### **3.5 Methodological choices**

The researcher adopted a quantitative method, according to the research onion by Saunders, et al. (2016). Quantitative choices were selected as opposed to qualitative choices in the interest of the research period and Covid-19 lockdown restrictions. The reason was that the researcher wanted to just explain the effects of 4<sup>th</sup> industrial revolution human resources practice and selection practices on employees retention at Bindura Nickel Mine, yet the relationship could be quantitatively established through correlation analysis. Therefore a proper explanation required a quantitative method, according to Kothari (2004). Quantitative data was collected in form of closed questions in the questionnaires using the Likert scale.

### **3.6 Research Design**

According to Hürliemann (2019) research philosophy relates to the framework that guides the undertaking of the research showing ideas about reality and the nature of knowledge of the researcher. Research design as a presentation of the different types of approaches used and a systematic outline of how the scientific research has been carried out in solving the identified research problem (Leavy, 2019).

Several possible research designs exist; including experimental design, exploratory designs, explanatory design, descriptive design and mixed methods design. Explanatory research design is more suitable when establishing cause and effects relationships between variables (Creswell, 2013). Exploratory research design is more suitable when the researcher is looking for new insights, studying what is currently taking place, when asking questions and also when assessing phenomena in a new light (Robson, 2014). Descriptive research design is more appropriate when

testing hypothesis (theories), when carrying out statistical analysis using quantitative data analysis techniques and also when describing accurate profiles of people, events or situations of particular interest. Experimental designs are more appropriate when an experiment is carried out such as in a laboratory to result in observations which lead to conclusions (Martin, 2020). Mixed methods design is used when one or more pure research designs are combined (Saunders, Lewis and Thornhill, 2012).

This research study adopted an explanatory research design. This was because the research was about assessing the effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution hence the researcher adopted an explanatory research design. This design was considered more appropriate in articulating the cause and effect relationship between recruitment and selection practices on employee retention in the 4th industrial revolution. This research design was consistent with the positivist research philosophy adopted where quantitative was considered appropriate.

### 3.7 Target Population

Martin (2020) defines research population as the total number of elements that the research conclusions are to be attributed to. Curran and Blackburn (2011) further stated that all elements that are under consideration or that are of particular interest to researcher, from which a sample can be drawn, is the research population. The target population of the research was HR employees from Bindura Nickel Mine. This target population was considered relevant as Bindura Nickel Mine is generally the biggest mining company in Bindura that dominates the mining industry in Bindura. The breakdown of the target population is presented in Table 3.1 below.

**Table 3. 1: Target population**

Target Company	Population Size
Bindura Nickel Mine	631
TOTAL	631

**Source:** Bindura Nickel Mine Human Resources Department Internal Report, 2021.

The target population of the research was people as indicated above and the sample size determined is outlined below.

### 3.8 Sample Size

Glaser and Strauss (2015) defined a sample as a part of the population drawn from the population and studied, whose results are then generalized for the whole population. Hakim (2013) highlighted that a sample is taken when the population is too large to be studied wholly, element by element; when the researcher has limited time to carry study the whole population and when the researcher has limited resources. However, Mintzberg and Waters (2018) claimed that whenever a sample is taken, a sampling error results. The researcher was guided by Krejcie and Morgan formula. For the population of 651 participants, the research sample according to Krejcie and Morgan (1970) is 242 respondents. Krejcie and Morgan (1970) formula used is presented as below:

$$s = \frac{X^2NP(1 - P)}{d^2(N - 1) + X^2P(1 - P)}$$

s = required sample size.

$X^2$  = value of chi-square for 1 d.f. at desired confidence level (=  $1.96^2 = 3.8416$ ).

N = the population size (651 workers).

P = the population proportion (0.50).

d = the degree of accuracy expressed as a proportion (0.05 for this study)

$$s = \frac{1.96^2 \times 651 \times 0.5(1 - 0.5)}{0.05^2(651 - 1) + 1.96^2 \times 0.5(1 - 0.5)}$$

**s = 242**

Looking at Lenth (2018) and Krejcie and Morgan (1970)'s sample size criteria, this research used 242 employees in conducting the research. The sample size for the research was a large sample ( $n > 30$ ) which is encouraged for research studies that have a quantitative element. Since this study used a quantitative approach, the research sample was eligible.

### **3.9 Sampling Methods**

There are two sampling techniques, probabilistic and non-probabilistic sampling methods (Gujarati, 2004). Probabilistic sampling methods are those methods which give the population elements equal chances of being selected into the sample for sampling (Martin, 2020). Examples include cluster sampling, stratified random sampling, random sampling and systematic random sampling. Non-probabilistic sampling methods are methods that give population elements unequal chances of being selected into the sample (Creswell, 2013). Examples of non-probabilistic sampling methods include quota sampling, convenience sampling, judgemental sampling and snowballing sampling. Saunders, Lewis and Thornhill (2012) however highlighted that most of the probabilistic sampling methods require a sampling frame in order to be usable. In selecting respondents, in line with the principles of quantitative research, random sampling was also used.

### **3.10 Data Types**

For the successful completion of this research, and for the purposes of getting meaning research findings, the researcher consulted both primary data sources and secondary data sources. This section presents the different sources of primary and secondary data sources consulted in this research.

#### **3.10.1 Secondary data**

According to Morris and Wood (2015), secondary data is data that was gathered by others, and is not original to the current research. This research also made use of some secondary data such as from books, journal articles, newspapers, internet and CZI Mining Industry Survey Report 2021. Secondary data was advantageous in that it was quite cheaper and faster to gather, relative to primary data, as also supported by Raimond (2013) who claimed that secondary data is cheaper to gather since most publications and other sources are readily available especially on the internet. The internet provided the bulk of the information, with official sites such as JSTOR and EBSCO host providing most of the journal articles. However, the use of secondary data was with its own problems. The problem was that the data was collected for other purposes; therefore the bulk of the information found would not apply to the current research problem at hand.

### **3.10.2 Primary data**

Morris and Wood (2015) define primary data as data collected from the field for the first time to solve a current research problem. The primary data used in this research was collected from employees from Nickel Mine using a structured questionnaire as a primary research instrument. As confirmed by Raimond (2013), primary data used was advantageous to the research since it was fresh and was collected to solve the identified research problem at hand. However, as confirmed by Peters and Waterman (2017), primary data was more difficult and expensive to gather, starting from the process of drafting and validating the research questionnaire up to the administration of the instrument in collecting data. The process was quite tiresome and expensive. In addition, non-response rate was another challenge with primary data on questionnaires sent out through Google Forms link.

