

# **The measurement and disclosure of human capital in the financial statements by the Zimbabwean listed mining companies**

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## **DECLARATION**

The thesis entitled “The measurement and disclosure of human capital in financial statements by selected Zimbabwean mining companies” presents my original research work. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due reference to the literature and acknowledgement of collaborative research and discussions.

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## **ABSTRACT**

This study develops a framework for the measurement and disclosure of human capital in the financial statements of mining companies in Zimbabwe. Human capital is a crucial driver of company competitiveness, financial performance, value creation and sustainability in the 21<sup>st</sup> century. However, the measurement of human capital as an intangible asset is challenging in the Zimbabwean mining sector because companies fail to align human capital with current measures of asset value. The human capital disclosure practice is based on contextual settings and is influenced by unknown factors. Contextual settings lead to various ways of disclosing human capital in financial statements. This proliferates incomparable disclosure practices that give users of financial statements conflicting information. This study adopted a mixed-method research approach that followed a pragmatic philosophy and a sequential exploratory research design in examining the measurement and disclosure of human capital by Zimbabwean mining companies. Data was collected in two phases. Qualitative data was collected first, while quantitative data was collected last. The target population of the study comprised managers, professionals and technicians in the mining sector. A thematic analysis was used to investigate and interpret qualitative data. Seven main themes emerged from the findings. Factor analysis was used to analyse and interpret quantitative data.

The findings revealed that there is no accepted framework for reporting aspects of human capital. Companies measure human capital based on a contextual setting. The findings further revealed that the relationship between the value of human capital and the value of a company is unknown. The research findings also showed that aspects of human capital are not fully accounted for under the current financial reporting system. The findings reflected that companies measure the value of human capital using the wages and salary aspect. The study recommends the development of a context-based framework that would act as a guideline for measuring and disclosing human capital in the financial statements of Zimbabwean mining companies. The measurement and disclosure of human capital might enhance the value and relevance of financial statements. The study also recommends that mining companies should define all major classes of human capital in their financial statements. These include equity issues, health, wellness and safety, training and development, and employee competencies. The classification of aspects of human capital will allow companies to measure the contribution of each aspect towards financial performance and value creation. The study further recommends the development of a stakeholder involvement strategy and the implementation of effective

corporate governance systems, considering aspects such as legal systems, financial development and good governance.

**Key terms:** Human capital, measurement and disclosure, value creation, financial performance, sustainability

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## LIST OF ABBREVIATIONS

Abbreviation	Meaning
AFDB	African Development Bank
CARs	Corporate Annual Reports
CIPD	Chartered Institute of Personnel Development
COMZ	Chamber of Mines of Zimbabwe
FDI	Foreign Direct Investment
GRI	Global Reporting Initiative
HR	Human Resources
IAS	International Accounting Standards
IASB	International Accounting Standard Board
IASC	International Accounting Standards Committee
ICAZ	Institute of Chartered Accountants of Zimbabwe
IFAC	International Federation of Accountants

IFRS	International Financial Reporting Standards
IIRC	International Integrated Reporting Council
IR	Integrated Reporting
NCCGZ	National Code of Corporate Governance in Zimbabwe
OECD	Organisation for Economic Co-operation and Development
PAAB	Public Accountants' and Auditors' Board
PGMs	Platinum Group of Metals
PPE	Property, Plant and Equipment
RBV	Resource-Based View
SADC	Southern African Development Community
SAICA	South African Institute of Chartered Accountants
WEF	World Economic Forum
ZSE	Zimbabwe Stock Exchange

# **CHAPTER ONE**

## **INTRODUCTION TO THE STUDY**

### **1.1 Background**

This study seeks to develop a framework for measuring and disclosing human capital in the financial statements of selected mining companies in Zimbabwe. Zimbabwean mining companies do not recognise, measure and disclose human capital as intangible assets in their financial statements. Instead, human capital appears as expenditure in income statements. The treatment of human capital as an expense in financial statements aligns with International Financial Reporting Standards (IFRS) (Cronje & Moolman, 2013). When financial statements are prepared, human capital is measured and disclosed using the salary aspect in line with IFRS. Notwithstanding, the annual reports of companies often state that human capital is a key source of competitiveness and growth. Such averments contradict the treatment of human capital in financial statements.

In 2019, RioZim Limited indicated in its annual report that to achieve its strategic goals, it invests in people through training programmes. The annual reports of Hwange Colliery Company Ltd and Falcon Gold (2018-2019) show that human capital is a key driver of their growth, as it enables them to achieve their objectives. In the same period, Bindura Nickel Corporation reported information about its Board of Directors, citing its enormous contribution to the company's growth and competitiveness. The Anglo-American Mining Company also confirmed that its ability to generate value depends on access to skilled people. Similarly, Zimplats stated that it had developed initiatives to enhance the productivity of its employees. For this reason, there was emphasis on the recognition, measurement and disclosure of human capital as an asset that brought value and success to the company which then resulted in economic growth. In spite of this emphasis on the measurement and disclosure of human capital as an asset, the key aspects of human capital were hardly identified in the financial statements.

Adelowotan (2013) argues that the preparers of the financial statements consider human capital as an important component for many companies, but the corporate annual reports of these companies have limited qualitative and quantitative information pertaining to human capital. Mohammad and Sadegheh (2016) consider human capital as a key element in improving the assets of companies. This suggests that human capital is a sustainable competitive advantage in that it increases the efficiency of employees. Investment in human capital increases the value

of companies and maximises the shareholders' wealth. It also contributes to competitiveness, value creation and sustainability (Moloi & Adelowotan, 2018). Therefore, mining companies in Zimbabwe should recognise, measure and disclose human capital as an asset (not an expense) in their financial statements. This study seeks to develop a framework for the recognition, measurement and disclosure of human capital by mining companies in Zimbabwe.

## **1.2 Defining human capital**

Ogundari and Awokuse (2018) define human capital as “an investment in education, training, skills, health and other values that cannot be separated from the individual.” This signifies that human capital is embodied in an individual. It cannot be substituted or erased. Some studies say that human capital refers to the capacity of employees, entrepreneurial spirit, creativity, competence and expertise (Romer, 2015). Human capital features are unique, inimitable and vary between individuals. Flabbi and Gatti (2018) confirm that human capital attributes are embodied in individual employees. They point out that human capital includes training and development, equity, remuneration, welfare, health and safety. This entails that the productivity of employees improves through investments in training programmes, education and health.

Schultz (1979) says that human capital is created through investment in the education and training of employees. This means that the value of human capital can be deduced by analysing the amounts invested by a company in the training and education of employees. Zahid Ali et al. (2015) contend that human capital refers to “processes that relate to training, education and other professional initiatives in order to increase the levels of knowledge, skills, abilities, values and social assets of an employee which will lead to the employee's job satisfaction and performance.” They view human capital as innate, acquired skills and expertise.

Becker (1993) explores different perspectives on how employers view human capital. He says that human capital is broad and covers more than wages and salaries. It includes ways in which organisations develop employee skills to enhance their performance. Ideally, investment in employees motivates and satisfies them, reducing labour turnover and increasing company productivity. Faggian et al. (2017) emphasise investment in human capital through training programmes because the success of companies depends on their employees.

The OECD (2019) defines human capital as “the knowledge, skills, competencies, abilities and other attributes embodied in individuals that facilitate the creation of personal, social and economic well-being”. This implies that human capital refers to in-built abilities, skills and,



personal strength showcased by employees. Armstrong and Taylor (2015) sum human capital as the skills, knowledge and competencies which individuals create, maintain and use.

These definitions show that the commitment of employees and their satisfaction is often omitted in the definition of human capital. Studies show that employees who are happy and want to stay for the long-term are likely to have positive work attitudes and help create value for their companies using their knowledge (Massingham & Tam, 2015). This leads one to the conclusion that happy and satisfied employees execute their duties and responsibilities with care and due diligence. Skills, expertise, innovation knowledge do not form human capital without employee commitment and satisfaction. Massingham and Tam (2015) describe human capital as the values, skills, experiences and academic qualifications possessed by individuals. The authors further state that human capital is an investment in human resources to enhance productivity. This implies that costs incurred through human capital can be used in future. Mohammad and Sadegheh (2016) point out that “the learning organisation chooses the investment in individuals because people are valuable human capital with different qualities”.

There is an inherent problem with attempts to define human capital due to the lack of consensus on its definition (Adelowotan, 2013). The definitions outlined above are context-dependent and based on schools of thought. To develop a framework for the measurement of human capital, one needs to understand the context for the recognition of human capital.

### **1.3 Overview of the measurement and disclosure of human capital**

In the 20<sup>th</sup> Century, tangible physical assets like plant, property and equipment (PPE) were recognised as the most important assets (Mayo, 2016). Companies depended on tangible assets for their production, success and value creation. Economic and technological advancements in the 21<sup>st</sup> Century led to a paradigm shift (United Nations Conference on Trade and Development (UNCTD), 2015). Knowledge replaced physical assets as the most valuable resource due to the knowledge-intensiveness of the economy. Literature reveals that ‘brainpower’ is the leader in the development of brands, royalties, patents, research and development. It is a driver of competitiveness, performance, value creation and sustainability (Yong et al., 2019). Ocean Tomo an investment advisory firm in 2019 revealed that before 2010, more than 80% of value in more than 500 firms in the NYSE consisted of non-current assets such as PPE. Currently, the largest percentage of the market value of firms is contributed by intangibles.

Despite awareness of the significance of human capital and other intangible assets in value creation and maximisation of shareholders' wealth, companies put little effort to recognise these elements in their corporate annual reports (Adelowotan, 2013; Moloi & Adelowotan, 2018). Cronje and Moolman (2013) point out that companies are using traditional financial reporting systems for the preparation and presentation of their financial statements. This implies that most of the line items in financial statements are guided by accounting reporting frameworks, such as IFRS, and that items that are excluded from the accounting standards are considered immaterial. The lack of a generally accepted framework to measure and disclose human capital creates a gap in understanding the true value of companies (Abeysekera, 2008; 2013). This assumption derives from the fact that human capital is an enabler for achieving strategic objectives. Its absence from financial statements negatively affects their value relevance. Mayo (2016) posits that it is time for stakeholders to deliberate on how to bring some of the human capital-related costs in the statement of financial position (balance sheet) as opposed to recognising them as expenditure in the profit and loss account.

Although human capital is worthy of recognition as an intangible asset, companies often cite the difficulties of measuring and managing it (Chartered Institute of Personnel Development (CIPD), 2015). Moloi and Adelowotan (2019) point out that intangibles are problematic to measure and disclose in financial statements as compared to tangible assets such as PPE. These issues have been used for many decades as an excuse for not fully recognising human capital intangibles in the balance sheet. Armstrong (2007) says that companies cannot manage human capital without measuring it. However, he points out the problem of controlling human capital. Hence, there is a reluctance to establish an accounting framework that fully recognises the value of human capital. Some managers manipulate financial statements to conceal unethical activities (CIPD, 2015). This is one of the reasons for the non-disclosure of human capital as an intangible asset in financial statements. Bontis et al. (1999) argue that "a reporting system that fails to provide information on the core aspect of more than 80% of the stock price value of a company's ability to create value is missing the mark". Although companies find it difficult to measure the value of human capital, human capital aspects have a value-adding capacity. Stakeholders such as investment analysts find human capital useful in the decision-making process (Moloi and Adelowotan, 2018). As such, a universal framework that effectively measures human capital is required.

Evidence from the 1960s shows different methods created by multiple studies to establish the increasing value of intangible assets (Lev & Schwartz, 1971; Brummet et al., 1968; Flamholtz, 1974, 1999; Bontis, 2004; Sullivan, 2000). The studies aimed to close a gap between the market value and the book value of companies. Studies revealed that the difference between these two values represented human capital, which they classified as hidden capital. The American Accounting Association (AAA) (1973) evaluated three approaches for measuring human capital. They conducted studies through Michigan University. The three approaches were the historical cost, replacement cost, and opportunity cost. The recognition of human capital as an intangible asset lost its momentum. The efforts of the above scholars became futile. Companies were not forthcoming to pilot studies on the measurement initiative (Flamholtz, 1974). Some companies, such as Infosys and Tata, became pioneers in recognising human capital as an asset. They adopted the Lev and Schwartz model (1971), which calculates the present value of employees by discounting their future earnings. They considered the age of the employees, retirement period, experience and position in the companies. The model allows companies to measure returns on employee investment and the value-added by each employee. The employee report is used for decision-making purposes and to evaluate the contribution of employees to financial performance and value creation. Notably, human capital can be enhanced through functional engagement practices and training.

Beattie and Smith (2010) submit that very few leading corporations measure and disclose human capital information. They do so voluntarily. For example, in Germany, Denmark, Austria, Japan and Australia, human capital is recognised differently. The German Accounting Standard (GAS) 12 recommends the disclosure of human capital information in company management reports. The reporting is not mandatory but is context-based. In Denmark, companies report on human capital information if it is essential to their economic operations. In Austria, all tertiary institutions were obliged to measure and disclose their human capital from 1 January 2006. Dumay et al. (2016) point out that although some companies in Australia and Japan adopted human capital, they poorly understood it and inadequately identified it. It was mismanaged and not recognised and reported with standardised guidelines.

Abhayawansa and Abeysekera (2008) assert that Sub-Saharan African countries such as Ghana, Kenya and South Africa embrace human capital disclosure in their corporate annual reports due to the adoption of integrated reporting and GRI guidelines. These two accounting reporting frameworks encourage companies to disclose all pertinent information, including

human capital. Moloi and Adelowotan (2018) contend that companies consider human capital attributes as beneficial for decision-making purposes. They argue that these attributes are hardly identified in the annual reports of many listed South African companies. This calls for companies to fully disclose human capital in the future to allow different stakeholders to use the information for decision-making.

Financial statements are key tools for communicating the financial performance, competitiveness and sustainability of companies in a manner that is accessible to all stakeholders. Human capital information is found under mandatory and non-mandatory sections in financial statements (Abhayawansa and Abeysekera, 2008, Adelowotan, 2013). It can be found under the chairman's report, directors' report, auditor's report, corporate governance report, corporate social report, financial statements and in notes to the financial statements. There is a need to extend the accounting curriculum and regulate a section for the disclosure of human capital in financial statements.

#### **1.4 The mining industry in Zimbabwe**

Mining in Zimbabwe dates to the 15<sup>th</sup> century, when small-scale gold and iron mining started (Viewing, 1984). In the 20<sup>th</sup> Century, the British South Africa Company (BSAC) re-structured more than 4 000 mining companies. The re-structured mines used the technology of the time. New mines were also started. In the colonial era (1890-1980), Zimbabwe (then Rhodesia) was well-known for its vast deposits of iron, chrome, gold, copper, asbestos, coal and many more. Despite these riches, resources were not evenly distributed among communities (Viewing, 1984).

Zimbabwe gained independence in 1980. Between 1980 and 1985, the mining industry was regulated by the Mines and Mineral Act (Chapter 21:05) of 1965. The market price for mineral commodities dropped due to government involvement. Mining companies also faced hardships such as increases in the costs of production and shortages of foreign currency. Between 1990 and 2000, the country depended on revenue from black granite, nickel and coal. Nickel production was very high during that era.

The mining sector benefitted from deregulation, fiscal and monetary reforms, investment controls and trade liberalisation during the Economic Structural Adjustment Programme (ESAP) that was developed and implemented from 1991 to 1996 (Kanyeze et al., 2017). The removal of import permits requirements allowed mining companies to access mining inputs at

lower prices. In the 1990s, the Mining Development Corporation Act (Chapter 21:08) established the Zimbabwe Mining Development Corporation (ZMDC) as a “government investment vehicle” in the sector. The Act came at a time when the country was facing challenges of illegal gold panning. The ZMDC took responsibility to curb the crisis. The primary responsibility of the ZMDC was to take the mining sector to greater heights.

In 1983, Zimbabwe enacted the Mineral Marketing Corporation of Zimbabwe Act (Chapter 21:04), which gave the Mineral Marketing Corporation of Zimbabwe (MMCZ) responsibility for the movement of products from mining locations to points of sale. The MMCZ provided world-class mineral marketing services. Between 1996 and 2008, the mining sector struggled, leading the government to develop new programmes to resuscitate the industry. The initiatives were fruitless (Kanyeze et al., 2017). The programmes consisted of the Zimbabwe Programme for Economic and Social Transformation (ZIMPREST) of 1998, the Zimbabwe Millennium Economic Recovery Programme (MERP) of 2000, the National Economic Recovery Programme (NERP) of 2003, and the National Economic Development Priority Programme (NEDPP) of 2007.

Zimbabwe’s significant mineral deposits are gold, the platinum group of metals (PGMs), coal and diamonds (COMZ, 2019). The emergence of lithium in the global mining space brought a new dimension to the Zimbabwean mining landscape, which has considerable lithium resources. Lithium could be harnessed to enhance socio-economic development (Ernest & Young, 2020). Most mining employees are in the gold, diamond and PGMs subsectors (Mobbs, 2012). The Zimbabwe Chamber of Mines (2018) says that the mining sector employs over 45,000 people in large scale sectors and more than 500,000 in small scale and artisanal sectors. This makes the mining sector the biggest employer compared to other sectors. The primary extraction of minerals takes place in the Midlands and Mashonaland Central provinces. Most mining companies situated in these provinces take advantage of abundant natural resources in the Great Dyke belt, which has the second-largest platinum deposits in the world. It has around 2.8 billion tonnes of ore in the PGMs (Casey, 2020).

The Zimbabwean mining sector anchors the country’s economy (Ministry of Finance and Economic Development, 2020). Also, the sector contributes 65%-70% of Zimbabwe’s export earnings. The mining sector contributes between 12% and 15% to the Gross Domestic Product (GDP), making it the largest contributor. The sector attracts more than 50% of Foreign Direct Investment (FDI) into the country. There are more than 800 mines in Zimbabwe (Chamber of

Mines of Zimbabwe, 2018). However, the Fraser Institute (2014) describes Zimbabwe as one of the worst jurisdictions for mining investment because the Mines and Minerals Act (Chapter 21:05) No. 1 of 1965, which regulates the mining sector, is “old and archaic” (Muza, 2018). The mining sector needs effective corporate governance systems to ensure growth and support for large mining investments.

The mining sector performs relatively well due to the labour intensiveness of the industry (also referred to as the knowledge-intensiveness of the industry). Its value depends on skilled people. April et al. (2003) state that the mining industry is a human capital intensive industry. The human capital reporting of mining companies should be high because human capital immensely contributes to their financial performance and value creation. Nyamubarwa et al. (2013) emphasise that the way in which mining companies formulate and assign responsibilities influences the performance and loyalty of employees. The performance and sustainability of companies depend on their access to skilled labour and technological advancements (Anglo-American, 2019). The growth of mining companies and the achievement of their strategic objectives depend on the adoption of a philosophy that regards human capital as an asset of value and not a cost that must be minimised. Pfeffer (2010) postulates that companies become competitive when they adopt different methods of labour relations. Companies should align the individual needs of employees with their strategic objectives. Such initiatives show that human capital is a valuable intangible asset and a key source of competitive advantage. It is not a disposable liability.

### **1.5 Measurement and disclosure of human capital in Zimbabwe**

Listed Zimbabwean mining companies are guided by accounting reporting frameworks such as IFRS. When preparing annual reports, they disclose only the salary aspect when it comes to human capital. They present wages and salaries in income statements using IAS 19 (Employee Benefits). However, aspects of human capital, such as skills, expertise, innovation and creativity, among others, are not measured and disclosed in financial statements. The corporate annual reports (2017-2019) of companies such as Hwange Colliery Companies Ltd, RioZim Ltd and Falcon Gold Ltd do not list human capital as an intangible asset. Companies in India, Denmark, Spain, Norway, Sweden and Canada measure and disclose human capital as an asset using different models. The use of different frameworks to measure and disclose human capital is due to the failure of the International Accounting Board (IASB) to accept frameworks proposed in this regard.

Human capital attributes, such as the total number of employees, employee breakdown by gender, employee breakdown by age, qualifications, departments, seniority and performance, are hardly recognised, measured or identified in the financial statements of Zimbabwean mining companies, as seen in the corporate annual reports from 2017 to 2019. Attributes such as return on employee investments, return on training investments, the ability of employees, dependence on key employees, costs of absence, costs of resignations, productivity ratios are not measured. This study suggests that if the Zimbabwean mining companies were to measure and disclose these human capital attributes fully, financial statements would be more useful in decision-making.

Mkumbuzi (2015) affirms that among listed Zimbabwean companies, human capital is the least reported in the financial statements. The author studied the extent to which human, relational and structural capitals are voluntarily reported in the annual reports of listed companies in Zimbabwe. Human capital information found in the annual reports is narrative because the reporting is voluntary and contextual.

In this study, the candidate argues that the measurement and disclosure of human capital as an asset should be contextual because environmental conditions differ from one country to another and from one company to company. Human capital reporting is a social science (Lev & Schwartz, 1971; Cronje & Moolman, 2013). It is based on societal relationships. Therefore, the measurement and disclosure of human capital depend on the place and factual occurrences. A universal method for measuring and disclosing human capital is not ideal. It is key to understand how different frameworks of measuring and disclosing human capital are influenced by social settings. Weber (2011) says that “a phenomenon is context-dependent where the functionality and effectiveness of its properties are determined by the context in which it is applied”. This signifies that the functionality of elements and outcomes of the phenomenon is determined by the surroundings.

## **1.6 The research problem**

The annual reports of listed Zimbabwean mining companies reveal that most of the companies are aware of the importance of human capital. They emphasise the promotion of human capital (Nyamubarwa et al., 2013). Despite the consideration of human capital as a crucial driver for value creation, its practical measurement as an intangible asset remains challenging in the

Zimbabwean mining context (Mkumbuzi, 2015) because mining companies fail to align the concept of human capital with current measures of asset value.

Human capital contributes to financial performance, value creation, competitiveness and sustainability of companies. The OECD (2019) says that human capital is a key driver of structural systems and processes. It is crucial in the current transition from the old to the new economy. Adelowotan (2013) elaborates that in the old economy, capital was largely influenced by tangible assets, while the new economy is based on intangible assets. Evidence suggests that technology, service and other non-tangible asset-based companies in Zimbabwe are increasing and that human capital constitutes a substantial part of these new companies (Nyamubarwa et al., 2013). It is necessary for Zimbabwean mining companies to ascertain the relationship between human capital and company value. Mkumbuzi (2015) says that in Zimbabwe, the relationship between human capital and company value is currently not known with certainty. There is a need to understand how human capital creates value and how companies should disclose such information to their shareholders and potential investors for purposes of decision making.

The annual reports of Zimplats (2019), Rio Zim Ltd (2019) and Anglo-American (2019) point out that human capital is a measure of competitiveness and an indicator of financial performance. Human capital has a positive influence on the financial performance of these companies. Whereas human capital positively influences company performance, it is mostly theoretical (Nyamubarwa et al., 2013). Some studies show that human capital and financial performance do not depend on each other (Momani &Nour, 2019, Puntillo, 2009) but also reveal that the financial performance of a company can be assessed through the calculation of asset turnover, return on assets and the market to book ratio. This necessitates establishing whether there is a positive correlation between human capital and the financial performance of a company. Such an assessment will establish the extent to which human capital contributes towards company success and growth.

IIRC (2015) and IFRS regulatory bodies such as IASB are silent on the measurement and disclosure of human capital as an intangible asset, leading to a lack of consensus on how to measure human capital in financial statements. In Zimbabwe, regulatory bodies such as ICAZ and PAAB (Z) do not prescribe a generally accepted and contextual human capital measurement framework. There is limited qualitative and quantitative human capital measurement and disclosure, as revealed in the Zimbabwean mining companies' annual reports



(Falcon Gold's annual report, 2018; Rio Zim Ltd's annual report, 2019). In addition, there are difficulties in comparing how companies maximise the productivity, creativity and generally value of their human capital due to varied disclosure practices. The haphazard disclosure practices are influenced by the lack of agreement with regards to necessary factors that influence human capital measurement and disclosure. Mkumbuzi (2015) states that factors that influence human capital disclosure among Zimbabwean companies are not known with certainty. Developed countries like Sweden, Australia and Canada, among others, identified the factors that influence human capital disclosure. These include company size, board effectiveness, debt size, profitability, the dividend paid, company growth and type of industry (Abeysekera, 2008, Petty and Guthrie, 2000).

In 'I Speak Freedom', Kwame Nkrumah (1961) pointed out that national problems need contextualised national solutions. In the context of this study, this implies that factors that influence human capital disclosure practices which have been identified in other contexts such as developed countries cannot be generalised and imported directly into Zimbabwe. Webber (2011) and Myeva (2019) agree that local problems can only be solved with local solutions. The factors that influence the measurement and disclosure of human capital may be different and context-dependent. Hence, an understanding of the factors is important to establish their effects on the disclosure practices adopted by Zimbabwean mining companies.

Mkumbuzi (2015) asserts that human capital measurement and disclosure at the company level reduce information asymmetry and boost investors' confidence through increased transparency and accountability. This makes human capital a valuable resource for many companies (Nyamubarwa et al., 2013; OECD, 2019). However, there is a lack of an accounting standard that gives preparers of financial statements the opportunity to recognise human capital as an intangible asset or reflect on the huge sums of money invested in people. Instead, human capital measurement and disclosure are currently voluntary and based on contextual settings. The Zimbabwean context is different from others (Owunsu-Ansah, 1998). The issue of contextual settings and voluntary disclosure practices leads to varied ways of accounting for human capital (Flamholtz, 1999). This results in a proliferation of measurement and disclosure practices that are incomparable. It leads to the provision of conflicting information to users. Although there are various methods of measuring human capital across the globe, there is evidence that Zimbabwean mining companies have not adopted a single approach for human capital measurement and disclosure. The 2019 annual reports of Zimbabwean mining companies are

evidence. They do not provide any information on how human capital is currently accounted as an intangible asset (Hwange Colliery Company; 2018, Falcon Gold; 2018, Rio Zim Ltd; 2019, Zimplats; 2019). Thus, it is necessary to establish if the mining companies have any methods for measuring human capital in the financial statements. This study fills the gap by seeking to develop a framework that enhances the value-relevance of human capital in financial statements.

Human capital is rare, unique, inimitable and non-substitutable. Its contribution to value creation and the financial performance of a company is context-dependent. Weber (2011) says that a phenomenon is context-dependent when the functionality and effectiveness of its properties are influenced by the context. This entails that the functionality of elements and outcomes of the phenomenon is determined by the factors in the surroundings. Considering human capital as a context-dependent social phenomenon means that the functionality and outcomes of human capital are influenced by the dynamics of the systems in which it exists, i.e. human capital and its outcomes are determined by the interaction of their internal components with subsystems in the system and external settings. As such, human capital value measurement and disclosure could enhance the value-relevance of financial statements. However, the ability to increase value is context-dependent.

The limited recognition of human capital flows from the lack of an established and generally accepted framework for reporting. There is no proper regulatory reporting system on human capital. Current reporting standards do not prescribe reporting of human capital, leading companies to do it voluntarily. Reporting standards are silent on the specifics of human capital that must be measured and disclosed. This study seeks to address this issue by developing a framework that could be used to measure and disclose human capital in the financial statements of mining companies in Zimbabwe.

## **1.7 Research objectives**

### **1.7.1 Primary objective**

The primary objective of this thesis is to develop a framework for the measurement and disclosure of human capital in the financial statements of selected mining companies in Zimbabwe.

### **1.7.2 Secondary objectives**

The study seeks to achieve the following secondary objectives:

- To establish factors that influence the measurement and disclosure of human capital in Zimbabwean mining companies.
- To determine the link between human capital and the financial performance of mining companies in Zimbabwe.
- To ascertain the relationship between human capital and the value of mining companies in Zimbabwe.
- To establish methods that are used by Zimbabwean mining companies to measure and disclose the value of human capital.

## **1.8 Research questions**

### **1.8.1 Primary research questions**

What framework can be used to measure and disclose human capital in the financial statements of listed Zimbabwean companies?

### **1.8.2 Secondary research questions**

- Which factors influence the measurement and disclosure of human capital value in financial statements?
- What is the link between the value of human capital and the financial performance of mining companies in Zimbabwe?
- What is the relationship between human capital and the value of mining companies in Zimbabwe?
- Which methods are used by Zimbabwean mining companies to measure human capital?

## **1.9 Justification of the study**

This study fills a gap in the literature by assessing the relevance of the measurement and disclosure of human capital in the financial statements of Zimbabwean mining companies. There is a paucity of comparative research on the measurement and disclosure of human capital in Zimbabwe. Studies by Moloi and Adelowotan (2019), Goldin (2016), Fang and Chen (2017) and Ossadzifo (2018) focused on the significance of human capital to the value of companies. The studies also focussed on how human capital reporting completes the financial information presented in corporate annual reports. Substantial studies conducted in developed and emerging markets were focused on Asian and European economies. Their focus on Sub-Saharan Africa was extremely limited. As a result, it is impracticable to generalise their findings to the Zimbabwean setting, which has varied political setups and different legal and regulatory

frameworks. This thesis analyses approaches used by Zimbabwean mining companies in measuring and disclosing human capital. The aim is to provide a valuable contribution to the debate on the value relevance of disclosing human capital information to the value and success of mining companies. It looks at the fairness, transparency and usefulness of accounting information presented in the financial statements of the selected Zimbabwean mining companies to ascertain the value of such information to users.

## **1.10 Scope and limitations of the study**

### **1.10.1 Scope of the study**

This study focuses on the measurement and disclosure of human capital in the financial statements of listed mining companies in Zimbabwe. The study population comprises major stakeholder groups of listed mining companies.

### **1.10.2 Limitations of the study**

The study is limited to the measurement and disclosure of human capital in the financial statements of Zimbabwean mining companies. This is a limitation in the sense that Zimbabwe has different economic sectors that rely on human capital. These sectors also face similar problems in the measurement and disclosure of human capital and on how to provide relevant accounting information to stakeholders. This challenge is mitigated with recommendations for future studies to include all sectors in Zimbabwe.

Confidentiality of information also poses a limitation. The candidate addressed the problem of privacy of specific data by engaging responsible management of selected mining companies in Zimbabwe. Permission was sought to conduct the study in their respective companies. Explanations were given to management about the benefits of the study to their companies. This created good rapport and trustworthiness between the candidate and the companies, resulting in the release of information that some of the companies were patronising.

## **1.11 Outline of chapters**

### **Chapter 1: Introduction to the study**

The first chapter introduces the study, defines terms and conceptualises human capital. It provides a synopsis of the mining industry in Zimbabwe and how mining companies measure and disclose human capital. The chapter also poses the research problem and outlines the

problem statement, research objectives and the questions which the study seeks to answer. A justification of the study, scope and limitations are also provided in this chapter.

## **Chapter 2: Theoretical foundations of human capital**

The second chapter reviews the literature on the measurement and disclosure of human capital. The literature is found in periodicals like journals and in books. The chapter reviews theoretical frameworks developed by scholars on measuring and disclosing accounting information on human capital in financial statements. It further analyses theories on human capital to understand the concepts that underpin the measurement and disclosure of human capital. The chapter also lays out the foundation for synthesising the practices on human capital disclosure in Chapter 3.

## **Chapter 3: Human capital disclosure practices**

The third chapter presents human capital disclosure practices and gives a background about the measurement and disclosure of human capital in the Zimbabwean economic sector. The regulatory framework for corporate disclosure in Zimbabwe is articulated in this chapter, which also includes local and international guidelines such as company law, accounting reporting frameworks, the Corporate Governance Code, the Labour Act, the Manpower Planning and Development Act, and the Integrated Reporting and Securities Exchange Law. The third chapter also discusses previous studies on human capital reporting.

## **Chapter 4: Conceptual framework for human capital disclosure**

This chapter presents the proposed conceptual framework for the measurement and disclosure of human capital in the financial statements of listed Zimbabwean mining companies. The conceptual relationship explained in this chapter provides conceptual answers to the research questions raised in section 1.8. The role of accountants and financial information systems are discussed and analysed within the stakeholders' perspectives on the measurement and disclosure of human capital. The focus is on the usefulness of human capital information in decision-making. The chapter also outlines human capital measurements utilised by multiple companies across the globe with a view to highlighting their strengths and weaknesses.

## **Chapter 5: Research design and methodology**

The fifth chapter outlines philosophical assumptions such as the epistemology and ontology for the interpretation of the research problem under study. The research methods used to find answers to the research questions are discussed in this chapter. The population, sampling techniques and data collection techniques are comprehensively outlined in this chapter.

### **Chapter 6: Qualitative results analysis and interpretation**

The sixth chapter presents empirical findings on human capital measurement and disclosure in the financial statements of listed Zimbabwean mining companies. The findings establish the extent to which human capital is measured and disclosed in the financial statements. It also reveals the relationship between human capital and the financial performance of mining companies.

### **Chapter 7: Quantitative data analysis and interpretation**

The seventh chapter builds on the results obtained in the previous chapter by presenting findings on the relevance of human capital in the financial statements of listed Zimbabwean mining companies. Empirical findings in this chapter provide answers to the research questions.

### **Chapter 8: A framework for the measurement and disclosure of human capital in financial statements**

The eighth chapter presents the contribution of this study to knowledge by addressing the gap in the literature. It does so by developing a framework for human capital measurement and disclosure. The proposed framework derives from the empirical findings of this study. The framework identifies specific aspects of human capital that must be measured and disclosed in financial statements. It explains the basis of measurement and disclosure of each aspect of human capital.

### **Chapter 9: Conclusions and recommendations**

The last chapter draws conclusions and proffers recommendations, based on the findings, on how Zimbabwean mining companies can measure and disclose human capital in their financial statements. It is envisaged that the recommendations will have both practical and theoretical implications for human capital measurement and disclosure.

## **CHAPTER TWO**

### **THEORETICAL FOUNDATIONS OF HUMAN CAPITAL INTANGIBLES**

#### **2.1 Introduction**

This chapter explores factors that influence the disclosure and measurement of the value of human capital in financial statements. It discusses the correlation between human capital and the financial performance of the companies. It also examines the relationship between the value of human capital and the value of companies. To clearly understand the human capital concept, this chapter analyses various human capital-related theories. The chapter is organised as follows. Section 2.2 is a background of the human capital component. Section 2.3 discusses the role of human capital disclosure practices, while section 2.4 outlines factors that influence the measurement and disclosure of human capital. Section 2.5 examines reasons for the non-disclosure of human capital. Section 2.6 reviews the correlation between the value of human capital and firm performance, whereas section 2.7 sets out the relationship between the value of human capital and the value of a company. Section 2.8 discusses theories that underpin the human capital foundation. Section 2.9 provides a summary and a conclusion of the chapter.

#### **2.2 The human capital component**

In the knowledge economy, human capital is one of the ‘precious’ assets that drive the value of companies (OECD, 2019). It drives performance, competitiveness, value creation and sustainability. The relevance of human capital is evidenced through training and development programmes designed to equip employees with skills and expertise to keep them abreast of the ever-changing economic environment (Nyamubarwa et al., 2013). Employee engagement processes and talent management practices attract and retain a skilled and talented workforce. This shows the value of employees to their companies (Moloi and Adelowotan, 2018). Hai-Ming and Ku-Jan (2003) submit that knowledge, skills, creativity and intelligence embedded in human capital are important inputs in a company. Knowledge-intensive companies invest more in human capital than in physical assets.

However, there is no generally accepted framework for the measurement and disclosure of human capital because preparers of financial statements indicate that measuring and disclosing human capital as an asset is a pipedream (Adelowotan, 2013). Moloi and Adelowotan (2019) argue that in practice, preparers of financial statements and managers are neophobic and

unwilling to break from routine. As a result, preparers only consider the rules and regulations prescribed by the IASB. They view elements that are outside the scope of IFRS as immaterial. Mkumbuzi (2016) submits that the elements of financial statements that are not discussed by the standard do not form part of financial statements except when reporting is based on contextual settings. The literature on companies that measure and disclose human capital as an intangible asset shows voluntary and context-dependent disclosure (Bontis, 2003). The non-disclosure of human capital affects the value-relevance of financial reports, leading to the understatement of the book values of companies (Guthrie et al., 2011). As such, company investors are supplied with undervalued and incomplete financial information.

The following section discusses factors that influence the measurement and disclosure of human capital. It also canvasses theories that underpin this study and the impact of the human capital component on the financial performance of listed companies. The section also discusses the relationship between the value of human capital and the value of companies. Lastly, it explores why most companies are not willing to disclose the human capital component.

## **2.3 Theories on the role of human capital disclosure**

There are five theories that underpin human capital disclosure practices. These include the agency theory, proprietary costs theory, signalling theory, political economy theory, and legitimacy theory.

### **2.3.1 The agency theory**

Panda and Leepsa (2017) argue that the agency theory primarily addresses the relationship between the principal (shareholders) and the agent (managers). It follows that shareholders, whose schedules are always busy, are unable to run the day-to-day business transactions of their companies. They entrust agents with their wealth. This makes managers stewards of the wealth of shareholders (Cotter, Lokman & Najah, 2011). The agency theory focuses on the relationship between these two parties. Jensen and Meckling (1976) submit that the theory outlines that managers are expected to act on behalf of shareholders, maximise shareholders' wealth and increase company value. The primary responsibility of management is to manage business cash flows, settle all debts to avoid liquidity problems, prepare financial statements, and make key strategic decisions.

Jensen and Meckling (1976) submit that as soon as managers attain the power to make strategic decisions on behalf of shareholders, conflict of interest is inevitable. The agency theory asserts



that managers are bound to abuse power vested in them for their selfish interests (Cotter et al., 2011). The separation of firm ownership and control creates information asymmetry problems. Jensen and Meckling (1976) argues that information asymmetry occurs when managers have more information about the business and have better knowledge of the company's value than its owners (capital providers). This causes adverse selection and moral problems because shareholders are sceptical about whether managers are acting in their best interests, i.e. to increase their future earnings. Jensen and Meckling (1976) further points out that shareholders counter the conflict of interest by granting managers incentives such as share ownership schemes. Shareholders have two devices, namely, monitoring and bonding (Jensen & Meckling, 1976), which they use to manage agency and information asymmetry problems. Nonetheless, the adoption and implementation of these devices are costly (Cotter et al., 2011). Monitoring devices are installed to ensure that managers fully disclose relevant, complete and material information to shareholders on a timely basis so that they can make informed investment decisions. Managers must provide full details on the appointment of the board of directors and the duties and responsibilities of board committees.

### **2.3.2 The signalling theory**

Connelly et al (2011) says that the signalling theory addresses information asymmetry problems by outlining ways to mitigate issues using the party that holds more information to signal it to other interested parties. A company can use various channels to disseminate information on its performance and value. These avenues include product warranties and corporate annual reports that disclose both mandatory and voluntary information for decision-making purposes (Cronje & Moolman, 2013). Managers who act according to the signalling theory expect growth in value and performance. The projections of the signalling theory suggest that companies of high value never miss opportunities to inform the target market about their competitive advantage (Cotter et al., 2011). Zijl, Wostmann, and Maroun (2017) reveal that managers who have information that is not very useful are given incentives to report on positive developments to mitigate suspicions of poor performance. However, companies that perform weakly give their managers incentives to conceal their poor results. This observation is consistent with Kothari, Shu and Wysocki (2009), who assert that management does not disclose information that can lead to a bad reputation for the company (negative goodwill). If the company is poorly performing, managers tend to hide the truth about its performance, keeping stakeholder in the dark.

The fear of litigation and reputational costs for failure to report financial information make companies strive to communicate their poor results (Skinner, 1994), such as the decline of earnings, liquidity problems and fraudulent activities. Consequently, the signalling theory purports that companies will disclose all relevant information to their key stakeholders, whether such information is good or bad. A signal is effective if it is unique and not easily copied by competitors. It must conform to the financial standards of the company (Skinner, 1994).

### **2.3.3 The proprietary cost theory**

Healy and Palepu (2001) say that proprietary costs provide an incentive for managers to avoid the voluntary disclosure of certain information if they deem such information to be harmful to the company. Cotter et al. (2011) affirm that this theory underpins the reporting of segmented data, which comprises information that is considered exclusive and “market sensitive”, as opposed to the statement of financial position and the profit and loss account. A study on the frequency of financial disclosure behaviour conducted by Depoers and Jean-jean (2009) found that a competitors’ concentration and acts clearly clarifies the reporting patterns in the corporate world. Managers assess the cost-effectiveness of information before presenting it to shareholders and stakeholders. This entails that a company’s susceptibility to disclose adverse information depends on proprietary costs and disclosure costs. If the exclusive price is high, the company discloses information. The study established two types of proprietary costs, namely, internal costs that include the costs of preparing and communicating information, and external costs, which are incurred when competitors use disclosed information to their advantage (Zijl et al., 2017). Companies voluntarily disclose optional information if the benefits of disclosure outweigh the costs. Disclosure takes place if the exposure can reduce the cost of capital and if the declaration has no adverse effect on the company’s share value. This reduces information asymmetry problems.

### **2.3.4 The legitimacy theory**

Deegan (2011) states that “legitimacy is a condition or status which exists when a company’s value system is congruent with the value system of the more extensive social network of which the company is a part of”. This implies that in the corporate world, a discrepancy between the two value systems puts an entity’s legitimacy into vulnerability. This theory suggests that a company should abide by societal values and standards to maintain its legitimacy (Deegan, 2011). However, if the company feels that its legitimacy is compromised, it should fight to keep afloat and save its reputation. Social and environmental disclosure can be used as an

instrument to meet the needs and demands of society. It validates that the company is upholding societal values, norms and standards (Zijl et al., 2017).

### **2.3.5 The political economy theory**

Gray, Owen and Adams (1996) say that “the political economy theory covers the social, political and economic framework within which human life takes place”. This entails that political, social and economic activities are heavily interdependent and intertwined, making one believe that to operate a business fully, one should consider politics and society. Cotter et al. (2011) point out that there is too much pressure on companies from several stakeholders, particularly because some politicians infiltrate companies. Companies disclose information relating to financial, social and environmental aspects to provide comprehensive information to their key stakeholders for decision-making purposes. Voluntarily disclosure of information helps to gain support from users such as the government, customers and pressure groups. It is also a strategy to mitigate pressure from stakeholders.

## **2.4 Factors that influence the measurement and disclosure of human capital**

This section examines factors that influence the measurement and disclosure of human capital. These include company size, debt size, profitability, dividends, growth of the company, size of the audit firm, stock volatility, type of industry, and the market-to-book value ratio. These factors are discussed in connection with theories on human capital disclosure practices.

### **2.4.1 Company size**

Raffournier (1995), Barako et al. (2006) found out that the size of a company influences the type of information published by the company. The agency theory underpins this assertion and outlines how companies decide whether to report environmental and human capital information (Muza, 2018, Ousama & Fatima, 2012). They disclose human capital information at their discretion when there is no accounting standard that requires them to do so. Weber (2011) says that business operations and strategic objectives differ from company to company. Hence, companies run their activities in a context-dependent manner. Large companies have multiple stakeholders who are interested in their businesses. As such, their directors must ensure that they meet the needs of all stakeholders.

Agency problems between shareholders and management are high when there are high expectations from shareholders (Ousama & Fatima, 2012). Management discloses as much information as possible to remain transparent and accountable to stakeholders, particularly

shareholders and potential investors. This shows compliance with the legitimacy theory, which makes companies seek to remain upright and legitimate in the eyes of their multiple stakeholders. Disclosure of all material information allows companies to minimise their agency costs. This study focuses on listed mining companies, some of which are subsidiaries of large companies such as Anglo-American. Disclosure practices of human capital in such companies keep agency costs at a minimum.

Adelowotan (2013) says that “human capital disclosure promotes the existence of a complete organisational information system, leading to lower costs of retrieving and disclosing information compared to those experienced by smaller companies”. Big companies often have sufficient resources such as financial capital and privileges that allow them to disclose more discretionary information, including human capital, compared to small companies. The disclosure of more information to stakeholder groups results in company success, improved productivity, high retention rates, value creation and maximisation of shareholders’ wealth (Cronje, 2008). It also helps to keep irregularities, fraudulent activities and misappropriation of assets at a minimum (Camfferman & Cooke, 2002).

Adelowotan (2013) further contends that the disclosure of non-mandatory information, such as human capital, by listed companies is done at no cost because large corporations are mandated to release all relevant and reliable information to their stakeholders. This makes it less costly to release additional information such as human capital. In contrast, Buzby (1975) argues that the disclosure of an additional element in the financial statements will always attract an extra cost to the company. Such costs are referred to as the preparation and presentation costs. Fontana and Macagnan (2012) investigated factors that explain the level of voluntary human capital disclosure in the Brazilian capital market. Their study showed that the size of the company is inversely proportional to disclosure practices. The sales variable represented size and was explained by the agency theory. They used the sales variable because large companies tend to get more contracts. Many tenders lead to an information asymmetry. The differing scholarly views on the influence of the size of the company on disclosure practices lead to uncertainty, creating a gap for further research.

#### **2.4.2 Debt Size**

Some studies show that a company’s debt size influences its disclosure practices (Camfferman & Cook, 2002; Macagnan, 2007). Macagnan (2007) says that companies finance their businesses through debt or equity. Although debt is cheaper than equity, it has a high risk.

Companies that finance their business through debt must retain and attract investors. This requires a high degree of transparency, making it necessary for companies to disclose all material and relevant information to stakeholders. The disclosure of all critical information justifies why the company is financed through debt rather than equity (Brammer & Pavelin, 2006). Other studies found positive results about the debt ratio, which they revealed as a key determinant of disclosure practices (Fontana & Macagnan, (2012); Prencipe, (2004) and Hossain et al., (1995). Fontana and Macagnan (2012) found that there is a positive link between the company's debt size and the disclosure of human capital information in the financial statements. The studies were conducted outside Zimbabwe, whose regulatory and reporting systems are different. As such, the results are not suitable for the Zimbabwean environment. This creates a gap to explore the possibilities of debt size as a factor that influences the disclosure practices of listed companies in Zimbabwe.

### **2.4.3 Profitability**

Mkumbuzi (2015) submits that listed stock exchange rules and the law require companies to publish their financial statements. A statement of profit and loss is one of the components of financial statements. It reflects profitability. Studies carried out by Watson et al. (2002); Smith, Yahya and Amiruddin (2007) reflect that there are different reasons for the disclosure of profit margins, some of which are to attract and retain investors and to boost their confidence. Companies measure their profitability using the return on capital employed (ROCE), net profit margins, dividend-pay-out ratio, earnings per share (EPS), return on assets (ROA) and return on investment (ROI) (Riahi-Belkaoui, 2003).

Riahi-Belkaoui (2003) asserts that some companies disclose losses and add some notes explaining the reasons for failure to earn profits. Such companies seek to keep their stakeholders updated at all times to avoid negative speculations that may affect their going concerns. Losses may be due to financial and human capital flight. Kamala (2014) reveals that non-financial information such as environmental and human capital reports are also disclosed. This implies that comprehensive annual reports allow companies to accrue additional benefits. From the perspective of the signalling theory, profitability shows a company's ability to cover all fixed and variable costs in a given financial period (Buzby, 1975). Profitable and successful companies are keen to share more information on their corporate annual reports to users and to explain the strategies implemented to meet their strategic objectives. One of the strategies is an

investment in human capital through training programmes, talent management practices, provision of enabling environments, and employee engagement processes (Adelowotan, 2013).

Belkaoui and Kahl (1978) and Wallace and Naser (1995) reveal that profitable companies tend to disclose additional information such as human capital. In contrast, Singhyi and Desai (1971) indicate that profitability is not a determinant of the type of information that is disclosed by a company. The extent to which a company expands or invests in more projects is signalled by the level of profitability. Companies with excess profits utilise retained earnings to invest in favourable projects. Profitability is a determinant of running desirable projects. Hussainey, Elsayed and Razik (2011) found out that a company's profitability is the key determinant of disclosure practices on human capital and other corporate social responsibility information. Dyduch and Krasodomska (2017) found out that the profitability variable has the potential to influence the disclosure of employee-related matters. However, Monteiro & Aibar-Guzman (2010) found out that variables such as profitability have no association with disclosure practices. They were unable to explain the variation of voluntary financial disclosure. Their findings are inconsistent and mixed, prompting the present study to identify the influence of profitability on the level of voluntary disclosure practices, particularly human capital disclosure.