### **3.11 Research Instruments**

According to Robson (2014) a research instrument is a tool that is used to collect data. Robson (2014) also notes that an instrument can either be structured (with laid-down questions) or unstructured. Kersley et al. (2016) affirms that there are various instruments to collect primary data which include experiments, interviews, questionnaires and observations. This research used only a structured questionnaire as a research instrument for all sample elements.

#### **3.11.1 Questionnaire**

Hakim (2013) defines a questionnaire as a document that contains a list of questions that is given to the respondents, asking them about their opinions and other issues relating or relevant to the subject under study. Hakim (2013) also notes that a questionnaire can have open-ended questions and/or closed questions. Saunders, Lewis and Thornhill (2012) define open-ended questions as questions that seek respondent's opinions and allow the respondents to use their own words. Saunders, Lewis and Thornhill (2012) refer to closed ended questions as the questions which have possible answers, from which the respondent has to choose at least one response. The questionnaire used in this research constituted closed questions so as to gather as much data as possible. Closed ended questions helped the researcher, where necessary, not to have too divergent views to allow data coding and processing become much easier. A Likert scale was applied to closed ended

questions for easier data analysis. The structured questions had end points of “Strongly Disagree”, with a code of 1, and “Strongly Agree” with a code of 5.

The use of the questionnaire had several advantages to the researcher, including allowing the researcher to collect quantitative data using one instrument, in line with the research philosophy and approach adopted. Also, the questionnaire saved much of the researcher’s time since voluminous data from many respondents was gathered in a short space of time (Martin, 2020). In addition, the researcher allowed for wider coverage at low cost, enabled collection of data from people who were difficult to contact (through Google Forms) and it allowed greater uniformity in the way in which the questions that were asked and thus making it reliable.

### **3.12 Data Collection Procedures**

The researcher compiled a list of questions in line with the reviewed literature, and then came up with his own questionnaire. The researcher sought for permission from the management of the three mining companies chosen in Bindura with the help of a confirmation letter from the University Of Zimbabwe Graduate Of Business Department. The researcher had to introduce himself to the respondents physically and on phone call, explain to them what he is currently doing as well as the purpose of the research before hand-delivering or requesting for an email to send the questionnaire to the respondents. Some refused to share their email addresses hence the researcher prepared his questionnaire on Google Forms and shared the link with the potential respondents using email and WhatsApp. The researcher wanted to save time, money and upholding social distance through delivering the questionnaire via online means and on email but because some of the respondents preferred a physical copy, the researcher then hand delivered the instrument. After that some questionnaires were emailed, where respondents would choose to have their questionnaires sent by email.

Researcher had pretested for the validity and reliability of the questionnaire through pilot study and further refinement hence he assumed that all the respondents were well versed with challenges affecting recruitment and selection of workers in the mining sector and the questions within the instrument. In some instances where the target respondent would indicate his or her inability to participate or answer the instrument due to various reasons, the researcher would withdraw that respondent and look to replace with another one who was willing. The researcher then went on to

collect data taking into cognizance of Covid-19 pandemic lockdown restrictions. Each respondent was given a maximum of 2 calendar days to complete the questionnaire and then would return the questionnaire using the same channels. The 2 days period were considered sufficient for the respondents to study and complete the questionnaire, at the same time reducing their chances of failing to return the questionnaires. On the third day, the researcher went back and collected the collected questionnaires, downloaded the completed on email and made a follow up by way of a phone call for those who did not returned. After collection the researcher then imported the responses into excel and then coded it on SPSS version 23.0 for analysis.

### **3.13 Data Validity**

Validity is defined by Gibb (2016) as the extent to which an instrument measures what it is intended to measure. In order to improve validity, the researcher meticulously designed the questionnaire, and pretested it in order to refine them. The questionnaire was pretested with some HR workers who did not constitute final sample. A pilot study with the workers who did not then necessary form part of the final sample was done, and basing on their responses, the researcher refined the questionnaire with the help of the supervisor before actual data collection was done.

### **3.14 Data Reliability**

According to Martin (2020), reliability refers to the internal consistency of the research instrument (Gibb, 2016). The researcher tested the reliability of data using the SPSS package version 16, using the Cronbach's Alpha measure which makes use of variances between the responses (items) on the instrument. An alpha of at least 0.7 would be considered reliable, and that above 0.5 but less than 0.7 would be considered less reliable (Johnston, 2009). An alpha below 0.5 would indicate that the data was unreliable.

### **3.15 Data Analysis and Presentation**

The closed ended questions were fed into the SPSS package version 23.0 for analysis purposes, using frequencies and percentages, measures of central tendency (especially the sample mean) and the measures of dispersion (especially the sample standard deviation) as well as regression and

correlation analysis. Presentation was done using Microsoft Office packages version 2013, specifically Excel and Word 2013, in form of charts, tables and graphs.

### **3.16 Ethical Considerations**

Research ethics are defined by Saunders, Lewis and Thornhill (2012) as the appropriateness of the researcher's behaviour with respect to the rights of the subjects of the research. Firstly, the consent of the respondents was sought before data collection. Also, the participants were allowed to withdraw at any time if they so wished. In addition, the participants remained anonymous throughout the research. Also, the researcher did not bribe or pay any participant for participating. More so, consistent and accurate referencing of ideas and work accessed from other authors was done using the Harvard Referencing Style to ensure that there is integrity in the conduct of the research and to avoid plagiarism. Furthermore, to gain consent from the respondents, the researcher inserted an introductory letter on the questionnaire, aiming to elicit positive response and cooperation from the participants. The researcher also obtained a letter from the University of Zimbabwe Graduate School of Business department to use for gaining permission from the respondents' organizations to carry out the research.

### **3.17 Conclusion**

The chapter looked at the various methodology aspects employed in carrying out the research. This included research philosophy, research design, population, sampling procedures and instruments used. Critical to the research methods adopted, the chapter indicates that the research adopted a positivism approach to accommodate quantitative methods in the research. A case study was chosen. The chapter indicates that the research used an explanatory research design. The next chapter focused on the analysis, presentation and discussion of data.



## CHAPTER IV

### DATA ANALYSIS, PRESENTATION AND DISCUSSION

#### 4.1 Introduction

In the previous chapter, the research prescribed the methodology that was used to generate the research findings. The study sought to determine the effect of employees' recruitment and selection practices on employee retention in the 4<sup>th</sup> industrial revolution at Bindura Nickel Mine. The researcher engaged employees of Bindura Nickel Mine through a structured research questionnaire. The collected data was analysed using SPSS version 23.0. The researcher used statistical techniques of descriptive statistics (frequencies, percentages and mean scores) and regression and correlational analysis to make sense of the collected responses. Research findings were presented in the form of charts, bar graphs and tables. The first section presents demographic and background information of respondents. Research findings in line with the research objectives make the main body of the chapter. The chapter ends with a chapter summary.

#### 4.2 Response rate

The researcher first presents the response rate of the research questionnaire. The formula for calculating response rate was adopted from Andrew, Friedman and Durning (2017). According to Andrew, Friedman and Durning (2017) response rate is calculated by dividing the number of successful participants by the size of the sample that the researcher had intended to engage for the research survey. Table 4.1 shows the sample frame and response rate.

**Table 4. 1: Research questionnaire response rate**

Company	Population Size	Sample size	Actual Respondents	Response Rate
BNC employees	631	242	197	81%

The results indicated in Table 4.1 show that the research targeted a sample of 242 employees from Bindura Nickel Mining Company. However, out of the 242 respondents, 197 respondents actually participated. This gave an overall response rate of 81% which is high enough to render research findings reliable according to the response rate criterion of Kothari (2004) who states that a reliable

response rate is at least 70%. The response rate therefore surpassed the response rate criterion of Kothari (2004). Therefore, the research findings are highly reliable.

### 4.3 Reliability statistics of the research questionnaire

To establish the reliability of the research instrument used for data collection, the researcher ran a Cronbach’s alpha test. This test according to Johnston (2009) is acceptable when the alpha coefficient is at least 0.7. The researcher tested the consistency of the questions per each section of the research questionnaire independently. The researcher excluded the demographic section in the tests for consistency because the questions were not necessary. The results are as follows:

**Table 4. 2: Cronbach’s alpha test of research questionnaire**

Section of the research questionnaire	Cronbach's Alpha	N of Items
Recruitment questions	.961	6
Selection questions	.945	6
Employee retention questions	.955	5
<b>Overall</b>	<b>.986</b>	<b>17</b>

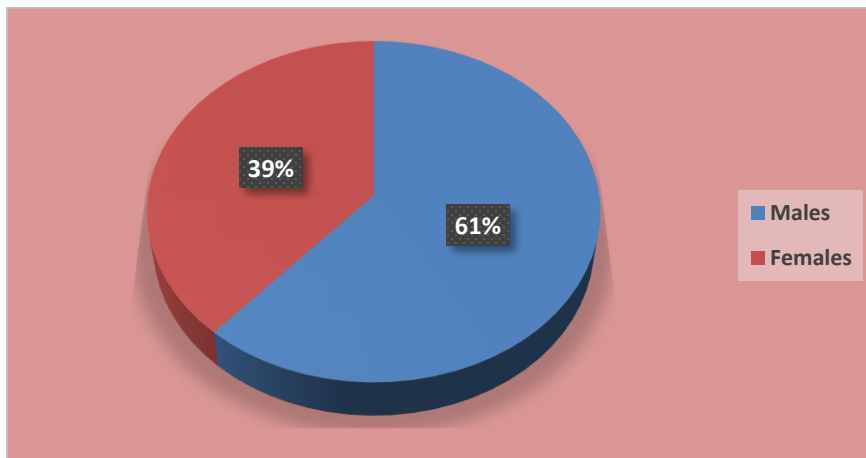
The results in Table 4.2 indicate that for the different sections of the research questionnaire, the coefficients obtained are above 0.9 (with the least one being 0.945) which is above 0.7 criterion of Johnston (2009). This shows that the research questionnaire collected uniform responses and therefore the research findings can be relied upon by stakeholders such as Bindura Nickel Mining Company and the mining sector in Zimbabwe in general. The overall Cronbach’s alpha for the research questionnaire was 0.986. Bindura Nickel Mining Company and the mining sector in Zimbabwe can make use of the research findings without fear that the findings are misleading in decision making.

### 4.4 Demographic and background information of respondents

The first section of the research questionnaire gathered information of respondents with respect to demographic and background information of respondents. The research findings are presented in this section.

#### 4.4.1 Gender of respondents

The research was not discriminative in terms of gender, the research included males and females. The basis for including all dominant genders was to ensure that the research findings are a true reflection as contributed by both males and females. Both genders have to share their experience about how they were recruited and selected into the company to improve on the representativeness of research findings. The gender balance of the respondents is presented below



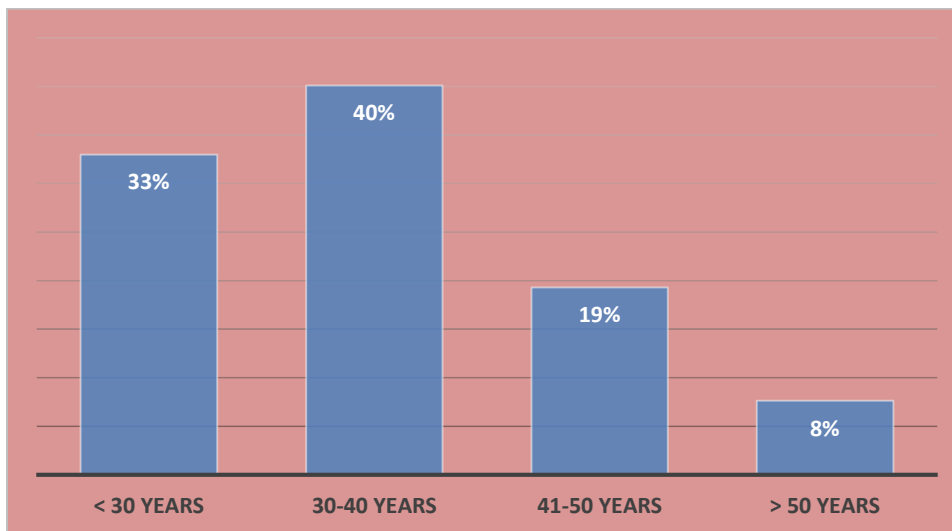
**Figure 4. 1: Gender of respondents**

Source: Primary data

Figure 4.1 shows that of the respondents who took part in the research, 61% were males and 39% were females. The gender balance for employees was in favour of males showing that more females than males took part in the research survey. The reason probably could be because that the mining sector is male-dominated since mining jobs are more muscular in nature. For the purposes of this research, gender imbalance had no negative implications since the research has to do with recruitment and selection of workers. Had the research been in social studies, probably this was going to have some negative repercussions. The gender balance check was therefore more procedural in this research. It had no effect on the quality of research findings.