#### **2.4.4 Dividends paid**

Multiple factors influence disclosure practices, one of which is the dividend paid variable. Inchausti (1997), Watson et al. (2002) and Macagnan (2007) discovered that the dividends paid to shareholders was one of the key drivers. Shareholders are paid dividends in a profitable year (except preference shareholders) (IASB, 2019). A dividend-pay-out policy is established to reduce agency problems, as documented by Macagnan (2007), because the development of a system hinders management from misappropriating funds. It leads to transparency, accountability and integrity, all of which build a good corporate governance structure. Adelowotan (2013) asserts that a company may reinvest retained earnings after dividend payments on projects such as training programmes or talent management practices to retain skilled and talented professionals. Therefore the low sum of dividends payable allows companies to reinvest in various projects which could sustain the company.

Literature analysis reveals that human capital information disclosure is positively associated with dividend pay-outs. Thus, investments in human capital yielded positive net present value and increased earnings. When earnings increase, there is a higher probability of a dividend pay-

out to shareholders. Studies by De Villers and Ma (2017) reveals that the mandatory disclosure of personal related information might be associated with a lower need to pay dividends. There is a high possibility of increasing future earnings and a greater level of human capital disclosure to justify the allocation of funds after dividend payments. Hence, this study seeks to ascertain the influence of dividends pay-outs on the disclosure practices of human capital.

#### **2.4.5 Growth of the company**

Prencipe (2004) and Bronson (2006) investigated the impact of company growth on human capital disclosure. They focussed on the number of business deals made between management and capital providers and the growth of the company. Their findings reflect that a higher number of contracts positively relate to the growth of the company. Thus, if a company expands, there is a higher possibility of information asymmetry (Prencipe, 2004). If complete financial information is disclosed, the problem would be kept at a minimum. Other studies measured the growth factor using the return on capital employed (ROCE) and asset turnover ratio (Camfferman & Cooke, 2002). Their findings revealed that these variables are not correlated with the extent of human capital disclosure practices, leading one to conclude that to an extent, the growth of a company does not influence the disclosure of human capital information or any information which the company is not keen to disclose. Bronson (2006) confirmed this after establishing that the more companies expand their business operations, the lesser the extent of human capital disclosure practices. The findings support the proprietary cost theory (Healy & Palepu, 2001).

Camfferman and Cooke (2002) posit that if a company discloses all the material information, its competitive advantage is negatively affected because competitors are given a platform to imitate the company. It follows that measures to curb this problem can be established by developing a human capital measurement and disclosure framework (Adelowotan, 2013). Such a framework must be comprehensive and sophisticated to frustrate competitors from coping or imitating the company's strategy, particularly on human capital valuation. However, some studies do not approve this and state that full disclosure of human capital related information may adversely affect success and value creation (Foong et al., 2003). The company's rivals may use the disclosed information. Hence, emerging companies disclose incomplete information. Other studies are confident that information asymmetry is the primary factor that drives competitive advantage. A company's growth can positively or negatively influence human capital disclosure practices.

#### **2.4.6 Size of the audit firm**

External auditors are appointed by shareholders because they are considered to be independent. Their main objective is to express opinions on the companies' financial statements. The literature shows that there is a relationship between the type of audit and the disclosure of information. Ousama and Fatima (2010) argue that this relationship can be discussed objectively using the signalling theory. There is a perception from different user groups that companies that are audited by big audit firms have credible financial statements. Therefore, auditors tend to encourage their clients to disclose both financial and non-financial information to improve their reputations and increase their recognition. The publishing of quality information aids this (Owusu-Ansah, 1998). The agency theory can be used to underpin this assertion.

Shareholders appoint auditors to close the information gap between the principal and the agent (information asymmetry). Therefore, auditors will recommend the disclosure of more information so that shareholders do not feel cheated by management. Such recommendations are taken seriously when made by big audit firms. Auditing financial statements also alleviates agency costs. Inchausti (1997) discovered a positive correlation between disclosure practices and the size of the audit firm. Oliveira et al. (2006) concludes that the size of the audit firm influences the disclosure of human capital and other information.

Ousama et al. (2012) conducted a study on listed companies in Nigeria on the determinants of human capital disclosure post-IFRS adoption. Their research reveals that the firm size adversely affects the disclosure of human capital information. The results are in line with the theory of the proprietary cost, which advocates that companies should devise cost-cutting measures to maximise shareholders' wealth. It follows that companies that appoint audit firms such as the "Big Four" incur more costs and lower the chances of human capital disclosure. However, the findings contradict the results of studies by Whiting and Woodlock (2011), who argue that companies serviced by big audit firms tend to fully disclose all the relevant information to their key stakeholders, just like companies audited by emerging audit firms. Considering that auditors are viewed as creators of integrity and that they give independent opinions on the credibility of financial statements, it follows that management tends to make frantic efforts to disclose all material information, which includes human capital information.



#### **2.4.7 Stock volatility**

Macagnan (2007) argues that investors provide capital to yield high returns. Hence, stock volatility influences human capital disclosure. Companies with a volatile share price disclose the value of human capital to manage the volatility of their shares. Floating capital is a determinant of human capital disclosure. If share capital is split, it is difficult for shareholders to control managers effectively. As a result, an increase in floating capital allows the circulation of more shares in the market. Entities with a high percentage of floating share capital disclose human capital to minimise information asymmetry and agency costs.

#### **2.4.8 Market-to-book value ratio**

Macagnan (2007) discusses the gap between the company's book value and its market value. The value of a company is premised on the estimates of investment analysts and investors. These stakeholders focus on the prospects of the company when they assess the difference between the book value and the market value. Companies, on the other side, continue to disclose all reliable and relevant information. They also report additional information, such as critical employee skills, expertise and professional experience. This information is a tool to attract and retain investors. The gap between book value and market value is attributed to the non-disclosure of essential items such as human capital. Abdullah and Ismail (2008) argue that efficiency influences the disclosure of the value of human capital. Consequently, the efficient utilisation of assets to increase productivity and performance provide a basis for human capital disclosure.

### **2.5 Reasons for non-disclosure of the value of human capital**

The disclosure of discretionary information depends on various factors. Not all companies are keen to disclose voluntary information. Whereas human capital information is important, it is not fully disclosed in financial statements (Samudhram et al., 2010). The significance of human capital is extracted from Flamholtz (1999), who says it helps to achieve the following:

- Provision of numerical information about the cost and value of people as organisational resources.
- Provision of an analytical framework to facilitate decision making.
- Motivation and guiding decision-makers to adopt a human capital perspective.

Studies highlight the possible benefits of disclosing human capital in annual reports (Abeysekera and Guthrie (2004); Abeysekera (2008); Cronje (2008) and Adelowotan (2013).

The studies unpack the meaning of human capital, including features such as competent skills, creativity, knowledge, experience and capability, among others. Most of the studies utilise the content analysis technique to gather data on the extent of human capital disclosure in the corporate annual reports of various companies (Adelowotan, 2013; Abeysekera & Guthrie, 2004; Abeysekera, 2004; Cronje & Moolman, 2013; Cronje, 2008). The theories indicate factors that influence the disclosure of human capital by companies. Companies disclose information for their advantage, even if they have no legal and regulatory obligations to disclose such information.

There is no single approach to measure human capital, notwithstanding its significance to company success. Some companies are reluctant to disclose human capital information (Samudhram et al., 2010) because of a mismatch between the company's strategy and the significance of human capital. Guthrie and Murthy (2009) say that the literature does not adequately discuss the factors that deter the disclosure of human capital information to stakeholder groups.

Foong et al. (2003) highlight reasons for the non-disclosure of human capital information. First, human capital information is sensitive and private, making it undesirable to share it publicly. Companies are apprehensive that once their rivals know about their human capital, they will become exposed and lose their competitive advantage. Competitors will get deep insights into the company's sources of competitive advantage. As a result, companies tend to report on a small part of their human capital. Human capital is a primary source of company competitive advantage (Foong et al., 2003). It will be recalled that "people are the greatest assets". Companies spend large sums of money to equip their workforces to increase productivity and company value. Samudhram et al. (2010) and Wright et al. (2001) conclude that human capital is a significant component of the success and value creation of the company. These ideas are conceptualised within the resource-based view context of the company. The above arguments against human capital disclosure are reasonable. However, the development of a framework to measure and disclose human capital would consolidate all the variables and present numerical values to all interested stakeholders. As a result, it will become impossible for competitors to gain knowledge of a company's human capital.

Second, the disclosure of human capital may lead employees and their unions to react negatively, putting the company's name into disrepute (Foong et al., 2003). Companies fear that these stakeholder groups may misinterpret human capital information. They are sceptical

about disclosing human capital information. They also fear that such disclosures might encourage employees and their unions to bargain for better remuneration because information makes workers more conscious of their vital role in a company's success and value creation. If human capital disclosures are not made public, the employees and their unions will be kept in the dark about their contribution. Hence, companies will award them any amount which they deem fit for their labour (Foong et al., 2003).

Moreover, when employees sign contracts with the company, the company will portray that the transactions are done at arm's length and that all the activities in the company are fully disclosed. As a result, the company's workforce will faithfully serve the company and take it to greater heights. However, the non-disclosure of human capital information ensures that employees will never know their real value to the company. They will continue to tirelessly add value to the company and increase productivity. Samudhram et al. (2010) argue that the critical accounting theory presents a different perspective on the accounting information output, and that the theory better explains the human capital concept. Production is treated as an instrument for the elite and powerful to suppress the voiceless, weak and powerless such as ordinary employees (Foong et al., 2003). The following discussion examines two theories that underpin the non-disclosure of human capital information, namely, the resource-based view and the critical accounting theory.

### **2.5.1 A resource-based view of a firm (RBV)**

The RBV theory argues that a company's success and value-creation depend on valuable, unique and inimitable assets (Nyamubarwa et al., 2013). A combination of both tangible physical assets and human assets with these characteristics increase the competitive advantage and strength of the company's brand, attracting potential investors. Barney (1991) contends that the theory supports that the above features of assets can bring economic benefits to the company. Unique and rare assets cannot be available to any rivals because competitors cannot easily imitate individual assets. Hence, rivals will dismally fail to produce economic benefits that are similar to the company (Salamudin et al., 2010). Also, these assets non-substitutable. This protects a company's brand from its rivals because competitors cannot substitute these with other assets that can generate the same output. In most instances, companies train and develop their workforce in a peculiar way that fits the company's strategy and business model. Nyamubarwa et al. (2013) argue that in the knowledge economy, the rare, unique, perfect, and non-substitutable assets increase the competitive advantage of a company compared to tangible

physical assets. The assumption is that tangible assets can be easily imitated by other companies. Human capital intangibles are regarded as the rare, inimitable and valuable assets that significantly add value to company success (Barney, 1991). Multiple studies support this. Human capital is a critical value driver of a company's success and value creation (Flamholtz, 1999; Smith, 1976; Patton, 2002; Samudhram et al., 2010). It is the "most valuable asset" in the knowledge economy (Flamholtz, 1999). Thus, companies are encouraged to heavily invest in these intangibles to reach greater heights in business.

Other studies advocate for the inclusion of human capital in the statement of financial position (Mayo, 2016; Adelowotan, 2013). This is because companies depend on the skills and knowledge possessed by their human capital, among other resources. Cronje and Moolman (2013) argue that human capital is not being fully disclosed and remains hidden in corporate reports, notwithstanding that it is a key value driver.

Snell et al. (1996) contend that if a company manages to employ "scarce employees" who are more skilled than their counterparts, such a group of employees are considered rare resources in the labour market. They have critical skills that help a company to gain a competitive advantage. Hence such employees become a source of the company's competitiveness, value creation and sustainability (Snell et al., 1996). Sumdhram et al. (2010) assert that inimitable and non-substitutable human capital serves as a source of a company's competitive advantage. Potential economic benefits are expected to flow to the company from human capital. A company may prevent competitors from imitating or substituting its competent and skilled labour with an equivalent factor through causal ambiguity and path dependency (Barney, 1991; Snell et al., 1996). Causal uncertainty gives a company a chance to enhance and sustain the productivity of its workforce. Using HR policies and systems, a company may decide only to develop employees' hidden talent until it is fine-tuned to become a critical skill. After such an exercise, such an employee holds power that cannot be easily imitated by rivals. This is because the hidden talent would be internally tailored for productivity in that particular company. Competitors may fail to imitate a resource because companies take lengthy periods to perfect individuals to be fit to contribute to value creation significantly.

Company policies that have been polished for an extended period make it impossible for competitors to imitate (Barney, 1991). Abeysekera and Guthrie (2004) submit that human capital has the characteristics mentioned above and that it is a strategic asset within the boundaries of RBV. In the knowledge economy, internal factors are critical sources of

competitive advantage, unlike external factors such as industry size and position (Wright et al., 2001). Hence, it is high time for companies to invest in human capital to establish “a highly skilled and motivated workforce” to produce human capital advantage (Sumdhram et al., 2010). Expounding on the importance of the human capital resource within the context of RBV has an inherent limitation in that human capital changes over time, necessitating companies to monitor it (Wright et al., 2001). Also, companies need to establish a credible standard to measure it, as it is difficult to manage human capital without measuring it (Beattie & Thompson, 2010).

Abhayawansa and Abeysekera (2008) explored human capital measurement and disclosure from the viewpoint of RBV. They reported that human capital disclosure is linked to the strategic directions of the company and is useful to users of financial statements when making decisions. Human capital is the backbone of company strategy. Thus, it is not surprising for decision-makers to demand more information on the value of human capital. Such initiatives lead to increased measurement and disclosure of human capital by corporates (Abhayawansa & Abeysekera, 2008). However, human capital is hidden capital that is not disclosed in annual reports. Most decision-makers are not aware of its strategic importance, which leads to low demand and supply of human capital disclosures.

The RBV theory explains the non-disclosure of human capital from a different viewpoint. The theory argues that rivals should fail to imitate a company's scarce resource, even if it's for a shorter period. Companies should avoid reporting on issues such as “workforce diversity that may be positively linked to competitive advantage. If such information is made public, competitors will quickly copy the company's strategies, reducing its competitive advantage. Therefore, the theory argues that companies should disclose little information on human capital intangibles to avoid giving away their competitive advantage to rivals. Verma and Dewe (2008) submit that human capital is not disclosed in financial statements because of its “sensitiveness” in open markets. They further cite that human capital disclosure is the least reported intellectual component because of “concerns over commercial confidentiality”. In support, Foong et al. (2003) state that companies are sceptical about disclosing human capital information because of the fear to divulge important information to rivals. They further content that some of the information might be on the sources of competitive advantages. Hence, they find it inappropriate to disclose such information publicly.

The low frequency of human capital disclosure is based on a specific premise, i.e. companies are reluctant to disclose human capital because of the fear of revealing too much information to competitors. The disclosure of such information may erode a company's competitive advantage because human capital is a critical source of competitive advantage. The non-disclosure of human resource is linked to the failure to establish the role played by employees in supporting the company's strategy. Companies and users of financial statements are not aware of the significant contribution of human capital to value creation and success. Hence, this study seeks to find solutions to increase human capital measurement and disclosure in financial statements. This is achieved through developing a framework for the measurement and disclosure of human capital to make it possible for competitors to copy the company's human resource.

### **2.5.2 Critical accounting theory**

The critical accounting theory suggests "that accounting numbers that simply quantify events are used as an instrument by the capitalists to overpower labour" (Deegan, 2006). The literature supports that the journey to quantify human capital is not new. Martensson (2009) reveals that the measurement and valuation of human capital were prevalent in Europe in the 17<sup>th</sup> and 18<sup>th</sup> Centuries. It is believed that the primary purpose of human capital quantification was to assist the politically influential "to develop a rational and active society." During these centuries, employees were considered irrelevant. Powerful and wealthy capitalists reduced employee needs and wants to necessities of living (Martensson, 2009).

Human capital was exploited with little respect for ethics due to its quantification as a tool. Capitalists rationed food and defended child labour to maximise their wealth (Martensson, 2009). The measurement of human capital was a strategy to defend the exploitation of the lower classes of society. Managers manipulated accounting information to indicate minimal profits as a strategy for justifying low wages, leading to non-disclosure of human capital. Stakeholders were denied significant human capital information to prevent unions from bargaining for better remuneration. As such, accounting information only served the interest of wealthy and powerful stakeholder groups such as managers and shareholders. Deegan (2006) argues that such groups had control over accounting information which they used to disadvantage labourers.

Guthrie and Parker (1990) contend that the critical accounting theory "extends the above sentiments, which are rooted in the political economy and Marxist perspectives to the arena of

class struggles”. Accounting information authenticates information that allows capitalists to serve their interests at the expense of the poor. Deegan (2006) argues that the critical accounting theory takes a stand that accounting information output is regarded as a paradigm that offers a perception about a company and is not a faithful representation of objectivity. It may be deduced that corporate annual reports are products of few powerful stakeholder groups.

Baker and Bettner (1997) confirm that accounting does not produce an objective representation of economic reality. Instead, it provides a highly contested and partisan depiction of the economic and social world. The prejudiced nature of the system votes for capital at the cost of labour. However, Roslender and Stevenson (2009) observe that “accounting is designed to ensure that the social arrangements consequent upon (the existing capitalists’) belief system remains in place and, over time, are successfully reproduced”.

The dislocation between the accounting and the existing belief system lead to a risk of the continued existence of these social arrangements. In a capitalist society, powerful groups will continue to have the upper hand over labour (Deegan, 2006). Roslender and Stevenson (2009) documented mandatory disclosure of human capital in the UK after the government embarked on an initiative to enforce high levels of corporate disclosures. The move failed because the accountancy profession was against the idea. This led other stakeholders to believe that accounting bodies represent the interests of capitalists. The UK government (2003) proposed a bill to enforce human capital measurement and disclosure. The bill aimed to address low levels of reporting human capital. The report made recommendations that human capital reporting should be an extension of the operating and financial review and that it should be mandatory for all UK companies (DTI, 2003b). The government gave unwavering support to the Task Force’s initiative and recommendations. However, in 2005, the Chancellor of the Exchequer surprisingly intervened and revoked mandatory provisions for human capital measurement and disclosure. The nullification of the proposed human capital disclosure served powerful and wealthy stakeholder groups at the expense of labour.

Samudhram et al. (2010) submit that human capital information is rarely reported externally because of “the potential impact of disclosure on employees and employee organisations”. This observation can be classified under the critical accounting theory because it is apparent that labour-intensive companies can manipulate human capital information to their advantage at the cost of the capital providers. Accounting information is entirely controlled by sectional interests (Roslender & Stevenson, 2009). Such control hinders efforts for full disclosure of

human capital. There is a possibility to reverse fortunes by using human capital information to serve the interests of labour. However, there is a dearth of literature on how the critical accounting theory relates to the lack of full disclosure of the value of human capital in financial statements.

Full reporting of human capital information could be solved by addressing issues related to wages (Samudhram et al., 2010). These issues may be countered by involving labour unions to make them understand that human capital disclosure has a positive impact on a company's trading in the stock markets. Unions should be aware of the importance of human capital. The advantages and benefits of human capital could be shared with labour. However, the lack of such understanding results in averseness to the disclosure of human capital information. This damages the company reputation and is not beneficial to both labour and capital. Therefore, studies on the relevance of the critical accounting theory with regards to the non-disclosure of human capital information will guide the adoption of best disclosure methods.

### **2.5.3 Type of industry**

The industry in which a company operates influences the type of information to be disclosed. Most companies aim to increase their productivity, gain a competitive advantage in the market and create value. They want to provide integrated reports and assure their investors that they adopt best practices for their operational and financial activities and that they are compliant with rules and regulations (Watson et al., 2002). In most instances, companies that are not willing to disclose financial information which may lead stakeholders to think that they are involved in fraudulent activities and misappropriation of assets (Inchausti, 1997). Additionally, companies fall into different industries. Each industry may have a standard requirement for the disclosure of certain information that only pertains to that sector and is irrelevant to other companies. For example, companies that depend on human capital may be mandated to disclose information on human capital. In other industries, such information could be revealed voluntarily (Ousama & Fatima, 2012). Oliveira et al. (2006), Bozzolan et al. (2004) and Bukh et al. (2005) argue that the type of industry impacts the kind of information reported by the firm. Studies found a significant relationship between the extent of disclosure and the type of industry and between the degree of human capital disclosure and industry type.

Several factors influence companies to disclose more financial and non-financial information, such as profitability, industry type, listing status, growth of the company, debt size and nature of the auditor. Some of the factors have a significant relationship with the level of disclosure,



while others have a negative correlation. As such, this study seeks to determine factors that influence the measurement and disclosure of the value of human capital in the financial statements of selected mining companies in Zimbabwe.

## **2.6 Human capital and financial performance**

Becker (1964), Mincer (1974), Schultz (1971) pioneered studies on human capital. They focused on the economic benefits of investing in both general and company-specific training. They found that in the 20<sup>th</sup> Century, economic growth heavily depended on tangible assets. Capital was the most critical asset of a company. Becker (1964) ascertained that tangible physical assets enlighten any insignificant portion of the income growth in multiple countries. The literature indicates that the human capital component has a positive influence on the financial performance of a company (Tessema, 2014), leading to the idea that human capital leads to exceptional company performance. Based on the human capital theory, skilled, knowledgeable, innovative, creative and experienced individuals are more productive compared to individuals with low human capital features (Becker, 1964). Tessema (2014) investigated the impact of human capital on company performance in the footwear sector in Ethiopia. The results showed that an investment in human capital enhances company performance. Despite the broad assumption that human capital positively influences company performance, the notion remains mostly theoretically. Hence, this study seeks to determine the impact of human capital on the performance of mining companies in Zimbabwe.

Nerdrum and Erikson (2001) describe human capital as a central component when outlining the individuals' earnings variances because employees who invest in education and training have a high probability of improving their competency skills and are capable of producing more than their untrained and unskilled counterparts. Thus, there is a need to develop a human resource accounting framework that measures the contribution of employees to company financial performance. Currently, the measurement and disclosure of human capital are voluntary. Companies use the amount of human capital for internal management and as a source to lure potential investors into injecting more capital (SEC, 2020). Skilled and knowledgeable human resources increase productivity, resulting in outstanding financial performance and competitiveness.

Several studies were conducted on the relationship between intellectual capital and financial performance (Barney, 1991, Bontis, 1998, Bontis and Fitz-Enz. (2002)). These aforementioned

studies confirmed that there is a positive correlation between human capital intangibles and business financial performance. Marimuthu, Arokisamy and Ismail (2009) conducted a study on human capital development and its impact on firm performance. They found that investment in training and development of human capital enriches human capital efficiency. Efficiency and effectiveness lead to increased company performance.

Literature analysis reveals that for companies to increase their market value, they need to address the issue of human capital and measure its real value. Skoog (2003) confirms that human capital reporting leads to a positive impact on the long-term profitability of a company. Mouritsen et al. (2004) assert that companies that disclose human capital have high chances of attracting businesses that enable them to gain a competitive advantage. Reed (2000) conducted a study in the banking industry and found that human capital has a positive effect on the financial performance of a company. Scholars argue that human capital intangibles define the financial performance of a company. There is evidence that human capital is the crucial element and that the quality of services given to customers heavily depend on human capital (Goh, 2005). As such, it is not only tangible assets that are crucial to a company's financial performance.

Riahi-Belkaoui (2003) carried out a study on multi-national companies in the USA and reviewed the relationship between intellectual capital and company financial performance. The findings reveal that intellectual capital has a positive influence on the financial performance of companies. Chen and Lin (2004) examined the impact of human capital intangibles and physical capital on the market return of a company. The results proved that there is a positive impact on both variables. Bontis (2007) conducted a study on intellectual capital in Jordan's pharmaceutical sector. The results indicate that intellectual capital positively influences the financial performance of a company.

Cabrita and Vaz (2006) investigated the significance of intellectual capital on organisational performance. Their findings show that intellectual capital has a significant effect on company financial performance. Likewise, Katou (2009) found a positive correlation between the development of human capital and the company's performance. Hence, the true reflection of a company's market value does not only depend on physical assets but also on intangible assets. It is high time for companies to leverage the skills, capabilities and competency of their workforces. Companies must encourage individuals and organisational learning to create a conducive environment for the creation, imparting and application of knowledge. Cronje and

Moolman (2013) cites innovative and successful companies that invested heavily in their workforce to increase and improve insights and abilities to compete in the knowledge economy successfully. It may be deduced from this that investing in training and development increases employees' skills and capabilities which positively affect the financial outcome of an entity.

Terpstra and Rozell (1993) conducted a study on the extensiveness of recruiting, selection test validation and the use of formal selection procedures. They found a positive correlation between organisational profits and selectivity in staffing. A company's policy to conduct performance appraisals regularly concerning compensation schemes also contributes to an increase in the company's profitability (Becker & Huselid, 1992; Schmidt, 1979). However, reliance on single human resource practices may not reveal an accurate picture. The dominant view of human resource effectiveness is that individual human resource practices have limited ability to generate a competitive advantage in isolation. When used in combination, they can enable a firm to realise its full competitive advantage (Barney, 1991). In other words, relying on single human resource practices to predict performance is unlikely to give a fair and true view.

Fitz-Enz (2000) says that the correlation between human capital and performance is based on two theoretical aspects - a resource-based view of the firm and the expectancy theory of motivation. The expectancy theory has three threads, namely, the value attached to rewards, the instrumentality, and the belief that the employee will receive compensation upon reaching a certain level of performance (Fitz-Enz, 2000). Human resource management practices that encourage competent skills and innovation, such as selection and high investment in training and development, explain the link between human capital management and performance. Mincer (1981) argues that human capital could lead to innovation and technological change, which improves the company's total production. It follows that investment in human capital has a positive impact on financial performance and growth. The performance of an organisation depends heavily on investment in human capital and not only on tangible physical capital (Frederke & Simkins, 2012). Oketch (2006) concludes that an investment in both human and physical capital significantly adds value to performance growth in Africa.

Snell et al. (1996) categorise human capital into two dimensions, namely, valuable and unique. Their study expounds on value based on the perspective of resource-based theory, leading to the conclusion that a resource is worthwhile if it permits room to improve its effectiveness, capitalise on available opportunities and mitigate threats (Tessema, 2014). Valuable resources

increase earnings and reduce costs. Bontis (2007) explored the relationship between human capital and the performance of software companies and found that human capital components have a positive influence on a company's performance. Human capital indicators such as training, development and teamwork result in high performers and increased productivity, which lead to improved company performance. This entails that investing in human capital creates a competitive advantage for a company. Likewise, Unger et al. (2011) submit that human capital could "improve the capability of the entrepreneur, which in turn would assist them in exploiting business opportunities". This entails that entrepreneurs who invest in human capital may acquire knowledge which eventually helps to discover and interpret new opportunities that may not be visible to competitors. In addition, a firm that can create uniqueness in a product can differentiate itself from competitors. This helps the firm in the long-term and to survive in the long-term, there is a need for continuous innovation (Bakoglu & Askun, 2010).

However, some scholars found a negative correlation between human capital and financial performance. (Firer & Stainbank, 2003) conducted a study and established that human capital intangibles harm financial performance in South Africa, i.e. human capital has no significant influence on the investors and investment analysts' investment decision-making process. Chu et al. (2011) conducted a similar investigation in Hong Kong. Their findings reveal that human capital and financial performance do not depend on each other. They further confirm that the financial performance of a company is assessed through calculation of the market to book ratio, return on assets and asset turnover. Williams (2001) conducted a study on the relationship between human capital performance and human capital disclosure practices. The study focused on 31 FTSE 100 listed companies in Canada. First, the study assessed the scope of human capital disclosure in the corporate annual reports from 1996 to 2000. The results show an increase in human capital disclosure practices by listed companies. Second, the study examined the relationship between human capital performance and the extent of disclosure in corporate annual reports. The results show an unsystematic relationship. Companies mitigate human capital disclosure because of the fear of losing competitive advantage to their competitors.

Consequently, companies need to invest in intellectuals because human capital influences their financial performance and could determine their future. Studies confirm that financial performance depends on human capital intangibles. However, most studies focused on the small-scale business context. There is limited information on the SADC region, particularly on

the Zimbabwean mining industry. In addition, different variables measure the financial performances of organisations. Hence, this study seeks to establish the link between human capital performance and the financial performance of listed mining companies in Zimbabwe.

## **2.7 Human capital and value creation**

Barney (1991) postulates that if a resource capability yields the potential to enable a firm to reduce costs and respond to environmental opportunities and threats, it is valuable. The extent to which a company can effectively deploy such a resource is its competitive advantage. Employee skills and knowledge, as critical assets, require continuous internal-based advancement (Murthy & Abeysekera, 2007). It follows that a core employee is a worker who is specific to the core activity in the company and who executes the company's main operations related to producing the product or offering the service. These skills must contribute towards consumer-based perceptions of value. Thus, employees can add value if they can help companies lower costs or provide increased benefits to consumers (Snell et al., 1996). Most companies across the globe declare people (human capital) as their most precious asset or "their most valuable assets that wear shoes". However, the question arises whether organisations practically recognise people as their most significant asset? Is there any relationship between human capital and the value of companies? The literature reflects that human capital is a key driver of value creation and a fundamental pillar of innovativeness (Perez, Alvarez & Alvarez, 2012). Stewart and Ruckdeschel (1998) says that productive and skilled employees who create value should be recognised as investment assets, while the skilled and talented but unproductive ones should be treated as costs that should be minimised. In the knowledge-intensive economy, human capital is a critical resource, as it adds value to the company and individual employees. Many companies invest large sums of money on training and development programmes and employee engagement practices (Adelowotan, 2013). Companies continuously invest in these programmes because their success, competitiveness and sustainability lie in the hands of their skilled and talented workforce. However, there is no standardised approach to measure the value of human capital. Standard setters are silent about it, despite the popularity of human capital in the 21<sup>st</sup> Century and its significant creation of value (Mayo, 2016).

Perez et al. (2012) state that human capital management and its measurement should be addressed urgently. Companies will achieve their strategic goals and increase value successfully if they have competitive and talented workforces. The alignment of employee

individual goals with the company's strategic objectives will guarantee the maximisation of shareholders' value and competitive advantage (Coff, 1997; Ployhart et al., 2006). Louli-Baklouti and Triki, (2018) submit that the new economic systems heavily depend on intangibles like human capital to create value.

Edralin (2007) cites Malihe (2013) reveal that in developed countries, 84% of added value in a company is a result of investing in human capital, while 16% belongs to natural and tangible capitals. In developing countries, human capital holds 64%, while natural and physical tangible assets contribute the remaining 36%. This shows that human capital is crucial in the addition of value. Hence, companies invest in human capital intangibles to increase their productivity, growth and development.

Due to the economic paradigm shift, organisations opt to invest in their human capital. Human resources are essential resources and have many qualities which, if utilised correctly, allow companies to meet strategic goals and objectives (Adelowotan, 2013). Nasirpour (2005) argues that physical and tangible assets are no longer significant and that human capital intangibles have taken over. This is the case in the mining sector, which is labour-intensive and reliant on technical professions such as engineers, quantity surveyors and geologists for maximisation of shareholders' wealth and competitiveness. Managers of mining companies go out of their way to establish employee engagement processes as a strategy to retain happy employees who are also committed to their jobs (Perez et al., 2012). Such measures aim to reduce the costs of capital and increase productivity.

Beattie and Smith (2010) explored the contribution of human capital to value creation. Their targeted respondents were human resource (HR) directors and finance directors (FDs). The used questionnaire surveys and interview guides. The respondents were asked about the relative contribution of 18 human capital components to the generation of value for their companies. The results showed that "employee skills and education" were the most contributing components to value creation, followed by "employee commitment", "positive employee attitudes", "positive employee behaviour", and "employee motivation". Their study indicated that human capital components significantly contributed to value creation compared to other components. However, "employee welfare promotion" was considered to provide the least contribution to value creation for the companies. It is apparent that there is a positive relationship between human capital components and the value of a company. It is the skills that a company possesses to pull knowledge, and not the stock of knowledge, that drive value

creation (Edvinson & Sullivan, 1996). Wright and Snell (2005) assert that companies who engage human capital features such as skills, knowledge, capabilities and creativity stand a greater chance to increase their value.

Snell, Youndt, Dean and Lepak (1996) point out that companies that invest in human capital practices such as incentive compensation, talent management, employee engagement programs, training and development and teamwork can strengthen their value creation capacity. Markos and Sridevi (2010) define employee engagement as “a positive attitude held by the employee towards the company and its value”. Presumably, an engaged employee is aware of the business context and works with colleagues to improve performance. As such, companies should establish employee engagement practices that allow a two-way relationship between the employer and employees. Employees should be engaged in their jobs so that they feel valued. Some studies outline that an individual’s emotional relationship with the company gives a positive and significant relationship with the employee capability and recognition (Massingham & Tam 2015). However, they further state that there is no significant positive relationship between the remuneration policy and value creation.

Human capital should be fully recognised in financial statements either under a mandatory section or under a discretionary section, or both. Alfraih (2017) describes human capital as a critical resource in the knowledge economy due to its unique, rare and valuable characteristics compared to tangible physical assets. The author explained that there are multiple definitions of human capital, which many studies regard as the knowledge, skills, competence and information that companies utilise to create wealth. However, this resource is not accounted for in the traditional accounting system (Abeysekera & Guthrie, 2005). There is an argument that investors need to be fully furnished with information to make informed investment decisions. They need more than financial reports to make investment decisions. IIRC (2015) highlights that companies must understand how their human capital creates value and disclose such information to their shareholders and potential investors to benefit from the following:

- better internal understanding of how human capital helps to create value over the long-term
- enhanced ability to develop and implement strategies through a more integrated human capital management
- increased productivity through improved workforce loyalty, motivation and innovation

- stronger leadership and improved management skills
- closer alignment between strategy, risk management, governance framework and ethical values
- better decision making through integrated thinking
- lower costs of capital due to better investor understanding of the role of human capital management in the value creation process.

Gamerschlag (2013) confirms that human capital information is value relevant when one tests human capital features such as qualifications and competence, both of which have a positive relationship with the value of a company. However, human capital information does not immediately affect the share price of a company. Lev and Zarowin (1999) argue that companies do not fully disclose human capital information, denying investors the opportunity to fully understand value-adding opportunities and the true value of the companies. This leads to information asymmetry, which increases agency and transaction costs. The disclosure of human capital information can mitigate agency theory problems that arise between companies and capital markets. When investors have all the relevant information, they are in a better position to make sound investment decisions (Gamerschlag, 2013).

Samudhram et al. (2010) identify two problems with regards to information asymmetry. First, they highlight that managers and directors know more than the shareholders and use the information for their benefit at the expense of shareholders, leading to a conflict of interest. Jensen and Meckling (1976) made similar findings. Their study reflects that managers accumulate wealth at the cost of shareholders. They also protect themselves by concealing company problems that surface when the company is on the verge of collapsing. Second, information asymmetry leads to misappropriation of resources, which harms outsiders when investors are provided with false annual reports, which leads them to invest in weak performing companies. As a result, good companies are denied vital funding. The disclosure of human capital information would mitigate information asymmetry and increase value.

## **2.8 Theories that underpin the human capital foundation**

Kerlinger and Lee (2000) define a theory as a framework that explains a phenomenon by stating constructs and the laws that interrelate the constructs to each other. Mugenda (2012) says that a theory is a well-established principle developed to explain an occurrence. A theory provides a model and explains why the world is the way it is (Crotty, 1998). As such, a theory is a



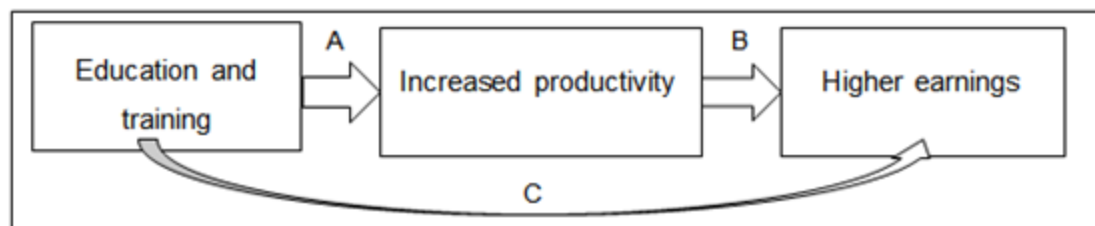
statement about a phenomenon that one wants to understand. Several approaches have underpinning discourses that have interplayed with intellectual capital measurement and disclosure to enhance the relevance of accounting information to shareholders. Human capital and value relevance theories underpin this study. The human capital theory is the work of Schultz (1961), extensively developed by Becker (1964), who combined it with the value relevance theory. The theoretical framework of this study postulates that the intellectual part of human beings is an asset that drives organisations. Intellectual capital determines the quality of decisions made by employees at various levels of the organisation. It is a source of competitive advantage and is reflected in corporate performance. This study combines the human capital theory and the decision theory.

### **2.8.1 Human capital theory**

The pioneers of the human capital theory were Becker (1964), Schultz (1961) and Mincer (1974). The CIPD (2017) indicates that in the 20<sup>th</sup> Century, the factors of production were land, physical capital, labour and organisation (management). The above authors challenge these factors and argue that human capital was one of the characteristics of the factors. Hence, they developed the human capital theory. They argue that the success and value of a company also depend on the capabilities of its human capital. As a result, the same value given to physical capital and other resources should also be given to human capital, as it is directly involved in the production of goods and services (CIPD, 2017). Lucas (2015) reveals that human capital is one of the factors of production and that it plays a key role in the success of a company. To some extent, the human capital theory understates the value of the human capital construct, taking into consideration its contribution to economic growth. Lucas (2015) suggests that the “contribution of human capital accumulation to economic growth deserves a production function of its own”.

Rousseau (2011) says that people who invest in education and training are better off than those who are ignorant of the acquisition of skills. This is because the former acquires more skills and expertise, leading to higher earnings and improved productivity. The human capital theory proclaims that costs spent on training and developing employees should be capitalised rather than debited in the profit or loss account of a company (Becker, 1964). Nevertheless, the value of human capital is currently recognised as period costs in the financial statements of various companies based on traditional accounting principles (Accounting Conceptual Framework, 2019). The IFRS does not recognise the value of human capital as a capital expenditure but as

an item of revenue expenditure. Raiasheka (2011) explains that training and developing human resources does not positively affect earnings only but fully contributes to the financial performance and position of the company. Additionally, if the available human capital is utilised at full capacity, it enables a company to innovate and gain a competitive advantage in the market. As a result, the human capital component qualifies to be one of the major sources of the company's competitive advantage. Figure 2.1 illustrates the link between human capital and the firm's productivity and future earnings.



**Figure 2.1 The link between human capital and the firm's productivity and future earnings**

Source: Barker (2007)

Figure 2.1 shows that companies should invest in education and training to increase their productivity (Barker, 2007). Adelowotan (2013) agrees that skilled and knowledgeable individuals who obtained their credentials through education and training are guaranteed higher future earnings. Arguably, the higher the level of education achieved by a person and the skills and knowledge attained through training and development, the higher the levels of productivity and future earnings. Also, firms are encouraged to invest in the training and development of their human resources to gain a competitive advantage (CIPD, 2017). Currently, employees continue advancing in education because they want to remain relevant in the market, corresponding fields and to secure their jobs. They are not aware of their real value within their respective firms (Lucas, 2015) because they are treated as costs that reduce profits. Also, companies do not recognise costs incurred on human capital as an investment but as period costs.

Amoatemma and Kyeremeh (2016) say that grades/levels of earnings rewarded to employees are rated according to the estimated value of their contribution to the firm. This is measured using experience. The level of participation is related to the extent of training and education of the employee (Schultz, 1961; Becker, 1964; Mincer, 1974). However, there are scenarios when an employee feels underutilised or underpaid after advancing him/herself academically and after attaining skills and knowledge through training. This drives the employee to look for

greener pastures, leading to human capital flight. Companies alleviate such situations by giving employees contracts to sign so that they can benefit from the employee after training. These contracts are binding between employers and the employees for a specified period.

Marshall (1980) highlights that untrained employees do not add value and that their productivity remains constant. They become redundant and irrelevant in the ever-changing technological and economic setup. Barney (1991) posit that the human capital component is comprised of skills and knowledge embedded in human resources. They categorise skills into two sections, namely, general skills and specific skills. General skills can be acquired by individuals. They apply across various companies, while specific skills are unique and not transferrable to other companies. For example, skills carried by geologists in the mining industry are not valuable companies in the telecommunications industry.

Becker (1964) compares human capital to machines and argues that both might function similarly and yield the same results. Becker and Huselid (2006) concur that human capital and financial performance have a positive link. The authors discuss how human capital influences the market share price of the company, making it important to measure and disclose it in the financial statements. It is apparent that if the firm invests in the quality of human capital, it will become innovative, gain a competitive advantage and attract potential investors.

Kajola and Adedeji (2011) submit that human capital increases the company's efficiency, effectiveness and productivity. They advocate for the capitalisation of costs on training and development and health in the statement of financial position because they add value and increase productivity. The human capital theory proposes that if firms treat human resources as their "greatest assets", it is necessary to measure and disclose them in the financial statements like physical assets so as to provide credible financial statements to users (Becker, 1964). Okpala and Chidi (2010) argue that it is prudent to establish a single approach to measure and disclose human capital in the books of accounts to enable different stakeholder groups to make informed and strategic decisions. They further note that the recognition and disclosure of human capital information in financial statements has a positive impact on potential investors, as it leads to informed decisions. Okpala and Chidi (2010) suggest that firms should disclose and measure the value of human capital as an intangible asset in their financial statements as this will add value. It is apparent that the human capital theory promotes the recognition of the value of human capital as an asset and asserts that if human capital is measured, shareholders and other stakeholders will make informed decisions.

### **2.8.1.1 Criticism of the human capital theory**

Companies should prioritise investing in human capital through education and training and development efforts. This will increase productivity and lead to higher earnings (Lucas, 2015; CIPD, 2017). Human resources with skills and knowledge drive success and value creation in a company (Cronje & Moolman, 2013). However, companies treat human capital as their so-called precious asset but put little effort to recognise it in their financial statements. The current practice assumes that human capital does not meet the recognition criteria. This neglects that human capital is an economic resource and has the potential to generate economic benefits. Solmon (1993) states that what matters is the skill or the type of education that a person gets and not the time taken to acquire it. Thus, the kind of education that one gets while at school determines the kind of work that he/she will carry out in the labour market. This justifies that the quality of education matters in the development of the human capital model. Solmon (1985) supports this and cites that the time taken learning is not essential and that what is essential is the level of knowledge and skills, which determine the company's productivity and future earnings. Human capital theorists like Schultz (1971) only focused on the relationship between human capital and earnings without further explaining why they focused on such a relationship. The lack of evidence in this regard exposes the human capital theory to different interpretations when it comes to the relationship between training and productivity and earnings.

### **2.8.2 Disclosure theory**

Large corporates, unlike smaller entities, often publicly disclose all relevant information to reduce information asymmetry. There is evidence that the public disclosure of the information benefits companies by attracting more potential investors. This reduces the cost of capital (Diamond & Verrecchia, 1991). Financial and non-financial information is presented to all the stakeholders through corporate annual reports (Adewolotan, 2013). When companies do not fully disclose all relevant information to stakeholders, information asymmetry occurs, leading to disputes among stakeholders (Healy & Palepu, 2001). The agency theory explains that information asymmetry is created by the companies' management to serve their selfish interests at the expense of shareholders' wealth and the well-being of the company. Healy and Palepu (2001) reveal that information asymmetry has negative implications on the success of the company because it heightens the breakdown of efficient capital markets operations.

Potential and current investors use the information on the corporate's annual reports to make informed investment decisions (Purwanti & Kurniawan, 2013). Various companies develop

different strategies to deal with information asymmetry. Some of the ways to mitigate information asymmetry are as follows:

- creation of contracts between the company and the investors to provide incentives for full disclosure of information
- regulating managers to fully disclose all their private information to stakeholders.

Information asymmetry makes investors and other stakeholders demand more information because those charged with governance do not adequately disclose all information in the annual reports, including the value of human capital. This study considers the implications of information asymmetry on the growth and success of companies. It analyses reasons for human capital non-disclosure and seeks to give an insight into the stakeholders' perceptions of the human capital component. Although more companies are already reporting the element using integrated reporting, the recognition is not enough, considering its immense contribution to success and value creation.

Christensen et al. (2010) discuss the importance of fully disclosing all relevant public information to shareholders and potential investors through financial statements to enable these stakeholders to review the company's liquidity, profitability, and investment opportunities, among other things. Similarly, Purwanti and Kurniawan (2013) highlight that the primary responsibility of companies is to provide relevant and reliable information to stakeholders through channels prescribed by legislation and regulatory bodies such as accountancy professional bodies. It is the responsibility of these bodies to keep reviewing information that is most relevant to report, such as human capital. Information that companies must disclose is also called mandatory information. Companies can also disclose voluntary information at their discretion. Additional disclosure allows companies to reduce their cost of capital (Christensen et al., 2010). The cost of capital is one of the determinants of human capital disclosure. For consistency and global harmonisation, policymakers and professional accounting bodies should analyse the significance of human capital disclosure in financial statements by companies across all sectors, including the mining sector. The real value of companies is understated due to the non-disclosure of elements such as human capital. Purwanti and Kurniawan (2013) argue that if possible, all companies need to consider reporting all relevant and reliable information to help stakeholders to make informed decisions. Presumably, the functioning of efficient capital markets depends on publicly available information.

Conclusively, companies that fully disclose their information to the public do not only stand a chance to increase their market value but also attract more investors due to transparency.

### **2.8.3 Psychometric theory**

The psychometric theory analyses the behaviour of employees at their workplace. It originated from the works of Eisenberger et al. (1990) and Robinson & Rousseau (1994). The studies explain the psychological contract (PC) within the company using the theory. Employee satisfaction and employee commitment adequately explain the psychological contract construct (Rousseau, 2001). This study briefly discusses how employee capability is related to employee satisfaction and employee commitment using the psychometric theory. Massingham and Diment (2009) define a psychological contract as the “emotional relationship between an individual employee and the employer”.

Some studies document that the psychological contract portrays how a group of employees and their manager relate to each other (Argyris, 1960). As a result, the psychological contract arises soon after a consensus between employees and their employer. Rousseau (2011) postulates that employees have some expectations which they desire to be met by their masters after signing employment contracts. Employers also have their expectations from their employees. This leads to a mutual understanding between the two parties in a give and take scenario. Massingham and Tam (2015) say that a psychological contract works effectively only if both parties' expectations, beliefs, wants and needs are met. This shows that employees tend to be efficient and productive only when they have a positive mindset about their company and when their expectations are surpassed. In such an environment, there is job satisfaction, reduced staff turnover and employee commitment. If both parties outdo themselves and meet each other's expectations and desires, the company's performance will improve increase. Rousseau (2011) points out that the significance of psychological contract management results in a conducive environment for both the employer and the employee. Presumably, the agreement should be aligned strategically to reach a mutual benefit to achieve a psychological contract.

Locke (1976) says that employee satisfaction measures the contentment of an individual in the workplace. Employees tend to be cheerful and more productive only if the employer fulfils their expectations and needs. This leads employees to strive towards the achievement of the company's mission statement, values and vision (Rousseau, 2011). Thus, it is the willingness to remain in the same company and the loyalty that an employee has towards the company. O'Reilly and Chatman (1986) define commitment as “the psychological attachment felt by the

individual for the company,” i.e. the degree to which the individual is positively affected by the company’s systems and policies and willingly adopts its culture of doing things. The two factors of a psychological contract define the emotional bond between employees and employers (Massingham & Tam, 2015). It is important to note that an employee’s capability relatively depends on their commitment and satisfaction. Their findings reflect that an intense psychological contract is achieved when employees are committed and satisfied in their workplace. Thus, employees with the above attributes normally work tirelessly and surpass the company’s expectations because they feel like they are a part of the company. Zahra and Nielsen (2002) submit that employee capability is made up of specific knowledge, skills, creativity, experience, talents and expertise.