#### 4.4.2 Age of respondents

The research asked respondents to reveal their age groups and ranges. This was important to some extent in terms of guaranteeing the researcher if the research findings were drawn from people of reasonable ages who have experience of life to share valuable insights. The results are presented in Figure 4.2.



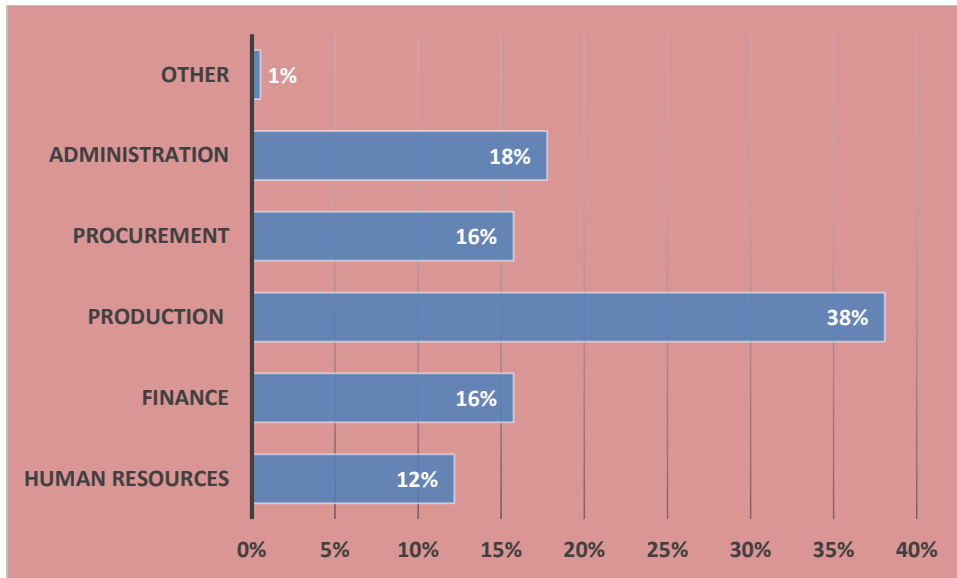
**Figure 4. 2: Age of respondents**

Source: Primary data

The respondents were mainly in the 30-40 years' category. This category had 40% of the respondents. The below 30 years category had 33%, the 41-50 years had 19% and the above 50% had 8% of the respondents. The respondents are generally the active ages of population who are presumed to have valuable insights about recruitment and selection in the 4<sup>th</sup> industrial revolution.

#### 4.4.3 Department of work of respondents

The research engaged employees from Administration, Human resources, Production, Procurement and Finance departments. To have an easy visual representation of the categories of respondents who participated most and least, the researcher presented the research findings in form of a chart. The chart is presented.



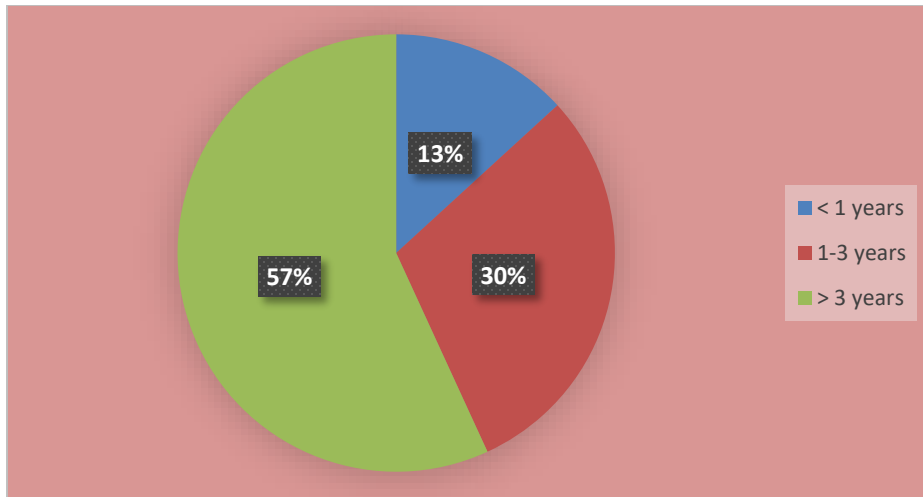
**Figure 4. 3: Department of work of respondents**

Source: Primary data

The modal category was employees from Production who constituted 38% followed by the employees from the Administration who constituted 18% each. Procurement and Finance departments’ employees who participated constituted 16% each and the least category of participants was the Human Resources category who constituted 12% of the 197 respondents who participated in the research.

#### **4.4.4 Number of years of respondents of working in the mining sector**

The last aspect on the background of the respondents was work experience in the mining industry. The researcher requested that respondents show the number of years they had served in the mining industry. The results are presented in the Figure 4.3 that is presented below.



**Figure 4. 4: Number of years of respondents of working in the mining sector**

Source: Primary data

The modal level of experience was the more than 3 years category that had 57%. This was followed by the 1-3 years that had 30%. The less than 1 year had 13%. The least category was the above 20 years category. The indication of the experience is that of the people who participated in the research, the majority had many years of working experience,

#### **4.5 Research objectives' results**

This following section present the findings of the study. The research findings in line with the research objectives are presented in such a way that they are put per objective. The objective is first put as a subheading and the findings are interpreted below the table that carry the descriptive statistics. The subheadings that emerged from the research objectives are: 4th industrial revolution and recruitment practices at Bindura Nickel Mine, 4th industrial revolution and selection practices at Bindura Nickel Mine and the effect of recruitment and selection practices on employee retention at Bindura Nickel Mine.

The descriptive statistics approach to analysis of data used was borrowed from Greenwood (2014) who stipulates that frequencies, percentages, mean scores and standard deviation can be used to summarize data generated from Likert scales. For mean scores, where the mean score is closer to 1 than it is to 3, it shows that respondents are disagreeing to a given situation, where the mean is

somewhere closer to 3 than it is either to 1 or 5, it shows that respondents were neutral and in the last scenario, where the mean is close to 5 than it is to 3, respondents are agreeing on some scenario.