The resource-based view theory recognises human capital as a rare, inimitable and non-substitutable resource which is a significant source of the company’s success (Zahra & Nielsen, 2002). It is prudent for a company to employ a workforce that is knowledgeable, qualified, skilled and experienced. Massingham and Tam (2015) concur with the idea that employee capability increases over time due to the acquired skills, knowledge and specialisation. These individual attributes are sharpened by the employer over time. Grant (2014) says that employee capability is a primary feature of the human capital element. Employee capacity does not guarantee effective performance because employee capability is heavily premised on the employees’ satisfaction and commitment. The employees’ performance is based on their emotional relationship with the company, as measured through employee satisfaction and loyalty. Thus, a skilled workforce can poorly perform if they feel foreign within an organisation, resulting in a low psychological contract score. Likewise, unmotivated employees are always grumpy and not willing to meet the employer’s expectations. They develop a grab-and-go policy (Bontis, 2003).

Bontis (2003) argues that the psychological contract addresses some of the shortcomings of the human capital theory. One of the weaknesses of the theory is its ignorance of the changes in individual behaviour at the workplace. This study utilises factors of the psychological contract to explain the individual level of motivational, organisational and management barriers. These barriers include the extent to which an individual innately believes that they have got “life all figured out” and calculative reward and trust (Grant, 2014). Employee satisfaction drives individuals to perform remarkably. For instance, geologists may decide to be unproductive and less creative because of the type of emotional relationship they have with

the company. On the other hand, employee commitment focuses on the willingness to stay with the same employer for the foreseeable future (Massingham & Tam, 2015). Committed and satisfied employees are most likely to contribute immensely to value creation and success of the company only if there is a high score on the psychological contract.

#### **2.8.4 Value relevance theory**

Chiva et al. (2007) argue that in the knowledge economy, the competitiveness of a company lies in its investment in intangible assets such as knowledge and skills of human capital and the way the company treats them. The innovativeness of an individual is characterised by the competencies, skills, attitudes, knowledge, capabilities and the emotional relationship between the employee and the employer. There is evidence that if a company is well acquainted with the ever-changing technology and if it strategically employs reasonable measures to recruit and retain a skilled workforce, its innovativeness remains high (Subramaniam & Youndt, 2005). A company's competitiveness is derived from the characteristics of human capital. Edvinsson and Malone (1997) say that employees' creativity brings a positive change in an organisation. Such results are seen through increased productivity, the introduction of new products, the attraction of new investors, and cost minimisations, among other things. Employee innovation is recognised as a significant factor in creating a company's value and competitiveness (Tseng & Goo, 2005). Companies should plan accordingly on training and development programs to guarantee increased productivity (Martin, 2009). Human capital has a positive link with financial information and value creation of a company due to skills and knowledge calculated in the human capital component. Hence, human capital can determine the innovation capacity of a company. Littlewood (2004) supports the argument that human capital information determines the competitiveness of a company.

Moore and Craig (2005) point out that multiple companies restructured their business operations because they have fully embraced the knowledge-based economy. Adewelotan (2013) says that most companies are currently relying on intangible assets such as knowledge and skills from human capital and not on tangible physical assets. Therefore, the time has come for companies to invest in critical skills and competencies that will result in improved financial performance and value. Companies should be able to manage human capital intangibles, knowledge and innovation to gain a competitive advantage (Al-Ali, 2003). Chen and Lin (2004) emphasise that companies should balance their investment between physical assets (based on the traditional economy) and intangible assets (based on the knowledge economy),



with particular reference to human capital information. However, Karim (2006) argues that companies are not capable of utilising their internal processes to renew knowledge because knowledge, competent skills, creativity and capability, among others, are embedded in employees.

Lev and Schwartz (1971) posit that human capital should be recognised and measured as an intangible asset in the financial statements because it significantly contributes to competitive advantage and generation of cash flows. However, accountancy professional bodies and governments do not recognise human capital as an asset but as an expense that reduces the company's value. The non-disclosure of human capital creates a gap between the company's book value and market value, which is a disadvantage to investors who need to make informed decisions. Non-disclosure also results in information asymmetry. On the other hand, the measurement and disclosure of human capital allows key stakeholders to evaluate the contributions of human capital.

Lajili and Zeghal (2005) conducted a study in the Canada and found that human capital disclosure is value relevant. They said that, at times, investors fail to interpret information regarding human capital when making decisions. Companies must create awareness about the importance of human capital so that stakeholders understand the component and its contributions (Moloi & Adelowotan, 2018). Some key stakeholders are financially illiterate and conditioned to only measure success and value through analysing profits. The measurement and disclosure of human capital provide users of financial statements with information that helps to reduce information asymmetry between preparers (accountants) and financial and non-financial users of financial statements. It assists them in making informed decisions (Bukh et al., 2005). When human capital is measured and disclosed, users are in a good position to measure the actual value of return on capital, as well as the asset turnover of a company.

Human capital adds significant value to the creation of economic value within a company. Bukh et al. (2005) argue that the recognition, measurement and reporting of human capital gives a chance to mitigate information asymmetry in the financial statements. This shows that full disclosure of human capital provides value relevant information to capital providers, potential investors and other stakeholder groups. Studies show that the value of human capital can be easily established through the difference between the market value of the company and its book value (Edvinsson & Malone, 1997; Stewart, 2011; Sveiby, 2010). If the value of human capital is fully disclosed in the financial reports, decision-makers can use the disclosed

information to make informed decisions. Companies should be aware that failure to disclose human capital in financial statements leads to an understatement of the market value of the company (Adelowotan, 2013). As a result, some key stakeholders, such as financial analysts, tend to use incomplete financial information to invest. Such analysis is unreliable and inadequate for investment purposes.

Zeghal and Maaloul (2011) state that to some extent, a company's failure to recognise human capital as an asset negatively affects the value-relevance of financial statements to shareholders, investors and other users. Nevertheless, due to the information age, some developed countries have increased awareness of human capital and its measurements. This is an era where information guides the performance of the company (Moloi & Adelowotan, 2018). The full measurement and disclosure of human capital to achieve comprehensive financial reporting "remains a bone of contention". Kamala (2014) says that improving financial reporting may entail the adoption of fair value estimates in the measurement of intangibles like the human capital of a company. The recognition and disclosure of human capital intangibles in the financial statements is drawn from the definition given by the IASB (Adelowotan, 2013). The definition treats intangibles as hidden assets that have non-monetary value and do not have a physical nature. IAS 38 defines intangible assets as "assets that are identifiable, non-monetary and without physical substance". The Standard asserts that intangibles should be recorded and recognised if they fall within the borders of the definition and if the assets meet the recognition criteria.

## **2.9 Chapter summary and conclusion**

Factors that influence the classification, measurement and disclosure of human capital include the type of industry in which the company operates, the size of the company, profitability, liquidity, size of the debt, listing status, market to book value ratio, type of the auditor, the dividend paid, and the growth of the company. The theories that underpin factors that influence human capital disclosure practices include the agency theory, legitimacy theory, signalling theory, proprietary cost theory, and the political economy theory. Companies should not only determine the impact of the value of human capital on financial performance but should measure the earnings. They should also invest in their employees and transform them into valuable, rare and inimitable assets. This will improve firm performance, which is driven by a competent, innovative, creative and knowledgeable workforce. This study outlines the psychological contract, which is the emotional relationship between the employer and the

employee. Human capital significantly contributes to value creation and success. Various companies do not disclose human capital because they fear giving away vital information to competitors and labour.

## **CHAPTER THREE**

### **HUMAN CAPITAL DISCLOSURE PRACTICES**

#### **3.1 Introduction**

This study seeks to develop a framework for measuring and disclosing human capital in the financial statements of selected mining companies in Zimbabwe. The preceding chapter discusses factors that influence the measurement and disclosure of human capital. It also examines the relationship between the value of human capital and the value of the company. Also, it analyses the effect of human capital on a firm's financial performance. Furthermore, the chapter outlines possible reasons for human capital non-disclosure and discusses theories of human capital disclosure. This chapter explores the current disclosure practices in Zimbabwe and gives an overview of human capital reporting across the globe. The chapter also examines international regulatory and local regulatory reporting guidelines related to financial reporting in Zimbabwe. It presents some background information on the mines and minerals sector in Zimbabwe.

This chapter is structured as follows. Section 3.2 outlines international studies on human capital measurement. Section 3.3 discusses the disclosure of human capital in the SADC region. Section 3.4 examines human capital measurement and disclosure in Zimbabwe, while section 3.5 summarises the knowledge gaps. In section 3.6, the chapter considers the regulatory framework. A chapter summary is given in section 3.7.

#### **3.2 Global view of human capital measurement and disclosure**

Chapter 1 of this study introduces human capital as a significant company resource. Human capital is an “asset that wears shoes”. According to Nyamubarwa et al. (2013) an increased focus on human capital disclosure by various industries and companies could be an important driver of long-term value. The literature reveals that in developed and developing countries, multiple studies have been carried out on human capital reporting. Scholars have been lobbying for the measurement of intangible assets and their disclosure in financial statements. Examples of companies that are currently measuring and disclosing human capital for internal and external reporting include the “Indian Infosys, Canadian Imperial Bank of Commerce, Dow Chemicals, Skandia Group, Telia and the Buckman Laboratories” (Khan & Khan, 2010). However, measuring and disclosing the value of human capital has gone to waste because human capital-related costs are still recognised as an expenditure in the profit and loss account

(Mayo, 2016). The measurement of human capital using the salary aspect is inadequate, considering that human capital aspects anchor many companies, allowing them to remain competitive and leading as industry champions. Baron and Armstrong (2007) say that “you cannot manage without measuring”. Companies should bear in mind that to manage a resource. There is a need to measure it and establish its value. The U.S. Securities and Exchange Commission (2020) asserts that the measurement and disclosure of human capital may assist stakeholders in evaluating whether a business has the right workforce to meet immediate and emerging business challenges.

OECD (2006) argues that at a national, societal or organisational level, the recognition of human capital as a key driver for achieving strategic goals leads to increased returns on investment. Thus, a combination of tangible and intangible assets is an excellent procedure for results-oriented companies, as they lead to value creation and success. Some authors suggest that it is a noble idea for companies to prioritise the development of their human capital to yield positive economic growth and development (World-Bank, 2018) because human capital development results in high retention rates of an innovative, competent, talented, knowledgeable and capable workforce.

Chen and Lin (2004) argue that financial capital, customer capital and organisational capital contribute to a company’s value and centre on human capital. This means that human capital acts as a foundation for other capitals. However, literature shows that the qualitative and quantitative measure of human capital is very limited across the globe (CIPD, 2015). It is difficult to obtain statistical data on human capital in the financial statements. It is more difficult to apply data to managing human capital. Limited statistical data in the financial statements provide evidence that the needs of stakeholders are not met. Companies do not properly disclose returns on employee investments and their knowledge assets. Chen and Lin (2004) assert that financial statements are misleading when they omit to measure and disclose human capital. Effective measurement and disclosure of human capital will provide stakeholders with a new window into how a company manages its workforce and the extent to which it invests in its people to create long-term value.

Large corporates regularly measure and disclose human capital information based on contextual settings (Beattie & Thomson, 2010). SEC (2020) says that it is necessary to tailor the measurement and disclosure of human capital with the company’s business or industry. Context-dependent settings allow measurement and disclosure to evolve in response to changes

in a company's environment. In Germany, the GAS 12 recommends that companies should report about their intellectual capital in management reports. However, this is done voluntarily. In Denmark, companies are mandated to report on intellectual capital in their management reports. In Austria, intellectual capital reporting became mandatory for all universities from 1 January 2006. Guthrie and Petty (2000) conducted investigations on human capital reporting in Australia and found that human capital is poorly understood, hardly identified, inefficiently managed and not reported within a consistent framework, when reported at all.

Steenkamp (2007) conducted a study and established that there is uniformity in intellectual reporting and that external capital is highly reported in corporate annual reports. This shows that there is a lack of awareness of the importance of human capital and that companies tend to ignore it. Brennan (2001) and Vandemaele et al. (2005) established similar results. Their findings reveal that human capital and internal capital disclosure levels are at par. Other studies show varying results. In Sri Lanka, various companies disclose human capital but omit internal capital (Abeysekera & Guthrie, 2004). In Spain, human capital is the least reported component of intellectual capital (Oliveras & Kasperskaya, 2015). The same goes for Italy (Bozzolan et. al., 2004) and Malaysia (Goh & Lim, 2004). Adelowotan (2013) highlights that various companies show low interest in human capital information and reported nothing on it in their corporate annual reports. The study indicates that most available information on reports includes the firms' strategy, customer relationships and business models under the management reports section. Arvidsson (2003) made similar findings that management and financial analysts both disclosed the least amount of human capital information.

Flostrand (2006) carried out a study that deduced that human capital is least reported by companies. Abhayawansa and Abeysekera (2008) point out that Sub-Saharan African countries, such as Ghana, Kenya and South Africa, embrace human capital disclosure in their corporate annual reports. Yearly reports are the most popular medium for communicating the financial performance, competitiveness and financial position of companies. Abhayawansa and Abeysekera (2008) note that human capital disclosure in annual reports cuts across the "chairman's report, directors' report, auditor's report, corporate governance report, corporate social report, financial statements and notes to the financial statements". However, these disclosures are not regulated by policymakers.

Bontis (2003) carried out a study on intellectual capital disclosure by Canadian corporations. The content analysis methodology was used to determine the extent to which companies report

on “intellectual capital” in their financial accounts. The study utilised 10 000 corporate annual reports obtained from Compact D: Concorp Plus database. Before performing the analysis, the author compiled terms related to intellectual capital to identify companies that disclose human capital. These terms were gathered through the review of intellectual capital books and articles. Thirty-nine conditions were determined, but only seven terms were published in annual reports. These were “employee productivity, employee value, human assets, human capital, intellectual assets, intellectual capital and knowledge management”. Out of the 10 000 corporations, only 68 companies used the above terms. Companies preferred to disclose intellectual property than intellectual capital. Five companies out of 10 000 corporations disclosed intellectual capital.

The reporting of human capital by some companies shows that there is a possibility for the recognition of human capital as an intangible asset in the financial statements. Singh and Van Der Zahn (2007) submit that the recognition of human capital brings a competitive advantage. There is evidence that disclosing human capital information leads to a reduction of the cost of capital and enables a company to match the “true future cash flows of business”. In contrast, the non-disclosure of human capital distorts the value of an entity, resulting in a negative impact on the cost of capital and the relevance of financial information (Dumay & Tull, 2007). Therefore, failure to measure and disclose the contribution of human capital to the company allows mismanagement and leads to poor control of human knowledge-based activities.

### **3.3 The measurement and disclosure of human capital in the SADC region**

Statistics show that the SADC population, approximated at 300 million people, forms almost one-third of Africa’s population (SADC Report, 2018). Naidu and Roberts (2004) say that SADC faces educational and wellness challenges due to the lack of proper infrastructure and financial resources to equip the educational sector. Educational qualifications enhance human capital and economic growth (Abeysekera & Guthrie, 2004). In 2014, the SADC held a summit under the theme “Industrialisation Strategy and Roadmap 2015-2063”. SADC member states agreed on education alignment to improve skills and talent. This resolution led Zimbabwe and other member states to revise and update their curriculums. Currently, the Zimbabwean curriculum aims to equip students with technical and vocational skills. It also introduced entrepreneurial programmes (Ministry of Education report (Zimbabwe), 2016). Brainpower is the driver of the world’s economic development (CIPD, 2015). Therefore, curriculums should provide modules and subjects that equip individuals to thrive in the new economy. The region requires a skilled and knowledgeable workforce to reach the 2063 goals. These human capital

attributes will be utilised by nations to enhance their economic growth and production. The road to economic prosperity in the new economy heavily depends on the exploitation of human capital through “cutting-edge technologies” which drive competitive advantage and leads to production at full capacity.

South Africa leads SADC in human capital reporting (Delloite, 2016) because the government and local professional bodies mandate all companies that trade on the JSE to adopt accounting reporting frameworks such as integrated reporting, GRI, IFRS and the King IV report. The human capital element is one of the six types of capital utilised by companies for full capacity production (IR, 2015). The IR reporting framework encourages corporates to report on human capital. However, its disclosure is voluntary in other SADC countries. The stance by the South African government led to high awareness of human capital usefulness in corporations, leading to the recognition of human capital as the key driver of their business models (Harmony Gold’s CARs, 2018). As a result, the frequency of reporting human capital has increased.

Wagiciengo and Belal (2010) carried out a study on intellectual capital disclosure by the largest companies in South Africa and found that between 2002-2006, there was an improvement in intelligent disclosure. Some companies reported more than others. They categorised intellectual capital into “relational capital, structural capital and human capital”. The findings reveal that most companies frequently report human capital. However, their conclusions contradict studies that indicated structural wealth as the most disclosed intellectual capital. That study used the content analysis methodology to gather data.

April et al. (2003) discovered that mining companies report on human capital occasionally, compared to other sectors that regularly report on human capital. Their findings show that mining companies highly rate human capital, notwithstanding that they do not fully record it in the financial statements. The results show that relational capital is highly reported (40), compared to human capital (30%). Their study used the content analysis method. They identified key attributes that created a percentage difference between the two components. However, they did not clarify the number of attributes and also failed to explain how they affect the reporting of human capital.

Companies that report on human capital use internal approaches and avail such information only to management, depriving the public access to such information (Moloi & Adelowotan, 2019). As such, stakeholders are kept in the dark concerning the use of human capital and how



it affects the company's value and performance. Cronje and Moolman (2013) state that it is high time for human capital intangibles to find their way into the statement of financial position because of their significant contribution to company success. Therefore, companies that adequately measure and disclose human capital gain a competitive advantage in their trading zones (Adelowotan, 2013) because they would have identified and recognised all the assets at their disposal (tangible and intangible), including human capital. Such companies maximise their production by optimising their investment portfolios. However, Mouristen et al. (2001) argue that various South African mining companies are interested in signing mega-deals and attracting foreign direct investments (FDIs). This means that there is a gap in the truth of all the employed assets. They further argue that such gaps increase the difference between the company's book value and market value.

Clare and Detore (2000) submit that the traditional based financial reporting system does not give an accurate and fair view of the financial statements and prospective future cash flows because they are prepared and presented using historical data, which makes financial statements lose qualitative characteristics such as reliability and relevance. If human capital reflects an accurate and fair view of the company's future earnings, it should be recognised as a leading indicator (Edvinsson & Malone, 1997). South African mining companies are aware of the significance of human capital, although their initiatives in response to its significance are still in infancy stages (April et al., 2003). Companies report more on external capital and not human capital. This is attributed to confusion in various companies, particularly on middle to general employees, concerning human capital and its contribution to the success of a company. Some companies have a low awareness of their human capital and are reluctant to measure and report it (Blair & Wallman, 2000). Their reluctance is attributed to the lack of an established and generally accepted framework to measure and disclose human capital. Hence, it is imperative to develop a framework that harmonises the measurement and disclosure of human capital in financial statements. Such a framework will enable companies to report on their human capital value to shareholders and other stakeholders, resulting in better investments and planned decisions.

Cronje and Moolman (2013) carried out a study on intellectual capital measurement, recognition and disclosure on 40 listed South African companies. The survey used content analysis to obtain information which revealed that the most reported intellectual capital component was human capital. The companies under review reported on human capital

attributes such as “knowledge, level of education and qualifications, skills, talent and work experience’. The findings placed “human capital at 40%, structural capital at 25% and relational capital at 35%”. These results contradict the study carried out by April et al. (2003), which indicated that relational capital was highly reported compared to the other two intellectual capital categories and their respective attributes.

Adewolotan (2013) carried out a study on the “significance of human capital disclosures in corporate annual reports of top South African listed companies” using content analysis and survey questionnaires. The findings reveal that preparers of corporate annual reports disclose information on learning, expertise, skills, competence, commitment, professional experience, capabilities and teamwork, among other human capital attributes. The disclosed information is inadequate, although the participants indicated that they consider it useful for decision-making purposes. The initiative to disclose human capital is enhanced by the requirements of the JSE, the government and accountancy professional bodies such as SAICA, all of which require listed companies to adopt integrated reporting framework, King IV and GRI.

### **3.4 Measurement and disclosure of human capital in Zimbabwe**

Zimbabwe is a developing country located in southern Africa. Its economy is financially distressed, affecting its access to regional and international markets. Notwithstanding, the mining sector is thriving. The Ministry of Mines and Mining Development administers the Mines and Minerals Act (Chapter 21:05). There is also an independent body, the Chamber of Mines of Zimbabwe (COMZ), whose role is to enhance and maintain good labour relations between mining employees and their employers. It also provides training and development programmes to improve the skills and talents of employees (Saunders, 2017). The COMZ markets precious metals extracted by companies and handles all transactions. Mobbs (2014) says that the COMZ was established in 1939 through an Act of Parliament. He describes the COMZ as an intermediary between the government and the mining industry and says that it is biased towards the interests of the mining sector. Zimbabwe used to be the breadbasket of Africa, owing to a massive agricultural industry which was the economy’s primary driver. The economic meltdown of the 2000s destroyed the agricultural sector and reduced Zimbabwe to a basket case (Hawkins, 2009). The mining industry is now the major contributor to the GDP (47%). Mobbs (2014) reveals that Zimbabwe extracts about 30 minerals and mineral-based commodities, including “gold and platinum group of metals (PGMs)” (Mobbs, 2014). The mining sector is the backbone of the Zimbabwean economy since the collapse of the

agricultural sector in 2000. Saunders (2017) confirms that the primary source of revenue in Zimbabwe is the mining sector and FDI. The mining sector is the major contributor to employment and skills development. Studies by Muza (2018), Mobbs (2014) and Ndlela (2010) show that the economic crisis is hitting Zimbabwe very hard, as witnessed by extreme load-shedding, shortage of essential food and fuel, and human capital flight.

The African Economic Outlook (2019) reports that Zimbabwe is among African nations with the highest number of young people aged 15 to 34. These youth comprise 36% of the total population. Despite a high literacy rate of 90%, most youths in Zimbabwe are unemployed, leading to their exodus to neighbouring countries and abroad in search of greener pastures. They have also established a large informal sector (Maune, 2016). The World Bank (2018) conducted a survey that shows that Zimbabwe's economic crisis is driven by political instability, failure to implement strategies, financial distress, low per capita income, and a lack of training. The country's economic and democratic development depends on human capital innovations, intelligence, expertise and competence (Maune, 2016). Therefore, it is vital for multiple sectors to recognise and measure the value of human capital because the component plays a significant role in business.

Studies suggest that companies in Zimbabwe should be encouraged to invest in human capital development. Maune (2016) says that Zimbabwe lags behind in human capital development, contrary to its high literacy rate. To improve its economic growth, the nation should consider developing critical skills personnel, such as engineers and technicians, for leading industries such as the mining industry, which is labour-intensive (COMZ, 2019). Regulatory and professional bodies should join hands in creating an awareness of human capital development and educate companies on its importance to their success. Mukwambo (2016) submits that without skilled and knowledgeable people, a company cannot reach its goals and achieve its objectives. Companies must adopt appropriate measures to enhance their human capital. Zimbabwe needs laws and regulations that encourage companies to improve their financial reporting systems and adopt frameworks such as the GRI and integrated reporting (IR).

Professional bodies such as the Institute of Chartered Accountants of Zimbabwe (ICAZ) and the IASB are silent on the measurement and disclosure of human capital (Owunsu-Ansah, 1998). There are minimal studies on human capital measurement, unlike in other countries. Owunsu-Ansah (1998) says that it is difficult to adapt their measurement approaches because

of different constructs adopted by various companies. This explains why the measurement and disclosure of human capital are problematic in Zimbabwe.

Mkumbuzi (2015) conducted a study on the voluntary disclosure of intellectual capital by listed companies in Zimbabwe. The study utilised a content analysis method to collect data from corporate annual reports. The findings show that mainly listed companies disclosed intellectual capital information on their annual reports and that relational capital is highly published (24%), followed by structural capital (16%) and human capital (14%). These results are similar to Irish and Italian studies, implying that Zimbabwean listed companies do not often disclose intellectual capital in general and human capital in particular. The non-disclosure of human capital is attributed to the lack of knowledge and comprehension of the effect of human capital disclosure on capital markets.

Nyamubarwa et al. (2013) analysed the human capital practices of the Zimbabwean mining industry using a resource-based view approach as a benchmark. The findings reveal that mining companies in Zimbabwe see human capital as an important resource and that they treat their human capital as a rare, inimitable and non-substitutable resource. Nyamubarwa et al. (2013) found that companies devise measures to retain and attract this resource to help them to accomplish their objectives, goals and visions. Some of the actions include training and development programmes, catering for their social and health wellness such as the provision of hospitals, schools, housing schemes, competitive rewards based on performance, and share ownership schemes. These measures are presumed to be productive and efficient ways to manage human resources and often lead to committed and satisfied employees whose productivity is high. The study by Nyamubarwa et al. (2013) used the non-random sampling method. They collected a large sample with the aim of generalising the findings. The study only focused on how human capital is treated in the mining industry. They did not address the measurement and disclosure of human capital, although they discussed ways to retain and attract human capital. This raises questions such as why is human capital treated as a rare, perfect and valuable resource of a company when it is still recognised as a period cost? This question boggles the accounting field.

Ziwengwa et al. (2013) conducted a study on the causal relationship between education and economic growth in Zimbabwe and found that schooling has a positive impact on economic growth. Education is one of the capital goods and has a direct relationship with human capital. Therefore, human capital brings positive change in many corporations, such as high returns on

investment. Evidence suggests that human capital affects the productivity of tangibles. As such, the government and key stakeholders should encourage investment in human capital. This will enhance economic growth (Maune, 2016).

### **3.5 Knowledge gaps on human capital disclosure practices**

Multiple studies focused on the extent of human capital disclosure and its significance on the success of various companies. Most of the studies were based on secondary data. Literature shows that most of them focused on human capital in developed nations. Relatively, a few studies were conducted on measurement and disclosure practices in developing countries such as the SADC region.

Most studies used content analysis to explore human capital disclosure practices. They analysed information found in corporate annual reports. This was an indication of the inherent limitation of information asymmetry because companies only disclose information that optimises their productivity. The needs of the users of annual reports become secondary. This issue is discussed in detail in chapter 2 of this study. Secondary data do not provide adequate information on the phenomena compared to primary data. As a result, most studies do not offer a balanced view on human capital reporting initiatives.

Multiple studies focused on establishing the frequency of human capital reporting compared to other capitals such as internal and external capitals. Most of these studies did not utilise theories that underpin the phenomena. Their results lack comprehensiveness, depth, detail and richness. Even though some studies focused on developing some frameworks, their work was not done properly because they required the inclusion of the stakeholders' perceptions with regards to human capital reporting practices.

Most of the studies were cross-sectional surveys. They would have been better if they were longitudinal studies. They used content analysis and did not use coding instruments, scales and index checklists to mitigate errors and to avoid vagueness when coding the themes of human capital. In Zimbabwe, there is a dearth of literature on human capital measurement and disclosure practices. The content analysis method is widely used by many studies in exploring the human capital phenomena. Despite its merits, the method suffers an inherent limitation of excluding important research subjects. As a result, the studies do not investigate different stakeholder groups to ascertain their perceptions towards human capital measurement. They also omit the needs of stakeholders. The studies also fail to measure the extent to which

stakeholders understand the human capital element and its relevance in decision-making. On the other hand, primary research allows multiple answers and analyses.

### **3.6 The regulatory framework for corporate disclosures in Zimbabwe**

This section examines international and local rules and regulations on the disclosure of elements found in financial statements. In Zimbabwe, listed entities use several guidelines and reporting criteria for the preparation and presentation of financial information. The fundamental standards, guidelines and frameworks include Global Reporting (GRI) standards, IFRS, the Zimbabwe Stock Exchange (ZSE) guidelines, the National Code of Corporate Governance (NCCGZ), and the Companies Act (Chapter 24:03). Zimbabwe has not fully developed its national accounting standards to suit its environment, operations and activities. Hence, local professional bodies such as the ICAZ and PAAB heavily depend on the IFRS developed by the IASB, IFAC and GAAP. Most entities face challenges to fairly present their financial statements due to the conflict between the IFRS and local statutory requirements (SI 33). In February 2019, the Zimbabwean government promulgated Statutory Instrument (SI) 33, which reintroduced the Zimbabwe dollar (ZWL) as legal tender. It prescribes that for accounting and other purposes, certain assets and liabilities had to be converted to Zimbabwean dollars with immediate effect at a rate at par with the United States Dollar (USD).

The PAAB issued a guidance note on the statutory instrument, noting that the requirements of SI 33 were contrary to the provisions of IAS 21. In the preceding years, management always followed accounting reporting frameworks. In 2019, companies experienced challenges because of the different requirements between IFRS and the local statutory instrument. Muza (2018) says that local professional accounting bodies are not fully engaging themselves in developing national standards. The professional bodies only show their existence during a crisis, such as hyperinflation, when they usually advise on how companies should prepare and present their financial statements. During such times, they engage with industry but end up contradicting government directives. The previous financial crises (2008 and 2019) call for the proactivity of professional bodies.

#### **3.6.1 International regulatory guidelines**

Several companies use various reporting standards when presenting their corporate annual reports. These are the International Financial Reporting Standards (IFRS) and Integrated Reporting (IR). In financial accounting, costs associated with human capital are treated as

period costs or expenses in the statement of profit or loss account. There are differences between a liability and an asset in the financial reporting conceptual framework. The differences enable one to arrive at the rationale of accounting for human capital as an asset rather than a period cost. Human capital provides value to companies. It is not a cost as currently presumed by the providers of capital. The financial reporting Conceptual framework (2018, para 4.3) defines an asset as a present economic resource controlled by the entity as a result of past events. Whereby an economic resource is a right that has the potential to generate economic benefits". This shows that a company has a moral and legal entitlement to the asset. At the same time, an economic resource is an item or element that is scarce and can produce financial benefits, which may result in cash inflows or a reduction in cash outflows.

### **3.6.2 Analysis of human capital reporting**

IAS 1 (Preparation and Presentation of Financial Statements), in line with IAS 38 (Intangible Assets), recognises human capital as an internally generated intangible. This implies that human capital meets the recognition criteria for inclusion when reporting financial information to capital providers and other relevant business constituencies (Gupta & Singh, 2014). A study conducted by Bernard, Dina and Andy (2013) found out that measuring human capital can help a company to formulate a business strategy. Human capital is defined by OECD, (2006) as the sum of all intangible knowledge resources, including the amount of all personal and company knowledge that a company can utilise to gain a competitive advantage.

Cronje and Moolman (2013) submit that the discussion of human capital in a company was initially propelled by the recognition of goodwill. Goodwill is an asset that forms part of the business. In a company, there is internally generated goodwill and the goodwill acquired in a business combination. An argument has arisen on the recognition of human capital on the financial statements (IASB, 2019). Others are in favour, while others oppose the recognition of human capital. The IASB devised ways to account for acquired goodwill and internally generated goodwill in financial reporting. IASB (2012) defines the goodwill acquired in a business combination as representing a payment made by an acquirer in anticipation of future economic benefits from assets that are not capable of being individually identified and separately recognised. In the statement of financial position, acquired goodwill is an asset. Its value is established through IFRS 3 (Business Combinations). The goodwill value is the difference between the purchase consideration and the net asset value. This shows a value of the intangible asset that is not identifiable on the acquisition date.

This can be illustrated with an example of an acquirer who purchases a company from the acquiree, and the purchase consideration includes the value of existing employees (IFRS 3, Business Combinations). If the acquirer intends to continue to operate the new business from the acquisition date, the existing employees are not an identifiable asset. Their value is attached to the value of the goodwill acquired from the business combination and cannot be recognised separately from the goodwill earned. On the other hand, the IAS 38 treats internally generated goodwill as an expenditure in the statement of profit or loss and other comprehensive income. IASB (2012). Internally generated goodwill is recognised as period costs rather than as an asset. Hence, it is part of human capital and intellectual capital that is internally generated and expensed in the profit or loss account. From IAS 38, one sees that internally generated goodwill is likened to a cost incurred to build customer loyalty from critical customers. The Standard argues that building customer loyalty does not guarantee a company potential economic benefits.

A company has no means to control customers to continue as its customers, regardless of the expenditure incurred to build their loyalty. In addition, the asset is regarded as an unidentifiable asset. Olsson (2004) argue against recognising human capital as intangibles. Their debate cites the difficulties of measuring human capital as an identifiable asset. This is in line with the IASB arguments, which state that human capital does not meet the “recognition criteria as an asset”. They also emphasise that an asset should be measured reliably.

Cronje and Moolman (2013) argue that companies are not fully disclosing hidden capital such as human capital. Other authors are in favour of recognising, measuring and communicating human capital in financial reports (Rodov & Leliaert, 2002). They further state that different users of financial statements are denied access to meaningful information such as human capital for their decision-making purposes. Previous discussions show that the non-disclosure of human capital in financial statements creates a gap between book values and capital market values. Human capital is generated over time and should generally form part of the company’s internally generated value (Swart, 2006). It is sensible for a company to recognise these assets in the financial statements to enable key stakeholders to know the actual value of a company, in line with Marr, Schiuma and Neely’s (2004) sentiments that if human capital is measured and disclosed in the financial statements, shareholders can review them and get the true and fair value of the company. It is apparent that there is a need to determine methods to measure and disclose human capital to enhance traditional financial reporting (Cronje & Moolman,



2013). If companies fully disclose human capital and other components, it gives a platform for stakeholders to make informed decisions both from mandatory and discretionary information (Kukec, 2007).

### **3.6.3 Integrated reporting**

IIRC (2013) outlines the integrated framework to be adopted by companies when reporting corporate information. The primary purpose of integrated reporting is to explain to financial capital providers how the entity creates value over a given period. This information is also important to other stakeholders like employees, customers, suppliers, legislators, regulators, communities and policymakers. Among other things, integrated reporting is aimed at improving the quality of information to shareholders and enabling them to efficiently and productively allocate capital. In addition, IR aims to enhance accountability and stewardship for the six capitals, namely, financial, manufactured, intellectual, human, social and natural capital. It also aims to promote an understanding of their interdependencies.

IIRC (2013) emphasises the importance of integrated thinking among entities to enable entities to establish relationships between their operating and functional units and capital, allowing them to create value over time. Consequently, human capital is part of the six capitals on which entities depend for their success and value creation. Human capital is a stock of value that can be increased, decreased or transformed through the activities and outcomes of the entity. For example, human capital can be improved through training and development. The IIRC (2013) states that “human capital consists of people’s competencies, capabilities and experiences, and their motivations to innovate” i.e. they align with and support an entity’s governance framework, risk management approach, and ethical values. However, the IR framework is adopted by companies voluntarily, making information incomparable among companies that do not choose the framework. In the SADC region, only South African listed companies are mandated to use the country’s IR guidelines for annual integrated reports. In addition, the framework is qualitative and very comprehensive, which may result in the failure of other stakeholders to understand it. There is no consistency in the number of capitals disclosed in reporting. Others treat human capital as part of intellectual capital and report only five capitals instead of six.

### **3.6.4 Local regulatory reporting frameworks**

Mobbs (2014) says that “the Ministry of Mines and Mining Development manages the mineral sector per the Mines and Minerals Act (chapter 21:05), and the mining (general) regulations of

1977 and their amendments. Mining operations are also regulated by sections of the Environmental Management Act of 2002 (chapter 20:27) and its 2007 amendment, the Explosives Act, the Forest Act, the Parks and Wildlife Act, the Public Health Act, and the Suppression of Money Laundering Act”.

### **3.6.4.1 Labour laws and regulations in Zimbabwe**

#### **3.6.4.1.1 The Zimbabwe Stock Exchange (ZSE)**

The ZSE requires mining companies to disclose competent persons’ reports in their corporate annual reports. It stipulates that the provisions of paragraphs 12.8 and 12.9 shall, *mutatis mutandis*, apply in respect of the content of a competent person’s statement for mining companies, save that the term “exploration” shall be substituted with that of “mining”. In addition, the qualified person’s report must contain, in respect of the issuer’s mineral resources and reserves, a statement providing:

- the geological features of the occurrence, the type of deposit and its dimensions;
- an estimate of the volumes, tonnages and grades, as appropriate;
- a general description of the methods by which the details under (ii) were estimated;
- the anticipated mining tonnages or volumes; and
- the processing volumes or tonnages, together with the other principal assumptions relating to forecasting revenues and operating costs

The above estimates are conducted by experts using professional judgement. This is evidence of the importance of the human capital component. In addition, the ZSE requires all companies to disclose all relevant information in their annual reports.

#### **3.6.4.1.2 National Code of Corporate Governance**

The code emphasises the importance of the company’s primary and secondary stakeholders because both groups are affected by the corporate affairs of a company. The group consists of “shareholders, institutional investors, creditors, suppliers, customers, employees, regulators, trade unions, the media, analysts, and whole communities”. These stakeholders are significant to the company. They should be engaged regularly and constructively. A company should establish policies and systems that favour all stakeholders, as they all deserve to be treated with equity and fairness. Those charged with governance should be considerate when addressing the

needs and expectations of stakeholders. Stakeholders should be allowed to air their views and opinions on the affairs of the company and be given constructive feedback. The company should timely disclose information that is required by its stakeholders.

#### **3.6.4.1.3 Companies Act (Chapter 24:03)**

Section 142 of the Companies Act provides “General provisions as to contents and form of accounts” of the Zimbabwean Companies Act provides that: “Every balance sheet of a company shall give a true and fair view of the state of affairs of the company as at the end of its financial year. Every profit and loss account of a company also shall give a true and fair view of the profit or loss of the company for the financial year. Subject to subsection (1), a company’s balance sheet and profit and loss or income and expenditure account shall comply with any requirements that may be prescribed in regulations regarding their form and content and any additional information to be provided by way of notes”.

Therefore, all listed companies, including mining companies, must prepare and publicly present financial statements to stakeholders. The regulation is silent on reporting human capital, regardless of its usefulness for decision-making purposes. Adelowotan (2013) contends that human capital information is critical to key stakeholders, although it is not identified in corporate annual reports. Human capital information guides the company on issues such as talent management practices, employee engagement process and training programmes, among other things. As a result, such measures have a positive implication on the company’s financial performance and value creation.

#### **3.6.4.1.4 Labour Act (Chapter 28:01)**

The purpose of the Labour Act is to:

- “advance social justice and democracy in the workplace by
- giving effect to the fundamental rights of employees provided for under Part II of the act.
- providing a legal framework within which employees and employers can bargain collectively for the improvement of conditions of employment;
- the promotion of fair labour standards;
- the promotion of the participation by employees in decisions affecting their interests in the workplace;

- securing the just, effective and expeditious resolution of disputes and unfair labour practice”

#### **3.6.4.1.5 Manpower Planning and Development Act (Chapter 28:01)**

The main purpose of the act is to:

- “provide for the establishment, maintenance and operation of technical or vocational institutions, universities, teachers colleges and vocational training schemes
- provide for and promote the research, planning and development of human resources;
- provide for the establishment and functions of a National Manpower Advisory Council;
- provide for the training of apprentices and the certification of skilled workers;
- to provide for the continued existence of the Zimbabwe Manpower Development Fund and for the imposition of levies to finance workforce development and for other purposes;
- provide for matters connected with or incidental to the preceding.”

#### **3.6.4.1.6 Local accounting professional bodies (ICAZ and PAAB)**

Zimbabwean professional accounting bodies include the Institute of Chartered Accountant of Zimbabwe (ICAZ) and the Public Accountants and Auditors Board of Zimbabwe (PAAB). These professional bodies regulate the accounting profession and guide entities on how to apply standards in the preparation and presentation of financial statements. The PAAB was established in 1996 by public accountants and auditors. The board became a statutory regulatory and oversight body that represents the accounting profession. It also acts as a “national standard-setting body”. It enjoys statutory recognition for the accounting and auditing disciplines. The body regulates all the companies that trade their shares on the ZSE. It requires all companies (including listed mining companies) to adopt the IFRS/IAS for the preparation and presentation of financial statements. The ICAZ regulates the accounting profession. It is affiliated with SAICA, IFAC and IASC. ICAZ adopted IFRS without any alterations. This is a norm in developing countries (Muza, 2018).

These two bodies guide companies that are not yet familiar with IFRS/IAS. Currently, there are no standards that exclusively apply to the mining sector because the professional bodies have no power to issue accounting standards. This is why ICAZ is affiliated with SAICA. Only publicly listed companies are required to comply with international financial reporting

standards. This makes it impossible to regulate unlisted entities. Some companies de-list intentionally to shun regulation by the government and professional bodies. The lack of enforcement makes it possible for many entities not to comply with regulations on corporate governance and the presentation of financial statements.

### **3.7 Summary and conclusion**

There is a low level of human capital reporting in Zimbabwe and globally. Most human capital reporting studies were conducted using a content analysis methodology, proving that human capital is qualitatively reported in corporate annual reports. This chapter discusses rules and regulations that guide companies when compiling and preparing corporate annual reports and running their daily business. The discussion indicates that in Zimbabwe, human capital reporting is at the infancy stage. International rules and regulations consist of the International Financial Reporting Standards (IFRS) and the International Accounting Standards (IAS). Zimbabwe, among other SADC member states, is affected by these international rules and regulations. The country's local laws and rules include the Companies Act, 2006, the Zimbabwe Stock Exchange (ZSE) regulations, and the Zimbabwe National Code of Corporate Governance. This chapter also discusses statutes such as the Manpower Planning and Development Act, the Labour Act, and the Mines Minerals Act, 2015. Conclusively, Zimbabwe does not have national accounting standards that are tailored for the local environment.

## **CHAPTER FOUR**

### **CONCEPTUAL FRAMEWORK FOR HUMAN CAPITAL DISCLOSURE PRACTICES**

#### **4.1 Introduction**

The preceding two chapters discuss theories and empirical studies that underpin this study. They lay the foundation for the process of establishing concepts and themes to address the research problem. The chapters outline international and local regulatory frameworks utilised by companies for financial reporting. This chapter analyses human capital disclosure concepts and seeks to establish how companies value human capital and how employees expect appreciation from their employers. This chapter also discusses accounting theories on the roles and responsibilities of preparers and users of corporate annual reports.

This chapter focuses on measurement models and the indicators approach for measuring and disclosing the value of human capital. The conceptual framework in this chapter builds on the relationships identified in the literature review and the analysis of theories for measurement and disclosure of human capital in chapter 2 of this study. The concepts, theories and models examined in this chapter seek to answer the research questions and to achieve the objectives outlined in chapter 1.

This chapter is organised as follows. Section 4.2 commences with a discussion of the concept of measuring and disclosing human capital. Section 4.3 analyses financial information systems used in accounting. Section 4.4 outlines the role of accountants in the measurement and disclosure of human capital, while section 4.5 examines the usefulness of human capital information to stakeholder groups. Section 4.6 discusses manufactured consciousness, while section 4.7 outlines the perspectives of stakeholders on human capital measurement and disclosure. Section 4.8 discusses the measurement and disclosure models. A chapter summary is provided in section 4.9.

#### **4.2 Human capital**

Lev and Schwartz (1971); Brummet et al. (1968); Hekimiah and Jones (1967); Schultz (1961) and Mincer (1958), among other writers, pioneered the introduction of the concept of human capital. The idea is explained in “Wealth of Nations” by Smith (1976). In one of his writings, Smith says that education has various levels and that people hold different levels of education.

The productivity of people differs based on their knowledge. This results in mixed earnings. Lev and Schwartz (1971) argue that comparing returns from employee investment and returns from physical assets is not ideal because companies do not control their workforce, compared to physical tangibles, which they fully control. Although humans cannot be owned, the movement for the recognition of human intangibles as assets is in motion. Brummet et al. (1968); Hekimiah and Jones (1967) second the idea of measuring human capital in the statement of financial position. They argue for its amortisation over a reasonable number of years based on the individual's productivity. Although human capital is a crucial resource to many corporates, there is uncertainty about whether companies can attach a monetary value to their employees. This results in challenges on how to account for human capital. Bontis (2003) argues that due to the non-disclosure of human capital intangibles, a blueprint was established in the 1980s to recognise all the components of intellectual capital, including human capital. However, measuring human capital is a problem, notwithstanding its immense contribution to economic growth.

There are three primary attributes of human capital, namely, training, education and experience (industry experience and individual experience) (Lev & Schwartz, 1971). Mincer (1958) measured human capital using "training and educational status". Schultz (1961) measured human capital using education and training and added other attributes that were not included in studies conducted by Schultz (1961) and Mincer (1958). The additional attributes were employee's health, professional skills and abilities. He encouraged companies to invest in human capital to create value and increase productivity.

Hatch and Dyer (2004) and Snell et al. (1996) agree that factors used to measure human capital should encompass professional skills and personal attributes. Adewelotan (2013) argues that human capital is made up of individual characteristics and the collective workforce of a company. As such, it consists of employee talents, expertise and skills, which are enhanced through training and development in the hope of improving productivity and earnings, human capability, and educational qualifications. Other authors say that human capital is embedded in personality traits such as creativity, imagination, the ability to learn, reliability, commitment, attitude, aptitude, and focus on the company's objectives (Fitz-enz, 2000). Mubarik et al. (2018) describe intangible resources as components that can create a company's value and mould its business model. This shows that the measurement of human capital as an intangible asset in the financial statements is essential.

Bontis (2001), Brooking (1996), Ulrich (1998), Edvisson and Sullivan (1996) and Luthans (2004) designed various models to measure human capital. They considered these attributes of human capital: knowledge, professional skills, creativity, abilities, employees' experience, competence, stability, and health and wellness. Other studies added employees' commitment, motivation and attitudes to the list of attributes (Mubarik et al., 2005). However, there is a gap in measuring human capital due to various definitions of human capital, approaches and indicators. Most studies focus on the market value of human capital and overlook its quantitative aspect. Bullen and Eyler (2010) argue that human capital has qualitative and quantitative factors. However, many studies are selective on the indicators of human capital. Purcell (2003) submits that since there are numerous aspects of human capital, it is prudent for companies to objectively choose the relevant attributes to measure the value of human capital.

The previous chapters allude to the argument that human capital is a critical resource that significantly creates a company's success and enhances economic growth when it is carefully extracted and developed. This is also evident from studies by Bontis (2003), Mubarik et al. (2005); Cronje & Moolman (2013); Adewolotan (2013) and Beattie & Smith (2010). Abeysekera (2008) says that there is a need to establish a framework for measuring and disclosing human capital in financial statements to enhance capital accumulation.

#### **4.3 Financial information systems used in accounting**

Bragg (2018) submits that a financial information system is utilised for gathering and analysing financial data in an organisation. The system functions properly if it is used together with decision support systems. Maune (2016) states that companies disclose certain information in financial statements based on different internal and external factors. This section discusses the stakeholder theory and the decision-usefulness theory to support the conceptual context. Adewolotan (2013) says that financial information systems produce relevant and reliable information that can be used by different stakeholder groups for decision-making purposes. Such information can be presented voluntarily. At times, its disclosure is mandatory. Companies strive to produce financial information that meets the needs of all users (Ax & Marton, 2008).

Petty and Guthrie (2000) say that the measurement and disclosure of human capital information in financial statements may be voluntary. Disclosure includes information such as employee health, wellness and safety, public and consumer health, customer satisfaction, human capital



practices, intellectual capital development and management, training and development practices, talent management practices, and employee engagement processes. Riahi-Belkaoui (2003) affirms that companies utilise accounting practices and principles to develop the qualitative objectives of information in their annual reports. Annual reports must meet the following qualitative characteristics: faithful representation, objectivity, understandability, timeliness, neutrality, completeness and comparability (see the conceptual accounting framework). These qualitative characteristics present the primary objective of financial statements, i.e. financial statements should present relevant and reliable financial information to various users for decision-making purposes. Financial information is provided to all stakeholders through the use of corporate annual reports, media, websites, statistical reports, speeches and announcements (Cronje, 2008). The widely used platform for the presentation of financial information in corporate annual reports, which are placed in the media and on company websites. Corporate annual reports are cost-effective compared to other platforms. Evidence suggests that yearly corporate reports are an effective platform to disseminate financial information to all users of financial statements (Abeysekera, 2009).

There are two fundamental disclosure practice systems (Adewolotan, 2013; Cronje, 2008), namely, mandatory and voluntary disclosure practices. These drive the preparation and presentation of financial information. Regulated and standardised accounting information is produced through The Financial Compulsory Information System (MFIS). Accounting professional bodies, such as IASB, set rules and regulations that enjoin companies to provide financial statements to users. The preparation and presentation of financial information are guided by local and international laws and standards, stock exchange requirements, securities law, and company law. The regulation of financial reporting promotes uniformity, comparability and harmonisation of information provided to stakeholders by companies (Cronje & Moolman, 2013). The MFIS generates information that meets the general objective of accounting, which is to provide useful information to shareholders of the company and other key stakeholders.

The discretionary information system requires the production of contextualised information. Disclosure of optional information is based on company systems and policies. Voluntary information assists users in interpreting mandatory information, which is regularly presented in numbers and figures (Cronje, 2008). Adelowotan (2013) asserts that the main characteristic of discretionary disclosure is flexibility and relevance, compared to the mandatory financial

information system. However, discretionary disclosures lack uniformity, leading to incomparability of information. OECD (2006) lists several examples of discretionary disclosures, which include human rights, corporate governance, consumer and public health, research and development, customer loyalty and satisfaction, operational and financial reviews, environmental and social impacts of corporate operations, and human capital practices.

Mandatory and discretionary information complement each other in that the two are intertwined and interdependent (Adewolotan, 2013, Cronje and Moolman, 2012, Abeysekera, 2008). When mandatory information is presented together with optional information, users of financial statements are in a better position to make informed economic decisions.

#### **4.4 The role of accountants in the measurement and disclosure of human capital**

Accountants are the preparers of financial statements. They play a significant role in communicating financial information (Cronje, 2008). Accountants generate financial information for users of financial statements (Muza, 2018). Their duty is to provide reliable, complete and relevant information to users for decision-making purposes (Cronje, 2008). The decision-usefulness concept regulates the accounting reporting system, as seen from the literature. Financial reports must meet the peculiar needs of heterogeneous users of accounting information. However, other studies criticise this view (Williams, 2001; Pallot, 2001). They argue that “decision usefulness” cannot be referred to as the main objective of providing accounting information. Williams (2001) says that regardless of the usefulness of accounting information for decision-making purposes, it does not qualify as decision-useful. The meaning of ‘decision-usefulness’ is not fully defined and understood. Accountants were one of the management stakeholders on which this study relied on.

#### **4.5 The usefulness of human capital information to stakeholder groups**

There are several users of financial statements, namely, managers, investors, creditors, employees, competitors, suppliers, customers, debtors, government, and revenue authorities. These users are heterogeneous and have diverse needs. Gouws (1997) identifies some features of these users, which consist of know-how (practical skills, knowledge and expertise), education, and societal norms and beliefs. Hence, preparers of financial statements should comprehend all the characteristics of users so that they to cater all users’ diverse needs. Users of financial statements demand more relevant and reliable accounting information, particularly information that has value relevance. Cronje (2008), Abeysekera & Murthy (2007), Cronje &

Moolman (2013) and Adelowotan, (2013) contend that human capital information is useful for decision-making.

Some companies respond to the needs of users by disclosing non-financial information using integrated reporting (Vandemaele et al., 2005). Healy and Palepu (2001) submit that the disclosure of non-financial information, such as human capital and metrics, reduces information asymmetry, enhances stock market liquidity, and reduces the cost of capital. Samudhram et al. (2010) assert that both internal and external user groups confirm that human capital information is vital for their decision-making purposes.

#### **4.5.1 The decision-usefulness theory**

Companies must generate relevant and reliable financial information for all stakeholders. This makes corporate annual reports useful for decision-making purposes. The decision-usefulness theory underpins financial accounting disclosure practices that are enforced by regulatory and professional bodies. As indicated above, financial and non-financial information is interdependent and intertwined, making it useful for meeting the different needs of heterogeneous users (Deegan, 2006). Cronje (2008) argues that this theory complements the primary aim of financial statements, which is to fulfil the requirements of heterogeneous stakeholders to make future estimates. As such, accounting information is useful to users and gives them a chance to analyse and assess the performance and value of a company and to plan for the future (Kamala, 2014). The regular publication of financial information mitigates uncertainties and risks that encircle every action. The decision usefulness theory was established through a consultative process which led to a consensus. Coetzee (2010) submits that a due diligence process was done before the final work was submitted on the decision-usefulness theory.

#### **4.5.2 Paradigms of decision usefulness theory**

Kuhn (1962) says that “a concept is an approach to knowledge advancement that adopts particular theoretical assumptions, research goals and research methods”. A concept assimilates philosophies, approaches, and other instruments that contribute to the body of knowledge in a specific field (Belkaoui, 1995). Ritzer (1975) posits that there are different world views in accounting research, thereby highlighting the importance of the paradigm. It guides on what should be investigated, the questions to be asked, the method of asking questions, and the regulations one must follow when analysing the feedback. This study establishes two paradigms to enhance the decision-usefulness approach, namely, “the decision

models paradigm and the decision-makers paradigm”. The study utilises these paradigms partly because they have been found useful in other studies on disclosure practices.

#### **4.5.2.1 Decision-models paradigm**

In the 21<sup>st</sup> Century, total involvement is encouraged when financial statements are prepared. Accountants do not decide what to publish to users of financial statements. They should undertake surveys to get the stakeholders’ perspectives on what users of financial statements expect and need. This will help them to prepare and present accounting information that meets the needs of all stakeholder groups (Kamala, 2014). When they have asked all stakeholders about the type of information they want to see in the financial statements, accountants should manufacture the consciousness of these users and indirectly decide on the information to be reported without users’ awareness of the manipulation (Wolk et al., 2001). As such, a one size fits all approach has been implemented based on the argument that it is costly to cater to individual needs. Accountants assume that despite differences between users, all users need similar information, as long as the information is relevant and reliable, and if it meets all the qualitative characteristics. However, this overrides the objective of meeting the individualistic needs of users, as prescribed by the conceptual accounting framework. It allows accountants to put what they deem fit for all the stakeholders (Belkaoui, 2004).

Bebbington et al. (2001) submit that it is costly for a company to cater for the needs of all users of financial statements. However, this makes financial statements meaningless since individual needs are not met. It is an unacceptable paradigm (Kamala, 2014). It allows management to manipulate the financial reporting system, resulting in the omission of important information. Some of the information that is usually left out includes the real value of human capital and its contribution to a company. As such, this paradigm is not considerate. It ignores the views of users with regards to the information they need to make economically informed decisions. This study seeks to get various stakeholders’ perceptions towards valuing and disclosing human capital information in financial statements. This is motivated by the fact that financial reports do not adequately disclose all information that is relevant and expedient for planning purposes.

#### **4.5.2.2 Decision-makers’ paradigm**

This paradigm acknowledges that users of financial statements are eligible to identify the kind of information they need to make informed decisions, as opposed to the decision model approach. Users have expectations that preparers should meet. They know the kind of

information that should be provided to them (American Accounting Association, 1973; Bebbington et al., 2001; Kamala, 2014). Thus, users dictate the kind of information they want. It is the duty of accountants to provide complete, reliable and relevant financial information on time. The approach is referred to as a bottom-up approach because it uses a democratic style by allowing users to air their views. This contrasts with the decision model paradigm (Schoonraad, 2004). This paradigm also enables studies to get the perceptions of the information provided and to ascertain if it meets their varied needs (Deegan, 2006). It also gives users a platform to request the information they require from companies, particularly when such information has not been disclosed.

This paradigm is explained clearly through the behavioural accounting research approach. One of the pioneers of this approach was Bruns (1968). The procedure fits this study because it allows users of financial statements to indicate the type of information they expect. The underlying assumption is that accounting information influences how users behave (Deegan, 2006). In this approach, all stakeholder groups are relevant and are given a chance to say what accountants should include in financial reports. The approach allows surveys to be conducted so that users' perception can be considered. In the accounting field, this inquiry is referred to as a consultative process. Consultative processes were used to establish International Financial Reporting Standards (IFRS). They help to avoid omitting vital information that is required by users to make economically informed decisions (Belkaoui, 2004).

Users of financial statements include primary stakeholders, such as investors, creditors and shareholders. Secondary users include suppliers, customers, employees, and government bodies, among others. Bruns (1968) asserts that accounting information provided to users drives their behaviour. Hence, there is a need to ensure the inclusion of all users when determining the content of financial statements. After making findings based on a consultative process, only relevant, objective, reliable and material information should be considered to ensure that safe and appropriate financial information is reported to all users and that the corporate name is not put into disrepute by the publication of reports that have errors, irregularities and mistakes (Kamala, 2014; AAA, 1977; Bruns, 1968). Deegan and Rankin (1997) argue that preparers of financial statements can provide users with comprehensive accounting information and allow them to rank it according to what they regard as important. This is another method of establishing meaningful data based on the perceptions of all stakeholder groups.

Allowing users to identify the kind of information they want in the corporate annual reports mitigates situations in which the needs of some users are not met (Deegan, 2006). Kamala (2014) argues that a consultative process is time-consuming and costly. Also, there is an argument that even if users were to be given a chance to say what they want to see in the financial statements, some are economically illiterate, making it impossible for them to decide on the information they want. Their failure to indicate what they wish to be disclosed in the financial statements becomes a waste of time and resources (Bebbington, 2001). There is a chance that financially literate users will suggest the inclusion of immaterial, unreliable and irrelevant information. It will not be easy to meet deadlines when gathering such information, resulting in the late preparation and presentation of corporate annual reports. Companies can utilise technology to reach out to users on time and reduce costs (Bebbington, 2001). The 21<sup>st</sup> Century business environment requires companies to use cost-effective methods which involve all users. In the digital economy, online surveys can be utilised to avoid the infringement of the rights of other stakeholders (Kamala, 2014).

There are perceptions that decision-makers are not always the best candidates to determine the kind of accounting information that should be disclosed because users may fail to identify their own needs (Kamala, 2014). As stated earlier, some users are not qualified to determine the kind of information they want. This study neutralises this criticism by highlighting that preparers present information in a way that laypersons understand and can easily interpret for decision-making purposes. Financial statements are presented using numbers, figures, narratives, and common words. Some reports are freely explained in detail, making it easier for users to comprehend them (Cronje, 2008).

This study utilised stakeholder groups that have the know-how, education, and skills to interpret financial statements. These stakeholders are representatives of other groups. All the participants were encouraged to state their honest opinions about human capital reporting. It must be noted that every approach has inherent limitations which can be managed. This study used the interview guide and questionnaires to find out the perceptions of stakeholder groups in the mining industry on the measurement and disclosure of human capital information.

#### **4.6 Manufactured consciousness of users**

Why are shareholders and users of corporate annual reports not asking for more or better information? This section reviews how manufactured consciousness affects users and

shareholders. It also explores what can be done to reduce manufactured awareness created by managers. The study focuses on the capitalist domination of information, which is expressed in three propositions (Simonds, 1982):

- the class rule of management is established on the law that accountants sell their labour and that management appropriates the information product they create;
- such domination is maintained by the state's enforcement of the contractual arrangement, protection of property rights and the maintenance of public order; and
- information tools at the disposal of management, such as annual reports and press releases, allow management to disseminate information that is useful for the preservation of its interests.

Hill and Turner (1980) submit that these propositions result in the following three forms of domination:

- market exploitation
- legal coercion
- ideological domination

Riahi-Belkaoui (2004) says that when accountants sell their labour to companies, they do so through contractual agreements with company management. The primary responsibility of accountants is to prepare and present financial statements to shareholders and other stakeholders. The administration then takes advantage of the information product offered by the accountants and only discloses what it deems fit for the stakeholders (Belkaoui, 2003). Accountants are governed by their professional bodies, such as the PAAB, IASB and ICAZ. The rules, regulations and codes of conduct protect the professions' reputation. The professional bodies act on behalf of the public to maintain public order (Bebbington et al., 2001). Also, the duties and responsibilities of accountants should conform to the requirements prescribed by the profession (PAAB (Z), 2018).

At times, managers use the information for their interests, resulting in conflicts of interest (Belkaoui, 2003). Instead of using the information to maximise shareholders' wealth, managers abandon their duty as agents and use the information for their benefit. They communicate with shareholders through instruments such as annual reports and press releases. The information they give enables stakeholders to plan for the future and make informed investment decisions

(Cronje & Moolman, 2013; Adelowotan, 2013). These instruments allow managers to select what to disseminate to users (Riahi-Belkaoui, 2004). They do so to protect their employment contracts. Thus, they are motivated to condition users on the type of information that is considered essential and relevant for decision-making purposes.

The three forms of domination mentioned above feed into each other and are theoretically intertwined. They also give managers the upper hand against shareholders and other users. Thus, management communicates its own beliefs to users to shape their consciousness about the firm (Hill & Turner, 1980) because managers are responsible for managing daily business operations. They have the privilege to decide on the type of information to communicate to users. Information asymmetry allows this to happen. The information gap promotes managers to dominate shareholders. It gives them the power to decide what to express to the outside world. Belkaoui (2004) hypothesises that what shareholders know is what management wants them to know. Managers can coin shareholders' expectations and deliver what they conditioned shareholders to expect. Sometimes the information they provide to shareholders is not real. Data can be manufactured in the sense that managers withhold some of the information from shareholders. Hence, users end up with manufactured consciousness, which is compatible with the expectations of management.

Riahi-Belkaoui (2004) argues management can use creative accounting and income smoothing, among other manipulative techniques, to misappropriate assets and fraudulently report. Such activities occur when managers discover that the company is experiencing problems. Managers will manipulate financial statements to keep the company attractive to its shareholders (Riahi-Belkaoui, 2004). Such conduct leads to manufactured consciousness because it builds the beliefs of users by selecting certain information to disseminate. This is evidence that managers are not always honest to users about the true value of the firm. Their conduct leads to "class brainwashing and collective hypnosis or social conditioning" (Tinker, 1985).

There is a need for users to be better equipped and informed about corporate annual reports (Simonds, 1982). They should be financially knowledgeable to thwart manufactured consciousness and inhibit managers from giving such information to users. Multiple accounting scandals that have rocked the accounting world are proof of manufactured consciousness and accounting fraud. Riahi-Belkaoui (2004) reveal that if users become financially knowledgeable, they would be in a better position to identify weaknesses in financial statements. They will be able to determine if the company is ailing. To do this, they should



learn and understand accounting concepts, standards and the elements of financial statements. If they remain in the dark, managers will continue creating manufactured consciousness to safeguard their interests. Also, managers are not as futuristic as shareholders. They are only interested in their rewards and employment benefits, while shareholders worry about future returns. This is enough justification for shareholders and other users to be financially knowledgeable in the interpretation of financial statements for informed decision-making (Belkaoui, 2004).

Users of financial statements owe themselves the responsibility to read wide and acquaint themselves with various types of reports to enable them to choose relevant and meaningful information (Williams, 2001). Users should become more active and not passive readers. When users become critical, analytical and informed, they will be better placed to select only vital information when making decisions. Also, they will be able to question managers and ask for more information. They can only do this after they have gained financial knowledge. When users become well-informed, they mitigate information shared by management for selfish reasons and can redirect corporate annual reports for the welfare of society and increase shareholders' wealth in the process (Belkaoui, 2004).

#### **4.7 Perspectives of stakeholder groups on measurement and disclosure of human capital**

The mining industry is labour-intensive and employs the largest group of people with low educational qualifications. In Zimbabwe, it is the highest contributor to the GDP, FDI and formal employment (Mobbs, 2014). Zimbabwe's significant mineral deposits are gold, PGMs, coal and diamond. Most employees are in the gold, diamond and PGMs mining subsectors. The primary mineral extraction activities take place in the Midlands and Mashonaland Central provinces. In this section, the study identifies occupational categories in the mining sector and analyses their theoretical perspectives towards human capital.

This study utilises the stakeholder theory to explain the perceived value of the human capital construct, which suggests that all the stakeholder groups have the right to all information regarding the company's operations, including human capital information (Ousama et al., 2012). Moreover, the information given to these different stakeholder groups should reflect that the management and the company are meeting the needs of every stakeholder. As such, stakeholder groups should find the information useful. Management should take note of the

fact that the needs of different stakeholders are heterogeneous, and they must cater for everyone's needs. This shows that the different types of human capital information would be perceived as useful and relevant to a different extent by the preparers and users of financial statements.

#### **4.7.1 The stakeholder theory**

Horisch, Freeman and Schaltegger (2014) define stakeholders as “any group or individual who can affect or are affected by the achievement of the organisational objectives”. Stakeholders are “the individuals and groups who are depending on the firm to achieve their personal goals and on whom the firm is depending for its existence” (Nasi, 1995). Many studies investigated the stakeholder theory to gather enough information on companies' operations and identify how they are managed. The studies identify key stakeholders and their expected needs for decision making (Horisch et al., 2014). Berthelot et al. (2012) investigated how the presentation of non-financial reports (human capital information) creates value for stakeholders. The study focused on Canadian companies listed on the Toronto Stock Exchange. They concluded that the companies' stakeholders found positive value for both financial and non-financial information. The studies showed the immense contribution of this information to investors' decision-making. The authors highlighted that the full disclosure of financial and non-financial information eliminates information asymmetry and curbs the misappropriation of resources.

Friedman and Miles (2006) argue that stakeholders have a significant power to influence companies using agencies representing stakeholders' interest. On the other hand, stakeholders can get attracted to a company because of its business (Nielsen & Thomsen, 2007). For instance, an investor may decide to inject capital into a company due to the products and services offered by the company, not because of the financial attractiveness of the company. The above authors further stated that the media also has an influence on companies and can affect the way in which companies carry out their activities. Companies should always be alert and respond quickly to the media to protect their reputations (Abeysekera, 2008). Friedman and Miles (2006) pointed out that the stakeholder theory assumes that the way in which stakeholders view the company's operations and their expectations for accountability, transparency and integrity have an impact on the company's adoption of voluntary disclosure practices when it comes to non-financial metrics. This explains why the management of companies may decide to treat their stakeholders differently, depending on the power possessed by the stakeholders. Managers find it difficult to identify stakeholders who are involved in

specific business operations. Hence, it is essential to treat stakeholders reasonably and engage them. This is because stakeholders are key drivers of company success and value creation (Horisch et al., 2014).

#### **4.7.1.1 Mining stakeholders' groups**

The Chamber of Mines of Zimbabwe (COMZ) (2018) observed that there are four groups of people which companies categorise according to the skills they provide to the mining sector. These groups are management, professionals, technicians and general labourers. The mineral and mining sector depends on the availability of professional and technical skills to grow. For this study, the above groups were classified according to their skills because companies value them differently. Their efforts also differ. When trained and developed, these groups form the human capital of mining companies. These are:

- (1) management with professional skills. They are employed in non-line function areas, such as accounting, financial management, human resource management, and information technology;
- (2) professionals with technical skills, such as geologists, metallurgists, and electrical, mechanical and mining engineers;
- (3) technicians with specialised skills, such as mine surveyors, instrument technicians, draughtspersons, and artisans such as diesel mechanics, electricians, plant/boil makers, millwrights, fitters and turners; and
- (4) employees with general skills, such as clerks, miners, and sales and service workers.

Workers with general skills are regarded as employees who lack professional education, making it impossible for them to occupy high-skilled jobs (Winkler, Busch, Clasen & Vowinkel, 2014). Employees, such as miners, are significant drivers of production in the industry (Ogujiuba, Adebayo & Stiegler, 2014). Therefore, companies need to recognise them as valuable resources.

Managers, professionals and technicians are regarded as highly skilled (COMZ report, 2019). Their skills are critical to the mining industry. Although they are highly skilled, they form a relatively small percentage of the total workforce in the sector. The larger groups are artisans and general employees. However, their contribution to the industry does not match the highly skilled workforce. As such, companies value these groups using different instruments, all of

which depend on skills. All employees are users of corporate annual reports, as they are primary stakeholders.

#### **4.7.1.2 Human capital skills in Zimbabwe**

Zimbabwe has the highest literacy rate in the SADC region (Mutandwa, 2020). This is a result of its implementation of the Nziramasanga curriculum soon after independence in 1980 when Zimbabwe heavily invested in education. Since independence, Zimbabwe has been famous for producing highly skilled people. The mining industry invested in its people. COMZ (2018) reports that the mining sector lost more than half of its highly skilled workforce between 2007 and 2018 due to the economic crisis. As a result of the brain drain, most local entities suffered. Mugwagwa (2014) submits that millions of skilled Zimbabweans migrated to countries such as South Africa, the United Kingdom, North America, Botswana and Namibia in search of better living conditions. In those countries, the migrants are known for their results-orientation. Zimbabwe's economic future is bleak. It causes severe human capital flight, negatively affecting the mining industry, which lost talented and skilled professionals and technicians. The sector has established talent management practices, enabling environments and employee engagement practices to mitigate and minimise the flight of its skilled workers (COMZ, 2019). Some companies introduced cushioning allowances, which they continuously give to their employees. Some are negotiating with the government for permission to pay their employees using foreign currency. It is apparent that companies are working tirelessly to transform economic policies and systems to attract and retain talented and skilled employees to improve their productivity, success and value creation (Mugwagwa, 2014).

#### **4.7.1.3 Stakeholder perspectives on the measurement and disclosure of human capital in the Zimbabwean mining sector**

The OECD (1998) defines a perspective as “an interpretation or impression based on one's understanding of something; the ability of the mind to refer sensory information to an external object as its cause”. One perceives without exerting any effort. It is something that comes naturally. People's opinions can be driven by experiences, societal norms, beliefs and values, and their effects on them. Concerning positive perceptions towards human capital, the workforce tends to commit to organisational goals (Adewolotan, 2013). Accounting frameworks such as the IR (2013) and the GRI (2010) highlight the importance of human capital and encourage companies to report it. They indicate that human capital is a key driver of value creation, competitiveness and sustainability. However, there is limited literature on

the subject. Very little is known about how stakeholder groups, such as employees, want to be treated or valued by their employers. The literature reflects a significant gap in stakeholders' views and opinions on human capital information (Kamala, 2014). This section discusses studies that focused on different stakeholders' perspective of human capital disclosure practices.

#### **4.7.1.4 Employees' perspectives on the measurement and disclosure of human capital**

As much as employees expect their companies to treat them as valuable resources, it is important to investigate employees' views regarding current human capital reporting practices. Hassan and Ridhuan (2019) submit that employees consider human capital information important because they use it to assess the extent to which a company has developed and managed human capital. However, human capital information is hardly identified in corporate annual reports (Cronje & Moolman, 2013).

Hassan and Ridhuan (2019) contend that employees need human capital information to assess their contribution to company performance, value creation and sustainability. They also use the information to measure the company's investment in people to give them a clear picture of how the employer values them. Human capital has many categories, such as training and development, remuneration policies, equity issues, health and wellness, and safety. Adelowotan (2013) confirms that employees utilise this information to understand their working conditions, employee talent management practices, engagement processes, as well as the level of their relationships with employers. Nyamubarwa et al. (2013) indicate that employees in the mining industry use human capital reports to assess how companies value them based on their skills, expertise and capabilities. The employees expect companies to provide full information on human capital so that they use it to understand remuneration and welfare policies, equity issues, and staff development initiatives. Employees are also interested in gaining knowledge on human capital competencies that are key drivers of company value and competitiveness (Adelowotan, 2013).

#### **4.7.1.5 Managers' perspective on the measurement and disclosure of human capital**

Human capital measurement reflects a company's performance, competitiveness and sustainability. Abhanyaswa & Abeysekera (2008) note that human capital information might be internally or externally reported by various companies, but that its disclosure is based on contextual settings. Notwithstanding that some managers use managerial reports to make future

plans and forecasts, they also use the information presented in the financial statements for decision-making purposes. Therefore, this study seeks to establish the views of managers on human capital information that can be disclosed in financial statements.

Mishra and Mishra (2017) argue that managers consider human capital information useful for making operating decisions. Since the mining sector is labour-intensive, managers indicate that human capital information is vital for them in determining costs (Adelowotan, 2013). Costs include training and development expenses which encourage better assessment and development of the workforce. Moreover, managers revealed that human capital information is relevant when making internal decisions about the adequacy of human resources, assessment of costs of absence, and labour turnover costs (Mishra & Mishra, 2017). When managers do not measure and disclose the value of human capital accurately, they may fail to identify the adverse effects of specific programs established to empower employees (CIPD, 2006). A reduced valuation of human capital may build to employees' low morale, low productivity and high labour turnover (Deegan, 2006). This validates the assertion that there is a positive correlation between human capital measurement and disclosure and the financial performance of a company. The alignment of human capital to overall business strategy affects organisational financial performance.

Managers perceive human capital information as a tool for managing and controlling activities that lead to a company's competitive advantage and value creation. Mining managers use the value of human capital as a strategy to attract potential employees and to create an awareness that retained employees are recognised as rare, valuable and inimitable assets (April et al., 2003). They also believe that well developed and managed human capital boosts investors' confidence (Abeysekera, 2008).

Hall (1992) carried out a study to establish the role of human capital in the success of companies. The findings from British CEOs highlighted that employees' skills, creativity, knowledge and innovation significantly contribute to company performance and sustainability. Despite the absence of a uniform human capital measurement framework, accounting reporting frameworks such as integrated reporting reflect the significance of human capital in a company's business model. Miller et al. (1999) conducted a study in Canadian companies and administered a questionnaire survey to 176 managers. The purpose of the study was to determine the perspectives of managers towards human capital information. Their findings

revealed that respondents perceive human capital information as significant for making informed decisions.

Boujelbene and Affes (2013) conducted a study and administered a questionnaire survey to 51 Tunisian managers. The study focused on establishing the insights of managers on the recognition, measurement and disclosure of human capital, generally referred to as “hidden capital”. They established that human capital information was considered a significant element of value creation and a pillar of any company’s innovation capacity. The findings also revealed that managers concur that the traditional financial accounting system lost its relevance by failing to regulate non-financial information such as human capital.

#### **4.7.1.6 Gaps in the literature on stakeholders’ perspectives on human capital reporting**

The literature analysis found the following knowledge gaps:

- Most studies on users’ perceptions on human capital measurement and disclosure were carried out in developed countries such as Australia, Germany, Sweden and Malaysia. Only a few studies were conducted in the SADC region.
- Studies on users’ perceptions did not apply any theories, such as the stakeholder theory, to outline, assess, and gauge the decision usefulness of value of human capital information. Hence, they lacked depth and richness, which could describe their lack of substantive inferences.
- Most of the studies were conducted a decade ago, making it impossible to match their findings with current settings.
- Some of the studies only focused on single groups like managers, auditors and investment analysts. As a result, they failed to establish a true and fair view from all key stakeholders.
- Some studies did not obtain information from targeted participants due to unknown reasons. Instead, they utilised alternative ways, such as academics, to represent company shareholders. Consequently, their results cannot be trusted.
- Many studies used content analysis rather than human interaction.

Given the shortcoming of previous studies, this study addresses the knowledge gaps. It was carried out in Zimbabwe, whose shortage of literature on the perceptions of users on human capital information, particularly the mining context, has been established.

#### **4.7.2 Management of human capital**

Most companies in developed nations invest more in human capital because they discovered that their competitiveness and sustainability lie in the hands of their employees, not with their funds, machinery and products. This motivates human resource management to hire employees with specific skills for a particular job, enabling companies to outshine their competitors. Competitors can copy products, strategies and technology, but they cannot emulate human capital. Stewart (2011) submits that in the knowledge economy, human capital, not natural resources, machinery and financial capital, are the most indispensable assets. The people and their knowledge have dominion over the success of the company. Managers should strategise on how to retain and attract employees to remain competitive. They should invest in human capital. Companies can have money, but it does not think in the same way that machinery cannot invent. Human capital can make things happen through skills, knowledge and expertise. Also, companies need to know that human capital is their wealth. They need to understand that human capital needs to be located, appreciated, organised and managed with meticulous care. Human capital is an essential asset in any organisation. As such, it is necessary for companies to consider its value and recognise it in the financial statements.

#### **4.7.3 Measurement of human capital**

In light of the discussions above, measuring human capital is a challenging task, although writers acknowledge its significance to a company's value creation. The problem emanates from the definition of human capital. There are many definitions of human capital. This creates confusion on which one to use. Some scholars argue that human capital should be treated as an asset, not as an expense, in financial statements, while others say that human capital should be treated exactly like other inanimate forms of capital. Some scholars write that measuring human capital is a pipedream. The most famous human capital definition is that it is "the knowledge, skills and experience of the individual and their willingness to share their attributes in the creation of value". The question arises about how can companies work together to bring the value of human capital to their financial books as an asset and not an expense? Before answering the question, companies should consider how their employees are using their skills and knowledge to create value for their organisations.

Baron (2011) says that the value of human capital is on the potential contribution to a companies' competitive advantage. However, the CIPD (2003) believes that measuring human capital depends on the needs of the company and its strategy, making it context-specific. The



CIPD (2003) indicates that it is impossible to have a single approach to measure human capital and that there is no guarantee that a high value of human capital leads to high-value creation for the company. The issue of human capital is evolving. People who are currently measuring it will continuously keep on reviewing their measures. Notwithstanding, the benefits of measuring and disclosing human capital outweigh the costs of recognising, measuring and disclosing it because full disclosure of the value of human capital provides investors with adequate information to make informed decisions. The CIPD (2006) conducted a study and found out that 86% of company directors agreed that human capital is their most valuable asset. About 77% of the directors pointed out that employee's individual goals are aligned to strategic business objectives. Only 68% of directors measured human capital contribution.

The above findings confirm the views of scholars who state that measuring human capital is not an easy task but that it is not possible to design a single approach to measure human capital. Adelowotan (2013) states that "this is because the existing financial accounting frameworks are implemented through reporting standards which only allow for the recognition of items whose future economic benefits can be expressed in monetary terms in the statement of financial position". This prompted other studies to suggest that attention should focus on human capital contribution and value creation rather than on quantifying such values in monetary terms. Table 4.1 below summarises the data utilised to measure human capital.

**Table 4.1: Commonly collected data when measuring human capital**

Area of measurement	Examples of data
<b>Acquisition</b>	Time taken to recruit  Strength of brand recognition  Number of applications in response to advertising  Number of unsolicited applications  Time made for new employees to reach optimum competence levels

	<p>Number of attempts to fill posts</p> <p>Feedback from recruiters on ease of use of selection tools</p> <p>Data from equal opportunities monitoring</p>
<b>Development/ talent management</b>	<p>Days spent on training</p> <p>Number of names appearing against roles for succession planning</p> <p>Number of individuals on development programs or acquiring professional qualifications</p> <p>Results of skills audits</p> <p>Identified skills gaps</p> <p>Feedback from training</p>
<b>Reward</b>	<p>Numbers achieving performance-related bonus or increments</p> <p>Comparability of reward package with other employers</p> <p>Satisfaction with reward</p>
<b>Retention</b>	<p>Turnover/attrition rates</p> <p>Number of people with transferable skills</p> <p>Percentage of staff with active development plans</p> <p>Number of internal promotions</p>

<b>Exiting</b>	Feedback from exit interviews  Demographic information on age and gender profile
<b>Motivation</b>	Demographic information on age and gender profile  Engagement scores  Absence rates  Productivity data such as sales per employee or revenue per employee
<b>Performance</b>	Numbers achieving high-performance ratings  Numbers of instances of poor performance dealt with  Accident rates  Numbers achieving objectives

Source: Baron (2011)

#### **4.7.4 The importance of measuring and disclosing human capital**

In the knowledge-intensive economy, companies immensely invest in human capital through training and development. They discovered the significance of human capital on value creation and competitive advantages. Baron and Armstrong (2007) present the following reasons for the disclosure of human capital:

- “Human capital constitutes a critical element of the market worth of a company.
- People in organisations add value, and there is a case for assessing this value to provide a basis for HR planning and for monitoring the effectiveness and impact of HR policies and practices.

- The process of identifying measures and collecting and analysing information relating to them will focus the attention of the organisation on what needs to be done to find, keep, develop and make the best use of its human capital.
- Measurement can be used to monitor progress in achieving strategic HR goals and generally to evaluate the effectiveness of HR practices.
- You cannot manage unless you measure”.

Cronje and Moolman (2013) submit that companies that report human capital do so to give shareholders and other stakeholders assurance that the companies are in the hands of a competent, knowledgeable, highly skilled and capable workforce. In addition, human capital measurement and disclosure differentiate a company from its competitors and makes it more competitive (Petty & Guthrie, 2000). Flamholtz (1974) and Schwartz (1971) reveal that companies that report human capital have an advantage because human capital reporting gives a better view of the company's future earnings and may influence key stakeholders' decisions. External stakeholders are increasingly demanding all different kinds of information. Companies should consider measuring and disclosing human capital in their financial statements to meet this demand (Abeysekera & Guthrie, 2004). Alam (1997) suggests that companies should not disclose information in financial reports only when it is mandatory but encourages companies to disclose information on human capital in the notes section and on a discretionary basis to strengthen investors' confidence in the organisation to depict themselves as innovators rather than followers.

There are several points to note when measuring human capital in the financial statements. Donkin (2005) says that companies should be vigilant when measuring and disclosing human capital because it is not about measuring but the reason for measuring and the expected outcome. Some managers take advantage of the situation to harm primary users of financial statements like investors by manipulating perceptions of intangible values of human capital. This is supported by Leadbeater (2000), who argues that a handful of these measures are not aligned to companies' value creation and means of generating funds. Human capital measurements should directly correlate with the financial performance of the company. Scarborough and Ellias (2002) argue that human capital is not about the measure but about the process of measurement. Therefore, companies must be vigilant when it comes to the measuring of human capital. Measuring the value of human capital requires complete and meaningful information (Armstrong, 2007).

## **4.8 Models for the measurement of the value of human capital**

There is a rapidly growing interest in human capital. However, measuring human capital is a challenge. Studies attempted to develop models or frameworks to measure human capital because financial accounting reporting frameworks (IFRSs, IASs) are silent about the measuring and disclosure of human capital. They cite the impossibility to control human capital as a company's asset. Studies from various disciplines developed models to provide key stakeholders with human capital information. This section analyses current models for measuring human capital. It evaluates their merits and demerits.

Salamudin et al. (2010) identify two major approaches for the valuation of human capital, namely, cost-based and value-based models. The value-based model considers the worthiness of employees to the company (Sackmann et al., 1989). This model integrates both monetary and non-monetary approaches. It is calculated by subtracting the company's physical capital total cost from the total value of the company's capital. Le et al. (2003) identify three models for measuring human capital, namely, the cost-based approach, income-based approach, and education-based approach.

### **4.8.1 Cost-based models**

Human capital theorists developed several models for direct and indirect valuation of human capital (Flamholtz, 1999). The historical cost approach was developed by Flamholtz (1971), while the cost-based approach was founded by Likert (1961). A more detailed approach to measure human capital was enhanced by Flamholtz (1971). The cost-based model involves costs incurred in training and developing human capital. The costs include historical, current and opportunity costs (Flamholtz, 1999). This model is equal to the traditional method of measuring tangible physical assets. It determines human capital by using historic costs incurred to hire employees (Flamholtz, 1974). The model stipulates that human capital must be technically amortised during an individual's employment (Brummet et al., 1968). It considers human capital as a major component of intellectual capital. Hence, there is a need to account for it as an intangible in the corporate annual reports. This will enable human capital to meet the requirements for amortisation before the end of its estimated useful life (retirement period). Examples of the cost models are discussed below.

#### **4.8.1.1 Historical or acquisition cost model by Brummet, Flamholtz and Pyle (1968)**

The historical cost model capitalises the expenditure incurred during the recruitment, selection, training and development of the workforce in a company. However, the model suffers from some serious drawbacks. Obara (2013) notes that the market value of human capital does not equate to its acquisition cost. The increase or amortisation of human capital becomes subjective. The study did not find any relationship with the increase or decrease of human capital productivity and contribution to value creation. The author says that there is incomparability of human capital within the company because of the varied expenditure incurred during the recruiting, selection, training and development of the employee.

Skills and knowledge acquired by employees before joining the organisation are regarded as sunk costs when measuring human capital intangibles (Brummet et al., 1968). Also, well-trained employees do not always contribute to the financial performance of a company as one would expect. The cost-based approach's only factor is the acquisition cost (hiring cost). There is a high probability that employees will leave the job before retirement. The costs incurred when employees leave their jobs can be treated as period costs in the profit and loss account (Hekimian & Jones, 1967). Professional judgement is required when estimating the amortisation rate to mitigate understating and overstating of financial statements. The model further suffers from the issue of the useful life of human capital intangibles because it is not easy to estimate the useful life of an employee compared to tangible physical assets. Moreover, the model allows recruitment, training and development costs to be classified both as period and product costs, despite that it does not clearly state procedures for the classification of costs.

#### **4.8.1.2 Replacement cost model by Flamholtz (1973)**

The replacement cost model was developed by Flamholtz (1973). It measures human capital intangibles by incorporating costs incurred to replace an outgoing employee. The model says that the value of human capital intangibles is based on the opportunity costs to replace an employee who leaves the workplace for good. However, the model ignores the possibility that a company may fail to replace an outgoing employee. Unique skills possessed by different people cannot be transferred. They are usually scarce. Therefore, the value of the new employee will not likely be similar to other employees. Also, traditional financial accounting condemns such practices.

#### **4.8.1.3 Opportunity cost model by Hekimian and Jones (1967)**

Inekwe (2014) says that the opportunity cost model is a competitive model. This model assumes that human capital is only measured and valued if it is a scarce resource. Obara (2013) argues that “scarce” employees are those critical and key employees which companies heavily depend on to reach their goals. Companies engage investment managers to recruit skilled people. They participate in bids to recruit scarce personnel. After the bidding process, the highest bidder wins the scarce employees and adds the bidding price to the investment base. Obara (2013) argues that the model is artificial and immoral. The model has the following limitations:

- it is subjective
- it does not show the true cost of human capital
- the inclusion of scarce employees in the asset base may be viewed as discriminatory by other employees
- quantification of future economic benefit is difficult
- it may lower down the morale of employees

#### **4.8.2 Economic value-based models**

Previous studies measured the market value of human capital intangibles using market value approaches. They developed their technique based on the number of employees and used market and book values of the employees’ inventory of knowledge as the key factors. Some scholars argue that the market value and the book value of a company can only be the same if the company fully discloses information on human capital intangibles (Fitz-Enz, 2002). They established some metrics to determine the market value of human capital intangibles. These metrics are the human economic value-added, the human capital cost factor, the human value-added and the human capital revenue factor. This approach is at an infancy stage. Most stakeholders do not know it. The following discussion explores economic value models, among others.

##### **4.8.2.1 Present value model by Lev and Schwartz (1971)**

Lev and Schwartz (1971) present the popularly known “present value of future earnings” model, which measures human capital intangibles using employees’ future earnings. The future earnings of an employee are discounted to present values using the cost of capital of the company (Lev & Schwartz, 1971). The model distinguishes between physical and human

capitals. Tangible physical assets are transferrable across various companies, whereas human capital cannot be transferred to other companies because human capital intangibles have unique and specific skills that cannot be copied or applied across different sectors. The model also explains the importance of differentiating tangible physical assets and human capital assets because the difference has an impact on their values.

The present value model evaluates human capital intangibles value based on the employees of the same age and skills. Other studies consider the model more practical and applicable to various companies. However, the model suffers from some limitations, such as that it equates the value of an employee to the employee's future earnings. It does not consider the possibility that the employee might leave work before retirement. The model does not account for seniority, aptitudes, training and development costs when valuing human capital intangibles.

#### **4.8.2.2 Flamholtz's stochastic reward valuation model (1971)**

The Flamholtz model determines an individual's value to an organisation by the services he is expected to render to the organisation during the period that he is likely to remain with the organisation in various positions or service states. Inekwe (2014) submits that the model suggests a four-step approach to assess the value of an individual to the company. These are:

- Forecasting the period during which a person will remain in the organisation (expected service life).
- Identification of service states (the roles the employee might occupy and the time at which he will quit the organisation).
- Estimating the value derived by the organisation when a person occupies a particular position for a specified period.
- Discounting (at a specified predetermined rate) the expected service rewards to their present value.

Inekwe (2014) says that it is important to generate data for the establishment of human capital using this model.

#### **4.8.2.3 Hermanson's model (1964)**

Hermanson (1964) developed two models to calculate the value of human capital, namely, "the unpurchased goodwill model and the adjusted discounted future wage model". The unpurchased goodwill model argues that abnormal profits in a company act as pointers of the



phenomenon's existence. Therefore, the value of human capital is established through the capitalisation of excess earnings within a company which are the difference between the earned profits and average earnings. However, the model suffers from serious drawbacks. It equates the value of human capital to the excess amount of normal earnings. It does not consider the value of human capital that drives the earning of normal. As a result, the value of human capital becomes understated. The adjusted discounted future wage model argues that the value of an employee is based on future earnings discounted to the present day (Articlebase, 2010).

#### **4.8.2.4 Market return approach by Bontis et al. (1999)**

Bontis et al. (1999) established a market return approach to ascertain the contribution of human capital intangible assets in a company. This approach is classified into two groups, namely, the “human capital pricing model” and the “human capital role in a company”. The phenomenon is measured using the financial index combined with revenue per employee (human capital revenue index), human capital cost index (total labour cost per employee) and human capital profit index (total revenue realised per employee less outsourced services per employee). This approach overvalues intangible human assets. Hence, there is a need to establish the difference between the cost of human capital and the return on human capital.

#### **4.8.3 Indicators approach**

Other studies established the indicators approach to measure intangible human capital assets. The indicators' approaches are widely implemented. It contains human capital attributes such as “employees' competence, motivation, skills, professional experience and employees' creativity (innovation)”. It also utilises the elements mentioned above because they contribute immensely to a company's financial performance (Cronje & Moolman, 2013). These attributes are measured using different techniques. Bontis et al. (1999) developed an integrated approach to measure human capital intangibles through enhancing the indicator's method. They considered both qualitative and quantitative factors of human capital intangibles and used them to assess the link between human capital productivity and investment, valuation and depletion of human capital intangibles. The results show that human capital efficiency has a positive tie with the tenure of management and administration personnel.

##### **4.8.3.1 The human capital monitor**

Mayo (2001) developed a human capital monitor to determine the value of the human capital. The formula for calculating the value of human capital is “employment cost x individual asset

multiplier.” The individual asset multiplier is determined through a weighted average evaluation of the employee’s competencies and their capacity to improve their performance in the future. In addition, their capacity to match the companies’ values is set in the context of the workforce environment (the control environment and how management set its tone to achieve optimal results for the company). The author further states that it is not about the value measurement but the process. If a company is able to assess whether the value of human capital is increasing or decreasing, it can fix the issues. If a company decides to adopt this approach, it should not utilise many metrics but should identify key metrics that aid the maximisation of shareholders’ wealth and the company’s value creation. Baron and Armstrong (2007) submit that the metrics utilised to determine the value of human capital are subjective and affect the validity of the value of human capital calculated.

#### **4.8.3.2 The organisational performance model**

Baron and Armstrong (2007) observe that this model was developed by “Mercer HR consulting.” It focused on people, internal control systems and processes. It describes the factors that affect human capital contribution towards company performance and the importance of aligning these factors to fully utilise human capital. However, the model suffers from drawbacks. Hence, the outcome is entirely determined by the circumstances in which the company’s success is applied.

#### **4.8.3.3 The balanced-scorecard**

Kaplan and Norton (1992) developed a balanced scorecard framework. The framework focuses on four angles, namely, financial, customer, internal business strategies, and invention and acquisition of new information. Companies that adopt the balanced scorecard can link the financial and operational measures and align their strategy for optimum results. Human capital intangibles drive a company towards its goals and strategy. This approach enables companies to communicate their goals and plans to human capital intangibles. It also allows employees to single out crucial goals, have a clear understanding of critical components that need attention, and identify relationships among company objectives. Human capital and other business factors determine financial performance. The balanced scorecard framework connects financial and operational measures and enables employees to align their objectives with company goals. Despite its benefits, the balanced scorecard suffers from some drawbacks, such as that the framework’s implementation needs exceptional critical thinkers. The balanced scorecard is complex. Baron and Armstrong (2007) contend that a balanced scorecard is more suitable for

internal disclosures than external declarations. Its adoption and implementation are context-based.

#### **4.8.3.4 The Human capital index**

Wyatt (2002) conducted a survey and discovered an approach to establish the relationship between human capital and shareholder value. The main objective of the survey was to determine the effectiveness of a company's human capital intangibles practices and shareholders' wealth maximisation. Wyatt (2002) found out that 30% of HR key practices (four best practices) increased the company's market value, signifying that well-managed companies that adopt best practices to manage human capital stand a higher chance of maximising shareholders' wealth. However, the term best practice is subjective, as it depends on a company's definition.

None of the above models and indicators has been globally acknowledged and recognised. This presents lack of harmonisation of the varied approaches and their flaws result in limited disclosure and measurement of human capital. Therefore, this study seeks to develop a human capital measurement and disclosure framework that considers human-related costs and their corresponding benefits.

#### **4.9 Summary and conclusion**

Preparers of financial statements are motivated to report on human capital because of the agency theory (managers' motivation), legitimacy theory (societal norms), and stakeholder theory (specific group needs). This chapter identifies a gap in the literature by showing that there is limited research on the perceptions of stakeholder groups of the mining companies operating in Zimbabwe. Also, a limited number of studies explain human capital disclosure practices without using theories. The literature findings also reveal that managers create manufactured consciousness because users of annual corporate reports are not well-informed, leading managers to withhold some useful information. Hence, there is a need for users to be financially knowledgeable about countering manufactured consciousness.

Some companies are interested in measuring and disclosing human capital because its value can be used as a benchmark for planning purposes, monitoring effectiveness, and impact on human resource function. It also helps companies to strategise on how to retain highly skilled and talented professionals and to develop training programmes. Some scholars point out that a company cannot manage its people unless it measures its human capital. The literature outlined

above shows that currently, there are varied approaches to measuring human capital. This makes it impossible to compare the contribution of human capital across the globe. There is a lack of consistency in reporting the value of human capital. The next chapter discusses the research methodology used to conduct this study.

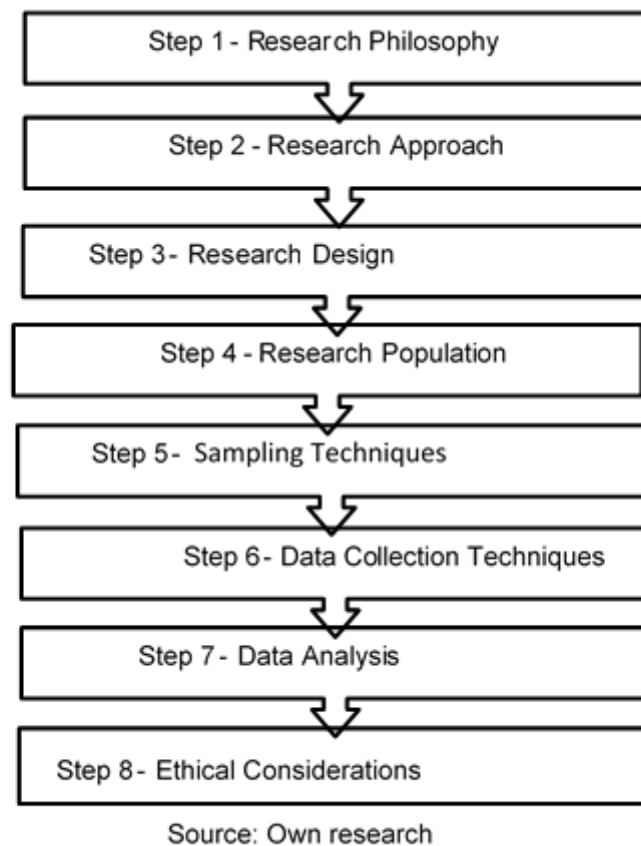
## **CHAPTER FIVE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **5.1 Introduction**

This study aims to develop a framework for the measurement and disclosure of human capital by selected mining companies in Zimbabwe. The analysis of literature in the preceding chapters reveals that human capital is theoretically regarded as a “precious asset” and that it creates value for companies as it is a driver of business models. Currently, human capital is recognised as an expenditure in the financial statements (Mayo, 2016). Some companies highlight the difficulties of measuring the contribution of their human capital and lament the impossibilities of controlling it. This prompted the study to establish constructs that can be used to measure it. This chapter explains the research methodology used for this study and outlines the process for establishing constructs for measuring and disclosing the value of human capital in financial statements. This chapter starts by setting the research philosophy which guides this study and discusses the research approach and the research design. It then examines the research methods and outlines the study population, data sampling techniques and sample size. It analyses the validity and reliability of the instruments used to collect data. Burns and Grove (2003) state that the methodology involves designing, sampling, data collection, and data analysis. Figure 5.1 illustrates the research model used to present the research methodology for this study.