#### 4.5.1 4<sup>th</sup> industrial revolution and recruitment practices at Bindura Nickel Mine

In this section, the researcher’s intention was to establish how recruitment practices at Bindura Nickel Mine has been modified by the 4th industrial revolution. The researcher then asked respondents questions that borrowed from literature reviewed that show how 4th industrial revolution has modified recruitment process in organisational setups where similar researches have been carried out.

**Table 4. 3: 4<sup>th</sup> industrial revolution and recruitment practices at Bindura Nickel Mine**

Statement	SD	D	N	A	SA	Mean	SD
Bindura Nickel Mining Company posts job vacancies on internet websites.	14 (7%)	12 (6%)	4 (2%)	78 (40%)	89 (45%)	4.10	2.59
Bindura Nickel Mining Company uses social networking sites such as LinkedIn to shortlist potential job candidates.	10 (5%)	8 (4%)	5 (3%)	91 (46%)	83 (42%)	4.16	2.37
Bindura Nickel Mining Company uses online tools to extract informal, often personal information about prospective or current employees	69 (35%)	63 (32%)	6 (3%)	31 (16%)	28 (14%)	2.42	3.08
Bindura Nickel Mining Company measures site visits on social media by job seekers.	41 (21%)	53 (27%)	7 (4%)	45 (23%)	51 (26%)	3.06	3.24
Bindura Nickel Mining Company tracks and follows applicants across media, such as on social media.	41 (21%)	43 (22%)	5 (3%)	50 (25%)	58 (29%)	3.21	3.29
Bindura Nickel Mining Company has on internet video-testimonials of current employees describing what it means to work for the company.	58 (29%)	61 (31%)	5 (3%)	36 (18%)	37 (19%)	2.66	3.19
<b>TOTAL</b>	<b>233</b>	<b>240</b>	<b>32</b>	<b>331</b>	<b>346</b>	<b>3.27</b>	<b>5.08</b>

Source: Primary data

Results in Table 4.3 show that respondents agreed that Bindura Nickel Mining Company posts job vacancies on internet websites and that it uses social networking sites such as LinkedIn to shortlist potential job candidates. This is reflected by the mean scores above 4. This finding is in line with Sołek-Borowska and Wilczewska (2018) who found in their study that e-recruitment is widely adopted due to companies' ability to increase the efficiency of recruitment process and cut costs by integrating e-recruitment platforms such as LinkedIn in their HR management infrastructure.

The same respondents however disagreed that Bindura Nickel Mining Company uses online tools to extract informal, often personal information about prospective or current employees. This is reflected by the mean scores less than 2.5. Against this finding, Wilding (2020) has indicated that the advent of Covid-19 has shifted both job seekers and recruiters towards more extensive use of online tools to extract informal, often personal information about prospective or current employees such as social media. Again, Dekay, (2019) online social networks such as Facebook, LinkedIn and Viadeo make it possible for recruiters to do head hunting and contact passive applicants.

Respondents were neutral that Bindura Nickel Mining Company measures site visits on social media by job seekers, tracks and follows applicants across media, such as on social media that it has video-testimonials on internet of current employees describing what it means to work for the company. This is reflected by the mean scores around 3. According to Zhang et al., (2020) and Johnson and Leo (2020) the acceptance of social media has raised major concerns about their usefulness among recruiters and job-seekers where in some instances social media is neglected as a recruitment and selection tool.

#### **4.5.2 4<sup>th</sup> industrial revolution and selection practices at Bindura Nickel Mine**

Secondly, the researcher wanted to establish how selection of employees at Bindura Nickel Mine has been modified by the 4th industrial revolution. The researcher then asked respondents questions that borrowed from literature reviewed that show how 4th industrial revolution has modified selection process in organisational setups where similar researches have been carried out.



**Table 4. 4: 4<sup>th</sup> industrial revolution and selection practices at Bindura Nickel Mine**

Statement	SD	D	N	A	SA	Mean	SD
Bindura Nickel Mining Company conducts psychometric tests for potential candidates using online platforms.	14 (7%)	12 (6%)	4 (2%)	78 (40%)	89 (45%)	4.10	2.59
Bindura Nickel Mining Company conducts interviews for potential employees online e.g. using Zoom Meetings.	12 (6%)	10 (5%)	7 (4%)	73 (37%)	95 (48%)	4.16	2.54
Bindura Nickel Mining Company uses socialization techniques such as on-the-job training to upcoming employees.	17 (9%)	19 (10%)	5 (3%)	72 (37%)	84 (43%)	3.95	2.77
Bindura Nickel Mining Company uses big data in recruitment of potential employees.	69 (35%)	70 (36%)	2 (1%)	25 (13%)	31 (16%)	2.39	3.09
Bindura Nickel Mining Company uses artificial intelligence in selection of potential employees.	75 (38%)	69 (35%)	2 (1%)	28 (14%)	23 (12%)	2.26	2.98
Bindura Nickel Mining Company has a website that has CEO approval ratings, interview reviews and questions etc.	78 (40%)	74 (38%)	4 (2%)	24 (12%)	17 (9%)	2.13	2.80
<b>TOTAL</b>	265	254	24	300	339	3.16	5.20

Source: Primary data

Table 4.4 show that respondents agreed that Bindura Nickel Mining Company conducts psychometric tests for potential candidates using online platforms, conducts interviews for potential employees online e.g. using Zoom Meetings and that the company uses socialization techniques such as on-the-job training to upcoming employees. In a study by Langer et al. (2017) it has been shown that digital interviews are now widely used and they cut costs to both the employee and the employer that are associated with the selection phase for example transport costs on the side of the employee. According to Harris and Dewar, (2020) the use of online ways of selecting employees also help to eliminate interview biases and it is cost effective in screening candidates.

However, respondents disagreed that Bindura Nickel Mining Company uses big data in recruitment of potential employees, uses artificial intelligence in selection of potential employees and that the company has a website that has CEO approval ratings, interview reviews and questions. A research by Harris and Dewar (2020) however reflects that employment of big data and artificial intelligence in the process of recruitment and selection generally uses rudimentary lexical and semantic algorithms. These algorithms tend to generate a large candidate pool and softwares that are used have filtering capabilities necessary for the proper parsing of resume and selection of workers.

#### 4.5.3 Effect of 4<sup>th</sup> industrial revolution recruitment and selection practices on employee retention at Bindura Nickel Mine

In this section, the researcher wanted to establish the effect of recruitment and selection practices on employee retention at Bindura Nickel Mine. The researcher then asked respondents questions that borrowed from literature reviewed that show how 4<sup>th</sup> industrial revolution influences employees' stay with the companies. The research findings are presented in Table 4.5.