Leedy and Ormrod (2014) submit that research is a process of collecting, analysing and interpreting information to answer research questions or to ascertain the features of the constructs under study. Dantzker and Hunter (2012) assert that research is a scientific investigation that focuses on a single problem encountered in any environment. Research is a process that utilises an acceptable scientific methodology to solve problems and make new contributions to the body of knowledge. When a study identifies a gap in knowledge, research is necessary to close the gap using various methods. Creswell (2013) says that research stages include systematic observation, collection, classification, analysis and presentation of data.



**Figure 5.1: Methodological theoretical path**

## **5.2 Research philosophy**

Tashakkori and Teddlie (2011) discuss the philosophical foundations of mixed-method research and conclude that pragmatism endorses mixed-method research. Morgan (2007) states that the research philosophy is a school of thought that provides guidelines on how data of a particular phenomenon should be gathered, coded, analysed and interpreted. The author also says that there is a need for awareness of the necessity of thoroughly synthesising the research philosophy which the researcher deems fit for a study. The reason behind this is to cut costs and eliminate errors. Thus, a cost-benefit analysis is relevant and necessary. Morgan (2007) further examines a research paradigm and defines it “as a shared belief system that influences the types of knowledge studies seek to obtain and how they interpret any research evidence they may collect.” The study follows a belief that is deemed fit to address the research questions which prompted the research. A suitable methodology will yield the desired results. The study links the philosophical research assumptions and research paradigms and considers them to be

positively correlated (Creswell & Plano-Clark, 2011; Tashakkori & Teddlie, 2011). Creswell (2007) contends that four typical world views describe attitudes and beliefs about knowledge. These include advocacy/participatory (transformative-emancipatory), post-positivism, constructivism and pragmatism. These world views provide critical advice on how to handle the experience based on reality and how the truth should be communicated to various stakeholders. The philosophical assumptions that back up the truth and knowledge of the research are ontology, epistemology and methodology.

This study adopts the pragmatic research philosophy because the pragmatic world view is problem-centred, pluralistic and real-world practice-oriented (Creswell, 2007). This study encompasses the two extremes which are regularly embraced by interpretivism and which are supported by post-positivism. The former emphasises qualitative methods as opposed to post-positivist quantitative approaches (Parvaiz, Mufti & Wahab, 2016). These two approaches build on one another. Their results are synthesised to infer conclusions. Morgan (2007) argues that pragmatism is not new to social, economic and management sciences. The pioneer of the pragmatism philosophy was John Dewey (1859-1952). Creswell and Plano-Clark (2011) submit that mixed-method research involves the “collection and analysis of both quantitative and qualitative data and integrating the two sets of results.” The data can be collected, analysed and interpreted either sequentially or concurrently. The research design determines this. In this study, the exploratory and logical inquiry was initially carried out to ascertain constructs for the deduction process. This process is known as an abduction approach. It is suitable for mixed-method research because it aims to obtain a comprehensive set of explanations for comprehending the findings (Creswell, 2013). Karley (2013) argues that the philosophical assumptions stated above and adopted in the pragmatic philosophy are based on research questions prompted by the statement of the problem. Tashakkori and Teddlie (2011) say that in the research worldview, multiple studies bring in “multiple realities or single realities and knowledge that is subjective or objective.” This research breaks down the philosophical assumptions, starting with the axiological assumption. The pragmatic worldview posits that in any study, values are critical during results analysis and interpretation (Saunders et al., 2009). Hence, this study maintains the integrity endorsed by the study’s objectivity, honesty, openness, fairness, accountability and stewardship to advance knowledge. The values mentioned above are in line with the fundamental principles of the accounting profession. They

are adapted to establish the standard behaviour expected of a professional accountant and reflect the profession's recognition of its public interest responsibility (IESBA, 2018).

Morgan (2007) and Tashakkori and Teddlie (2011) state that in the pragmatic world view, themes and concepts are only considered if the findings address the research questions. This study seeks to establish constructs that can be used to measure and disclose the value of human capital in the financial statements of selected mining companies in Zimbabwe. Creswell (2014) says that in the pragmatic world view, "the inquirers draw liberally from both quantitative and qualitative assumptions when they engage in their research (they have freedom of choice)." For this study, there is freedom of choice of research methodology. The pragmatic philosophy is suitable for this study and has been adopted for the particular mixed-method research.

### **5.3 The research approach**

Creswell and Plano-Clark (2011) define a research approach as a blueprint that guides the systematic execution of the study. Results depend on the research approach. There are three categories of research approaches, namely, the quantitative, qualitative and mixed methods (Creswell, 2014). However, Saunders et al. (2007) describe three categories of research approaches, namely, abduction, deduction and induction approach. The link between deductive and inductive approaches, and quantitative and qualitative methods, is blurred by semantics.

This study adopts an abductive research approach because it requires the use of several methods to address the problem under investigation (Saunders et al., 2012). An abductive research approach is integrated and embraces inductive and deductive approaches (Morgan, 2007). Deductive and inductive reasoning was used to answer the research questions in chapter one. The deductive approach moves from a general to a specific approach (Bryman & Bell, 2011). Hence, it is primarily called a 'top-down' approach. The conclusion follows logically from the premises and follows this path: theory-hypothesis-observation-confirmation. It is like a quantitative approach and is guided by formal logic. It is based on deductive reasoning, objectivity, and causation, which underlie a quantitative approach.

Questions asked in a deductive approach are pre-specified because the approach is outcome-centred. This technique consists of both numerical estimations and statistical inferences (Saunders et al., 2012). Inductive reasoning is the total opposite of deductive reasoning. It functions directly from observations to wider generalisations and theories. Some studies refer



to it as a “bottom-up approach.” The conclusion is based on the premises. In addition, it involves a degree of uncertainty, which is a characteristic of the qualitative research approach. The uncertainty of the inductive approach is consistent with qualitative research in that it is often inconclusive. The researcher observes, identifies a pattern, develops a tentative hypothesis and formulates a theory. Inductive reasoning is not scientific. It is like the qualitative approach because it is punctuated by subjectivity. It uses open-ended questions and adopts a narrative description of issues.

Abductive reasoning is more suitable for the pragmatic mixed-method approach and enables one to arrive at more appropriate and sufficient findings (Chu & Ke, 2017). The quantitative approach is not enough to explore the phenomena and cannot singularly answer questions on the constructs that can be used to measure the value of human capital. Considering the philosophical stance of pragmatism, Shannon-Baker (2016) and Saunders et al. (2012) say that pragmatism offers various means to connect dichotomies in mixed methods and is appropriate for social science research. An abduction approach will allow integration for purposes of in-depth analysis, which is futile if one approach is adopted (Creswell & Plano Clark 2011; Bazeley, 2010). Bazeley (2010) argues that corroboration occurs when sets of data are merged or embedded. These suggest the point of the mixture, which depends on the aim and justification for mixing, which could validate the information.

Few accounting studies have adopted the abduction approach. Some say that it is time-consuming and challenging. April et al. (2003), Guthrie et al. (2011), Guthrie and Abeysekera (2006) and Adelowotan et al. (2013) used this approach when they investigated human and intellectual capital reporting. This study took a leaf from these studies. It uses the qualitative phase to explore the phenomena and establish relevant information from different stakeholder user groups to value human capital and to get opinions on how these groups perceive the idea of bringing human capital into the statement of financial position as an asset. This study collected the qualitative data using semi-structured interviews and questionnaire surveys to gather the quantitative data. After synthesising the results, it developed the framework for the measurement and disclosure of human capital. This makes it obvious to all the stakeholders that an abduction process was followed to acquire new knowledge and to fill in the knowledge gap.

## **5.4 Research design**

Van Wyk (2012) submits that a “research design is the overall plan for connecting the conceptual research problems to the pertinent (and achievable) empirical research.” Creswell and Plano-Clark (2011) state that a research design is a plan of action followed during a research process. Tashakkori and Teddlie (2011) observe that studies are either qualitative, quantitative or both (mixed research). This study uses mixed-method research and adopts a mixed-method research design. The following section discusses reasons for the adoption of the mixed-method research design and its suitability for this study.

### **5.4.1 Mixed-method research design**

Johnson et al. (2007) argue that mixed-method research is the third primary research approach after qualitative and quantitative researches. The mixed methods research design entails the collection, analysis and integration of the qualitative and quantitative methods to gain a better understanding of the research problem (Fischler, 2018). Onwuegbuzie and Leech (2004) add that the adoption of the mixed-method research approach has more benefits compared to single research approaches because it enables one to arrive at detailed and comprehensive findings. Hence, this makes the generalisability of the results more applicable. Before adopting mixed-method research, one should fully comprehend both qualitative and quantitative research (Creswell, 2014). Morgan (2007) says that in mixed-method research, the study either uses qualitative research to inform the quantitative strand of research studies or vice versa. Creswell and Plano Clark (2011) describe six major mixed-method designs, namely, “the convergent parallel design, explanatory sequential design, exploratory sequential design, embedded design, transformative design and the multiphase design.” The most significant three designs among these are the exploratory design, convergent parallel design and the explanatory design. This study considered using the concurrent or sequential methods (Creswell & Plano Clark, 2011) and primarily considered the weighting and timing of the two methods, which determine the dominant philosophical stance. For instance, if the qualitative analysis component was given a significantly higher priority, the analysis would be a qualitative authoritative mixed analysis, leading the analyst to adopt an interpretivism philosophy. On the other hand, since the timing was sequential and the weighting is equal, the study adopted a pragmatism philosophy.

#### **5.4.2 The selected design: exploratory sequential design**

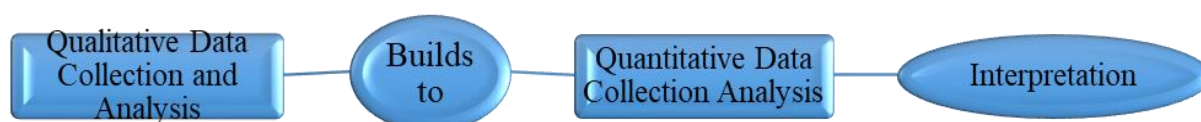
This study chose the exploratory sequential design. Creswell and Plano-Clark (2011) postulate that an exploratory design is a “two-phase type of design” which allows the results of the qualitative strand (stage 1) to inform the quantitative strand (stage 2). Morgan (2007) and Creswell (2014) argue that exploration is needed when the measures or instruments are not available, constructs are unknown and when there is no guiding framework or theory. This study selected an exploratory sequential design because the measurement and disclosure of human capital in the Zimbabwean context, is lacking in literature. This implies that the variables or constructs to measure human capital are unknown. Hence, the design was necessary when insufficient information is known about the phenomena. It helps to get more information and enhances the generation of new ideas (Zikmund, 2003). Morima (2019) says in addition, the exploratory design is suitable for both evaluative and exploratory studies. This heightened the suitability of the design, as this study sought to establish constructs for measuring the value of human capital by initially exploring and using a confirmatory analysis.

Additionally, the adoption of this design allowed the results of a qualitative study to be used in the development of the instrument to measure the value of human capital. This is consistent with Creswell & Plano-Clark (2011), who say that one can explore the phenomena qualitatively using a small number of research subjects in phase one. The qualitative results were used to develop questions and instruments for the quantitative phase. It is important to note that, accountants use a framework declared by law and financial reporting standards when preparing financial statements. The framework is known as the conceptual accounting framework. As such, every item that is included in the reports should meet a certain criterion as guided by accounting standards. For instance, an item that is recorded as an asset should be meet certain recognition criteria, that is, the cost of the asset must be measured reliably, and it should be probable that economic benefits will flow to the entity. The asset must be controllable.

In light of the above, financial statements are objective and not subjective. All recorded transactions must meet the requirements prescribed by the standard. However, this leads to the exclusion of human capital as an asset, notwithstanding that some companies that measure and disclose the component based on contextual settings. It also follows that there are varied accounting models used to measure human capital (Flamholtz, 1999), leading to a lack of harmonisation and incomparable information among companies. Since the recognition of

human capital is voluntary, there is no comprehensive framework. There are no standardised factors for consideration when measuring human capital. Companies that disclose human capital do not know the key aspects of human capital to be measured as an intangible asset. This indicates that human capital is not adequately accounted for in the financial statements. Therefore, the exploratory design was selected to establish relevant information and constructs that can be used to measure human capital. Meissner et al. (2011); Morgan (2007); Tashakkori & Teddlie (2011) and Creswell and Plano-Clark (2011) reveal that the exploratory study is important before the development of an instrument. Morima (2019) initially used semi-structured interviews to generate items suitable for constructs of the financial literacy framework. This study also used an exploratory sequential design. Kempson et al. (2013) used a similar approach.

This study had two phases. In phase one, it qualitatively explored the constructs used in measuring the value of human capital and ascertains the population size of the mining stakeholder groups. The study also established relevant information from the management stakeholder group in valuing human capital and ascertaining human capital attributes that are relevant in the measurement and disclosure of the value of human capital, such as skills. The source of qualitative data was semi-interviews and document analysis from corporate annual reports of the respective mining companies. In phase two, which is the quantitative phase, the study built on the qualitative phase, which established the population size and the nature of the population for the proper application of sampling procedures. This was followed by exploration and confirmation of the themes and constructs that are relevant to the measurement and disclosure of the value of human capital and establishing population size for factor analysis.



**Figure 5.2:** Exploratory sequential design

Source: Creswell (2014)

## **5.5 The population**

A population is a collection of units or possible participants selected to take part in a study (Creswell, 2007). Morima (2019) submits that the scope of the study determines the study population and its geographical location. This study utilised different stakeholder groups who have relevant information on reporting human capital in mining coal, diamond, gold and PGMs (Chamber of Mines of Zimbabwe report, 2019). COMZ (2019) observes that in the mining sector, there are four stakeholder groups, namely, managers, professionals, technicians and general employees whose skills are generic. It therefore follows that managers are professionals who are employed in non-line function areas. They have technical expertise and management, leadership, and supervisory skills. These comprised of accountants, financial managers, human resource managers, audit managers, finance directors, HR directors. Professionals and technicians have technical skills, leadership and supervisory skills (COMZ, 2019). They include geologists, metallurgists, and electrical, mechanical, environmental and mining engineers. Technicians include artisans, mine surveyors, instrumental technicians and draughtspersons, and operators and assemblers, while employees who have general skills include miners and clerks, among others. According to Mining Qualification Authority (MQA) (2018) managers, professionals and technicians are highly skilled. Their skills are critical to the mineral and mining sector. Hence, they are highly valued by companies compared to general workers, who are not regarded as a target population group because of their low levels of education and financial illiteracy.

In light of the above, the target population of this study was managers, professionals and technicians. The study utilised the management stakeholder group because this group is responsible for the preparation of corporate annual reports and the setting of strategic objectives. Ku Nor, Izah and Chandler (2007) observe that the management group of preparers (accountants) have the knowledge, competence, and understanding of the preparation and presentation of corporate annual reports. Managers perceive information about the value of human capital as a tool for managing and controlling human resources, which drives the company to optimum profitability and value creation (Massingham, 2016). It follows that management also assist capital providers to make sound investment decisions (Beattie & Smith, 2010). In addition, managers perceive human capital information as a guide to determine training and development costs. They use the information to devise their reward systems. For

instance, some mining companies are using high rewards contingent on performance as a tool to attract and retain a highly-skilled workforce (Nyamubarwa et al., 2013). The aforementioned justifies the inclusion of managers as participants of the study.

In the literature, there is lack of documented cases that separately explain the perceptions of professionals, technicians and general workers. Hence, this study groups them as employees or workforce. Some of the prior studies reflect that employees have a positive perception towards human capital measurement and disclosure (Abeysekera & Guthrie, 2004). This is because they use the value of human capital information to assess the extent to which human capital has been developed and valued by the company. In addition, employees are of the view that human capital value provides them with both qualitative and quantitative methods to measure their performance. Since this group of employees are considered by companies to be highly skilled workforce, they expect to be treated like a rare, valuable and inimitable asset. It therefore follows that the aforementioned group of employees was included as research participants because they are knowledgeable and qualified to understand the human capital phenomenon. The population of the companies comprises six selected mining companies in Zimbabwe.

Similar studies that examined human capital reporting had the following target groups:

- April et al. (2003) targeted the senior staff of seven listed mining companies in South Africa.
- Nyamubarwa et al. (2013) targeted human resource managers from eight mining entities in the Midlands Province of Zimbabwe.
- Bontis (1999) targeted MBA students and required respondents to act as a representative of the company they worked for prior to enrolling for the MBA programme.
- Adelowotan (2013) divided the target population into finance managers and human resource managers, on the one hand, and preparers (investment analysts and regulators and government bodies), on the other hand, of sixty South Africa's largest listed companies.
- Vema and Dewe (2004) conducted a study on valuing human capital perceptions and practices in UK organisations. They targeted human resources professionals and accounting professionals.

- Beattie and Smith (2010) conducted a study on human capital, value creation and disclosure. Their target population was 591 HR directors (the most senior HR managers).
- Massingham and Tam (2015) conducted a study on the relationship between human capital, value creation and employee reward. Their study population was 150 engineering and technical staff of a research project organisation.

Before conducting qualitative research, the above studies gave an abstract on the group of people who had relevant information on human capital. This study focuses on selected large-scale mining companies in Zimbabwe because the mining industry is a labour intensive and knowledge-intensive industry. April et al. (2003) support this assertion and state that the mining industry is a capital-intensive human industry. Therefore, the human capital reporting of mining companies should be reasonably high. Mining companies heavily invest in the human capital element and engage their employees so as to achieve their strategic set objectives (Nyamubarwa et al., 2013). Adelowotan (2013) concurs that most mining companies align employees' individual objectives with company strategic goals to create value and success. The selected mining companies are mandated by the Companies Act and Stock Exchange rules and regulations to report and disclose their financial statements to key stakeholders publicly.

Zimbabwe has the largest known deposits of the PGMs. These minerals contribute about 12% -15% of the GDP, formal employment and poverty reduction. They depend on mineral exports to earn foreign exchange. Mineral exports are responsible for 60%-70% of Zimbabwe's export earnings (Sibanda, 2020). Figure 5.3 represents a group of large-scale mining companies in the Great Dyke belt in Zimbabwe.



**Figure 5.3:** Large -scale mining companies in Zimbabwe

Source: Holding (2008)

**Table 5.1:** Nine large-scale mining companies in Zimbabwe

**Names of large-scale mining companies classified by country and mineral deposit**

**Listed Zimbabwean mining companies**

Bindura Nickel Corporation (copper and diamonds, gold and nickel)

Falcon Gold Zimbabwe (gold)

Rio Zim Ltd (chrome, diamonds, and gold)

Mimosa Mining Company (platinum)

Unki Mining Company (platinum)



Bulawayo mining company (gold)
Blanket Mine (gold)
ZimPlats Mining Company (platinum)
Hwange Colliery Company (coal)

Source: Own Source

Table 5.1 presents nine large-scale mining companies that operate in Zimbabwe. These companies were targeted by the study for data collection.

**Table 5.2:** Skills required in the mining subsectors

<b>Mining sector</b>	<b>Skill level</b>
Coal mining	Highly skilled, skilled, semi-skilled and unskilled
Diamond mining	Highly skilled, skilled, semi-skilled and unskilled
Gold mining	Highly skilled, skilled, semi-skilled and unskilled
Platinum Group of Metals	Highly skilled, skilled, semi-skilled and unskilled
Other Mining sectors	Highly skilled, skilled, semi-skilled and unskilled

**Source: Mining Qualification Authority (2018)**

Table 5.2 shows that all mining and mineral subsectors require similar skills for their mining operations.

## **5.6 Sampling and sample size**

Creswell (2007) emphasises that it is impossible to involve all units of the population in a single study. As such, a sample of the population is used. It must be representative of the population under study. A sample is a group of participants who are selected to participate in a study. The selection process entails the use of a systematic or non-systematic technique (Creswell, 2007). Before data collection, a satisfactory sample was chosen to answer the research questions in this study. The sample selection criteria did not “force” the findings of the study but helped to facilitate the validity and reliability of the study (Ryan, Scapens & Theobald, 2002). Bless et al. (2006) highlight two methods of sampling, namely, probability sampling and non-probability sampling. Many studies in the social sciences use non-probability sampling (Babbie et al., 2006). This study adopted the non-probability sampling technique to determine the samples for both qualitative and quantitative research. The research subjects were chosen based on their relevance and accessibility.

### **5.6.1 Qualitative sampling**

Flick (1998) argues that qualitative sampling chooses study participants based on their significance as opposed to their representation of the target population. Therefore, qualitative studies in social researches tend to utilise non-probability sampling (Neuman, 2003). This study first collected qualitative data using semi-structured interviews. A sample of 3-5 respondents from each company was selected, totalling 18 minimum and 30 maximum, in line with the recommendations of Onwuegbuzie and Collins (2007). It is noteworthy that the management stakeholder groups were selected as a sample for the qualitative phase. Convenience sampling was used in the selection of participants. This method uses the accessibility, availability and willingness of participants to participate in the study to generate useful data for the research. The study took note of the difficulties of securing appointments with managers of selected companies because of their busy schedules. The study continuously evaluated all the qualitative collected data to reach the point of saturation. The sample for the quantitative study was determined after establishing the constructs to measure the value of human capital.

### **5.6.2 Quantitative sampling**

The target population of this study were mining stakeholder groups of listed companies in Zimbabwe. This study utilised management, professionals, and technicians as stakeholder

groups of the selected mining companies. The convenience sampling method, which is similar to the qualitative phase, was adopted. It is convenient and flexible based on the availability of respondents at a specific time. However, this study made evaluations of the selected sample attributes. The size of the sample for factor analysis was determined by the number of constructs established in the qualitative phase. The sample for factor analysis was composed of research subjects that contain the most characteristics and which are representative of the mining stakeholder groups. Etikan (2015) argues that convenience sampling is most appropriate when the variables in the study are quantitative. Lastly, this study considered conducting factor analysis. The study had to have at least ten responses for each construct. This enabled the study to obtain reliable and acceptable results.

## **5.7 Data collection instruments**

Creswell (2007) refers to research instruments as the tools utilised to gather data from research participants. During the designing of the instruments for data collection, the study exercised due care on the reliability and validity of the instruments in line with Creswell's (2007) emphasis on this aspect. Thanasegaran (2009) submits that "the goal of achieving measurement validity and reliability can be accomplished partly by a push for quality item writing, an insistence on reporting reliability data across studies, sound theoretical bases for construct measurement and the accurate operationalisation of constructs." This study utilised an interview guide (see Annexure A) and surveyed questionnaires (see Annexure B) to gather data.

### **5.7.1 The interview guide**

Maree (2012) submits that "an interview is a two-way communication in which the interviewer asks participants questions to collect data and to learn about the ideas, beliefs, opinions and behaviour of the participant." The aim of conducting interviews is to explore the opinions of the people as they answer the what, how and why of the questions. Qualitative data was collected through conducting interviews. Semi-structured interviews were conducted with the management stakeholder group because little is known about the phenomenon of interest. Therefore, it was impossible to draw up a list of possible pre-codes. Other schools of thought provided guidelines on how to conduct exploratory research. The study considered relevant studies by April et al. (2003), Nyamubarwa et al. (2013), Cronje and Moolman (2013), Adelowotan (2013), Abeysekera and Guthrie (2004), Petty and Guthrie (2000), Lev and

Schwartz (1971), and Massingham (2016). The interview guide assisted in establishing constructs to measure the value of human capital. Both face-to-face and telephone interviews were used because securing appointments with managers of selected companies was not easy. The respondents were given options to choose convenient methods between face-to-face and telephone interviews. The interviews provided direct insights, although it was difficult to generalise findings because of the limited sample. The study sampled until the saturation point was reached. This allowed the study to obtain good quality results. The study followed Adelowotan's (2013) procedure to increase the response rate during the data collection period as follows:

- The researcher sought permission and informed consent (see Annexure E) from the participants to participate in the study. The candidate sent written invitation letters to the respondents explaining the purpose of the study. The letters were sent a month before the interviews.
- Participants were reassured of confidentiality and anonymity and that the data collected will be used for academic purposes only.
- The researcher clearly stated the reasons for conducting the study and explained why the specific respondents have been chosen and what would happen to the interview data.
- Respondents were encouraged to ask questions to help establish rapport with the candidate.
- The estimated duration of the interviews was indicated in advance to enable respondents to adjust their schedules and plan their activities without inconvenience.
- The researcher sought consent to take notes during the interviews, as the participants did not give consent to be recorded.

The interview questions were grouped into sections as follows. The first section focused on the information of the company to gain an in-depth understanding of the kind of business in which the participants were engaged. This gave a snapshot of the types of mineral deposits and the skills required by each company. Also, the designation section was included to have an idea of the responsible persons on the disclosure practices. The second section aimed to understand the human capital concepts and where it falls in each company's financial reports. In this section, the study aimed to understand the type of information that is considered human capital

and its usefulness for decision-making. The third section focused on establishing the contribution of human capital to the company's financial performance. This study aimed to identify the link between company performance and human capital attributes and how companies understand the human capital construct being a source of progress and competitive advantage. As such, the fourth section focused on establishing the relationship between human capital and value creation. In this section, the candidate probed the interviewees on how human capital attributes affect company value in the long-term, medium-term and short-term. The fifth section focused on methods utilised by mining companies to report on the value of human capital. The sixth section focused on the benefits and costs of measuring human capital to establish if it is cost-effective to measure the value of human capital. The seventh section examined the overall opinions of managers on human capital recognition, measurement and disclosure.

### **5.7.2 The questionnaire survey**

After the qualitative phase, relevant constructs to measure human capital were established for the questionnaire survey. The researcher administered survey questionnaires to both management and the employee stakeholder groups. The researcher adopted a “drop and pick” method to achieve a high response rate. Electronic mails were also useful in this regard. The researcher made efforts to contact the respondents a month prior to their engagement. The challenges of using the mail questionnaires were highlighted by Morima (2019) and Adelowotan (2013). The major disadvantage is a low response rate, particularly when dealing with managers whose schedules are very tight. To address this, the researcher kept trying until an adequate response rate was achieved to solve the study problem. The survey method made a significant contribution to understanding the phenomena mostly because a large sample was selected to attain reliable and valid data. (Adewolotan, 2013, Muza, 2018). The rationale for using the questionnaire survey technique was to gather data from many mining stakeholder groups. In deciding on how to structure the questionnaire and what type of human capital related information to focus on during the data collection, studies conducted by Adewolotan (2013) and Abeysekera & Guthrie (2004) were utilised as guides. Relevant studies by Cronje and Moolman (2013), Abeysekera (2008), Beattie and Thompson (2007), Meye and Fourie (2006), and Arvidsson (2003) were also consulted. To get a higher response rate, the following procedures were adopted:

- preliminary permission request letters were sent to the participants
- the researcher ensured clarity on the questionnaire layout
- the researcher followed up with phone calls and site visits after a week of the initial mailing and dropping of the questionnaire
- five weeks later, the researcher followed up again and collected the administered survey questionnaires from the participants.

However, the COVID-19 pandemic and the ensuing national lockdown disrupted the data collection for five weeks. Notwithstanding, the response rate was very high as participants understood the difficulties of the moment and sought to assist.

#### **5.7.2.1 The questionnaire design**

The questionnaire contained close-ended questions (structured questions). The 5-point Lickert scale rating was utilised for the study because it gave respondents alternatives. Cooper & Schindler (2011) argue that “a structured questionnaire provides responses that could be sectioned as dichotomous, multiple-choice, checklist, rating or ranking.” McBurney and White (2004) submit that close-ended questions are simply coded and interpreted. Typical questions are more “factual and objective”. However, close-ended questions are self-limiting because some of the respondents can just answer without paying attention to the detail of the question (Cooper & Schindler, 2011). The study adopted principles of designing a questionnaire propounded by McBurney and White (2004), who say that the researcher should:

- ensure that questions are without bias and that items should not be worded in such a way that misleads the respondent.
- make questions as short and simple as possible. Questions which include many ideas or two questions in one will confuse and be misunderstood.
- ensure that questions are specific. Notwithstanding the importance of brevity and simplicity, there are occasions when it is advisable to lengthen the question by adding memory cues. For example, it is good practice to be specific with periods.
- avoid jargon and shorthand. It cannot be assumed that respondents understand words commonly used in studies. Trade jargon, acronyms and initials should be avoided unless they are in everyday use.

- avoid ambiguous words. Words such as ‘usually’ or ‘frequently’ have no specific meaning and need qualifying.
- avoid questions with a negative in them. Problems are more challenging to understand if they are asked in a negative sense.
- ensure that fixed responses do not overlap. The categories which are used in fixed response questions (such as the age bands of respondents, the turnover bands of companies, etc.) should be sequential and not overlap; otherwise, some answers will be caught on the cusp.
- allow for ‘others’ in fixed response questions. Pre-coded answers should always allow for a response other than those listed.

## **5.8 Validity and reliability**

Leedy and Ormrod (2014) submit that there are two concepts of validity, namely, internal and external validity. Internal validity focuses on the extent to which the results allow the study to infer conclusions, while external validity refers to the extent to which the findings are applicable beyond the study. Thus, the results should qualify for generalisability in similar contexts. Cooper and Schindler (2011) say that reliability is a “matter of whether a technique applied repeatedly to the same object will yield the same results each time.” This study used Cronbach’s alpha to test for the tool’s internal consistency. Reliable results range from zero to one. The generally acceptable level of Cronbach alpha is 0.6 to 0.7, while 0.8 to 0.95 are considered to be perfect scores (Gerber, 2017, Hair et al., 2014). However, the results above 0.95 are redundant and not inherently reliable. The most used validity and reliability are the internal consistency of these two. This study administered a questionnaire survey to the participants, which was tested for reliability. The study results indicated Cronbach’s alpha of more than 0.5. A statistician attested that the results were reliable.

### **5.8.1 Validity and reliability for the interview guide**

The study conducted pilot testing to establish the reliability of semi-structured questions for the interview guide. Kasunic (2005) encouraged studies to conduct pilot testing. This procedure is a foretaste and acts as a tool to address the weaknesses of the research questions. This study was able to meet the needs of the participants, and reliability issues were attended. Some of the problems in the study’s interview guide were borrowed from other studies done by Adewolotan (2013), Abeysekera and Guthrie (2004), and Beattie and Thompson (2007). Before the

adoption of the questions, this study tested them for reliability. The reliability of the instrument was based on the study by Fouche and Oberholzer (2013). That study used Cronbach's alpha to test the reliability of their qualitative studies.

### **5.8.2 Validity and reliability of the questionnaire**

This study used exploratory factor analysis to test the survey questionnaire's reliability and validity. The Cronbach's alpha test was used to measure the internal consistency of the tool because these tests were considered accurate and reliable by Hair et al. (2014) and Field (2005).

### **5.8.3 Validity obtained through the use of the pilot testing and expert analysis report**

A pilot study was conducted to enhance the validity and reliability of instruments that were used in this study to test if the instruments were suitable to obtain good quality results. Tashakkori and Teddlie (2011) submit that pilot studies are ideal for qualitative, quantitative methods and mixed-method research and that these methods can be used to conduct pilot studies before the main study. In addition, pilot studies act as tools to check the validity and reliability of the instruments. Tashakkori and Teddlie (2011) confirm that a pilot study may be conducted generally to attend to various logistical issues.

The pilot study report is presented in section 5.8.3.1 and 5.8.3.2. The results were attained from the research experts and part of the targeted participants. These included potential research subjects such as management, professionals and technicians. The following comments were provided. The study utilised them to strengthen the validity and reliability of the questionnaire survey:

#### **5.8.3.1 General comments on layout and structure**

1. Cover page – no comments
2. Layout:
  - (a) In section D, question 4.4, subsection 4.45 is missing.
  - (b) The participants did not easily recognise questions 2.3 and 5.1. Hence, some of them did not answer it. There was a need to restructure the survey questionnaire for visibility purposes.
3. Length- the questionnaire is too long – some participants may need more time to complete the survey since they have busy schedules



### **5.8.3.2 Level of difficulty**

There was a need to reduce the strength of the language to suit non-accounting participants as the writing was considered too technical. For example, some professionals and technicians have experience and skills but do not have academic qualifications. Hence, this calls for the researcher to be present to explain instructions on the questionnaire, particularly in sections B and C.

## **5.9 Data analysis, presentation, and interpretation**

This section focused on how the data was “collected, analysed, interpreted and the findings disseminated.” To ensure validity and reliability, an analysis of the results was done in two phases. The aim of the investigation was to answer the research questions. The initial phase, which was based on the results of the semi-structured interviews, dealt with the qualitative interpretation of data. The second phase, which was based on the results of the questionnaire, was a quantitative analysis of data.

### **5.9.1 Phase one: qualitative interpretation of results (analysis of interviews)**

Qualitative data collected through semi-structured interviews were analysed and interpreted using thematic analysis.

#### **5.9.1.1 Thematic analysis**

Thematic analysis was central to the identification of key themes that were essential to gaining a deep understanding of perceptions, values and lived experiences (Szarycz, 2009). A theme is a consistent pattern of responses or meaning contained in the data, which represents something important concerning the research question (Conaway & Wardrope, 2007). Thematic analysis is the process of identifying patterns or themes with qualitative data (Braun & Clarke, 2006). This implies that qualitative data should be comprehended first as it provides core skills that would be useful for conducting many other kinds of data analysis (Clarke & Braun, 2013).

Alhojailan (2012), Boyatzis (1998) and Javachi & Zarea (2016) outline the various practices of conducting thematic analysis. However, many methods pose a threat with regards to choosing the better practice. The authors argue that there is a thin line between thematic analysis and qualitative content analysis. The popularly adopted thematic framework was developed by Braun & Clark (2006). This study adopted the thematic framework consisting of

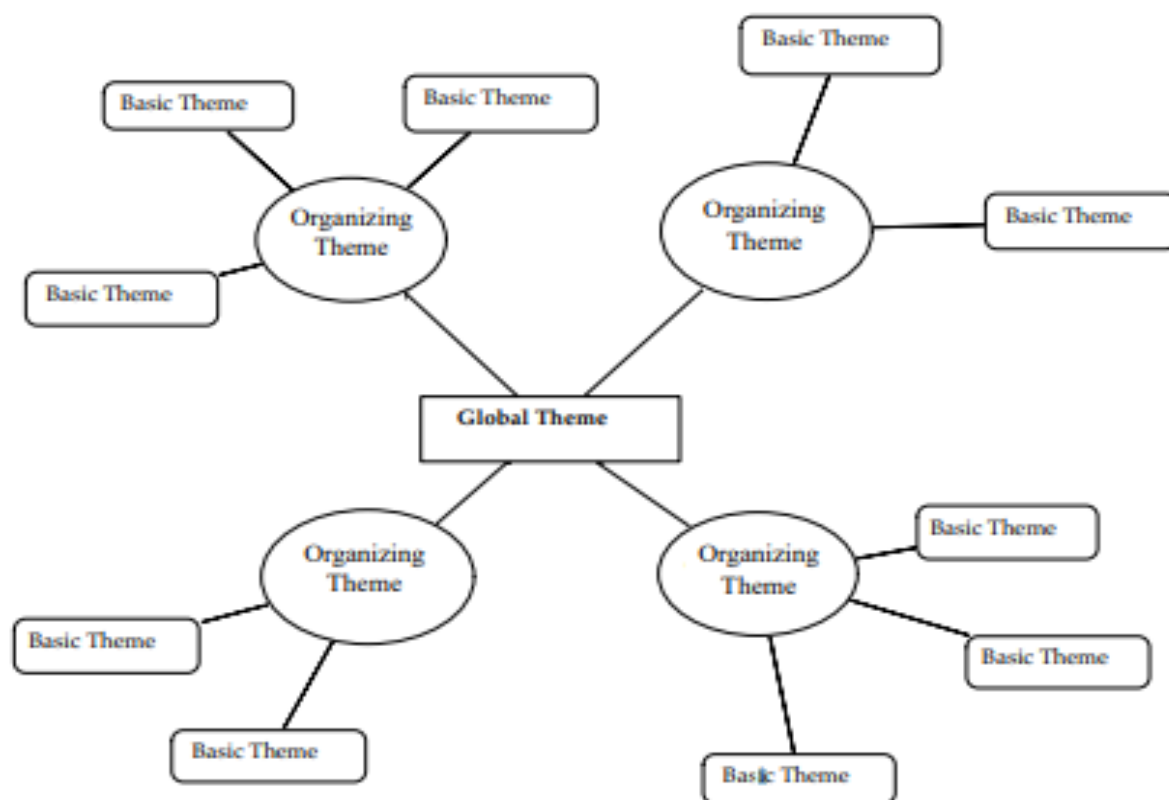
six steps from the moment the data was collected to the last level when a report was extracted. The other reason behind the adoption of the framework was the framework's uniqueness and distinctive attributes. Clarke and Braun (2013) posit that the main objective of the thematic approach is to establish themes, i.e. patterns in the data. The themes are used to address the research problem. Hence, the benefits of the thematic analysis outweigh its weaknesses.

#### **5.9.1.2 Thematic analysis procedures**

Attride-Stirling (2001) outline the process of conducting thematic analysis and say that the best way to display thematic analysis is through the use of thematic networks. Thematic networks systematise the extraction of the following:

- (i) lowest-order premises evident in the text (Basic Themes)
- (ii) categories of underlying themes grouped to summarise more abstract principles (Organising Themes);
- (iii) super-ordinate themes encapsulating the principal metaphors in the text as a whole (Global Themes) (Attride-Stirling, 2001).

The network structure is shown in figure 5.4 as follows:



**Figure 5.4:** Thematic network structure

Source: Attride-Stirling (2001)

Figure 5.4 shows that the primary theme is the lowest-order theme. It is directly developed from the textual data. Attride-Stirling (2001) point out that an underlying theme is better understood when it is integrated with other basic themes. Combined basic themes formulate an organising theme and clearly explain the textual data. They are a middle-order theme. Before reaching conclusions about the issue under study, organising themes are combined to develop a global theme. A global theme is a concluding principle. It enhances the meaning and significance of the textual data. Also, this theme presents an argument or assertion about the research problem. This study interpreted the qualitative results using the thematic network, which is presented graphically as a web-line net (Attride-Stirling, 2001).

**Table 5.3:** Application of thematic analysis to the study

Phase	Application of the process to the study
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Step 1: Researcher familiarises with the data	<ul style="list-style-type: none"> <li>• the data was read and cross-checked</li> <li>• data was re-organised and summarised <ul style="list-style-type: none"> <li>- key issues were noted</li> <li>- re-arrangement of data was done regularly during interaction with data</li> </ul> </li> <li>• similarities and contrasts were highlighted</li> </ul>
Step 2: Generation of initial codes	<ul style="list-style-type: none"> <li>• -data was arranged in a meaningful and systematic manner</li> <li>• -related sub-headings were merged to create initial codes</li> <li>• -generated codes were arranged and collated according to their relationships</li> </ul>
Step 3: Finding themes	<ul style="list-style-type: none"> <li>• underlying themes were extracted from collated codes</li> <li>• continuous re-checking and re-arrangement</li> <li>• organising ideas were extracted</li> <li>• the global theme was extracted</li> </ul>
Step 4: Review of themes	<ul style="list-style-type: none"> <li>• preliminary themes were reviewed, modified and developed</li> </ul>
Step 5: Defining and naming themes	<ul style="list-style-type: none"> <li>• the essence of each theme was defined</li> <li>• establishment of themes relations</li> <li>• drawing the network</li> </ul>
Step 6: Producing a report	<ul style="list-style-type: none"> <li>• themes and networks were defined</li> </ul>

	<ul style="list-style-type: none"> <li>• use of extracts from interview responses to confirm results</li> <li>• the explanation of the constructs implications of results in the design and development of the questionnaire</li> </ul>
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Source: Own source

### 5.9.2 Phase two: quantitative interpretation of results (analysis of questionnaires)

Quantitative data was obtained from questionnaires, which were analysed using factor analysis. Quantitative data is found in the form of numeric and other figures, while qualitative data is found in words and codes. In this study, several techniques and tools were used to analyse quantitative data, such as Microsoft Excel, factor analysis and cluster analysis. Bannon (2013) designed the following seven-step data analysis process with the guidance of Schoenbach (2004):

**Table 5.4: Seven Steps of quantitative data analysis**

<p><b>The seven steps of data analysis</b></p> <ol style="list-style-type: none"> <li>1. Create a study map</li> <li>2. Data entry</li> <li>3. Check data integrity</li> <li>4. Univariate analysis</li> <li>5. Bivariate analysis</li> <li>6. Multivariate analysis</li> <li>7. Write-up and report</li> </ol>
---

Source: Bannon (2013)

In line with the above seven-step data analysis process, the data was first entered into a Microsoft Excel spreadsheet to build up a data dictionary in preparation for the conversion of data using SPSS. When the data was ready for cleaning and coding, SPSS was used to analyse structured opinion questions, which had multiple answers and needed coding. The next phase was to conduct a factor analysis. Hatcher (1994) says that factor analysis “is a collection of

methods used to examine how underlying constructs influence the responses on several measured variables.” There are two types of factor analysis - exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). EFA was used on SPSS to ascertain the nature of constructs that influenced the responses of individual respondents (Arestedt, 2013). This study used Cronbach’s alpha to test the internal consistency of the instrument.

#### **5.9.2.1 Cronbach’s alpha**

Hair et al. (2014) outline how Cronbach’s alpha measures the internal consistency of a scale and tests the reliability of a construct or factor. It ranges from 0 to 1. The values between 0.6 and 0.7 are deemed to be the lower limit of acceptability (Gerber, 2017; Hair et al., 2014). In this study, the factor analysis took place after the instrument was tested for validity and reliability. Gerber (2017) submits that “internal consistency describes the extent to which all the items in a test measure the same concept or construct and hence it is connected to the inter-relatedness of the items within the test”. This means that all the reduced and extracted variables fit into each other and measure the same.

#### **5.9.2.2 Kaiser Meyer- Olkin (KMO) Measure of Sampling Adequacy (MSA) and sphericity**

Gerber (2017), Hair et al. (2014) and Field (2005) indicate that the Kaiser-Meyer-Olkin measure of sampling adequacy value determines if it is viable to conduct an EFA. The KMO value is a measure of the correlation structure of the variables on which an EFA is performed. If the KMO value is high, it shows that the variables under consideration are highly correlated. It means that it is possible to form a factor or construct. A weak correlation structure makes it impossible to form the required factors. KMO value range from 0 to 1 (Hair et al., 2014; Gerber, 2017). A KMO-MSA value that is greater than 0.4 indicates a significant correlation structure to perform EFA. A KMO-MSA value below 0.4 implies an insignificant correlation among the variables. It indicates that it is impossible to perform an exploratory factor analysis (Gerber, 2017). Items that were cross-loading or were not contributing significantly to the constructs were discarded.

#### **5.9.2.3 Principal component analysis**

Hair et al. (2014) say that the “component analysis, also known as principal component analysis, considers the total variance and derives factors that contain small proportions of

unique variance and in some instances, error variance”. The principal component analysis was appropriate for extracting factors because the primary purpose of the analysis was data reduction.

#### **5.9.2.4 Eigenvalues**

Hair et al. (2014) state that eigenvalues, also known as the latent root, is a sum of squared factor loading. It represents the amount of variance accounted for by a factor. Moreover, Hair et al. (2014) argue that factor loadings refer to the “correlation between the original variables and the factors, and the key to understanding the nature of a particular factor”. Squared factor loadings indicate the percentage of the variance in an original variable that is explained by a factor. The study adopted the latent criterion to establish the number of factors to extract. Hair et al. (2014) document that only the factors with latent roots or eigenvalues greater than 1 are significant, and those that are less than one are insignificant and should be disregarded. Since the study conducted a principal component analysis, the latent root criterion was applicable. Through the application of this technique, the study retained all the ten factors since they had eigenvalues of greater than one. Cumulative loading of 50% and above is acceptable (Fook et al., 2015). All the factors were satisfactory because each factor had three or more variables, resulting in perfect interpretation (Field, 2005).

### **5.10 Ethical issues in the study**

This study involved human interaction. Hence, there were ethical considerations. Foukal & Mantzorou (2018) say that research ethics are referred to “as the principles of right and wrong conduct.” They are a set of moral principles and rules of conduct woven through every stage or aspect of research. They shape the methods, how the research is conducted and how the research findings are communicated to interested parties. The researcher acted ethically when conducting this study.

#### **5.10.1 Ethics for mixed methods research**

Mixed-methods research is a mixture of both quantitative and qualitative research. Hence, ethical considerations must attend to ethical issues that surface in both forms of inquiry (Creswell, 2014). In qualitative research, issues include conveying the purpose of the study, avoiding deceptive practices, respecting vulnerable populations, respecting indigenous cultures, maintaining the confidentiality of sensitive information and masking the identities of

participants (Creswell, 2014). In the quantitative phase, the following matters were addressed: obtaining permission to conduct the study, protecting the anonymity of participants, entering sites respectfully, not disrupting the flow of activities on-site, and disclosing the purposes of the study (Creswell and Plano-Clark, 2011).

### **5.10.2 Permission to conduct the study**

The researcher obtained permission to conduct the fieldwork from the mining companies' management stakeholder group before collecting data. This procedure was cumbersome as some companies were not receptive, and some did not respond to emails. The researcher had to visit the companies physically. This turned out to be useful as permission was granted. The study successfully went through the ethical clearance process at the North-West University (see Annexure F). The researcher also obtained clearance from the Ministry of Mines and Mineral Development in Zimbabwe to conduct the study (see Annexure C).

### **5.10.3 Fundamental ethical considerations**

#### **5.10.3.1 Anonymity, confidentiality and privacy**

The researcher respected the participants' rights to privacy. Creswell (2014) argues that the most important matter in research is the confidentiality of information. The individual participants' identity were kept anonymous throughout the results analysis, interpretation and presentation (Creswell, 2003). The results cannot be traced to any research subjects. All the information will be used for academic purposes. Also, the researcher did not share the results of this study with authorities from the university and research participants.

#### **5.10.3.2 Informed consent and voluntary participation**

The researcher obtained informed consent after sending permission request letters. After that, the survey questionnaire was administered to selected mining companies (Silverman, 2011). The researcher explained to participants that they had the freedom to choose to participate in the study, and they had a right to withdraw without any consequences. They were informed that their participation in the study was voluntary and that they could not be pressured or coerced and manipulated to continue participating in the study. The researcher knew that non-disclosure of all the relevant information pertaining to the study was unethical. Therefore, all necessary information was availed to the research participants before the data collection process to enable them to make informed decisions about whether to participate in the study



(Creswell, 2014). The section on informed consent required the respondents to acknowledge that they received detailed information about the study and that they were participating voluntarily. The respondents were given detailed explanations about the study before the data collection process.

#### **5.10.3.3 Protection from harm**

Creswell (2003) encourages researchers to protect their participants from harm that may occur during the fieldwork or contact with the researcher. The researcher informed the participants that all the findings were for academic purposes only. Hence, they were not coerced or manipulated to participate in the study. The participants were aware that they could withdraw from the anytime when they did not feel comfortable continuing in the collection of data. Also, the participants were assured of minimal risk during their participation. The researcher informed the participants that the benefits of participating in the study were greater than the risks and that there were minimal risks.

#### **5.10.3.4 Offering reciprocity**

The process of data collection depended on the consent and availability of the participants. Thus, the researcher allowed participants to schedule for the interviews and completion of questionnaires. Hammersley and Traianou (2012) state that participants should not be coerced by the researcher when it comes to appointments. Instead, the participants should be the ones setting appointments that are convenient and conducive for them. Therefore, the researcher was advised on the time to visit the company for the interview sessions and dispensation of the survey questionnaires. The participants were informed about the estimated lengths of the interviews. No incentives, in money or in kind, were offered to participants to meet the agreed timeframes (Hammersley & Traianou, 2012).

Grant and Sugarman (2005) reveal that there is no significant relationship between monetary incentives and participants' responses. However, money and incentives result in biased findings, which affect the reliability and validity of the results. As such, no incentives were offered to participants as a token of appreciation or manipulation to obtain the desired results.

#### **5.10.3.5 Equity and justice**

Hammersley and Traianou (2012) highlight the importance of treating all participants fairly, equally, and justly. Researchers must desist from partiality and discrimination. In this study, all participants received the same treatment. The questionnaires were the same. Research ethics discourage the use of vulnerable groups at the expense of benefiting favoured groups. Yoong et al. (2013) argues that researchers should practice certain principles when dealing with stakeholders to avoid putting the research profession on disrepute. These principles include transparency, objectivity, integrity, independence, fairness and professional competence. All the participants were treated equally and fairly.