**Table 4. 5: Employee retention at Bindura Nickel Mine**

Statement	SD	D	N	A	SA	Mean	SD
Employees at Bindura Nickel Mining Company are satisfied with their jobs.	51 (26%)	41 (21%)	8 (4%)	46 (23%)	51 (26%)	3.03	3.34
There are low absenteeism rates at Bindura Nickel Mining Company.	17 (9%)	19 (10%)	6 (3%)	54 (27%)	101 (51%)	4.03	2.88
Majority of employees at Bindura Nickel Mining Company have served the company for many years.	12 (6%)	15 (8%)	4 (2%)	87 (44%)	79 (40%)	4.05	2.51
Bindura Nickel Mining Company has attracted workers from other mining companies in Zimbabwe.	44 (22%)	51 (26%)	6 (3%)	43 (22%)	53 (27%)	3.05	3.29
Bindura Nickel Mining Company has attracted workers from abroad.	64 (32%)	72 (37%)	9 (5%)	21 (11%)	31 (16%)	2.41	3.02
<b>TOTAL</b>	<b>188</b>	<b>198</b>	<b>33</b>	<b>251</b>	<b>315</b>	<b>3.31</b>	<b>4.90</b>

Source: Primary data

Responses in Table 4.5 show that respondents agreed that there are low absenteeism rates at Bindura Nickel Mining Company and majority of employees at Bindura Nickel Mining Company have served the company for many years. Respondents have disagreed that Bindura Nickel Mining Company has attracted workers from abroad. Respondents were neutral that employees at Bindura Nickel Mining Company are satisfied with their jobs and that the company has attracted workers from other mining companies in Zimbabwe. In a study by Kurniawan and Sutanto (2016) who studied on the impact of e-recruitment, on employee retention in Indonesia, it was established that a good recruitment program can attract workers from other local and foreign similar industries, can provide a positive influence to increasing employee commitment, productivity and the employee retention.

#### 4.6 Correlation analysis

To determine the direction and the strength of the relationship between recruitment and selection practices and employee retention, the researcher ran correlation analysis test on SPSS version 23.0. The researcher correlated aggregates of the responses of employees when they were asked about 4<sup>th</sup> industrial revolution and recruitment practices, the responses of the employees when they were asked about 4<sup>th</sup> industrial revolution and selection practices. These two constructs made up the two independent variables. Responses on employee retention made up the dependent variable.

**Table 4. 6: Correlation analysis test results**

	Recruitment	Selection	Employee Retention
Recruitment Pearson Correlation	1	.982**	.984**
Sig. (2-tailed)		.003	.002
N	197	197	197
Selection Pearson Correlation	.982**	1	.971**
Sig. (2-tailed)	.003		.006
N	197	197	197
Employee Retention Pearson Correlation	.984**	.971**	1
Sig. (2-tailed)	.002	.006	
N	197	197	197

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

Source: Primary data

The correlation results in Table 4.6 show that there is a strong positive correlation ( $r = 0.984$ ) between recruitment practices in the 4<sup>th</sup> industrial revolution and employee retention, and this correlation is significant at the 0.01 level ( $p = 0.003 < 0.01$ ). This means that recruitment practices in the 4<sup>th</sup> industrial revolution has helped Bindura Nickel Mining Company to retain its employees. The more the company has used 4<sup>th</sup> industrial revolution recruitment practices, the better the company has been able to retain its employees. This finding agrees with the finding of Kurniawan and Sutanto (2016) who studied on the impact of e-recruitment, on employee retention in Indonesia. The research established that good recruitment practices provide a positive influence to increasing employee commitment, productivity and the employee retention.

With respect to selection practices in the 4<sup>th</sup> industrial revolution, correlation results show that there is again a strong positive correlation ( $r = 0.971$ ) between selection practices in the 4<sup>th</sup> industrial revolution and employee retention and this correlation is significant at the 0.01 level ( $p = 0.006 < 0.01$ ). This means that selection practices in the 4<sup>th</sup> industrial revolution has helped Bindura Nickel Mining Company to retain its employees. The more the company has used 4<sup>th</sup> industrial revolution selection practices, the better the company has been able to retain its employees. This finding agrees with the finding of Kurniawan and Sutanto (2016) and Sołek-Borowska and Wilczewska (2018) who established that good selection practices provide a positive influence the ability of a company to retain its employees.

The correlation coefficient between recruitment practices in the 4<sup>th</sup> industrial revolution and selection practices in the 4<sup>th</sup> industrial revolution show strong positive relationship with Pearson correlation coefficient of 0.982. This relationship is significant at 0.01 with its p-value of 0.003. This indicates that these two processes are inseparable and affect each other. With proper recruitment practices, the selection practices are also proper. This communicates that the processes are centrally done and perhaps the systems used for recruitment are the same for selection. Chapman and Mayers (2015) show that recruitment and selection are difficult to separate are a usually undertaken by the Human Resources department using same platforms and systems.

#### 4.7 Regression analysis

Regression test was done to show the extent to which the 4<sup>th</sup> industrial revolution recruitment practices and 4<sup>th</sup> industrial revolution selection practices can explain the changes in the employee retention at Bindura Nickel Mining Company. The results are presented in Table 4.7 below.

**Table 4. 7: Regression analysis test results**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.984 <sup>a</sup>	.969	.938	26.1330

a. Predictors: (Constant), Selection, Recruitment

Source: Primary data

The regression model summary results show that the adjusted r-square value is 0.938, which implies that recruitment and selection practices can explain up to 93.8% changes in employee retention at Bindura Nickel Mining Company. The remaining 6.2% of the changes in employee retention at Bindura Nickel Mining Company is explained by other factors not studied in this research. The model has left variables that have a combined effect on employee retention at Bindura Nickel Mining Company that is smaller than the variables used. Therefore 93.8% is regarded as very significant in explaining the strength of the relationship between recruitment and selection practices and employee retention at Bindura Nickel Mining Company. In Ghana, Chapman and Webster in (2016) also confirm the same that recruitment and selection of employees plays a crucial role in enhancing the success and survival of the organization in the competitive and turbulent business environment with its ability to enhance employee retention.

#### 4.8 Conclusion

The chapter presented, interpreted and analysed findings of the research. The statistical package employed for presented findings was SPSS version 23.0. The chapter presented the findings of the study in form of tables, using Microsoft Office package. The findings were then interpreted and discussed relative to previous academics' claims and empirical findings. The next and last chapter looks at summary, conclusions and recommendations of the study.

## **CHAPTER V**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

In the previous chapter, the researcher presented the findings of the research. The findings of the research show that the research objectives were accomplished successfully. In this chapter, the researcher presents the summary of the research findings and gives closure to the research objectives the researcher intended to accomplish. Based on the research conclusions, the researcher gives recommendations to the research stakeholders. Recommendations for further studies are given in the last section of the chapter.

#### **5.2 Recap of research objectives**

1. To establish how the 4th industrial revolution has influenced employees' recruitment practices at Bindura Nickel Mine.
2. To establish how the 4th industrial revolution has influenced employees' selection practices at Bindura Nickel Mine.
3. To determine the relationship between 4th industrial revolution recruitment practices and employee retention at Bindura Nickel Mine.
4. To determine the relationship between 4th industrial revolution selection practices and employee retention at Bindura Nickel Mine.

#### **5.3 Summary of research findings**

In this section, the researcher presents the summaries of the research findings. The researcher has organised the summaries of the research using research objectives as the sub-headings.

##### **5.3.1 Influence of the 4th industrial revolution on employees' recruitment practices at Bindura Nickel Mine**

The 4<sup>th</sup> industrial revolution has influenced employees' recruitment practices at Bindura Nickel Mining Company to a lesser extent. The research established that Bindura Nickel Mining

Company posts job vacancies on internet websites and it uses social networking sites such as LinkedIn to shortlist potential job candidates. The company has not yet adopted online tools to extract informal and personal information about prospective employees. The company does not track and follow applicants across media, such as on social media and has no video-testimonials on internet of current employees describing what it means to work for the company. These findings reflect that the company has been influenced by the 4<sup>th</sup> industrial revolution only to a limited extent.

### **5.3.2 Influence of the 4th industrial revolution on employees' selection practices at Bindura Nickel Mine**

With respect to employees' selection practices, Bindura Nickel Mining Company has slightly been influenced by the 4<sup>th</sup> industrial revolution. This has been reflected in the findings that the company conducts psychometric tests for potential candidates using online platforms. The company also conducts interviews for potential employees online using online platforms such as Zoom Meetings. Bindura Nickel Mining Company also uses socialization techniques such as on-the-job training to upcoming employees. However, Bindura Nickel Mining Company does not use big data and artificial intelligence in recruitment of potential employees. It does not have a website for CEO approval ratings, interview reviews and questions.

### **5.3.3 Relationship between 4th industrial revolution recruitment practices and employee retention at Bindura Nickel Mine**

Through a correlational analysis, the research established that there is a strong positive and significant correlation between recruitment practices in the 4<sup>th</sup> industrial revolution and employee retention. This means that the extent to which Bindura Nickel Mining Company has adopted recruitment practices of the 4<sup>th</sup> industrial revolution has helped Bindura Nickel Mining Company to retain its employees. The more the company has used 4<sup>th</sup> industrial revolution recruitment practices, the better the company has been able to retain its employees.

### **5.3.4 Relationship between 4th industrial revolution selection practices and employee retention at Bindura Nickel Mine**

As well, through a correlational analysis, the research established that there is a strong positive and significant correlation between selection practices in the 4<sup>th</sup> industrial revolution and employee retention. This means that the extent to which Bindura Nickel Mining Company has adopted selection practices of the 4<sup>th</sup> industrial revolution has helped Bindura Nickel Mining Company to retain its employees. The more the company has used 4<sup>th</sup> industrial revolution selection practices, the better the company has been able to retain its employees.

### **5.4 Conclusion**

Having summarised the research findings in the section presented above, the researcher gives the conclusions to the research objectives in this section. The research concludes that 4<sup>th</sup> industrial revolution has limitedly influenced employees' recruitment practices at Bindura Nickel Mining Company. Bindura Nickel Mining Company is concluded to have been slightly influenced by the 4<sup>th</sup> industrial revolution in its employees' selection practices. The research concludes that there is a strong positive and significant correlation between recruitment practices in the 4<sup>th</sup> industrial revolution and employee retention. This means that recruitment tools in the 4<sup>th</sup> industrial revolution help to retain employees and reduce labour turnover at Bindura Nickel Mine. The research concludes that there is a strong positive and significant correlation between selection practices in the 4<sup>th</sup> industrial revolution and employee retention. This means that's election tools in the 4<sup>th</sup> industrial revolution help to retain employees and reduce labour turnover at Bindura Nickel Mine.

### **5.5 Recommendations**

Based on the research findings presented, the researcher gives the following recommendations to Bindura Nickel Mining Company and policy makers in the country.

#### **5.5.1 Online tools**

The study revealed that Bindura Nickel Mining Company has yet adopted online tools to extract informal, often personal information about prospective or current employees. This observation limits the size of the pool of employees the company can shortlist for selection. The researcher



therefore recommends that Bindura Nickel Mining Company incorporate in its recruitment practices online tools to extract informal personal information about prospective employees which helps to expand its pool of potential candidates.

### **5.5.2 Tracking applicants**

The study established that Bindura Nickel Mining Company does not track and follow applicants across media such as on social media. However, to the disadvantage of the company, the extensive use of applicant tracking systems could reduce the duration of the screening process, providing proper resume storage, resume parsing and keyword search for large numbers of applications during the recruitment stage. Therefore, it is recommended that Bindura Nickel Mining Company invest its efforts in tracking and following applicants across media such as on social media so as to improve the recruitment efficiency of the company.

### **5.5.3 Big Data**

With the multiple advantages of using big data and artificial intelligence in business operations, Bindura Nickel Mining Company is also recommended to use data mining techniques to enhance effective recruitment process. Potential employees' characters and personalities could be unveiled through big data before the company shortlists candidates for selection process. For example, with big data analytics, the company can unveil any scandals by the potential candidates before they are shortlist thereby improving the efficiency of the whole process. This can be most critical in recruitment of foreign employees.

### **5.5.4 Website**

In addition, the research found out that Bindura Nickel Mining Company does not have a website for CEO approval ratings, interview reviews and questions. Literature had revealed that applicants through websites share their experiences with an employer. This can generate negative word of mouth and create a respective image of potential employers, negatively affecting the company's employer branding, or even its financial valuation. This information affect candidates' job search activities and can create negative word of mouth between potential job seekers, even without immediate experience of the organization's recruitment and selection process. This entails that those people who then apply for jobs at Bindura Nickel Mining Company would have made up

their minds and can remain with the company. This therefore helps to enhance its employee retention capacity.