#### **5.11 Summary and conclusions**

This chapter discusses the research methodology and design of this study. The main sections covered are the research philosophy and the pragmatic research philosophy adopted in this study. A sequential exploratory design was used for this study. Thus, qualitative data was collected before quantitative data, enabling the researcher to design and develop data collection instruments. Convenience sampling was adopted to get information from key informants such as management, professionals and technicians in the selected mining companies. The primary data was collected using both the semi-structured interview questions and questionnaires survey. The study was preceded by a pilot study which allowed expert opinions to be used to measure the validity and reliability of instruments developed by the researcher. The study implemented a code of ethical conduct prescribed by the North-West University. Informed consent was obtained through a form. All behaviour and protocol requirements were met. The next chapter presents the qualitative data findings and thematic analysis used to interpret the results.

## **CHAPTER SIX**

### **QUALITATIVE RESULTS ANALYSIS AND INTERPRETATION**

#### **6.1 Introduction**

This study sought to develop a framework for measuring and disclosing the value of human capital in the financial statements of selected mining companies in Zimbabwe. The previous chapter outlines the research methodology and discusses issues such as the study's research philosophy, design, approach, population, sampling, and data collection techniques. It also explains the mixed-method research approach and the sequential exploratory design of the study.

This chapter outlines the themes that were established in the qualitative phase using the thematic analysis. Thematic analysis is one of the widely adopted forms of analysing and interpreting qualitative data by establishing themes (Braun & Clarke, 2006). Data was collected using semi-structured interviews and corporate annual reports. The constructs were utilised to develop the questionnaire survey for the quantitative phase of the study (second phase). Schultz (1993) says that human capital is a critical driver in enhancing a company's innovation capacity, creating value for the company, increasing productivity and sustaining competitive advantage. OECD (2019) says that human capital is "the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social, and economic well-being."

#### **6.2 Qualitative data analysis using the thematic approach**

This study used a thematic analysis to establish, analyse and interpret qualitative data. The data was collected using semi-structured interviews. The stakeholder group involved was management from six mining companies in Zimbabwe. The mining sector generates over 60% of Zimbabwe's export earnings. It accounts for 12%-16% of GDP (COMZ, 2019). The government of Zimbabwe outlined ambitious plans to quadruple the sector's total value to \$12 billion in 2023, in line with plans to take advantage of abundant natural resources in the country's Great Dyke, which has the second-largest platinum deposits in the world. Estimates suggest 2.8 billion tonnes of ore from PGMs are found in the Great Dyke. This makes mining an anchor of economic growth. The study obtained results from six largest Zimbabwean-based mining companies. Some of them are multinational corporations (MNCs) that operate in the

Great Dyke. Their preparation and presentation of financial and non-financial information are guided by local and international regulatory frameworks, such as IFRS, GRI, IR, and legislation. Some diversified their mining businesses. This implies that they concurrently mine gold, coal, chrome and diamonds. Comprehensive information was obtained during the interviews. Probing questions were asked until a saturation point was reached. The obtained results were suitable for generalisability.

**Table 6.1:** Investments in the mining industry since 2000

<b>Investment</b>	<b>Source Company</b>	<b>Source Country</b>	<b>USD (\$' millions)</b>	<b>Transaction Year</b>
Mimosa Platinum Mine	Implats, Aquarius	RSA, Australia	30	2001
Zimplats Selous Mine	Implats	RSA	225	2002-2005
Independence Gold Mines	Metallon	RSA	15	2002
Unki Platinum Mine	Anglo - Platinum	RSA	300	2003
Bindura Nickel Corporation	Mwana Africa	UK/RSA	8	2003
Murowa Diamonds	Rio Tinto plc	UK	61	2004
Freda Rebecca Gold Mine	Mwana Africa	UK/RSA	2,5	2005

Eureka Gold Mine	Mmakau mining	RSA	6	2005
Zimplats Expansion	Implats	RSA	340	2007
Zimasco	Sinosteel	China	200	2007

Source: Muza (2018)

### 6.3 The thematic network process

A thematic analysis was conducted using thematic networks. Miles & Hubberman (1994) recommend the technique. For this study, textual data was obtained through human interaction using semi-structured interviews, which led to the development of the themes identified in this work. The thematic network was used to facilitate the structure and depiction of the themes. The thematic approach is a crucial tool to derive themes from textual data in qualitative research (Attride-Stirling, 2001). The study established a web-like thematic network starting from the basic themes and working inwards towards organising themes and a global theme, respectively. The basic themes were developed through a rigorous analysis of the textual data. All the texts that told similar stories were grouped.

Similar basic themes, which were understood beyond their meanings, were regrouped into clusters and became organising themes. The organising themes were more revealing and gave a clearer picture of the textual data. The organising themes were reorganised and reinterpreted to provide a conclusion known as the global theme. The study followed six stages of the thematic analysis approach. The network was presented in chapter five, leading to a final report on human capital measurement and disclosure. The thematic network approach was conducted as follows: In phase 1, the study familiarised and comprehended the data collected during the fieldwork. In phase two, initial coding began, leading to the generation of codes. In phase three, the generated codes were used to establish themes. Phase four saw development, analysis and interpretation. This enabled the researcher to draw a thematic map.

Phase five focused on defining and naming the themes (global, organising and underlying themes). Stage six saw the production of the report. The primary reason behind the write-up of

the report was to clearly articulate the storyline of the textual data collected during the interviews. Braun and Clarke (2006) submit that “an analysis should provide a concise, coherent, logical non-repetitive and an interesting account of the story the data tells within and across themes”. The report provided sufficient evidence of the themes within the data. This enhanced the validity and reliability of the qualitative data analysis. The report is an analysis of the basic, organising and global themes. The study considered ethical considerations discussed in chapter 5. All the responses obtained during the interview process were coded as P1 to P6 (P-participant). The themes were linked to the research questions. After a write up of each theme, its implication to the quantitative phase was outlined.

#### 6.4 Linking the themes to research questions

The main objective of the study was to establish a framework for the measurement and disclosure of human capital in financial statements by Zimbabwean mining companies. The study has both primary and secondary objectives, which developed into research questions. The research questions provide answers that meet the requirements of the aims and objectives, which are used to solve the research problem. The following themes were established from the research questions:

**Table 6.2:** Themes, research objectives and questions

Themes	Sub-themes	Research objectives	Research questions
Theme 1: Attributes of human capital	<div>Training and development</div> <div>Skills and competencies</div> <div>Health, wellness and safety</div> <div>Capabilities and innovation</div>	<b>Obj1</b> Establish information that is considered as human capital by the company	<b>RQ1</b> What type of information is considered human capital by the company?

	Equity issues		
	Remuneration and welfare		
Theme 2: Laws and regulations	Listing status  Accounting standards  Integrated reporting framework	<b>Obj1</b> Establish factors that influence the measurement and disclosure of human capital in the financial statements of Zimbabwean mining companies	<b>RQ1</b> What factors influence the measurement and disclosure of the value of human capital in company financial statements?
Theme 3: Internal control systems and policies	Cost-effectiveness  Stakeholders' key interests	<b>Obj1</b> Establish factors that influence the measurement and disclosure of human capital in the financial statements of Zimbabwean mining companies	<b>RQ1</b> What factors influence the measurement and disclosure of human capital in company financial statements?
Theme 4: Company growth	Competitive advantage  Productivity  Return on investment	<b>Obj2</b> Determine the link between human capital and the financial performance of	<b>RQ2</b> What is the link between human capital and the financial performance of

		mining companies in Zimbabwe	mining companies in Zimbabwe?
Theme 5: Maximisation of shareholders' wealth	<p>Innovation</p> <p>Value creation</p> <p>Strategic alignment</p>	<b>Obj3</b> Indicate the relationship between human capital measurement and disclosure and the value of listed mining companies in Zimbabwe	<b>RQ3</b> What is the relationship between human capital measurement and disclosure and the value of listed mining companies in Zimbabwe?
Theme 6: Human capital measurements	<p>Professional Experience</p> <p>Human capital ROI</p> <p>Training ROI</p> <p>Retention rates</p> <p>Workforce turnover</p> <p>Employee performance and Productivity</p> <p>Cost of absence and resignations</p>	<b>Obj4</b> Ascertain methods that are used by Zimbabwean listed mining companies to measure and disclose the value of human capital.	<b>RQ4</b> Which methods are used by Zimbabwean mining companies to measure the value of human capital?



	<p>Average educational level</p> <p>Total number of workforce</p> <p>Employee breakdown by age, gender, race, seniority</p> <p>Value-added per professional</p> <p>Value-added per employee</p> <p>Dependence on key employees</p>		
Theme 7: Context-based human capital framework	<p>Policy Formulation</p> <p>Stakeholder Engagement</p> <p>A comprehensive and adequate due process</p>	<p><b>Obj5</b> develop a framework for the measurement and disclosure of human capital in financial statements by listed mining companies</p>	<p><b>RQ5</b> Which framework can be used for the measurement and disclosure of human capital in the financial statements of listed mining companies in Zimbabwe?</p>

Source: Own research

## **6.5 Theme 1: Human capital attributes**

The management stakeholder group from mining companies under the study pointed out several attributes that comprise their human capital. Firstly, the participants were asked how they refer to their employees in their reports. Some companies refer to their workforce as follows:

**P1** stated that they identify employees as human resources or employees or human capital

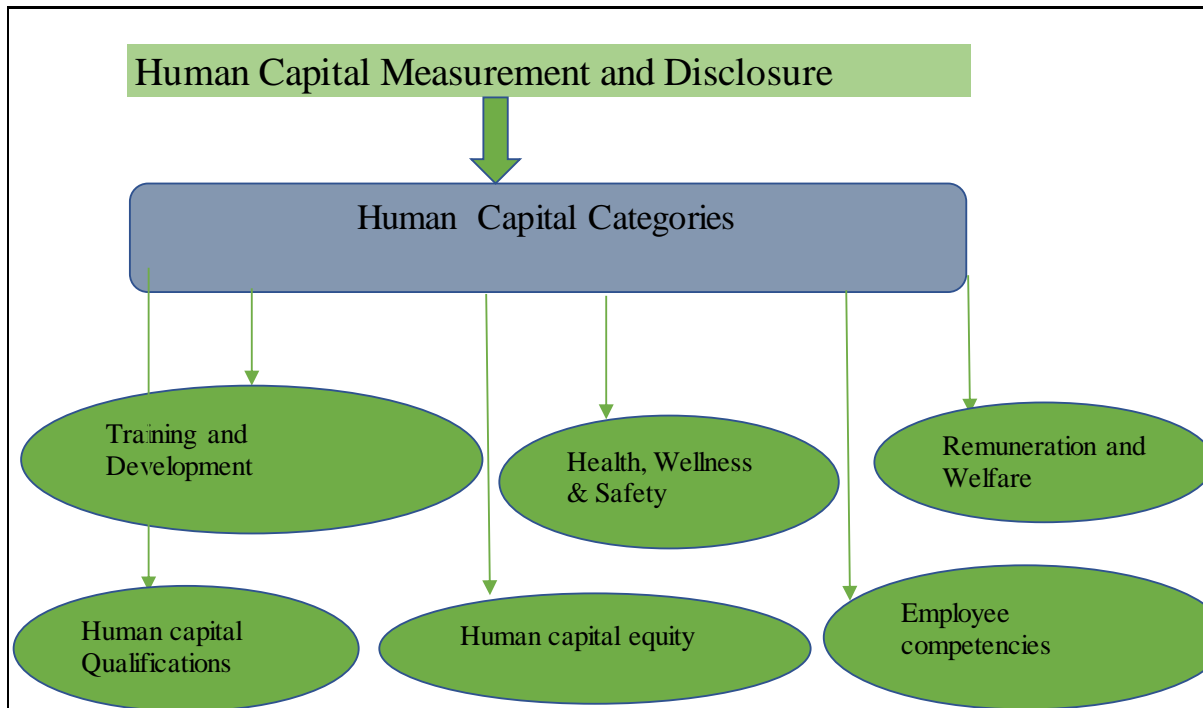
**P2, P5 & P6** refer to employees as human capital or employees

**P3 & P4** recognise them as employees or workforce.

The analysis shows that the above terms are ubiquitous among the mining companies. Some use the terms interchangeably. The attributes of human capital mentioned above include training and development, health and safety, skills and experience, qualifications and employee capabilities, creativity and competencies, workforce equity issues, and remuneration and welfare. The respondents frequently mentioned work experience. Hence, it was deduced that companies are fully aware of the human capital element. **P1** defined human capital as “our human/people aspect of our entity; that is skills, experience, competencies and creativity that distinguishes us from others and gives us a competitive advantage”. The theme mentioned above addresses the first research question, which is: What type of information is considered as human capital by companies? The research findings revealed that human capital consists of the following:

- training and development of employees
- employee health, wellness and safety
- skills, expertise and experience
- employee capability, creativity, innovation and competency
- Remuneration and welfare
- Equity issues

Figure 6.1 presents a summary of the categories of human capital identified using thematic analysis.



**Figure 6.1:** Summary of Theme 1 on Human capital categories

### 6.5.1 Training and development

The results of the thematic analysis show that companies differ on what they recognise as human capital. Some companies mentioned training and development, while other companies did not mention it. **P5** reported that one of their pillars of value is people. “We aim to resource the organisation with a capable, engaged and productive workforce and we are committed to ensuring that no harm comes to any of our people”. It was deduced that companies empower their workforce through learning, as supported by **P5**’s response that “We are designing a learning ‘ecosystem’ that is engaging and empowering to our culture, using the best-in-class practices in the design, creation, delivery and tracking of learning experiences.” These learning programmes are designed to equip employees with skills and to change their behaviour at the workplace because each employee needs to fulfil their roles and responsibilities in the company. It follows that training and development programmes assist the workforce to gain innovative learning experiences to shape their development and prepare for their future roles. **P1** indicated that training and development empower employees to acquire mining and non-mining skills. Employees without academic qualifications are trained to equip them with basic literacy and numeracy. Professionals and technicians are trained to equip them with adequate technical skills to meet the company’s standards and objectives. **P1** also indicated that training programmes are company-specific. That is, they are not industry-based. **P2** stated that “our

employees contribute to the growth and development of our company, and we, in turn, contribute to their growth and development”. Hence, employee training and development is an essential focus area in an organisation.

**P4** stated that “people are vital to our business”. The company makes it one of its core responsibilities to ensure that its workforce is skilled, motivated, healthy and safe to enable employees to deliver on the company strategy. This helps the company to maintain its competitive advantage. As such, training and development programmes are works in progress. The programmes also address compliance matters relating to protected jobs and expatriate employment legislation as well as to continue promoting employment legislation and opportunities. **P3** stated that “training and education are considered indispensable in terms of the company’s personnel policy. However, due to financial constraints during the reporting year (2018), the training of personnel was limited to the core and critical skills”. It was deduced that employee training covered health and safety, leadership, process, mining and engineering, system and software technical services. Also, the company embarks on values awareness training and affords all employees the opportunity to participate. **P6** indicated that the company’s position on human capital is to have an experienced workforce. This is achieved by investing financial capital in various initiatives to ensure that employees’ personal goals are aligned with the strategic objectives of the company. This depends on the implementation of training and development programmes and talent management initiatives.

Adelowotan (2013) says that companies are aware of the importance of human capital training and development and that it consists of knowledge, education, career development, talent management, competence development programs, and job rotation opportunities. However, the analysis revealed that regardless of the consideration of these attributes for decision-making purposes, most companies do not properly report on them in the financial statements. This makes it difficult to measure the value of these attributes. Beattie and Smith (2010) highlight that companies should be mindful that the value of human capital can be ascertained through training, engagement and teamwork, in line with the realities of essential investment in the 21<sup>st</sup> century. Burton-Jones and Spender (2011) allude that organisations should sum up their profits and calculate the productivity attained after investing in human capital training and team building. The above results answer one of the interview questions: What type of information is considered as human capital by the mining companies? The responses from participants

showed that training and development costs form part of their human capital value (**P1**, **P2**, **P3**, **P4**, **P5**, and **P6**).

In addition, majority of the companies indicated that their workforce training and development programmes are aligned with their strategic and operational needs. Therefore, companies lead the development of their employees. This implies that they focus on employee training and skills development. Abeysekera and Guthrie (2004) established that Sri Lankan firms heavily invest in training and development programmes and that their training programs are aimed at changing employees' behaviour, conduct, and attitudes and to encourage employees to learn new things and to acquire skills of teamwork building. The key reason for training programmes is to improve employees' work-related skills.

#### **6.5.2 Health, wellness and safety**

The study established that employee health and safety are part of the attributes of human capital. **P4** stated that “we care for the safety and health of our employees. Employee well-being and ensuring a safe workplace are our priorities. Through active leadership, a proactive culture and effective critical control management, we will prevent significant unwanted events and fatal incidents – and live long”. This shows that companies are aware of the need to promote health and safety and that measures, which must be revised regularly, are necessary to measure risks to employee health and safety. Some of the approaches adopted by companies extend from employee safety and health to the environment, communities, social risks and legal and regulatory risks, among other things. **P1** indicated that employee engagement is aimed at “promoting good labour relations, increasing productivity and maintaining a focus on our strategic objectives. The well-being of all our employees and their safety is the foundation of who we are and how we conduct ourselves”. **P1** further stated that when measuring company value, safety “*is our first value*”. Previous statements show the importance of the safety of employees, which is prioritised by companies.

**P6** reported that:

I may be stating the obvious when I say that mining is a hostile environment and working underground is unpredictable, but it's worth remembering that safety is an essential component of maintaining a healthy workforce. We are uncompromising on safety, health and securing the environment to ensure the effectiveness of operations.

This is most important during this development phase because it is now that we set the standards for the time when we begin production.

**P2** stated that “Every employee has a right to work in a safe and secure environment and have the opportunity for personal development.” This led the company to establish health and safety policies and procedures and to conduct safety training and awareness campaigns, further reinforcing the view that employee health and safety are a top priority. Some of the campaigns include “managerial procedural training, workplace safety pledge for management and workers as well as silicosis dust awareness campaign”. It is apparent that employee health and safety is one of the attributes of human capital and that it is highly prioritised by companies because it affects company value. The mining industry has a direct impact on the environment. Hence, mining companies must show commitment to reporting environmental safety. This is the main focus of corporate reporting. However, the study established that there is limited information on the health and wellness of employees, and companies have shown interest in fully reporting it in the future.

### **6.5.3 Employee competencies and qualifications**

Human capital attributes also include employee experience and skills. **P3** reported that one of the company’s objectives is to attract and retain a high-skilled workforce: “We have the potential to become home to the highest skilled mining workforce in the country. We have introduced a relatively high minimum entry requirement and are training potential employees from the surrounding community”. This strategy also provides for a multi-skilling programme that will enrich jobs, facilitate employee flexibility, and encourage the workforce to do more.

**P2** stated that their company aims to recruit and retain a skilled and experienced workforce. Also, “human capital is the investment in our people and the development of their skills towards a knowledge-based workforce and to ensure that we run our business efficiently, safely and cost-effectively”. This shows that companies are ready to spend huge sums of money to equip their employees to become experienced and skilled. This will improve teamwork and enable the companies to gain competitive advantages and achieve their goals and objectives. **P4** reported that the company enhanced its value by attracting and retaining employees with the skills and expertise which it required. **P1** confirmed that for the company to meet its goals and targets, a skilled, motivated and experienced workforce is hired. Key strategies are implemented to retain the employees. **P5** reported that “Our people have specialised

knowledge, skills and experience, which is applied to ensure that sound, sustainable mining and other use is made of its assets, in line with its strategy”. Also, the participant stated that the company aimed to attract, develop and retain the best people by creating a culture of excellence to deliver its targets. Information on human capital skills and experience is used by management for making strategic decisions.

In light of the above, it was deduced that employee capability, competence, innovation, qualifications and creativity are also human capital features that are sometimes reported by companies in annual reports. **P1** reported that their human resources department thrives for excellence through recruiting and retaining competent, qualified, capable and innovative staff. It puts in place training and development programs to sharpen their skills and competencies. Hence, the workforce is a key resource. It assures increased productivity and competitiveness in the mining sector. **P2** stated that knowledgeable, competent and innovative employees execute their jobs effectively and efficiently. Hence the company’s productivity is guaranteed. The study also revealed that the companies prioritise the happiness of their employees and incentivise them through housing schemes, schools, bursaries, clinics and allowances. The capability of employees is dependent on their satisfaction and commitment (Grant 2014). **P3**, **P4** and **P6** shared similar sentiments on employee competency, skills and innovation. They highlighted that they established competency-based systems which allow them to clearly define their performance expectations from their workforce to accomplish targets and goals. Also, these programmes allowed employees to have an insight into the overall strategy of the company. Zahra and Nielsen (2002) also highlight the importance of recruiting a knowledgeable, innovative, competent and skilled workforce. They reveal that employees with the above attributes become a “treasure” of the company and a source of competitive advantage and progress.

#### **6.5.4 Remuneration and welfare and equity issues**

**P6** said that “attracting and retaining of skilled and talented professionals is heavily dependent on our remuneration policies and practices as a group. To ensure peak performance and that our business objectives are met, employees and directors of the company must be fairly rewarded”. The interviewee highlighted that the group regularly reviewed its remuneration practices to ensure ‘fair, transparent and responsible pay’ and also it hopes to achieve short, medium and long-term goals as well as strategic objectives.

**P6** further said that “Our remuneration committee is made up of individuals with expertise and experience”. The remuneration committee has “experience in accounting, remuneration and financial management roles as well as mining experience, allowing members to ensure our remuneration is aligned with industry standards, best practice and legislation”.

The interviewees indicated that their remuneration policies are not based on race and gender but on the ability, skills and knowledge of employees. The findings also revealed that all employees are rewarded equally for equivalent duties and responsibilities. Therefore, it can be inferred that companies have addressed issues of equity. The media revealed that women and people with disabilities are encouraged to apply to these companies as long they meet the job description. To keep employees happy and satisfied, the company initiated a market-related total incentive plan for its employees. The incentive plan also acts as a strategy to attract and retain the required skills and can be referred to as a talent management practice. **P5** highlighted that “Our remuneration policy takes cognisance of the demanding skilled workforce required in the industry and scarcity of those skills”. The company’s remuneration policy is premised on the skills, competence, experience and knowledge of its workforce. The Companies Act and the National Code of Corporate Governance enjoin companies to remunerate their employees through fair provisions of the guidelines. **P6** reflected that their remuneration policy was driven by employee skills, ability, experience, competence and know-how, and not gender, nationality or race. Consequently, there is equal remuneration for the same roles performed by women and men. This shows that companies are addressing equity issues such as the “gender pay gap”. Employees qualified for annual bonuses and performance-based rewards. Some key employees qualified for retention bonuses. Executive employees were registered for the share-incentive plan. **P4** stated that “Our group remuneration policy aims to attract and after that retain motivated, qualified, diverse and skilled personnel”. **P3** said that “Our remuneration policy is designed through remuneration committee engagement with the management and our remuneration policy aims to balance the goals of retaining and attracting talent across the business.”

**P3** added that “Our remuneration policy is designed in a way that costs are kept at minimal, the pay gap issue is addressed and the company must achieve its strategic objectives”.



These findings reveal that there is a deferred share plan (DSP) endorsed by the shareholders and that employees participate in the scheme. This scheme aims to attract, motivate and retain skilled personnel. In the same manner, the company is committed to addressing gender and race equity issues by paying men and women equally for the same roles. **P2** said that “Our remuneration policy adhered to the National Code of Corporate Governance and our reward strategy is aligned to the strategic direction of our company. Our remuneration policy aims to attract and retain competent employees that enhance business performance, reward, recognise and give appreciation for superior performance among other principles”. In addition, **P2** stated that “The company runs a long-term-incentive plan that is endorsed by the shareholders and the scheme aims to incentivise executives and selected employees”. **P1** revealed that “Our remuneration policy is designed to encourage delivery of the Group’s strategy and creation of stakeholder value responsibly and sustainably, aligned to our purpose. The main elements of the remuneration package are basic salary, annual bonus and Long-Term Incentive Plan (LTIP)”. It is apparent that remuneration and welfare policies are implemented to achieve strategic objectives through the utilisation of human capital.

#### **6.5.5 Summary of Theme 1: Human capital attributes**

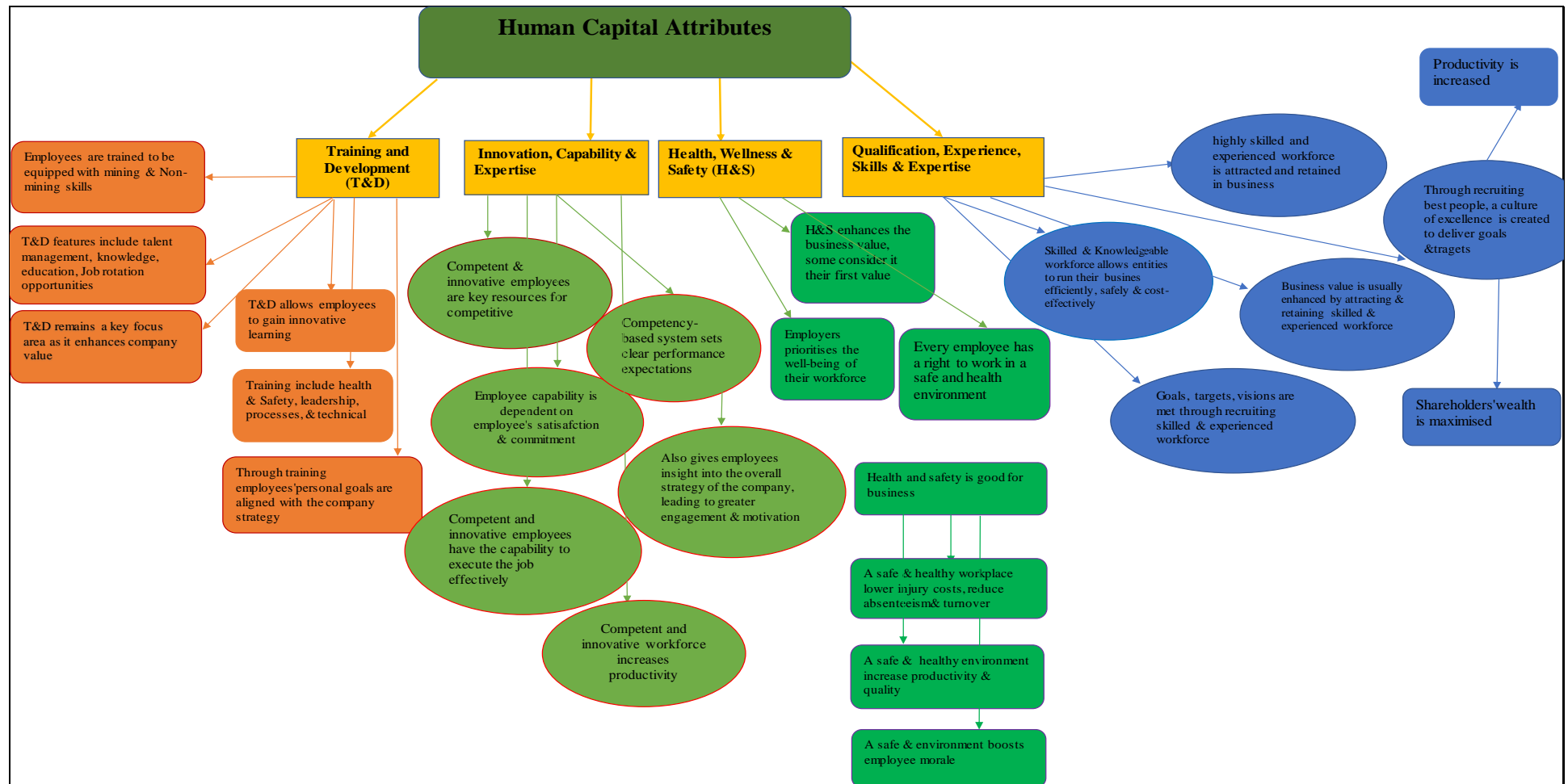
It is evident that companies are aware of the attributes of human capital and that some are actively reporting on them. These attributes include training and development, employee skills, experience, health and safety, innovation, creativity, capabilities, expertise, qualifications and competencies. The study discussed the results in detail using the thematic analysis approach, which is highly recommended for qualitative data analysis. The respondents confirmed the decision-usefulness of these attributes of human capital when making investment and operational decisions. Theme 1 answered the research question: What type of information is considered as human capital by mining companies? It was deduced that most companies only disclose human capital information related to their directors and majority of the disclosed information is not value-adding. Few reported information on other stakeholder groups. Therefore, it is vital that companies report human capital information in their corporate annual reports fully. This is because of its importance to the functionality of companies. Furthermore, companies continue to regard employees as their core business. Hence, they continue to train and equip them with relevant skills. This shows the necessity of human capital to enhancing business performance, competitiveness and sustainability.

### 6.5.6 Implications of Theme 1 to the quantitative phase (Phase 2)

Theme 1 focuses on the attributes of human capital. The responses give an abstract on what the study should focus on during the quantitative phase. This researcher got an idea of the kind of questions to be included in the survey questionnaire and the attributes of participants who were fit to provide reliable and valid responses.

**Table 6.3:** Variables from theme 1: **Attributes of human capital**

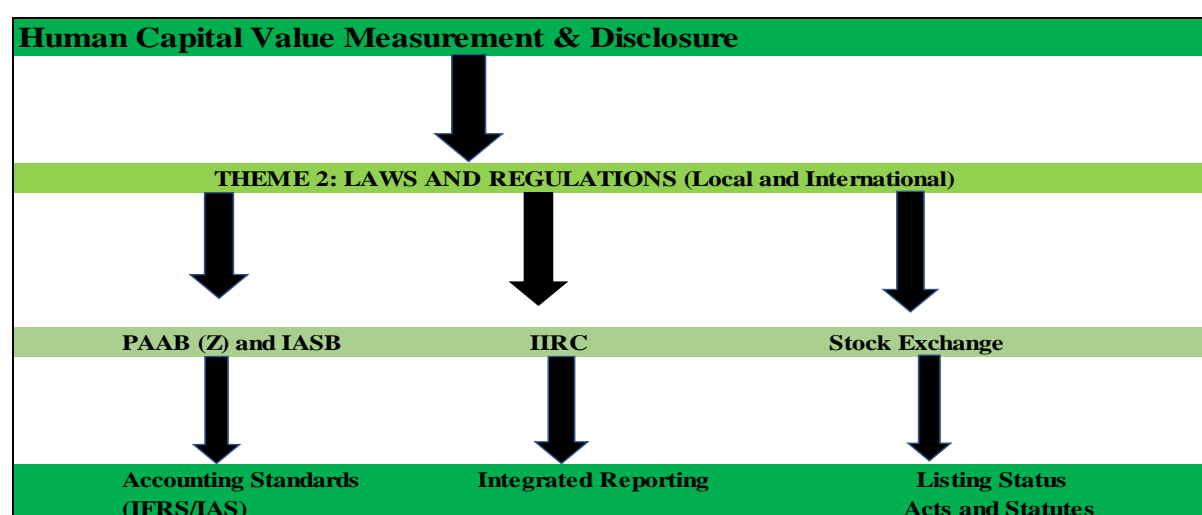
Areas of knowledge	Key areas to address in Phase 2
Key findings	Relevance and importance of human capital information for decision-making purposes  Stakeholders' perceptions of human capital  Features of human capital and their contribution to business value  Information treated as human capital information



**Figure 6.2:** Thematic network for Theme 1: Human capital categories

## 6.6 Theme 2: Laws and regulations

It was necessary to analyse the type of information that is considered as human capital to clearly understand the meaning of human capital and how companies account for it in their corporate annual reports. Furthermore, the study established if companies report any human capital information and what makes them feel obliged to report on it. Hence, the following research question was asked: What are the factors that influence the measurement and disclosure of human capital in corporate annual reports? The companies reported that majority of the information presented in the corporate annual reports was based on the requirements of the government (as stated in legislation), the Zimbabwe Stock Exchange (ZSE), the International Accounting Standard Board (IASB), and the Public Accountants' and Auditors' Board (PAAB). The IASB is recognised across the globe because it sets International Financial Reporting Standards (IFRS) and International Accounting Standards (IAS). The PAAB (Z) is a Zimbabwean professional statutory board that regulates bodies such as the Institute of Chartered Accountants in Zimbabwe (ICAZ). The main objective of the PAAB is to “endeavour to protect the financial interests of the stakeholders of Zimbabwe and that of other persons with interests in the Zimbabwean economy by ensuring the maintenance of high standards of professional performance and conduct by members of the accountancy profession”. Figure 6.3 below summarises Theme 2: Laws and regulations.



**Figure 6.3:** Summary of Theme 2: Laws and regulations

### **6.6.1 International and local rules and regulations**

The study ascertained that the Zimbabwean mining companies adopt accounting reporting guidelines for the preparation and presentation of their financial information to users of financial statements. It follows that International financial reporting standards prescribe items to be reported in the financial statements. Note that, IFRS and IAS are developed by professional accounting bodies such as IASB. The IFRS is an international regulation that ensures the comparability of financial information across the globe. **P4** reported that their company's annual reports are prepared in accordance with the Companies Act (Chapter 28:01), the Zimbabwe Stock Exchange listing requirements (ZSE) and the National Code of Corporate Governance of Zimbabwe (NCCGZ). Also, their financial statements are prepared following the IFRS/ IAS. Likewise, **P3** stated that their consolidated annual financial statements are prepared under IFRS/IAS guidelines as well as the requirements of the Companies Act. Also, they comply with the requirements of the NCCGZ during the compilation of their financial reports. They adhere to the stock exchange requirements on disclosure and transparency. The remaining participants also reported the same. The participants further highlighted that their companies focus on mandatory disclosures and that any items outside the scope of IFRS are given limited recognition.

The thematic analysis also reveals that majority of the mining companies in Zimbabwe have not adopted integrated reporting (IR) guidelines. The IR guides corporates to provide integrated reports to their stakeholders to include, among other items, the six capitals that augment value creation (IIRC, 2013). The six capitals include human capital. The Zimbabwean mining companies reported that majority of information disclosed in their annual reports was guided by the IFRS, the Companies Act and stock exchange listing requirements. They argued that it is impossible to measure and disclose human capital as an asset in their financial statements as it is outside the requirements of the regulatory frameworks. Also, they indicated the difficulties of attaching value to people since regulatory frameworks such as IFRS are silent about it except when measuring the component using the salary aspect. Despite these challenges and the absence of a framework to guide them in measuring the phenomenon as an asset, some of the participants showed interest in measuring key aspects of human capital. **P5** reported that "as much human capital is the most valuable element in our company, attaching value to it is not possible, but if initiatives can be established on how we should measure it, we will gladly do so". In a study by Adelowotan (2013), the attributes of human capital were not popular in the

participants' corporate annual reports, despite their confirmation that human capital is a critical element when making investment decisions. This shows the importance of measuring and disclosing human capital in closing information asymmetry and addressing issues such as value creation and the success of companies. Therefore, there is an exigency to develop a universal framework for measuring human capital so that all entities can use it. **P1** stated that the adoption of integrated reporting guidelines made the company design a business model for success and creating value: "Our business is best understood in terms of five capitals, as a whole which create value for our stakeholders. These are financial, manufactured, human, natural and social and relationship capitals".

**P1** further revealed that up-skilling the workforce allowed their company to gain competitive advantages through a combination of other resources such as upgrading plants. Users of financial statements will be satisfied if human capital is reported as a matter of obligation rather than at the discretion of the company. **P6** said that "human capital reporting is guided by the requirements of IAS 19 (Employee Benefits) and IAS 26 (Employee Retirement Benefits)". The two standards describe how to account for costs related to human capital in the financial statements. However, IAS 19 does not prescribe specifics on the disclosure of labour costs and other related costs. It is silent on the mandate to present the cost following IAS 1 (Presentation and preparation of financial statements). **P6** indicated that the cost of human capital is recorded in financial statements as an expense and is highlighted in the notes section of financial statements.

From thematic analysis, the study found that possible reasons why companies are reluctant to measure and disclose human capital in the financial statements. **P1** to **P6** revealed that reporting of human capital as an expenditure and not as an assets is due to IFRS being silent on the key aspects to be measured. In addition, **P3**, **P4** and **P6** stated that human capital does not meet the recognition criteria of an asset. It is therefore treated as a cost to be minimised and not asset that bring economic benefits to the company. **P1** indicated that their company is reluctant to disclose human capital information because they fear giving away vital information to competitors. In addition, other possible reasons that were deduced include that companies fail to link human capital's importance to company strategy as well as they fear giving away vital information to labour (Unions and Employees).

Athanasios, Antonios and Despina (2013) submit that large-scale corporations disclose human capital information to convince shareholders that they are not using company resources for their own advantage. Under the agency theory, agency problems arise between shareholders (principals) and management (agents). Management should fully disclose all relevant and material information to avoid agency problems. This is because agency problems creates information asymmetry which then decreases the value of a company and affects its going concern. As a result, it negatively affects retention and attraction of potential investors. **P2** stated that their listing status makes it possible for their company to disclose human capital information at lower costs. The listing requires a lot of information to be gathered for the purpose of meeting the requirements of IFRS. The same participant further said that human capital information is disclosed to reduce agency costs and to give assurance to shareholders and other stakeholders that the company is transparent and has integrity. **P2** further stated that the company adopted an integrated reporting framework for corporate annual reports. IR guidelines encourage companies to practice transparency and accountability (IOD, 2009). Thus, sustainability reporting should enhance financial reporting. Company boards should report on how the value of their companies is created. They should also report on success. In line with that, companies design business models that show the inputs, processes and outputs. This is a strategy to show how value is created.

### **6.6.2 Summary of Theme 2: Laws and regulations**

The study found that large-scale mining companies disclose financial and non-financial information to meet the requirements of the local and international rules and regulations. These regulations include accounting rules that are incorporated in the IFRS and other reporting frameworks such as integrated reporting (IR) and global reporting initiative (GRI). From thematic analysis, it was deduced that disclosure of non-financial information such human capital is done to protect investors and other key stakeholders. Furthermore, such disclosures promotes transparency, accountability, fairness, and integrity. The study also found that, reporting of human capital as an intangible asset is done voluntarily and it is based on contextual settings. Although, some companies consider human capital as an intangible asset, majority of these companies measure human capital in the financial statements based on the salary aspect. That is, companies primarily recognise human-related costs as expenditure in the statement of profit and loss. It follows that the market-to-book value ratios may represent hidden material information, which is human capital. The study concluded that, regardless of

human capital being treated as expenditure, companies consider human capital as an asset that creates and sustain company competitiveness and wealth.

Theme 2 answered the following question: **RQ 1:** What are the factors that influence the measurement and disclosure of human capital? The answers are as follows:

- Accounting Standards (IAS/IFRS)
- Listing status (Zimbabwe Stock exchange requirements)
- Integrated Reporting Guidelines (IR)
- Statutes

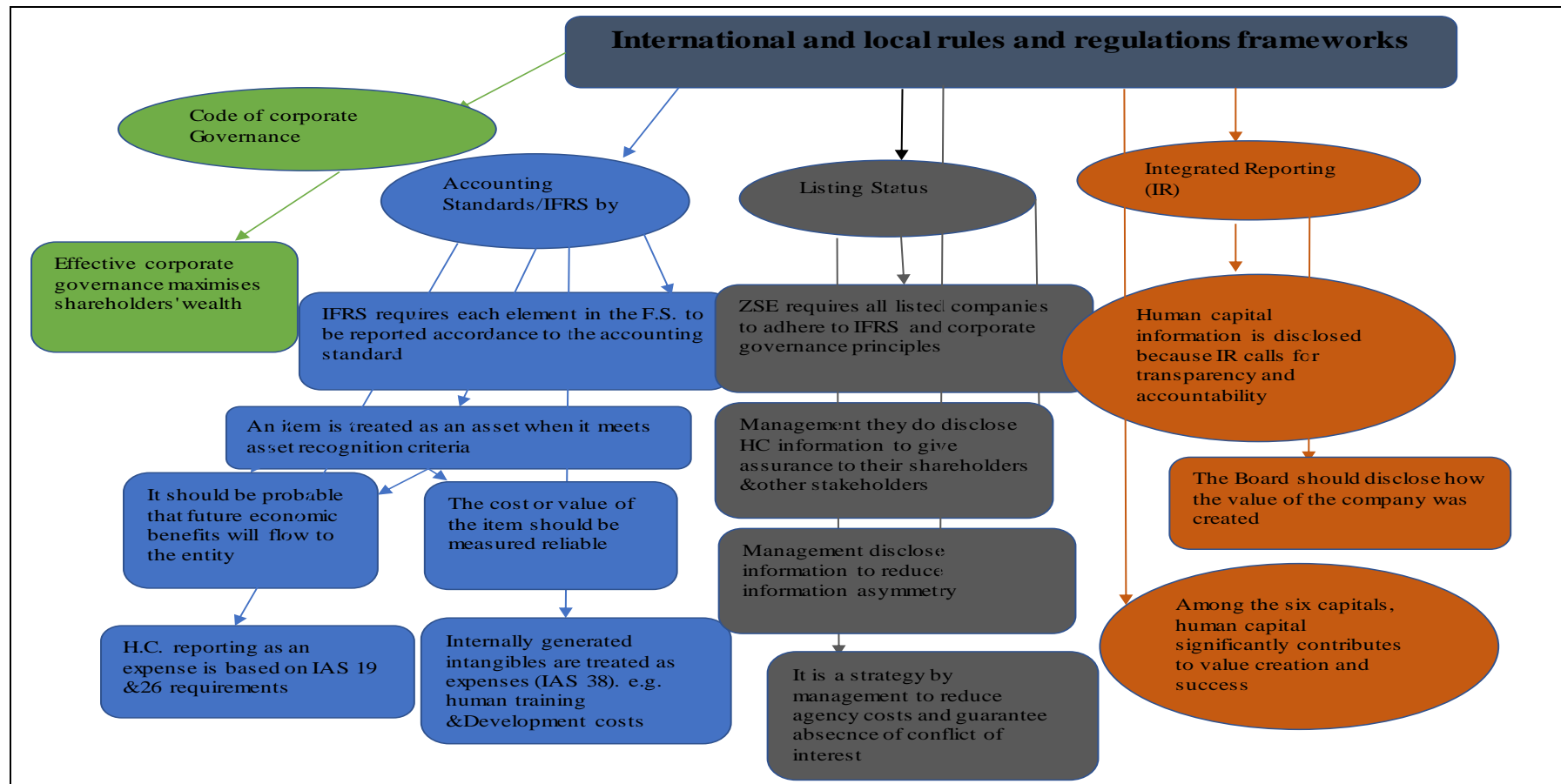
### 6.6.3 Implications for quantitative analysis (variables)

The theme enhanced the identification of factors that influence the measurement and disclosure of human capital in the preparation of the questionnaire. The main factor is the listing status of the company. Listed companies must adhere to the requirements of the ZSE, accounting standards, and IFRS and IAS requirements.

**Table 6.4:** Variables from Theme 2: International and local rules and regulations

Areas of knowledge	Focus of the questions (Phase 2)
Drivers of disclosure practices	Accounting standards (IFRS/IAS) requirements
	Zimbabwe Stock Exchange listing requirements
	Integrated Reporting guidelines (human capital creates value for a company)
	NCCGZ framework (Corporate Governance)
	Sustainability reporting





**Figure 6.4:** Theme 2: International and local rules, regulations frameworks

### 6.7 Theme 3: Internal control systems and policies

Other than international and local rules and regulations, thematic analysis reflected another factor that influences the measurement and disclosure of human capital - internal control systems and policies. Hence, the third theme is internal control systems and policies. International standards on auditing (ISAs) reveal that management has a responsibility to develop company systems and policies. They decide which information must be disclosed in financial statements and which information is suitable for internal purposes only. This implies that systems and policies influence human capital disclosure practices. Some of the information is kept private to protect the entity from competitors and to secure shareholders' wealth. In contrast, some information is published as a strategy to attract and retain investors. Figure 6.5 is a thematic analysis of theme 3.

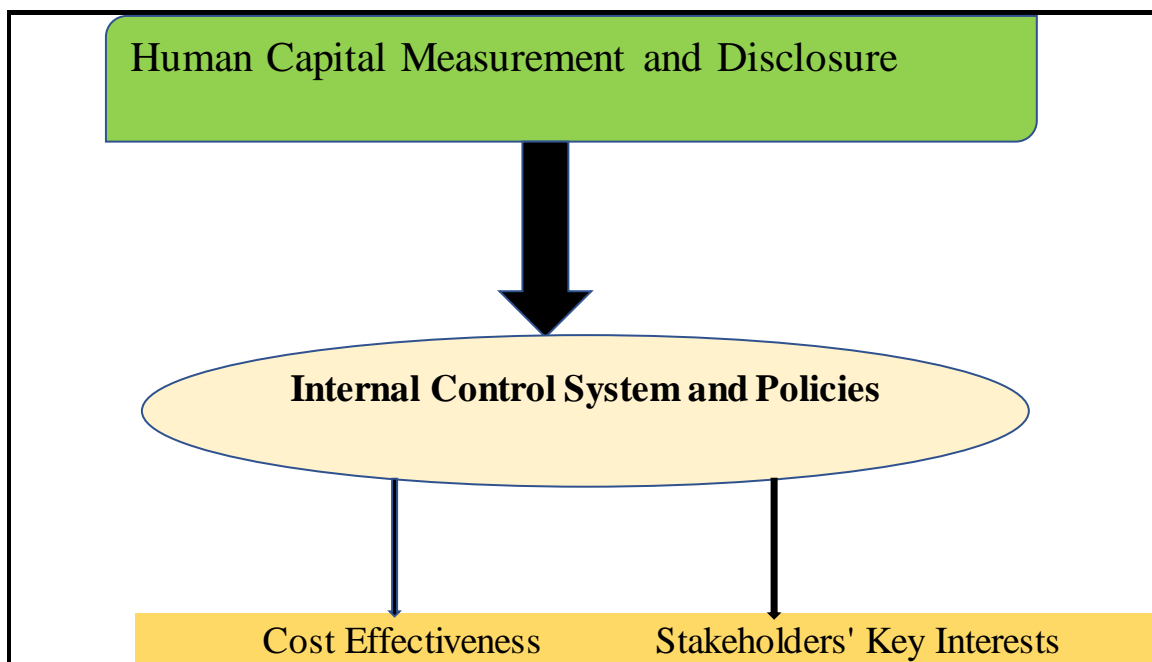


Figure 6.5: Summary of Theme 3: Internal control system and policies

#### 6.7.1 Cost-effectiveness

Most companies are in business to make profits and maximise shareholders' wealth. Before reporting any information, a cost-benefit analysis is performed by management. Information will only be reported if the benefits outweigh the costs. The cost-benefit analysis is an internal control system implemented by companies to safeguard company assets. **P1** said that the company considered that the information should be relevant to the identification of human

capital and should have narrative and quantitative indicators, that is, human capital information should be clearly defined and not be too costly. In addition, its disclosure should enhance the decision-making process of different stakeholder groups and the value of the company. **P2** stated that “By voluntarily disclosing information, the company reduces information asymmetry that may exist between management and shareholders as well as the costs that would have been incurred by their shareholders seeking for hidden valuable and material information.” Cormier et al. (2009) found that information asymmetry and costs are key determinants of corporate disclosure. This shows that companies may decide to voluntarily disclose certain information, such as human capital, which is considered important by multiple stakeholders only if fewer costs are likely to be incurred by the company. Such instances reduce the company’s cost of capital, increase the share price and attract more investors since they would not have incurred any costs. However, Healy and Palepu (2001) emphasise that companies need to be vigilant when it comes to corporate disclosures. They say that sometimes the disclosure of information may cost a company its competitive advantage. That is, it may pose a threat to the company by allowing competitors to copy the company’s strategy. On the other hand, the proprietary cost theory outlines that managers have an incentive if the disclosure of human capital information has benefits that outweigh the disclosure costs or that reduce the cost of capital.

**P3** reported that “Our managers perform a cost-benefit analysis before disclosure of financial and non-financial information.” Proprietary costs should always be higher than disclosure costs to protect the company from bad publicity. However, the knowledge economy requires the reporting of relevant information even if the companies would like to protect their reputations and lower disclosure costs. The value of human capital is a key influencer of financial performance and success. Employees are the pillars of many companies, as evidenced by the efforts put by managers in training and development programmes to equip employees with skills that keep them valuable (Nyamubarwa et al., 2013). This is also seen in the commitment of employers to incur costs that bring cash inflows. These allow companies to remain competitive in the industry and across the globe. **P4** stated that “regulators such as ZSE require[s] us to disclose all material information to our stakeholders, we use that requirement to our advantage to release more information using corporate annual reports at low costs”. It is apparent that companies tend to disclose more information at low costs to minimise information asymmetry. Cormier et al. (2009) submit that if there is information asymmetry in the company,

there is a systematic risk that the company is most likely to have a high cost of capital which might reduce its value because investors incur information costs to assess it. This increases the cost of capital. Cost-effectiveness is achieved when all relevant and material information is reported and readily available to investors and other stakeholder groups. The findings indicate that human capital information is a key resource for a company's competitive advantage and value creation. Through the adoption of IR, a company can qualitatively report on its human capital at minimum costs, making the information readily available at no cost to stakeholders.

**P5** reported that “the company discloses more quantitative information than qualitative information because lower costs are involved in the preparation and presentation of it compared to qualitative”. It was deduced that companies are willing to disclose certain information only when there are benefits that flow to the entity and when the benefits outweigh proprietary costs. Healy and Palepu (2001) submit that although quantitative reporting is the foundation of financial reporting, there is limited information on its effectiveness and persuasiveness. The study shows that quantitative information reveals all hidden information about stock market players. This indicates that quantified human capital information can impact the decision-making process of all relevant stakeholder groups. This calls for a guideline to measure and disclose it in the financial statements as an intangible asset. **P6** stated that companies will always consider the costs of preparing and presenting information and the benefits of disclosing it to the public. Some companies highlighted that human capital is sensitive and that they are reluctant to disclose for fear of their competitors. A framework for the quantitative measurement of human capital will minimise the probability of losing competitive advantage.

### **6.7.2 Stakeholders' key interests**

A cost-benefit analysis is a system and policy approach that ensures that at the end of the day, the benefits outweigh the costs. This increases profits and the value of the company. Large companies consider disclosure costs analysis and the key interests of stakeholders. Thus, multiple stakeholders, such as shareholders, potential investors and employees, are considered vital. The primary responsibility of companies is to prepare and present financial information for the users of financial statements. Most companies are aware that they should present reliable, timely, relevant and complete financial information. The study reveals that different users require different information from financial statements for an informed decision-making process. It was established that companies go the extra miles to meet the needs of their

stakeholder groups. **P1** stated that “we aim to create a sustainable long-term value between the company and its stakeholder groups. We engage in the issues that are material to each group and respond appropriately through the delivery of our strategy”. This shows that companies try to meet the needs of their stakeholder groups and to provide them with information that will satisfy their needs. **P1** presented their corporate annual report and detailed information that they reported on human capital to inform their stakeholders on the importance of human capital and how it contributes to value creation and success. **P2** stated that “the information presented in our annual report is aimed primarily at current and potential investors and financiers, and should enable them and other interested stakeholder groups to assess the validity of our business and our ability to create value”. It was concluded that companies adopt stakeholder engagement processes to ensure that they understand the stakeholders’ needs and manage their expectations. This is because stakeholders are important partners whose needs companies continuously strive to fulfil.

**P3** also reported that “our stakeholders include employees, shareholders, communities, customers, suppliers, government and regulators. Through a stakeholder engagement strategy, the company aims to maintain good working relations, management of social risks and development of solutions to social challenges faced by its stakeholders”. The study established that companies disclose all relevant and reliable financial and non-financial information in their corporate annual reports to fulfil the needs of stakeholders. **P3**’s business model reveals how people contribute to the company’s value creation. Such information is considered important by employees, shareholders, management and potential investors. The company’s policy is to disclose all relevant information about human capital if the information is useful for decision-making purposes. **P4** reported that “we ensure timeous and efficient handling of our stakeholders’ issues as maintaining a good, long-term relationship with our stakeholders is a key priority”. The company ensures that the communication of its performance is disseminated to all stakeholders and the public through various communication channels such as corporate annual reports and the stock exchange news service. This shows the commitment of companies to meet all the needs of their stakeholders. It influences them to disclose all relevant, reliable and complete information. **P4** revealed that the full disclosure of useful information to stakeholders minimises information asymmetry. Stakeholder engagement programmes ensure that all issues and needs are addressed. The study established the needs of various key stakeholder groups, such as shareholders, investors, suppliers and employees. Shareholders and

investors have a key interest in the “operating and financial performance of the company, share price performance and dividends, governance, the sustainability of the group, management of risk, identification of business opportunities, stability within the industry, labour issues, safety performance and mineral prices (diamonds, gold, platinum, coal, and chrome among others)”. Employees are interested in “job security, training and development, wages and benefits, retirement and medical aid provision, home-ownership, health and safety and the performance of the company”. Suppliers and specialist service providers are interested in the “sustainability of the group, financial performance, employment practices, local procurement, and the performance of service providers, business training, support and quality control”. Media interests include “financial results, corporate activity, environmental issues, health and safety, marketing and community-related topics”. The government is interested in “taxation, licence to operate, water licence, environmental management plan, labour issues, conditions of employment, health and safety, education and training, employment equity, environmental impact and rehabilitation”. The study further established that company stakeholder groups’ key interests are linked to the six capitals that drive value creation, strategic objectives and inform them on the execution of business operations.

**P5** stated that “our company meets the needs of stakeholders through the stakeholder engagement process. Our engagement with stakeholders is inclusive for it to be complete; it allows the company to understand views, needs, perceptions and expectations linked to issues that stakeholders view as material”. After engaging stakeholders, the company aims to provide financial information to stakeholders to enable them to make informed decisions. **P6** stated that “The primary purpose of reporting is to explain how we create value for all stakeholders over time. Our company adopted integrated reporting intending to provide a holistic overview of the group’s financial and non-financial performance for the period which is aligned to IIRC and the GRI frameworks”. Using corporate annual reports, the company provides summaries of its business, performance and value.

IIRC (2013) defines capital as “stocks of value that are affected or transformed by the activities and outputs of a company. This capital consists of human, financial, natural, social, manufactured and intellectual capital”. Integrated reporting (IR) mandates companies to fully disclose financial and non-financial information to their stakeholders (Vandmaele et al., 2014). This is meant to strengthen and maintain good relations with stakeholders. Other schools of

thought state that companies have discovered that the disclosure of non-financial information such as human capital contributes positively to the minimisation of information asymmetry and cost of capital. It also increases the liquidity of the share price. Cronje and Moolman (2013) submit that different stakeholder groups need complete, relevant and reliable information, depending on the value relevance of the information for their decision-making process. However, there is an expectation gap between the company and some stakeholders on the kind of information to be reported. Nevertheless, it is apparent that one of the major key determinants of financial and non-financial disclosure is to meet the needs of stakeholders. This prompts companies to establish stakeholder engagement practices to capture the needs, expectations and perceptions of their stakeholders with the hope of aligning them with the business strategy. The stakeholder engagement process is one of company policies and systems which aims to build long-term relationships with stakeholder groups.

### **6.7.3 Summary of Theme 3: Internal control systems and policies**

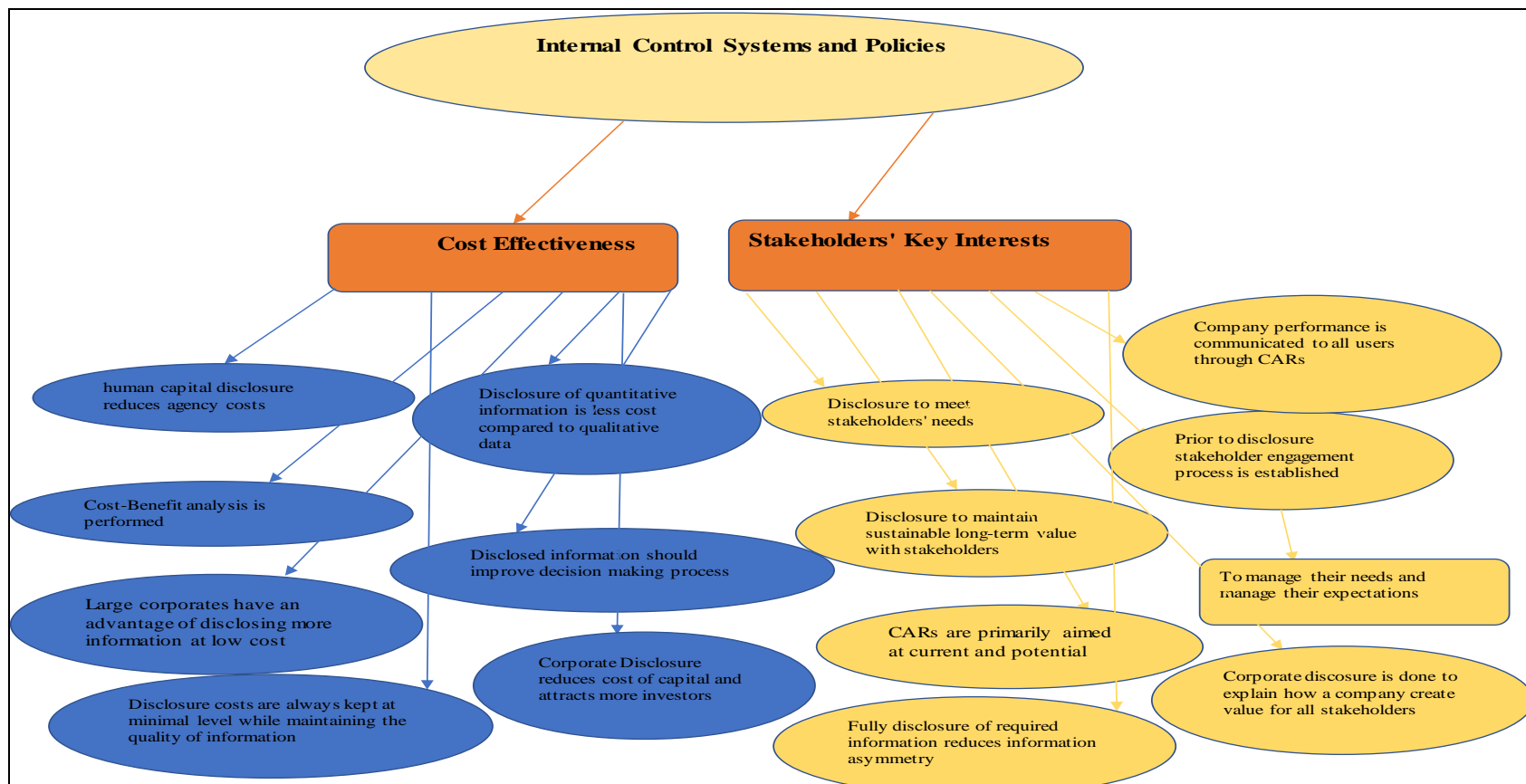
This theme demonstrates that company internal control systems and policies determine the information displayed by companies. Management ensures that the company information system is relevant to financial reporting activities, such as capturing relevant, reliable and complete information and ensuring that compulsory information is appropriately reported. In addition, the study deduced that before the disclosure of any information, companies consider the costs of disclosure, proprietary costs and the needs of their stakeholders. This factor is called “internal control systems and policies”. In conclusion, theme 3 addresses research question 1. **RQ1:** What are the factors that influence the measurement and disclosure of the value of human capital?

### **6.7.4 Implications of Theme 3 on Phase 2 (Quantitative phase)**

The study developed relevant questions for the questionnaire survey. The critical areas that were targeted include internal factors that influence human capital reporting, such as cost-effectiveness, information asymmetry and the vital interests of stakeholders from the company perspective. The thematic analysis revealed that factor analysis should be conducted using SPSS. Confirmatory factor analysis (CFA) was done to confirm if these companies considered their needs when reporting accounting information in corporate annual reports. The study also ascertained that hidden information results in information asymmetry. Hence, stakeholder

engagement strategies are effective. Figure 6.6 presents the thematic network for Theme 4: Internal control systems and policies.





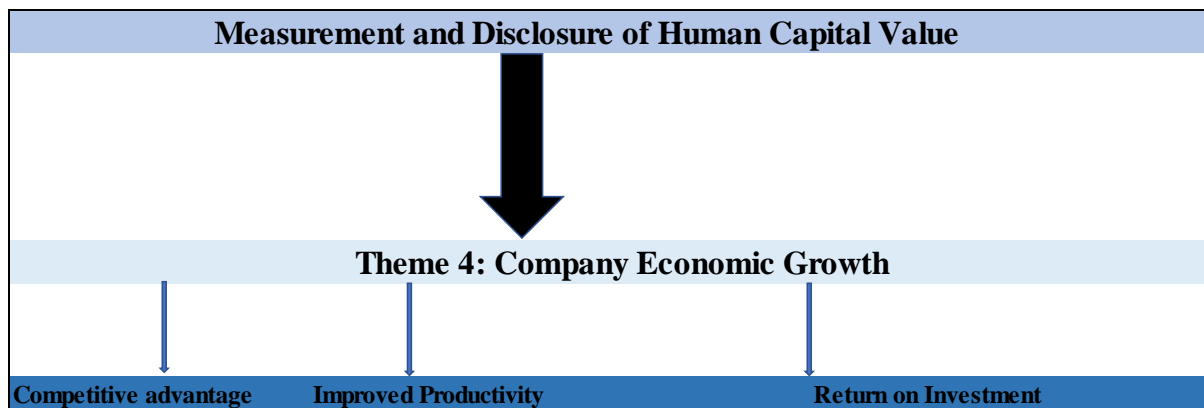
**Figure 6.6:** Thematic network for Theme 3: Internal control systems and policies

## 6.8 Theme 4: Company economic growth

Multiple studies confirm that human capital is a key resource. It affects productivity, growth and competitive advantage. It is rare, non-substitutable, inimitable and valuable (Nyamubarwa et al., 2013). Theme 4: company economic growth, **RQ2** answered the question: What is the link between human capital and the financial performance of a company? Coding revealed economic growth as the answer to **RQ2**. According to Adelowotan (2013) companies established training and development programmes to improve human capital efficiency and effectiveness. In addition, training programmes lead to companies' increased productivity, improved returns on investment and returns on assets. The study established a positive correlation between the value of human capital and financial performance. Participants highlighted that economic performance is not limited to human capital but that there are other indicators that determine the performance of a company, such as physical tangible assets. IIRC (2015) submits that "people's talent, skills, personal attributes and creativity affect current organisational performance and shape its future". The findings were that:

- Human capital is a crucial resource to a company's competitive advantage.
- Training and development programmes improve human capital efficiency and effectiveness.
- When measured, human capital has the potential to increase the market value of a company.
- Motivated and committed employees are capable of improving the financial performance of a company.
- Team-work results in high performance and increased productivity.
- Rewards and promotions lead to improved individual performance, which has a positive link to the financial performance of a company.
- Skilled and competent employees increase the success of a company and create confidence among employees, management and other stakeholders.
- A skilled workforce has a positive link to the growth of a company and its value as a going concern.

Figure 6.7 below presents a summary of the findings on Theme 4: Company economic growth.



**Figure 6.7:** Summary of Theme 4: **Company economic growth**

### **6.8.1 Competitive advantage**

**P1, P2, P3, P4, P5** and **P6** highlighted that one of their key objectives is company economic growth. Management regularly assesses the economic growth of their companies every financial year. **P2, P4** and **P5** further indicated that their skilled workforce significantly contributes to organisational economic growth, notwithstanding other resources such as financial and manufactured capital. Although **P1** did not disagree that human capital has a positive effect on company growth, he stated that sometimes employees are overestimated as value drivers. He said that employees are overrated and that having a skilled and qualified workforce does not guarantee success and economic growth in a company. **P3** provided their corporate annual report where the company Chairman was applauding the CFO and his management team for their esteemed leadership and unwavering support towards the competitiveness, value creation and business growth of the company. This shows the faith and trust the company has on its staff. **P6** highlighted that “our employees contribute to the growth and development of our company and we, in turn, contribute to the growth and development of our people”. This statement shows a bidirectional bond between the company and workforce performance. The former influences the latter and vice-versa.

Furthermore, the participant indicated that employees are integral to the growth and success of the company. To ensure continued growth and success, the company committed itself to employee training and development. It thrives to create a stable employee relations environment. To ensure growth, **P6** stated that “Disciplined mining is integral to ensuring the safety of our employees, improving productivity and efficiencies and achieving our targets. Ensuring operational excellence helps to create an enabling environment”. The thematic analysis established that mining companies prioritise safety, the satisfaction of their workforce

and employee commitment and motivation to create an enabling environment for increased productivity and growth. Vosloban (2012) says that employees significantly contribute to growth and development. The author further submits that a skilled and professional workforce drives benefits to the entity and lowers costs. The benefits outweigh the costs. This also shows that a company is guaranteed positive results that take performance and success a further step.

High-performing employees bring a competitive advantage to the market, making their companies look outstanding among competitors in the industry and across the globe. Also, such companies tend to enjoy abnormal profits. **P5** stated that “our company makes it a trend through employee engagement process that each employee is engaged under their roles and responsibility so that the company is enabled to reach its set goals and targets”. The findings reveal that employees play a key role in company’s growth and performance, particularly in emerging markets. This indicates that employee productivity is a key driver of company success. Hence, it is relevant to all companies. It is deduced that the growth of a company depends on capitalising on opportunities and ensuring that employees execute their jobs properly. Mishra and Mishra (2017) argue that human capital is a valuable asset that requires proper development to remain productive. The observation is relevant to this study because human resource managers work tirelessly to establish talent management programmes aimed at retaining and attracting a skilled, professional and talented workforce. **P2** said that “We create a sustainable competitive advantage through capable people and an effective, performance-driven organisation”.

In light of the above, through increased productivity, a company gains competitiveness, enhancing its growth and development in the market. The qualitative data analysis gave a solid picture of the positive correlation between human capital and the financial performance of selected Zimbabwean mining companies. This implies that human capital is a rare, indispensable and valuable asset that contributes immensely to the success and growth of a company. Participants of the study emphasised that there are other capitals that also contribute to company growth, such as “intellectual capital, social capital, manufactured capital, natural capital and financial capital”. These capitals, taken together with human capital, seem different, but they are intertwined and interconnected.

### 6.8.2 Productivity

**P6** stated that “People are vital to our business and a skilled, engaged and productive workforce is essential for the achievement of our strategic objectives”. Employee productivity enhances the company’s performance and enables the company to remain competitive in the mining sector. This implies that increase employee productivity, many mining companies developed training and development programmes. These sharpen the skills of the workforce, giving employees opportunities to upgrade themselves. **P5** stated that “the benefits of a stable, engaged workforce are many, including enhanced productivity, increased likelihood of meeting our strategic objectives, reduced safety risk and improved health and well-being”. The study discovered that companies try to ensure a sustainable business that covers disciplined costs control, increases productivity and prioritises organic growth opportunities. This shows that the improvement of productivity improvement is a top strategic goal.

**P5** highlighted that to remain competitive and successful, the company needed to produce gold and this was only achieved through a healthy and productive workforce. The participant further stated that “having a skilled, motivated, engaged workforce will enable us to achieve our gold production targets. Enhanced labour productivity is supported by maintaining our infrastructure, improving technical efficiencies and ensuring safe working conditions”. The participant also indicated that enhancing productivity puts the company in a position to surpass its targets and to lower production costs, leading to favourable variances. Such performance strengthens their business. However, producing below target could affect the going concern of the company and destabilise business operations. The thematic analysis revealed that enhanced productivity is intertwined with an enabling environment and healthy staff. More efforts are put to create a conducive working environment that promotes the health, wellness and safety of employees. The qualitative results revealed that companies with employee engagement initiatives enabled employees to feel that they belong at the workplace as part of the organisation. According to Massingham and Tam (2015) happy employees are often committed, productive and passionate about their jobs as they feel valued, which in turn increases their morale, productivity and participation. This is because they are allowed to freely express themselves without victimisation. The communication is two-way, allowing employees and management to engage. **P3** reported that “our company engages in employee development through training initiatives”. The company conducted training to increase job satisfaction and productivity and to enhance the well-being of employees. Training initiatives

focus on essential skills. Employees are given opportunities to gain experience in acting roles. The company also established a stakeholder engagement process to allow stakeholders to create an enabling environment for committed employees to positively contribute to the success of the group.

The study revealed that to improve their performance and increase productivity, companies should align their employees with the group's overall strategic objective of maximising value from tangible physical assets. Hanaysha (2016) submits that "higher productivity leads to maximised organisational competitive advantage through cost reductions and improvement in high quality of output". Improved productivity assures a company of the prospect of long-term success. Other schools of thought say that employees who feel that they are part of the company and are engaged with their jobs are more likely to be committed and results-oriented (Markos & Sridevi, 2010). Employee engagement makes them feel satisfied and motivated towards achieving the goals and objectives of the company. As such, they tend to work beyond expectations.

From thematic analysis, it was deduced that current practices indicate that companies are investing more in the employee engagement process because of the positive link between work engagement and performance outcomes, some of which include talent management, employee retention and improved productivity. Improvement of productivity is the main topic in the corporate annual reports of all mining companies. This shows the importance of the factor to the success of companies. Companies heavily depend on the improvement of productivity to gain a competitive advantage.

**P3** stated that:

Employee productivity remains a primary objective in our business. **P4** reported that they invest in their people. Throughout the financial period, the company undertook various expansion initiatives that required a team of committed and talented employees, to execute our projects successfully; we pursued staff development programs intending to improve the Group's fundamental skills inventory.

It was established that company success is achieved by aligning goals and targets to employees' individual needs. As said by **P3**, "employee productivity plays a major role in the

success of our organisation”. This makes a skilled and professional workforce an indispensable, valuable and rare resource that has a positive impact on financial performance if managed properly. It follows that companies strive to remain competitive and relevant market players. To achieve this, they recruit the right people and engage them. Hanaysha (2016) submits that “higher productivity tends to increase the competitive advantage through a reduction in costs and an improvement in the quality of output”. **P6, P5, P4** and **P3** expressed similar sentiments and said that “The productivity of employees is the key driver of the company’s profitability and success. Without people, tangible physical assets and other resources cannot effectively and efficiently achieve organisational goals and objectives”.

Regardless of the contribution of human capital to company success, some participants highlighted some difficulties of measuring the actual contribution of employees to success and profitability due to the lack of standards for companies to utilise to measure the performance of their workforce. Despite this challenge, it was evident that human capital is a key source of competitive advantage. Employees are precious assets. Companies should not be hesitant to invest in them and establish strategies to engage them. **P6** highlighted that factors that affect the performance of the company were “labour actions, brain drain, absenteeism and lack of goal congruence in the organisation”. Barriers to high-performance revolve around the people employed by the organisation. Management shows a commitment to manage such risks and to make their employees happy and loyal to the company. The media revealed that many companies collapse due to the mismanagement of people and other resources. At times, companies fail because they lose focus due to the loss of skilled and professional people. These issues show the importance of human capital to a company and the need to engage employees to make them motivated and productive.

**P2** reported that an “investment in human resource development remains a key focus area. Various training and development programmes are identified and implemented to meet the Group’s strategic objectives and to improve operational and individual performance”. The study revealed that the company is more interested in a skilled, professional and competent workforce, which is critical to the overall profitability and success of the company. **P2** further stated that “Where skilled miners, shift supervisors and mine overseers are in place, there is a culture of satisfactory performance. Optimising team output and productivity, developing talent pipelines and maintaining an inflow of requisite skills remains key, as is investing in

developing effective leadership skills and capacity”. This indicates that employees are the backbone of any mining organisation. Employers put effort to ensure that their workforce acquires adequate skills and knowledge, which results in a positive impact on the company and individual performance. A successful company has high chances of growth and attracting and retaining investors due to its competitive advantage. Human capital intangibles are rare, inimitable and valuable assets that significantly add value to a company’s success (Barney, 1991).

However, corporates annual reports show that the value of human capital is hidden. Stakeholders are not given full information, leading to information asymmetry. Although companies are aware of the contribution of human capital to their profitability and success, they do little to measure and disclose the value of human capital. Another study stated that “you cannot manage without measuring”. This statement indicates the need for human capital to find its place in the statement of financial position (SOFP) as an intangible asset. Some participants showed interest in measuring and disclosing the element in the financial statements if a standard or guideline was presented to them because human capital drives a company to meet its vision, aim and objectives when conducive working conditions are present. **P2** also reflected that “through training and development programs, the platinum producing mining company aims to capacitate and empower its people with the skills and knowledge they require to fulfil their specific roles and responsibilities in the organisation, with due regard of the Company rules, policies, processes, procedures and practices”. Mouritsen et al. (2004) report that “companies that fully disclose human capital as value drivers have high chances of attracting valuable resources through investors that enable them to gain a competitive advantage”. Reed (2000) conducted a study in the banking industry and found that human capital intangibles have a positive effect on the financial performance of a company. Human capital intangibles define the financial performance of an organisation. When asked about the impact of human capital on the financial performance of the company, **P1** indicated that human capital has a positive effect on the financial performance of their organisation. **P1** said that “the technical skill, experience and activity of our people drive the day-to-day operations of our business, which is the reason why these stakeholder groups matter to us”. The company ensures that annually, it gives its employees adequate training so that they are fit for purpose and qualified. Through training and development, the knowledge, skills and behaviour of employees are enhanced. Companies aim to improve individual performance to enhance the



contribution of employees to financial performance and to achieve strategic goals and objectives. The thematic analysis revealed that companies ensure that training programs include imparting knowledge that is aligned to the tasks assigned to employees. Kai Ming Au et al. (2008) report that “the knowledge and skills mastered during education and work experience build human capital, which, particularly in higher organisational echelons, significantly impacts productivity”.

According to Snell et al. (1996) human capital takes centre stage on strategic planning and the creation of competitive advantage because it is “unique, rare, non-substitutable and valuable. In similar sentiments, **P5**, **P4** and **P6** confirmed that “resources are valuable when they allow improving effectiveness, capitalising on opportunities and neutralising threats”. From the perspective of effective management, a company’s value is enhanced when profits are at a maximum level when compared to related costs. As a result, human capital can lead to value creation.

### **6.8.3 Return on investment (ROI)**

**P4** stated that “Our company value is dependent on the acquired skills and expertise”. This statement indicates that people define a company. Although human capital-related costs are considered as expenditure in the statement of profit and loss, there is adequate evidence that people are the companies’ largest investment. **P6** said that “our company increase its competitiveness through investment in our employees”. The study established that there are some human capital-related costs that the company refers to as an investment from which it expects improved cash inflows. On the other hand, **P6** reported that “investment in human capital is one of our major priorities. This is because investment in human capital contributes to both economic and business growth for the benefit of the workforce, company and across the globe”. This implies that companies are aware of the importance of human capital. However, the participants cited the challenges of measuring the contribution of their workforce to financial performance. As a result, this has led to difficulties in measuring and disclosing human capital. In addition, key aspects of human capital are not known with certainty. **P1** stated that “it is difficult to establish the link between human capital and company’s performance”. Regardless of the challenges faced by companies, a standardised solution should be diagnosed as a matter of urgency. IIRC (2015) says that “information about human capital needs to be treated with similar rigour and accountability as is afforded to other capitals such as financial

capital”. **P3** said that “we invest in our employees through training and development programmes”. The study established that the cost of training and development is an investment into employees. In turn, a company expects a return on its investment in employees. Returns are sometimes extremely high or low. Companies always expect a high return on investments as this measures their financial performance and development. Also, high investment returns make companies gain a competitive advantage in the market. They improve value creation. Maune (2016) observes that “an investment in a workforce should help employees to achieve their full potential, improve their motivation and strengthen employee engagement, all of which help a company reach its set goals and targets”. Gupta and Singh (2014) agree that “a good return on investment means that investment returns compare favourably to investment costs”. **P2** said that “the company invests in technical and professional employees through training and development as well as stakeholder engagement strategies”. The key aim is to enhance its human capital asset. Jasson and Govender (2017) reiterate that training employees has an impact on the ROI and return on equity (ROE). **P1** stated that “human capital contributes to the company’s financial performance, and its contribution is measured either by ROI or ROE”. Other studies further indicated that trained employees ensure that customers are satisfied and that there is a reduction in labour turnover through their services. As indicated by **P5**, “training and development of human capital does not always correlate to the company’s performance, meaning that a company can either yield high or low returns”. This shows that training employees did not necessarily mean a company would enjoy high returns and a competitive advantage. Jasson and Govender (2017) argue that “although investing in people training may have positive effects on individual and organisational performance, the effect may be quietly different in different sectors”. From this organising theme, human capital is a crucial element for every company. Therefore, it is necessary to measure it to obtain its value for the purposes of disclosure to all interested stakeholder groups. The study revealed that companies aim to increase their human capital to grow their value both financially and non-financially. Also, increased human capital enables companies to be more productive. This can only be achieved if employers work tirelessly to keep their workforce committed and satisfied. Investing in human capital improves productivity and yields a positive ROI. Interviewees indicated that the establishment of talent management practices allows companies to increase the retention rate of a talented and skilled workforce. To keep employees happy, satisfied and motivated, companies should align employees’ personal goals with their strategic objectives. Through

performance appraisal initiatives, productive employees should be awarded monetary incentives to motivate and retain them. All interviewees cited that human capital incentives were directly linked to the company remuneration policies because their strategies are results-oriented. Rewards are given to employees based on their performance. Such strategies have been a great contribution to the success of companies under study.

#### **6.8.4 Summary of Theme 4: Company economic growth**

This theme answers the question: What is the link between human capital intangibles and the financial performance of a company? The study shows a positive liaison between human capital intangibles and company performance. It establishes company economic growth as theme 4 of the study. The study concluded that human capital is a vital resource of a company's competitive advantage. It is characterised as a resource that is rare, unique, perfect, non-substitutable and valuable. This is evidenced by companies that invest large sums of money and time in training and development programmes and employee engagement strategies. Such programs equip employees with skills, knowledge and a change in personal behaviour through learning activities. This study also establishes three underlying themes, namely, productivity, ROI/ROE, and competitive advantage. The financial performance and success of a company are based on employee capabilities, which result in improved productivity. Employee capability depends on employee satisfaction and commitment. Increased productivity allows a company to grow economically in the market. It provides a competitive advantage to a company. Training initiatives are investments in a company's workforce. In turn, a company calculates ROI by measuring the performance of employees before and after training. Improved ROI provides a competitive advantage. One of the interviewees reported that "people are the business". This shows that companies have faith in their employees when it comes to performance and success. Finally, the study establishes that an enabling environment and safety are core values in a company, taken together with the attitudes of employees as they promote company growth and enhance productivity.

#### **6.8.5 Implications for the quantitative phase (variables)**

Human capital intangibles have a positive impact on the financial performance of mining companies. This study considers how each human capital feature influences financial performance. It also considers how companies measure performance. This is ascertained by examining the qualitative data. Companies highlighted various factors that affect their

performance, such as labour turnover and absenteeism. Companies ought to quantitatively measure the extent of these factors. The study aims to ascertain the importance of training programmes and employee engagement process on employee productivity, company growth, ROI, and competitive advantage in the market. Figure 6.8 below presents Theme 4's thematic network.

#### 4. Thematic Analysis for Company Economic Growth

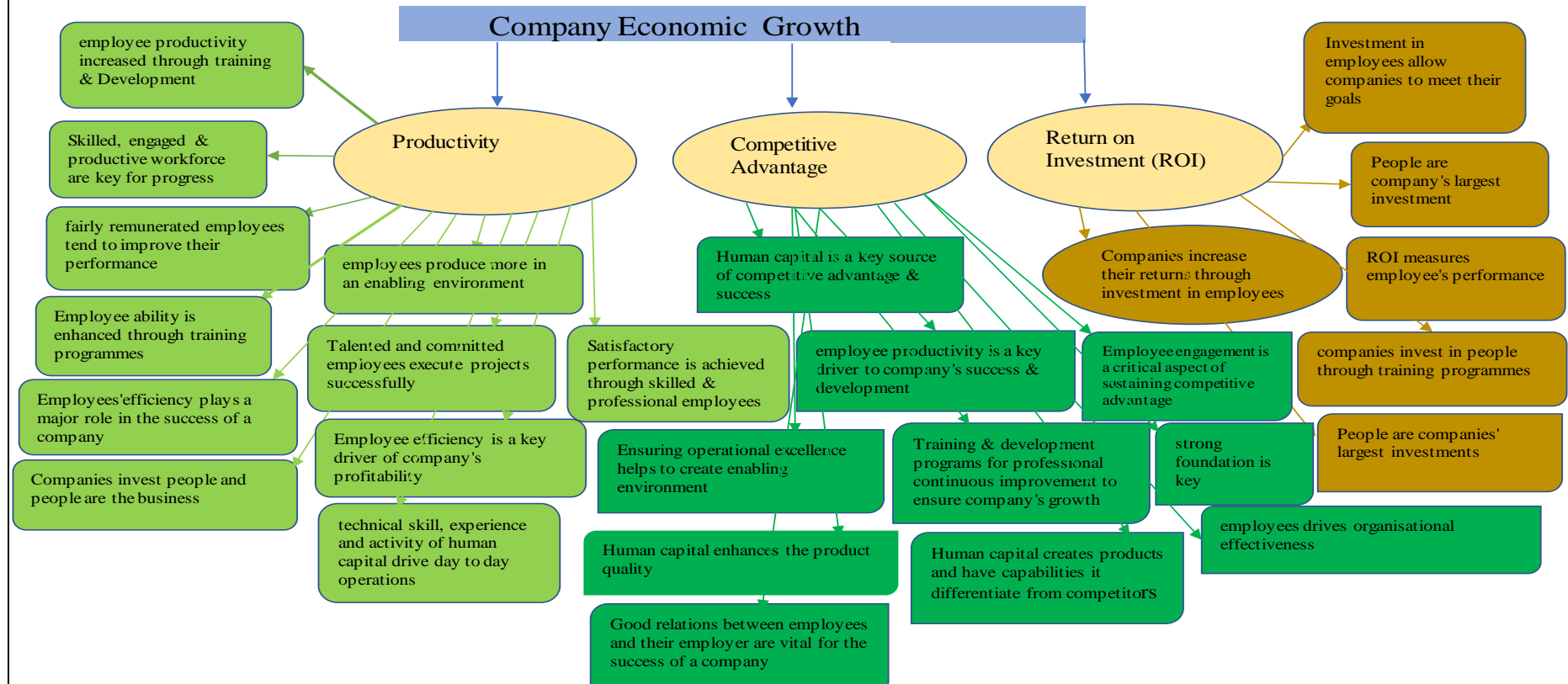


Figure 6.8: Theme 4: Company economic growth

## **6.9 Theme 5: Maximisation of shareholders' wealth**

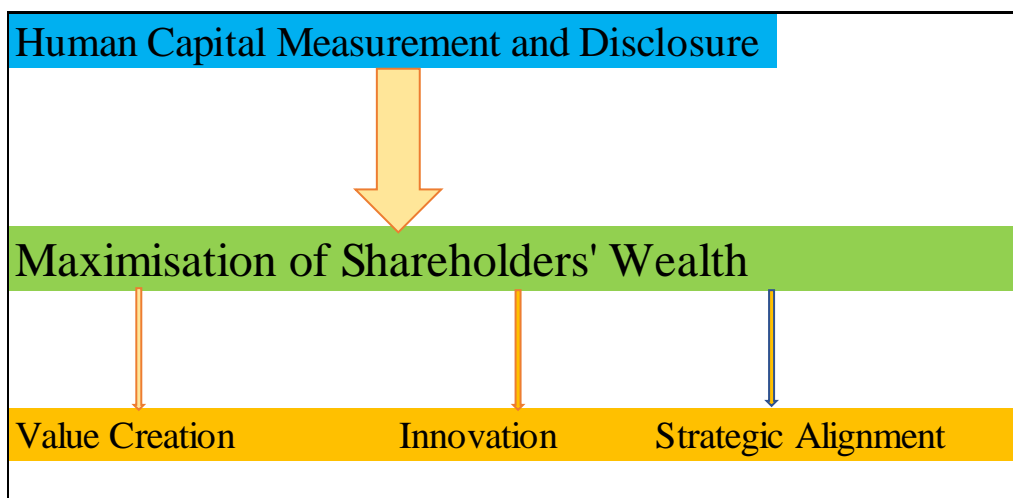
The maximisation of shareholders' wealth is one of the primary objectives of profit-making organisations. A company creates value through different capitals, namely, "human, social and relationship, financial, intellectual, manufactured and natural capital". This study focuses on human capital. Louli-Baklouti & Triki (2018) observe that "new economic systems now create the value of the company through investing in its people" because the knowledge economy has a limited physical base and relies on human capital. Companies adopt training and development programs to improve employee professionalism and skills for increased productivity. Mining companies are labour-intensive. Their value, success, growth and productivity depend on their workers. Nyamubarwa et al. (2013) argue that mining companies established talent management programmes to minimise human capital flight. Also, competitive packages are used to attract and retain skilled and technical professionals. Among other features of human capital, employee skills and education are key contributors to value creation (Beattie & Smith, 2010). Gamerschlag (2013) agree that after testing human capital features, such as qualifications and competence, a positive relationship between qualification and competence and value of the company was found.

Human capital information does not immediately affect the share price of a company. However, some studies say that there is no significant positive relationship between the training and remuneration of an employee and value creation for the company. IIRC (2015) says that "human capital is now seen as a key driver of organisational success, with increasing importance being placed on understanding its role. It is often the most significant asset an organisation has as business models become centred on people, intellectual capital and technology".

Some Zimbabwean mining companies have employee engagement processes that are intended to increase company value. The study established a positive relationship between human capital intangibles in mining companies in Zimbabwe. However, some participants outlined a short-term relationship between human capital intangibles and company value. This was explained from the context that companies have no control over their employees. The following are additional findings on the relationship between human capital intangibles and the value of the company:

- Human capital creates value for a company.
- Human capital is a crucial element for creating value.
- Human capital improves the company's business model.
- The business model determines how company value is created and how human capital is utilised as an input for value creation among other capitals.
- Human capital brings innovation.
- Human capital is a key driver for the company's innovation capacity.

Theme 5 was summarised using thematic analysis, as seen in figure 6.9:



**Figure 6.9:** Theme 5 Summary: Maximisation of shareholders' wealth

### 6.9.1 Value creation

Human capital and the value of a company have a significant positive association. **P1 - P6** reported that “Value is created from both tangible and intangible assets”. The paradigm shift to a knowledge-based economy places more focus on intangibles and not tangible physical assets. **P6** reported that “the greater contribution to our value creation comes from our employees”. The study deduced that value creation is based on various factors, such as the well-being of employees, a safe and healthy environment and employee engagement, encouraging the workforce to continue upgrading themselves through learning, meeting the needs of the workforce, the establishment of training and development programmes to improve skills and talents, and provision of health care facilities, schools and accommodation. The company's norm is to promote “harmonious, co-operative labour relations (with employees and unions).” **P5** said that “our company focuses on financial, human, social, natural, manufactured and intellectual capital for value creation”. Employees are utilised as business

inputs on the company's business model. This is used to determine how value is created. Human capital significantly contributes to the success and value creation of a company (Adelowotan, 2013). The findings of the study show that human capital is one of the key value drivers in the mining industry. To ensure that the workforce remains committed and satisfied, as indicated by **P6**, "the company ensures safe operating conditions and compliance with legislation, healthy and motivated workforce". Employee engagement practices make a two-way communication channel which is a strategy to engage employees on their jobs and to establish goal congruence between the employer and employees. **P5** said that "to ensure increased employee productivity, our company remuneration policy takes into account the demanding skills required in the mining industry". As a result, the company ensures that minimum entry-level mineworker wages, in general, are always favourable compared with other similar companies in the mining industry and across other different sectors. The company also ensures employment equity and transformation.

This study reveals that gender equity is one of the focus areas in a company's operations. Women and men are equally given the same roles and remunerated equally. Women considered and given influential posts. They are also empowered through training and development programs. Training initiatives make the workforce competitive and ensure positive workplace behaviour. The thematic analysis revealed the importance of human capital health, wellness and safety, employment equity and remuneration policy. These features increase a company's value. Also, the analysis shows that company value is premised on the companies' business model, which outlines how value is created. The six types of capital were utilised as inputs. They were processed through different business operations and interactions, resulting in outputs and outcomes. The results could be for a short, medium and long-term period. Outputs are either good or bad for the company, stakeholders and the environment in terms of value creation. Snell et al. (1996) posit that "companies who invest in human capital practices such as incentive compensation, talent management, employee engagement programs, training and development and teamwork can strengthen their value creation capacity". Studies say that an "individual's emotional relationship with the company leads to a positive and significant relationship with the employee capability and the way the individual was recognised for creating the value of the company" (Massingham & Tam, 2015).



However, their study found that there is no significant positive relationship between how the individual is rewarded and value creation for the company. **P4** reported that “our company considers the skills, experience, qualifications and competence as our key drivers of value creation”. The analysis showed that companies have a benchmark for the recruitment policy to ensure that qualified, knowledgeable and experienced people are recruited. Training and development programmes equip employees with skills and knowledge that are aligned to their job descriptions to increase their performance. This adds value to the company. **P2** said that:

Our Company’s mission is to create value for our shareholders, employees and society (communities, governments) by safely, responsibly and profitably exploring, mining and marketing our products. Our primary focus is gold, but we will pursue value-creating opportunities in other minerals where we can use our existing assets, skills and experience to deliver value.

In that regard, current skills and experience form part of the valuable and unique human capital features. These features contribute to the creation of shareholders’ value and value for other interested stakeholders. **P2** further stated that “In conducting our business, we use various capital inputs, such as people, to develop and implement the technology to discover gold-bearing ore bodies to evaluate their economic viability. The people have the necessary skills and equipment to develop and operate our mines”. Human capital is among the six types of capitals employed for shareholders’ and other stakeholders’ value creation. The results show that in many organisations “people are the business”.

In the ever-challenging business environment, companies must find ways to deliver their business strategies. The study showed that companies make it a point to remain focused on their people. They strive for excellence to remain competitive and consistent in the delivery of their operational results. They tailor their human resource strategies to create an enabling environment for employees to thrive and add value to their business operations. Some studies found out that “employee skills and education” were considered to be the most contributing components to value creation. They were followed by “employee commitment”, “positive employee attitudes”, “positive employee behaviour”, and “employee motivation” (Beattie & Smith, 2010).

**P1** stated that “Our approach to employee engagement is aimed at promoting good relations, increasing productivity and maintaining focus on our strategic objectives”. There is a positive link between human capital health, wellness and safety and shareholders’ value creation. The study showed that a healthy and motivated workforce drives a company’s value. As stated earlier, “human capital features are matched with companies’ strategic objectives” because companies strive to create value for their shareholders. **P1** reported that “we remain competitive in the market because human capital is our key resource. Hence, we thrive to maintain good relations with our employees, and the results are beneficial to both parties”. An enabling environment has a positive effect on employee performance. As such, employees tend to exercise their full potential, leading to organisational success and value creation for the company. Despite the absence of an accounting standard for the measurement of human capital, companies are fully aware of the importance of human capital in the creation of their value. Also, companies have an interest in the development of a framework for effective measurement and disclosure of human capital as an intangible asset in their financial statements.

However, Beattie and Smith (2010) found out that “employee welfare promotion” provided the least contribution to value creation for the companies. **P3** said that “Our company invests substantially in developing our people to provide them with market-related skills and to ensure that we run our business effectively and cost-effectively with our stakeholders’ interests”. The study observed that lately, the company had been working on the alignment of the employees’ personal goals with the strategic objectives of the group and also recognising every person’s contribution to the success and value creation of the company. Some of the employee goals aligned with the company’s strategic objectives include employee engagement, recruitment, development and well-being. The company engaged in talent management to retain skilled staff in key positions. It identified employees as part of the talent pool to address gaps in individual development plans. The company also focuses on the well-being of employees because it values their well-being. It is aware that social issues affect performance and that indebtedness affects focus. Evidently, companies engage in multiple initiatives to keep their employees happy and productive with a view to ensuring success and value creation.

### **6.9.2 Innovation**

Studies reveal that innovation is one of the most important ways of maximising shareholders’ value (Ernest & Young, 2015). Kumar and Sundarraj (2018) agree that “innovation is the

primary source of economic growth, job creation and competitiveness in today's global economy". Innovation is central to a company's value creation. Findings were made on the sub-theme "innovation" and analysed at both personal and organisational level. Companies aim to remain competitive in the market. Hence, they developed strategies to maximise scarce resources such as skilled labour and advanced technology.

Some companies restructured to align themselves with the knowledge economy. They adopted new strategies to yield innovative outcomes that differentiated them from competitors in an increasingly challenging business environment. IIRC (2015) says that "shareholders' value is created or maximised through innovation that allows the company to restructure their sources of competitiveness and master new strategies to create sustainable value". This sub-theme answers **RQ3**: What is the relationship between human capital and the value of the company? This study aims to establish how human capital contributes to the value creation of a company. The global theme shows that human capital maximises shareholders' wealth. **P6** said that "Our employees give their labour for the company to produce its products and it has a direct bearing on the company value". **P6** agreed that "employees bring their skill, innovativeness and improve processes through making and selling products, working with customers and collaborating on decisions". Casalegno and Pellicelli (2007) affirm the impact of human capital innovativeness on shareholders' value creation. The study outlines that the financial results of many corporates derive from employee innovativeness, capability and skills, all of which allow a company to be more innovative in the market and to increase its chances of gaining a competitive advantage. This study reveals that most companies thrive on creating an enabling and safe environment for their employees. They develop training programs to continuously improve employee skills and innovation (**P1, P2, P3, P4, P5, and P6**).

The findings further indicate that companies have put "people equity" into practice to create value. The interviewees explained the practice of alignment of employees' personal goals with their strategic objectives". The reason for the alignment is to achieve goal congruence between the parties. A summative analysis of all participants (**P1 to P6**) indicated that companies try to recruit the right people for the right jobs based on their capabilities. Employee capability is measured through employee satisfaction and commitment. Happy and loyal employees are capable of executing their jobs efficiently. The participants stated that they developed engagement practices to ensure that they go beyond employee satisfaction and commitment.

These practices are appropriately implemented to yield positive results that have a significant impact on company value. **P1** said that “through training and skills development programmes, our company has improved its efficiency and innovation”. Employee creativity and innovation are key factors in value creation and organisational success. Positive changes brought through employee innovation include “increased productivity, the introduction of new products, reduction of costs and attraction of new investors” (Edvisson & Malone, 1997). From an organisational perspective, human capital intangibles determine the innovation capacity of companies. The mining industry is facing challenges on the scarcity of human capital skills, knowledge and innovation (World Bank, 2018). Companies try to develop training programmes that sharpen skills and the innovation capacity of their human capital based on their needs. They adopt talent management practices to retain innovative employees. This helps them to remain competitive in the market and to maximise value. They are able to attract more potential investors, thus minimising the cost of capital and increasing their share prices.

The findings of this study further show that human capital innovativeness has a greater potential to create value for the company’s customers and its shareholders. Thus, employee innovation ensures that customer needs are met through effective delivery of products and services and that shareholders are assured of investment capital availability to fund business operations. Perez et al. (2012) describe innovation “as the process that allows companies to accumulate knowledge and technological capacities to improve productivity, cost reduction and prices while, at the same time, contributing to the creation of new products and the increase in quality that is, of existing ones”. **P5** concurred that “Our Company’s value depends on the innovative capacity we have, and we rely on the human capital intangibles and knowledge they possess for our innovativeness”. It was deduced that companies aimed to remain innovative within the mining industry to create value. Human resources management department practices are implemented to acquire and retain a mining workforce with professional competencies. These include geologists, engineers, metallurgists and technicians. Companies ensure that such employees are self-esteemed, have positive attitudes within the workplace and good mental agility. **P5** also established the measures to maintain good relations with employees through employee engagement practices. Since the mining industry is knowledge-intensive, the companies possessed adequate organisational technology. Tseng and Goo (2005) highlight that “innovation is critical to increasing company value”. Kumar and Sundaraj (2018) posit that innovative companies stand out in the global market because of their competitiveness. Such

companies enjoy benefits such as increased productivity and high retention rates of a highly skilled workforce. Innovative companies are willing to pay higher wages to retain good people.