To enhance its capacity of retaining employees, Bindura Nickel Mining Company human resources department is recommended to constantly watch out the practices of its competitors and understand what their employees' desire through communicating with their employees regularly in their online communities.

### **5.6 Recommendation for further studies**

The researcher successfully accomplished research objectives. The researcher used a structured research questionnaire which was possible to upload on Google Forms and analyse quantitatively using SPSS version 23.0. This was cognisant of the Covid-19 pandemic restrictions and was affordable in the interest of time. This is believed to have blocked other critical insights with respect to recruitment and selection practices of Bindura Nickel Mining Company in the 4<sup>th</sup> industrial revolution. Focus group discussions (FGDs) with HR workers could have brought in-depth understanding of the issues surrounding recruitment and selection practices at Bindura Nickel Mining Company.

Future researchers are recommended to conduct in-depth research using interviews and focus group discussions as data collection strategies. These can help complement the research findings of this current research to have a comprehensive overview of recruitment and selection practices of Bindura Nickel Mining Company. Future researcher can actually unveil the impediments to the adoption of 4<sup>th</sup> industrial revolution driven recruitment and selection practices. This can be done through a survey which covers the whole mining sector in Zimbabwe.

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## APPENDICES

### Appendix 1. 1: Research letter

#### University Of Zimbabwe



Dear Respondent

Re: Research Questionnaire: Magutakuona Moses [Student Number: B1336921]

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The researcher is a Master of Business Administration candidate at the University of Zimbabwe. He is conducting a study on an important topic entitled: **“Effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution: A Case of Bindura Nickel Mine”**. This topic is most significant to the improvement of the Effectiveness of recruitment and selection practices on employee retention in the 4th industrial revolution in the mining sector.

You have been selected as one of the respondents who have been deemed to be capable of assisting in responding to the attached Questionnaire. You are kindly requested to respond to the attached Questionnaire and return it to the researcher by 20 June 2021. This research is done for academic purposes only and your responses will not be disclosed without your permission. Furthermore, your identity will not be disclosed anywhere in the Dissertation or in the Survey Questionnaire, to ensure the confidentiality of your responses. Should you have any queries or concerns or clarifications that you wish to raise with the writer, please do not hesitate to contact the Writer on: **0772969846**. The researcher look forward to your kind assistance by completing this Questionnaire before the stated due date.

Yours Faithfully

Magutakuona Moses

Student Number: B1336921.

## Appendix 1. 2: Research questionnaire

# RESEARCH QUESTIONNAIRE

## SECTION A: DEMOGRAPHICS

The Purpose of this section is to establish the General Information of the respondent.

### Instruction:

To complete section A1 to A4 please place a tick against the appropriate BOX which closely matches your status.

**A1.** Indicate your gender.

Male	1
Female	2

**A2.** Indicate your age group.

< 30 years	1
30-40 years	2
41-50 years	3
> 50 years	4

**A3.** Indicate your department of work at Bindura Nickel Mining Company.

Human Resources	1
Finance	2
Production	3
Procurement	4
Administration	5
Other	6

**A4.** Indicate the length of period you have worked at Bindura Nickel Mining Company.

< 1 years	1
1-3 years	2
> 3 years	3

## **SECTION B: DATA GATHERING**

### **Instructions to Respondents:**

- a) To complete this Section give your responses to the various Statements shown below in respect of each Research Objective (starting with Objective 1 to Objective 5).
- b) You are kindly requested to read each Statement and compare it against the Likert's 5-Point Scale shown as 1= Strongly Disagree, (2) = Disagree, (3) = Neutral, (4) = Agree, (5) = Strongly Agree) in the Tables below and place a Tick (√) or Cross (X) in the appropriate Box which best describes your attitude, feelings, opinion, and beliefs about each Statement.

### **Section B: 4<sup>th</sup> industrial revolution and recruitment practices at Bindura Nickel Mine**

	<b>Statement</b>	<b>Responses</b>				
<b>B1</b>	Bindura Nickel Mining Company posts job vacancies on internet websites.	1	2	3	4	5
<b>B2</b>	Bindura Nickel Mining Company uses social networking sites such as LinkedIn to shortlist potential job candidates.	1	2	3	4	5
<b>B3</b>	Bindura Nickel Mining Company uses online tools to extract informal, often personal information about prospective or current employees	1	2	3	4	5
<b>B4</b>	Bindura Nickel Mining Company measures site visits on social media by job seekers.	1	2	3	4	5
<b>B5</b>	Bindura Nickel Mining Company tracks and follows applicants across media, such as on social media.	1	2	3	4	5
<b>B6</b>	Bindura Nickel Mining Company has on internet video-testimonials of current employees describing what it means to work for the company.	1	2	3	4	5

### **Section C: 4<sup>th</sup> industrial revolution and selection practices at Bindura Nickel Mine**

	<b>Statement</b>	<b>Responses</b>				
<b>C1</b>	Bindura Nickel Mining Company conducts psychometric tests for potential candidates using online platforms.	1	2	3	4	5
<b>C2</b>	Bindura Nickel Mining Company conducts interviews for potential employees online e.g. using Zoom Meetings.	1	2	3	4	5
<b>C3</b>	Bindura Nickel Mining Company uses socialization techniques such as on-the-job training to upcoming employees.	1	2	3	4	5
<b>C4</b>	Bindura Nickel Mining Company uses big data in recruitment of potential employees.	1	2	3	4	5

<b>C5</b>	Bindura Nickel Mining Company uses artificial intelligence in selection of potential employees.	1	2	3	4	5
<b>C6</b>	Bindura Nickel Mining Company has a website that has CEO approval ratings, interview reviews and questions etc.	1	2	3	4	5

**Section D: The effect of recruitment and selection practices on employee retention at Bindura Nickel Mine**

	<b>Statement</b>	<b>Responses</b>				
<b>D1</b>	Employees at Bindura Nickel Mining Company are satisfied with their jobs.	1	2	3	4	5
<b>D2</b>	There are low absenteeism rates at Bindura Nickel Mining Company.	1	2	3	4	5
<b>D3</b>	Majority of employees at Bindura Nickel Mining Company have served the company for many years.	1	2	3	4	5
<b>D4</b>	Bindura Nickel Mining Company has attracted workers from other mining companies in Zimbabwe.	1	2	3	4	5
<b>D5</b>	Bindura Nickel Mining Company has attracted workers from abroad.	1	2	3	4	5

**Thank you for your participation**