Despite its contribution to the research and development of the company's innovation capacity, human capital is not sufficient to function on its own. **P4** said that "to increase our innovation capacity, the company should invest in human capital intangibles as its *modus operandi*". Companies employ human capital intangibles to transform their innovation potential into productive realities (Perez et al., 2012). **P2** stated that "Our employees are part and parcel of our innovation process and we value their input during and after the process". In this regard, shareholders' wealth is created through human capital skills, competence and innovation. Human capital is a key resource to create company value, which, in turn, attracts customers to the end product (Cronje & Moolman, 2013; Snell et al., 1996).

**P3** concurred that "Our employees are valuable resources for company innovation capacity". **P3** said that the company's executives and professional technicians are key sources of value creation and success because of their talents and skills. They are drivers of innovation. Interviewees cited the difficulties they face when attempting to measure human capital. Individual factors such as knowledge, skills, talent, creativity, capability and commitment were not easily measured accurately. Notwithstanding, the companies are aware of the significant contribution of these features to value creation and innovation capacity. Hence, they invest in training and development programmes and adopt talent management practices to avoid a redundant workforce which could lead to physical deterioration and low morale. Knowledge-intensive companies aim to remain competitive in the mining industry and across the globe. In summary, human capital is a key driver of innovation. Companies need to pay attention to human capital intangibles because they have the same capacity as tangible assets. Often, intangibles surpass physical assets in performance. When effectively measured and managed, human capital is a pillar for the achievement of a company's strategic objectives. Conclusively **P6**, **P1** and **P5** highly engaged their workforce through "alignment of employees' personal goals with company's strategic objectives, empowering employees through learning activities, provision of support and involvement where appropriate and encouragement of teamwork and collaboration".

### 6.9.3 Strategic alignment

Hough and Liebig (2013) argue that strategic alignment is a process that aims to achieve goal congruence within an entity. Thus, a company embarks on workforce alignment and processes, systems and policies alignment to achieve strategic objectives and goals (Marr et al., 2004). Human capital is one of the resources utilised to execute company strategies that increase productivity and enhance innovation. All the participants indicated that employee's individual goals were aligned with strategic objectives. Strategies are executed to achieve company aims and vision. Massingham (2016) says that companies measure and disclose human capital "to help organisations with strategy formulation, assist in strategy development, diversification and expansion decisions, and act as a basis for employee compensation and to communicate with external stakeholders". Similarly, the findings of the study reveal that companies measure and disclose human capital to attract and retain investors and to boost their confidence (**P1** to **P6**). Companies also measure and disclose human capital to establish fair and transparent remuneration policies, evaluate the contribution of employees towards financial performance and value creation, and attract and retain a highly-skilled workforce. For a company to align its employees successfully, it should thoroughly consider the psychological contract. Employee capability is based on employee commitment, satisfaction and strategic alignment. Some interviewees considered strategic alignment as a performance and value creation tool (**P1**, **P4** and **P6**). **P5** stated that "Our employees are encouraged to continuously improve their skills, and our company heavily invests in training programmes for skills and professional development". **P3** said that "to effectively execute our corporate strategy, we invest in our skilled and talented workforce". **P2** added that "Our harmonised strategy is to inculcate the spirit of teamwork and also our motto is for everyone to be results-oriented".

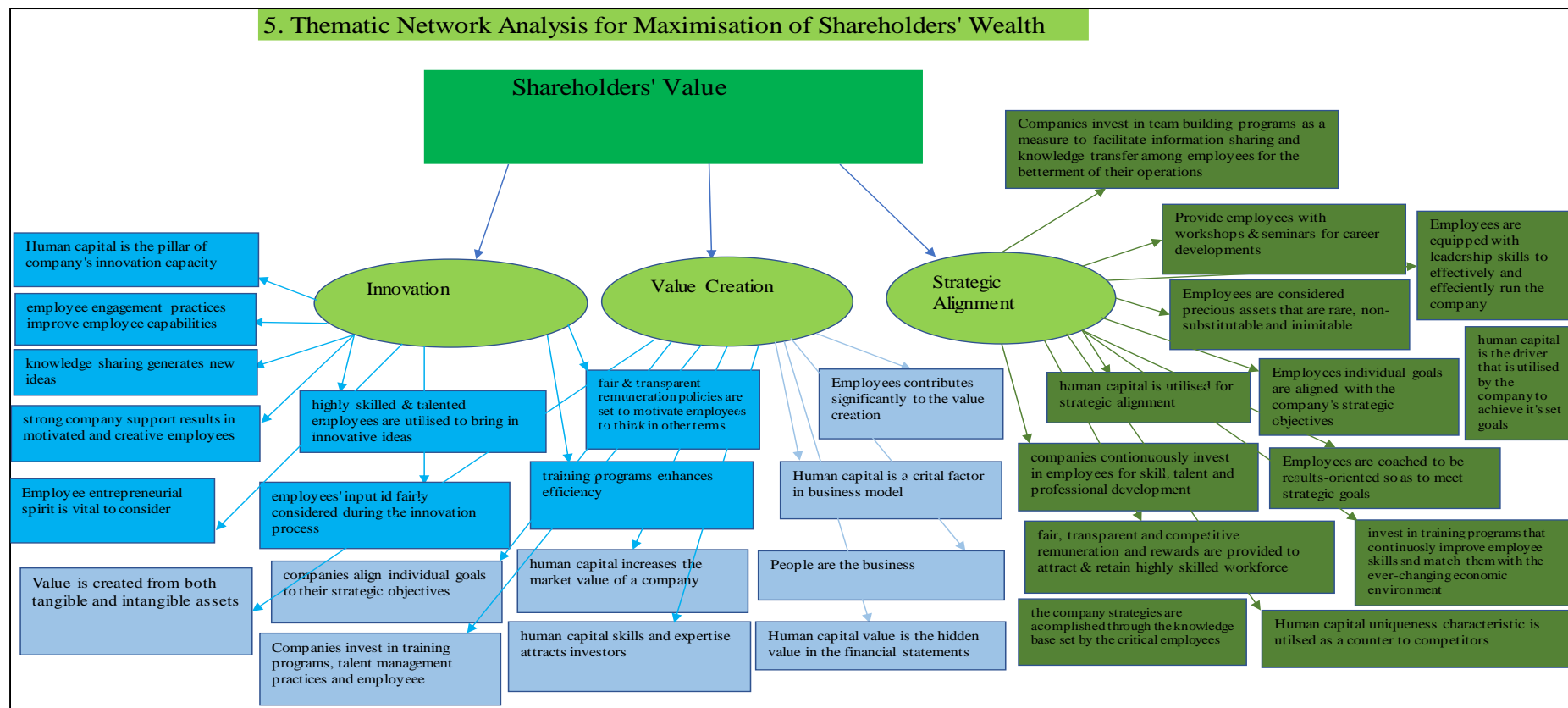
### 6.9.4 Summary of Theme 5: Maximisation of shareholders' wealth

The key objective of most companies is to maximise the shareholders' wealth. Companies invest in human capital for value creation. Human capital plays a pivotal role in the innovation capacity of companies. It helps companies to carry out research and development to increase innovativeness. Through training programmes and employee engagement practices, companies aim to remain competitive advantage in the market. The analysis shows a correlation between human capital features such as employee skills, competence, creativity, motivation and satisfaction, and the value of a company. Companies ensure that their employees are motivated and happy through engaging and involving them in their jobs. Shareholders' value is increased

through improved employee productivity and an enabling working environment. The companies commented that their key people include company executives and technical professionals such as geologists, metallurgists, engineers and technicians. Although human capital intangibles contribute significantly to value creation and company success, companies face a challenge on how to measure and disclose human capital effectively. Human capital is a key source of company value creation. As such, companies channel huge sums of money to training programmes and talent management practices. They do this to retain their skilled workforce, as they are not prepared to lose talent to competitors (Adelowotan, 2013). This explains why companies give incentives to their employees. **P6, P5** and **P3** shared similar opinions that a company's market value is based on human capital intangibles. The difference between a company's book value and market value is the value of human capital, which is hidden because it is not measured. This leads to information asymmetry, which infringes investors' access to complete financial information. Also, companies bear repercussions of the increased cost of capital, which adversely affects shareholders' wealth and company value. Lastly, Theme 5 addressed **RQ3**: What is the relationship between human capital and the value of a company? The answer is that both the company and its human capital aim to maximise shareholders' value/wealth. Companies align employees' personal goals with their strategic objectives to achieve this.

#### **6.9.5 Implications of Theme 5 on the second phase (quantitative phase)**

In the second phase, the study sought to confirm the effectiveness of company engagement practices with employee stakeholder groups. The study also aims to measure the extent of human capital features such as skills, innovation, competence, work experience contribution to the value creation and maximisation of shareholders' wealth to confirm whether human capital intangibles are a vital source of value creation and to attest to the role of human capital in the company's innovation capacity. Suggestions on how to maintain a good relationship between human capital and the company were also vital. Figure 6.10 presents a thematic network of Theme 5: Maximisation of shareholders' wealth/value.



**Figure 6.10: Theme 5: Maximisation of shareholders' wealth/value**



## **Theme 6: Human capital measurements**

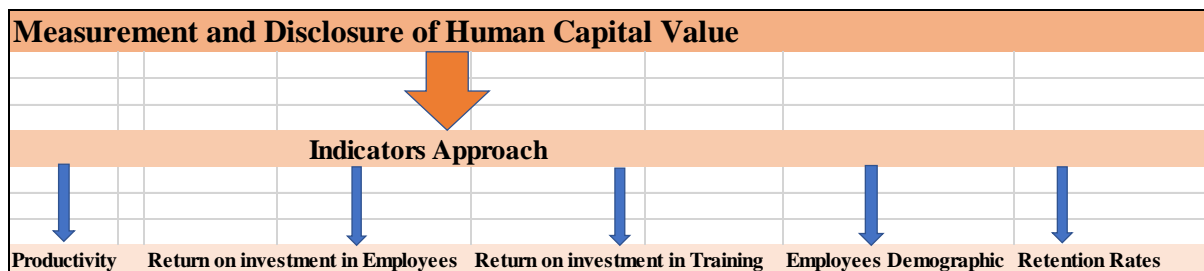
The measurement of human capital is at the epicentre of this study. The literature emphasises the importance of human capital and the need to measure it. It is long overdue for human capital to find its way to the statement of financial position. The difference between a company's market value and its book value is the hidden value of human capital intangibles (Mayo, 2001). Despite the challenges raised by companies on measuring human capital, it is imperative to establish a practical framework to determine its value. In the contemporary knowledge economy, skills, experience, and knowledge can be converted into profit, which maximises shareholders' wealth (Adelowotan, 2013). Mining companies say that human capital is an essential resource for value creation and success (**P1, P2, P3, P4, P5, and P6**). CIPD (2014) states that it is challenging to manage a resource without measuring it. It is high time for the mining industry to emulate what is happening in the soccer industry, in which clubs must disclose the value of their players as intangibles in their club accounts. Other clubs embed the number of their football players in the goodwill that enhances the acquisition of players (Stittle, 2004). The soccer industry sets an example on how to account for human capital intangibles as assets than expenses in the statement of profit and loss account. Oprean and Oprisor (2014) affirm that "in the soccer industry, the squad of players are more valuable than any resource, making human capital an important asset that "wears shoes". These arguments show a clearer picture of the possibilities to measure human capital intangibles in financial statements.

Bontis (2003) and Brooking (1996) give some guidelines on how to establish the value of human capital. The methods were established in developed countries. However, most countries did not adopt them, making it futile to apply them in developing countries like Zimbabwe. To the contrary, Adelowotan (2013) points out that human capital measurement is a sophisticated form of research, which, notwithstanding, must be established. The value of human capital is critical for decision-making purposes by different stakeholder groups and future forecasts. The practical focus of the measurement is to communicate the worth and the value of human capital to all stakeholder groups. The literature points out that company value is attained through a combination of identified intellectual capitals, such as human capital intangibles, social capital, and market-centred assets, together with other physical productive assets such as PPE (April et al., 2003, Abeysekera, 2004; Abhanyaswa & Abeysekera, 2008). Human capital provides valuable information to users of financial statements. The information is also useful to policymakers. New laws and regulations on financial reporting may be formulated. The

measurement of human capital has a positive impact on the morale and commitment of employees, which increase their productivity. It also strengthens the relationship between employers and their employees. Talent management, training and development, and employee engagement practices make it possible for companies to attain their vision and to meet goals (Adelowotan, 2013). The following findings were established on human capital measurements. The findings are similar to Adelowotan (2013), Murthy & Abeysekera (2007), and Brooking (1996):

- Workforce demographics
- Employee breakdown by age, gender, seniority and nationality
- Professional experience and skills
- Educational status per employee
- Value-added per employee
- Comments on the abilities of the employee
- Return on Employee Investment (ROEI)
- Return on Investment in Training and Development (RITD)
- Cost of absence
- Cost of resignations
- Workforce turnover
- Retention management and rates
- Employee productivity and performance
- Employee performance appraisals
- Dependence on critical skill

The study deduced that companies compiled these attributes of human capital because they consider them useful for decision making. However, most of the qualities are not disclosed in corporate annual reports. Companies say that such information is sensitive and could make them vulnerable to their competitors when disclosed. This shows that the disclosure of human capital is done only internally for management and not for other stakeholder groups.



**Figure 6.11** Summary of Theme 6: Indicators approach

### 6.9.6 Employees' demographics

The absence of human capital in financial statements leads to the gap between a company's market and the book value. This shows that the hidden value influences the company's true value. As such, investors are deprived of important information that is necessary for making informed investment decisions. **P6** stated that "people are central to our business". **P6** disclosed certain attributes that are related to human capital intangibles on the integrated report. These include the total number of employees (permanent staff and contractors, and the percentage of employees drawn from the local community). **P6** added that "we are committed to building and maintaining a representative workforce". The company further disclosed information related to employment and gender equity with particular reference to the recognition of women. The study found that the companies disclose the number of employees with critical or core skills and the total percentage of employment equity performance by category (the Board, executive management, senior management, middle management, junior management and core and critical skills). **P4** stated that "our company discloses information related to our Board of Directors". The company discloses the composition of the Board, the names of directors, designation, qualifications, experience and expertise. This human capital information informs stakeholder groups about the importance of human capital intangibles and how they contribute to performance and company success. **P2** provided information on "the total number of employees, including indirect employees, occupational level from senior to junior management, percentage of women in mining". In the annual report, **P3** presents a breakdown of Board of Directors by their age, qualification and expertise. Also, there is a breakdown of permanent employees into two groups: skilled and professional employees and semi-skilled employees. This information communicates the value and performance of the company to stakeholders and shows them that the company depends on the workforce. Consequently, the company creates a skills inventory. Also, it discloses information about the

board because the primary board has the responsibility to set company policies and determine strategy. Such disclosures boost investors' confidence when making investment decisions.

The disclosure of human capital also gives other stakeholders a clearer picture of how the company creates values. **P1** stated that "people are the foundation of our business". Information related to human capital includes the gender diversity of the Board and executive management committee. Diversity enhances social cohesion. Also, the company easily exploits extant talent and capitalises on the workforce's potentials. Women are given opportunities to occupy influential positions in the hope of achieving gender equality. Thus, companies create enabling environments that allow women to thrive in their organisations. **P1** added that "we also disclose the gender breakdown of the board, tenure and the gender breakdown of the top management (executives)". The Board composition must promote "a balance of power and authority". The Board is primarily responsible for good corporate governance for the long-term sustainability of the business and to protect stakeholders and fulfil their expectations. The Board is composed based on the guidelines given by the National Code of Corporate Governance of Zimbabwe and the ZSE's listing requirements. The reason for the disclosure of human capital information is to boost different stakeholder groups' confidence and to enable potential investors to make informed investment decisions. Information about the top executive management is necessary to disclose because this group is responsible for the day-to-day management of the company's activities and is supported by teams in the country and regionally. Such information is disclosed to meet the different needs of multiple stakeholders' groups. Participants indicated that human capital information is useful for decision-making purposes. The most-reported information is related only to Board members and executive management. Information related to critical employees is not identified in the annual reports. However, these employees significantly contribute to creating value and success for the company (Cronje & Moolman, 2013).

All the participants highlighted that "it is ideal for the government and accounting regulators to prescribe the kind of human capital information to disclose in the corporate annual reports and if possible a standardised guideline should be made available to all reporting entities". Currently, human capital measurements are based on the contextual form, resulting in multiple but incomparable methods. Harmonisation on the kind of information to be disclosed by all reporting entities in their corporate annual reports would act as a decision-useful tool to all different stakeholder groups. Also, all employees who bring value to the company should be

considered as investments to the company rather than expenses in the statement of profit and loss. This would enhance the credibility of corporate annual reports. More investors and a skilled and talented workforce would be attracted and retained in the long run.

#### **6.9.7 Return on employee investment (ROEI)**

Human capital is one of the important assets in a company (Beattie & Smith, 2010). Human capital is one of the resources that differentiate a company from its competitors. Many participants indicated that they were tirelessly putting more effort to retain skilled and talented workforce by establishing programmes that engage employees. This indicates that people are the pillars that strategically define a company. Some studies describe human capital expenses as some of the largest. Notwithstanding, such expenses are investments in people. People are the largest investments in many organisations. Their value must be established and disclosed in the statement of financial position. In legal language, a company is treated as a “legal persona”. However, on its own, a company is good as “dead”. It is the people employed by the company who generate ideas, provide services and enhance a company’s innovation capacity. People are the drivers of value. They make things happen.

The following findings were obtained from the interviewees. **P6** said that “our company invests in employees to increase its value and success”. **P5** agreed that “technology contributes significantly to improving our employee return on investment, hence, that allows our company to generate more profits”. The analysis shows that employees are the key elements in the quest to improve strategic business objectives. Therefore, it is prudent for some of the human-related costs to be treated as an investment in the workforce. Some companies spend huge sums of money on wages and salaries and other packages to lure and retain skilled and talented managers and professionals. They believe that money is the only motivating factor that increases employee productivity. They seem to place little attention to the fact that in addition to remuneration and incentives, employees stay in a company if they feel that they belong and when they are recognised as key resources. It motivates them to perform at their full potential. Some companies are ignorant of the safety and working environments of their workforce. These issues determine performance and productivity. **P3** observed that “We invest in employees as an aid to help our employees produce at maximum levels; improve their motivation and commitment; strengthen engagement; as well as to assist the company in meeting its strategic objectives and goals”. The return on employee investment is calculated

for internal use by management and other persons charged with governance. As a result, ROEI cannot be identified in the corporate annual reports. Most companies fear losing their skilled workforce to competitors. **P2** concurred by saying that “investing in our employees has a positive bearing on minimising costs”. These costs include costs of absence, sick leave, medical costs, resignation and workforce turnover. Investment in employees has a direct effect on a company’s bottom line. Companies invest in employee engagement practices to build good relations with their workforce. This is popularly known as the “psychological contract”. Engaged employees tend to be happier and committed to their jobs. They thrive to reach company goals and values. **P1**: said that “investing in employee engagement results in increased retention rates and reduced costs of turnover, absence and resignations”. Employee investment results in positive business metrics. Some participants indicated that “if employees are aware of their value and considered as the largest investments, they tend to remain with the same company for a longer period. Also, investing in skilled and talented employees has a greater effect on the earnings per share of a company”. **P4** added that “investing in employee management allows us to minimise costs, such as workforce turnover and absence costs. The literature reveals that human capital-related costs such as turnover, sick leave, resignation and absence costs are incredibly costly.

Investing in employees has positive outcomes, such as the reduction of bulky costs incurred by the company on human capital. An investment in employee engagement practices, training, talent management, communications, healthy, safety and wellness programmes results in improved workforce performance and productivity, guaranteeing success and value creation. Although companies indicate that returns on employee investment are decision-useful to all different stakeholder groups, this information is not identified in financial statements due to various reasons. Hence, it is only utilised for internal purposes. The participants considered the above attributes useful based on their merits regardless of the information that is present or absent from corporate annual reports. The study synthesised the data and found out that for financial statements to be useful to all stakeholder groups, the value of human capital should be measured and disclosed. Therefore, it is time to establish a framework for measuring the value of human capital. Gartner (2012) says that returns on investment in employees can turn a “struggling company into a winner”. This is an acknowledgement that employees are important assets.

### **6.9.8 Retention rate**

Ataide-Silva, Carvalho and Dias (2019) argue that employee retention goes beyond paying lucrative and competitive salaries. It is vital for companies to design measures that will ensure better performance through the proper use of human capital. Over the years, the mining industry reported shortages of a skilled and talented workforce. Companies struggle to replace skilled professionals. Participants indicated that they established employee engagement processes to align individual employee goals with their strategic objectives. Companies strove to retain motivated and satisfied employees to enable them to meet their strategic objectives. Beattie and Smith (2010) submit that good relations between the company and employees result in the happiness and commitment of both parties to each other. Employees tend to produce more and surpass employer expectations. Such employees remain with the same company for a long time. However, skilled employees become nomads if they are demotivated and when their individual goals are not aligned with the company's strategic objectives (Massingham & Diment, 2009).

**P6** said that “we enhance value by attracting and retaining skilled and talented people”. The employee relations approach attracts and retains the workforce with high potential. The company established remuneration policies, among other things, that heightened the levels of recruiting and retaining the required skills and talents. It ensured fair remuneration policies that are also responsible and transparent to achieve goals and targets in the short, medium and long-term. Remuneration policies are governed by the Board, together with the remuneration committee. For the past few years, the company managed to attract and retain a significant number of a skilled and talented workforce. This enabled it to enhance performance and growth. However, the method of calculating the retention rates was not obtained due to the confidentiality of the information. Information on human capital retention is vital for decision-making purposes. However, it is hardly identified in corporate annual reports (Adelowotan, 2013). Similarly, corporate annual reports only provide narrative reporting on human capital recruitment and retention. The company policy is to attract and retain skilled and talented employees from the local community. Thus, for the past few years, the company has recruited a significant percentage of locals, including women. **P6** stated that “we enhance value by promoting empowerment and recruitment of skilled women in mining (gender equity). Furthermore, we place attracting and retaining talent together with skills development and talent management at the forefront of the business”. **P5** concurred that “We aim to attract and

retain core/ critical skills such as technicians, artisans, engineers and management. **P5** added that “through fixed and variable remuneration, the company aims to attract, retain, incentivise and reward quality staff at all levels, particularly where scarce or critical skills are involved”.

The participants further said that they established mechanisms to enhance the retention of employees who have essential skills. They also highlighted that share option schemes are used as part of the strategy to retain a highly talented and skilled workforce. **P4** said that “Our Company is working tirelessly to increase employee retention, and few measures have been implemented to reduce workforce turnover”. The following measures were established: “employee engagement practices, employee training, and two-way communication getting the right information as well as transparent compensation and benefits”. The findings indicate that to increase the retention rate, companies provide an enabling environment for their employees. In addition, companies motivate them through engagements and alignment of their personal goals with their strategic objectives. They respect their employees and listen to them. They also have fair and transparent remuneration policies. Silva et al. (2019) agree that a company’s competitiveness, success and value depend on employee retention. As a result, the top executives need to devise measures to maintain high retention rates. As indicated by **P6**, “our employees are the driving force for achieving the company’s strategic objectives and goals”. This shows that despite the challenges faced by managers to retain a skilled and talented workforce, stringent measures are put in place to minimise workforce turnover and to attract potentially talented employees. **P3** said that “Our source of competitive advantage is the retention of competent and skilled employees”. **P3** utilises training practices as a key factor in retaining competent and skilled professionals. This shows that training programmes are aimed at meeting the interests of the company and advancing the interests of individual employees. **P2** said that “Our Company has a remuneration and nominations committee, which advises the Board on matters relating to personnel with particular reference to remuneration, incentives and talent management”. The committee ensures that the group attracts and retains motivated, qualified, diverse and skilled personnel. **P1** stated that “our remuneration policy aims to provide competitive rewards to attract, motivate and retain highly skilled executives and staff that is vital to the success of the organisation”. This study established that the success of a company depends on operating according to its values so that it remains sustainable in the foreseeable future. This includes a drive to reach a zero-harm performance, reduce site accidents and retain skilled and talented employees.



### 6.9.9 Return on investment in training

**P6** highlighted that “training and development ensure the availability of skills”. The findings show that the company spent thousands of dollars on employee training to ensure the retention of employees with “critical skills, mentorship, hazard identification, risk assessment and mineral resource management”. The company also awarded bursaries, internships and industrial attachments to students studying at Zimbabwean universities. The participant’s training and development programmes highlight how the company promotes skills and expertise improvement. **P5** believed that “training and development (T &D) programmes provide the support employees need to improve their competence and knowledge in the workplace and to grow as individuals”. The initiatives consisted of “legislative training (skills, health and safety) scholarships, specialised external training, bursaries and study assistance, adult basic education and training (ABET), mentorship, succession planning, job-specific and refresher training”. **P5** added that “our training and development policy stipulates that emphasis must be placed on the competence and competitiveness of employees as well as their personal development”. The company introduced a continuous assessment of the programmes to ensure that they meet the company’s systems and policies and positively influence workplace behaviour. **P5** is a subsidiary of a reporting mining entity. The analysis shows that “*Millions of Rands*” are spent every financial year on training and development programmes. Also, the average hours of training per employee totalled 30 per annum. **P4** said that “17% of the company’s value generated is distributed to salaries and wages paid and investment in training and development, the costs invested in training and development goes above thousands of dollars”. Skills development training covers courses that are in the “fields of engineering and construction work to agriculture and e-learning related skills”. **P4** also offers their employees entrepreneurial skills. Their internal memos provide information to all employees under the theme “Skills for Tomorrow”. Thousands of employees are trained every year, meaning that the company spends huge sums on training and development programmes. **P4** added that “Our training and development programmes aim to enhance the development of our emerging talent pool and support our integrated talent management strategy in developing potential key employees”. Training and development programmes seek to improve employee performance and productivity. They also facilitate career progression to prepare them for management and leadership roles. Adelowotan (2013) reveals that “effective training and development programs are excellent instruments to reduce employee turnover”. There could be times when employees

felt that they were redundant and were not growing in an organisation. This occurs when they remain in similar positions for a long period. Effective training and development programmes allow employees to acquire new skills, enhance their effectiveness for new tasks and challenges as well as aiming for higher positions within the company.

Companies also provide training programmes to the management team. Management must be up to date with current trends and should be equipped with the necessary managerial skills to enable the company to increase employee retention. Sage (2017) says that “managers with poor leadership and people skills drive away from the most talented top performers”. Management training programmes result in improved engagement practices and a reduced workforce turnover. Investing in training programmes is an investment into the future value of employees. Literature affirms that information disclosed on human capital training programmes is useful for decision-making purposes (Adelowotan, 2013).

**P3** said that “Our company has a technical committee responsible for reporting to the Board that the Group has the requisite technical skills and that training programmes are aligned with the growth and development of the Group”. **P3** reported that “There is a risk that technical skills shortage in the mining sector results in negative future development”. New developments have been established to continue investigating the required skills and ensuring that effective training programmes are put in place for the Board, executives and employees as a potential skills pool. **P2** said that “People are key to reaching our goals, that is, their skills, their passion and commitment are fundamental to our goals”. **P2** also stated that “Given our ongoing shift to modernisation and automation, it is important to recruit appropriate skills for our mines in addition to continued development and training of our workforce”. A large sum of money was spent on training and development programmes. External recruiting in search of mining skills augment the existing talent pool.

**P1** stated that “our commitment to the training and development of our workforce is of fundamental importance to maximising value for our shareholders. Additionally, the application of specialised knowledge along with good communication and teamwork is key to making sure that we extract every gram of profitable gold possible”. The training initiatives are aimed at increasing job satisfaction and productivity and enhancing the well-being of employees. These initiatives focus on essential skills. As such, employees are given chances to gain experience in acting roles. They are also assisted with tuition fees for formal

qualifications. **P1** runs a new programme whose focus is to equip engineers and metallurgists. The initiative aims to facilitate the development of a competent workforce using a system of planned task observation. Muhammad-Nda and Yazdani-Fard (2013) submit that companies invest in practical training and development programmes for their human capital to enjoy abnormal profits both in the short and long run. Adelowotan (2013) found that the training and development of human capital are necessary, despite that they not fully reported in financial statements.

It is apparent that returns on investment in training are high and could lead to high returns. The value of human capital also depends on investment in training initiatives. Human capital is a vital asset utilised by companies to reach their goals and to maximise shareholders' value. There is evidence that training and development programmes enhance human capital performance and productivity. Information obtained from participants under study and the analysis of corporate annual reports shows this. Training and development programmes have positive implications on the success, competitive advantage and value creation of an organisation. Hence, there is a need to establish a framework to measure human capital and fully disclose it as an intangible asset in the financial statements. Some of the human capital measurements mentioned during the interviews included efficiency ratios, such as value-added per expert and value-added per employee. However, participants highlighted that they faced challenges to extract those values. **P6** said that "value-added statements provide our employees with feedback, and employees use this information to evaluate their strengths and weaknesses".

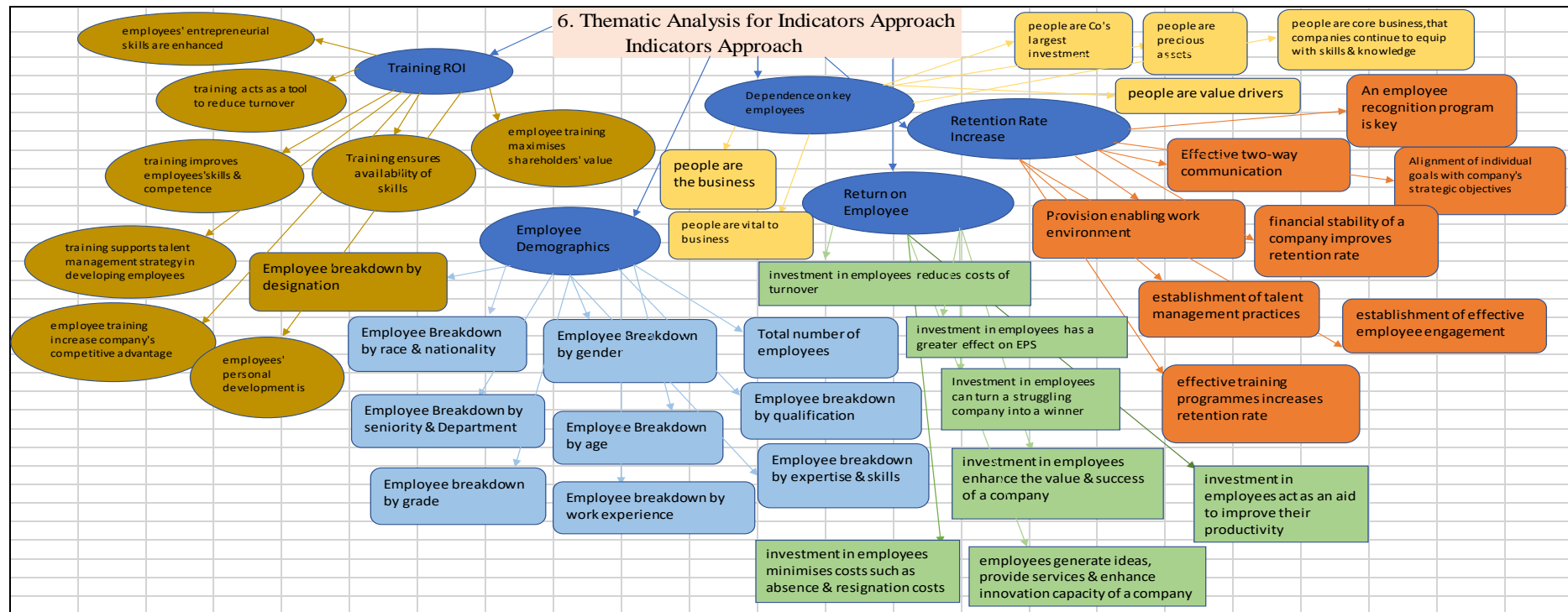
Thus, employees are given opportunities to measure their contributions to the success and value creation of their respective companies. They can create a benchmark for better performance in the future. Such measures are only used for internal purposes such as planning. Value-added statements are not regulated. Hence, their disclosure is voluntary. Abeysekera and Guthrie (2004) submit that the non-regulation of valued-added comments leads to the manipulation of the reports by management. **P1**, **P3**, **P5** and **P6** outlined that their companies also measure human capital performance and productivity. They measure the extent to which the company depends on competent, skilled and talented professionals and technicians. They do so because dependence on crucial employees is critical information for decision-making purposes.

#### **6.9.10 Summary of Theme 6: Indicators approach**

The findings reveal the importance of human capital and the need for its full disclosure in financial statements. It is imperative to establish a single approach to measure the value of human capital. The responsibility of human capital measurement requires management group stakeholders, such as accountants, employees, accounting regulatory bodies and the government. Conclusively, Theme 6 answers **RQ4**: What are the current methods used by the mining companies to measure and disclose the value of human capital? The answer is found in the indicators approach.

#### **6.9.11 Implications of Theme 6 on the second phase (quantitative phase)**

Morima (2019) submits that the questionnaire survey acts as a tool of analysis for measurement, disclosure and evaluation. The instrument measures if the attributes of human capital are essential and useful for decision-making purposes. This study aims to gather different opinions and views on effective measurement methods. Figure 6.12 below presents a thematic network of Theme 6: Indicators approach.



**Figure 6.12:** Theme 6: Indicators approach

## **6.10 Theme 7: Context-based framework for human capital measurement and disclosure**

Across the globe, companies such as “Indian Infosys, Canadian Imperial Bank of Commerce, Dow Chemicals, Skandia Group, Telia and Buckman Laboratories, PLS Consult, Ramboll, Consultus, ABB, Sparekassen Nordjylland, Sparbanken, VM Data and the Swedish Civil Aviation Administration (SCAA)” report on human capital intangibles. However, each company has its reasons for measuring human capital intangible (OECD, 2019). Some disclose it internally and externally (Khan & Khan, 2010). The way the intangibles are measured varies across the globe, resulting in multiple methods that are riddled with flaws. This makes it impossible to apply them in the Zimbabwean context. In the SADC region, no member state has devised a framework to report on human capital. Although companies have different reasons for measuring human capital intangibles, their understanding is that human capital is a valuable asset that needs recognition in the financial statement as an intangible asset. The study participants indicated that human capital is one of their most substantial investments, as it is the pillar of their innovation capacity. It a source of competitive advantage. This shows that people are vital in reaching their goals. A national standard for Zimbabwe is proposed in this study for the measurement and disclosure of human capital intangibles in financial statements. This study obtained the following results:

### **6.10.1 Regulated systems and policies**

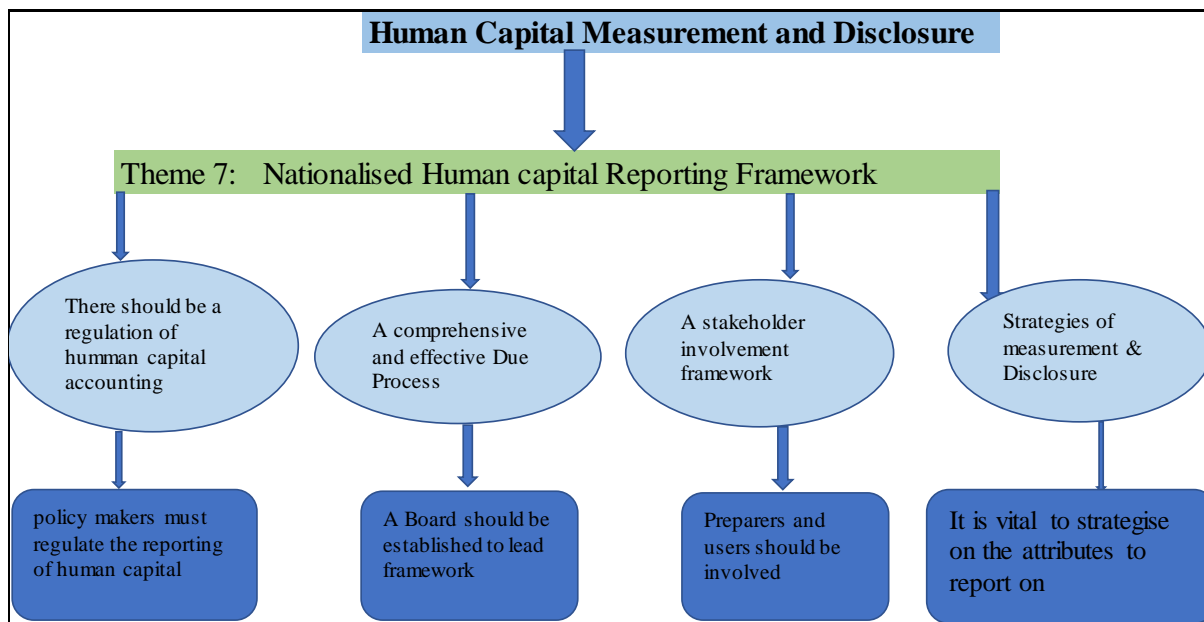
1. Professional and regulatory bodies should provide policies and systems that control the accounting of the value of human capital.
2. There should be a provision of administration and law to determine the critical attributes of human capital.
3. The lack of a standardised approach results in multiple contextualised reporting methods.
4. The ICAZ and PAAB (Z) must enforce accounting for human capital intangibles (financial and non-financial information).
5. There should be legislation on human capital accounting.
6. The aforementioned bodies should be guided by ICAZ, PAAB and Chamber of Mines of Zimbabwe.
7. There should be a board that sets and controls the policy framework development.

## **2. Comprehensive and effective due process**

1. The framework should serve the needs of all the key stakeholder groups.
2. All stakeholders should be able to make informed economic decisions.
3. Consultative procedures should be established.
4. There is a need for stakeholder involvement during the development of the framework.
5. Issues raised by stakeholders must be reasonably considered.
6. Due process must advance transparency, full and fair consultation, and accountability.
7. A summary of steps must be outlined when developing the framework.

## **3. Stakeholder involvement**

1. Regulatory and professional bodies should provide insights.
2. The ICAZ, PAAB and the government should strategize on the guidelines.
3. Mining industry experts, management and key employees should take the lead on how human capital should be measured.
4. Stakeholder groups should comment on how human capital should be measured.
5. All stakeholders should be involved.
6. Most stakeholders should agree on how human capital should be measured.
7. Mining companies must enhance their human capital reporting.
8. Stakeholders should provide the best practice.
9. Companies should decide on the information they regard as human capital.
10. Unions must continue to show their interests in human capital issues.
11. Stakeholders should agree on a reporting framework that is simple, flexible, and that could be individually tailored. The figure below summarises Theme 7 and is focused on a context-based framework.



**Figure 6.13:** Theme 7 Summary: Context-based framework for human capital accounting

### 6.10.2 Regulation and Control

The qualitative data analysis revealed mixed opinions on the measurement and disclosure of the human capital intangible. Some considered it an impossible act because the IASB has not considered the construct as an asset and is silent about it. Some authors say that companies face difficulties in measuring human capital. This problem dates to the 1960s. Notwithstanding, human capital is the key driver of value creation in this knowledge economy. Its value is significant to companies. Participants held the idea that if relevant stakeholders can work together, it is possible to develop a national human capital framework. This will improve their financial reporting systems and harmonise accounting practices. **P1** concurred that “professional accountant’s bodies such as PAAB (Z) and ICAZ must spearhead a domesticated framework for human capital accounting. This could be achieved through legislation. **P2** agreed that “it is high time value of human capital is considered as an asset and policymakers should provide a way forward so that as a nation we develop our own national standard in Zimbabwe to measure the value of human capital”. **P3** stated that “the government through mining companies’ representatives such the Chamber of Mines of Zimbabwe should be leaders of policy formulation. Also, the government should ensure that the national curriculum contains enough quantity and quality for skills development, and the curriculum should be aligned with the mining industry strategic objectives”. The Zimbabwean government should endorse training programs and strictly monitor the Zimbabwe Development Funds (ZIMDEF).



**P4** indicated that “Policy formulation acts as a key to the type of information considered relevant for measurement and disclosure (the attributes of human capital). Also, professional bodies should act as advisors through policy development”. This is because of their expertise in the accounting field. **P5** said that “National (local) regulatory frameworks are necessary, and they encourage companies to disclose all material information to stakeholders fully”.

Hence, the respective bodies should spearhead the initiative to make it mandatory to report on the value of human capital. There should be a section to enter non-financial information in the financial statements. **P6** stated that “It is the responsibility of the professional bodies to devise a framework that can be utilised for human capital reporting”. The policy will bind all companies to report the value of human capital fully. **P2** added that “Policy formulation will contribute immensely to reducing information asymmetry among shareholders and their management”. Investors will be provided with relevant and complete information to make informed economic decisions. **P1** said that “The lack of a standardised approach has resulted in multiple contextualised human capital reporting methods”. **P2** stated that the “provision of a policy through legislation would improve the corporate governance system of the mining sector and the nation at large. **P5** said that “Professional accountants can consider extending the accounting standard of Intangible assets (IAS 38) and incorporate accounting of human capital”.

The analysis revealed that there is a need for the Zimbabwean government to mandate all listed companies to provide, in their annual reports, a comprehensive statement on personnel costs. Frederiksen (1998) says that the government should spearhead the measurement and disclosure of human capital. The government must be involved because of the need for “regulation, provision of education and training, cost optimisation and cost-sharing”. This study recommends that professional accounting bodies and the government should work together to establish a policy on human capital measurement and disclosure.

### **6.10.3 Comprehensive and effective due process**

Moloi and Adelowotan (2018) argue that human capital is a core business factor that drives the value and competitive advantage of a company. However, financial statements ignore human capital and do not regard it as an asset. The IASB, through its restrictive accounting rules, does not allow internally generated intangibles to be recognised as assets but says that they should be written off in the profit and loss account. Although the IFRS is silent about the measurement

and disclosure of the value of human capital, some companies have established guidelines to report on it. Their reporting is contextualised. The data analysis revealed that to develop an effective framework, disclosure guidelines should be followed. Hence, there is a need for a comprehensive and effective due process.

Some companies regard human capital accounts as a long-term process (The Danish Trade and Industry Development Council, 1999). **P1** said that “the framework should serve the needs of the key stakeholders such as investors, employees, government and creditors”. The framework must effectively provide the value of human capital, which is currently not available in financial statements. The established value should be complete, relevant and reliable to the users of financial statements. Attributes such as resource constraints and quality of the framework should be taken seriously by responsible stakeholders. **P2** stated that “for the framework development to be a success, there should be an establishment of consultative procedures”. The consultative process will enhance the quality of the process, which can be carried either by inviting stakeholders to comment, fieldwork and individual meetings using the Delphi technique, among other methods. In this study, a consultative procedure was necessary to establish the views and opinions of stakeholders. The study used the fieldwork approach to gather data. **P2** mentioned that “professional bodies should assess the issues of human capital information auditability”. **P3** said that “There should be transparency and accountability during the process of framework development and also the consultative procedures should take place throughout the due process”. The Due Process Handbook (2016) shows that during the development of a guideline or standard, responsible stakeholders should consider the following issues:

How the proposed initiatives are likely to affect how activities are reported in the financial statements of those applying IFRS; how those changes improve the comparability of financial information between different reporting periods for an individual entity and between different entities in a particular reporting period; how the changes will improve the user’s ability to assess the future cash flows of an entity; how the improvements to financial reporting will result in better economic decision-making; the likely effect on compliance costs for preparers, both on initial application and an ongoing basis; and how the likely costs of analysis for users (including the costs of extracting data, identifying how the data has been measured and adjusting data to

include them in, for example, a valuation model) are affected. The responsible stakeholders should take into account the costs incurred by users of financial statements when information is not available and the comparative advantage that preparers have in developing information when compared with the costs that users would incur to develop surrogate information.

**P4** stated that “The Board responsible for framework development should exercise due diligence, all issues highlighted during the consultative process must be fair. There should be criteria on excluding certain opinions, maybe based on ambiguity and vagueness”. In addition, **P5** also said, “before framework development, it is important to outline the need to measure human capital and its importance to all the users of financial statements. Also, how is the value of human capital going to close the gap existing in the financial statements (market value vs book value)”? **P5** stated that “The steps taken to develop the framework should be clearly stated and the time expected to complete the task”. The measurement and disclosure of human capital should benefit economic decision making through improved financial reporting. **P6** said that “The development of this framework should emulate what IASB does during the standard-setting process, which is a formal system of due process should include accountants, financial analysts, regulatory and legal authorities, industry experts, ZSE, academics and other companies across the country”.

#### **6.10.4 Stakeholder involvement**

The study deduced that results demand stakeholder involvement during the establishment of the framework. Employees should have a say in how they want to be valued. Employers should outline how they are currently accounting for their employees. What do the regulatory and professional bodies say about human capital accounting? It is important to gather and synthesise the opinions of all the interested stakeholders. Adesina et al. (2015) argue for domesticated human capital accounting and say that the process should be done through stakeholders’ involvement and legislation. **P1** stated that

The regulatory and professional bodies should be the groups leading the process of framework development. Professional accountants, through their expertise, are the best group to spearhead the process, and they are more knowledgeable to decide on the contents of the framework and the attributes that accurately represent human capital. These stakeholders include bodies such as ICAZ and PAAB (Z).

**P2** proposed that “The Chamber of Mines of Zimbabwe (industry experts), management and key employees (professionals and technicians) should participate in the development of the framework. **P3** said that “Key stakeholder groups should comment on how and why human capital should be measured”. The Danish and Industry Development Council (1999) highlighted the reasons for companies to measure and report on the value of human capital:

“**PLS Consult** report on human capital because human capital accounts support the development and maintenance of the company’s competency by focusing on the employees’ profiles. **Ramboll**: human capital accounts contribute to the realisation of the company’s human resource philosophy emphasising the commitment and satisfaction of the employees. **Skandia**: human capital accounts help the company's competencies to focus so that the future conditions for an increase in value are fulfilled through decentralised creativity. **Consultus**: human capital accounts are used to support the company’s strategic process by developing the customer and product basis of the company’s future. **Telia**: human capital accounts contribute to obtaining motivated and competent employees concerning a future with high demands for flexibility. **ABB**: human capital accounts are used to implement a strategy aimed at reducing the general time consumption in the company. **Sparkassen Nordjylland**: human capital accounts are used to create customer loyalty by ensuring the fulfilment of the needs of external and internal partners. **SCAA**: human capital accounts help create motivated and competent employees. **Sparbanken**: human capital accounts must make the company more customer-oriented by making the employees more focused on customers and the market. **VMN Data**: human capital accounts enable the communication of a company’s value-creating resources”.

**P4, P5, and P6** indicated that “stakeholders involved during framework development should be logical and also they must agree on how human capital should be accounted for in the financial statements. Also, better practise should be recommended, and it should enhance the quality of the financial statements”. Stakeholders can be involved through an invitation to comment, fieldwork and individual meetings. The process should welcome companies from other industries and should not be limited to the mining sector because human capital cuts across all companies. **P6** said that “Unions must continue to show their interests on human resources issues and stakeholders should reach a consensus on the best practice for human capital reporting in the financial statements”. **P4** stated that the opinions and views of

stakeholders must be fairly considered. Besides, “it is high time human capital reporting is made mandatory to all the public and listed companies”.

This study established additional points from the analysis for consideration during the development of the framework:

- The information that will be regarded as human capital.
- How human capital will be measured.
- A constitution that sets up consultative procedures.
- There should be a human capital reporting framework that includes ways of measurement and disclosure.
- There is a need to decide who should form part of the value of human capital.
- Ways of minimising information asymmetry and exposing the hidden value of human capital.
- Ways of enforcing good corporate governance through transparency and accountability.

#### **6.10.5 Summary of Theme 7: A Context-based framework for human capital reporting**

Most interviewees advocated for a domesticated framework to measure and disclose the value of human capital in financial statements. The framework should be established through legislation and the involvement of all key stakeholders. The aim is to promote effective measurement and recognition of human capital intangibles in the statement of financial position. Human capital influences value creation and success of a company. In the SADC region, there is no framework to measure human capital. This study used the Lev and Schwartz model as a benchmark. It is also proposed that the initiative should not be limited to the mining sector but should extend to other industries which should be invited when the framework is proposed.

## 7. Thematic Network for Context-Based Human Capital Measurement Framework

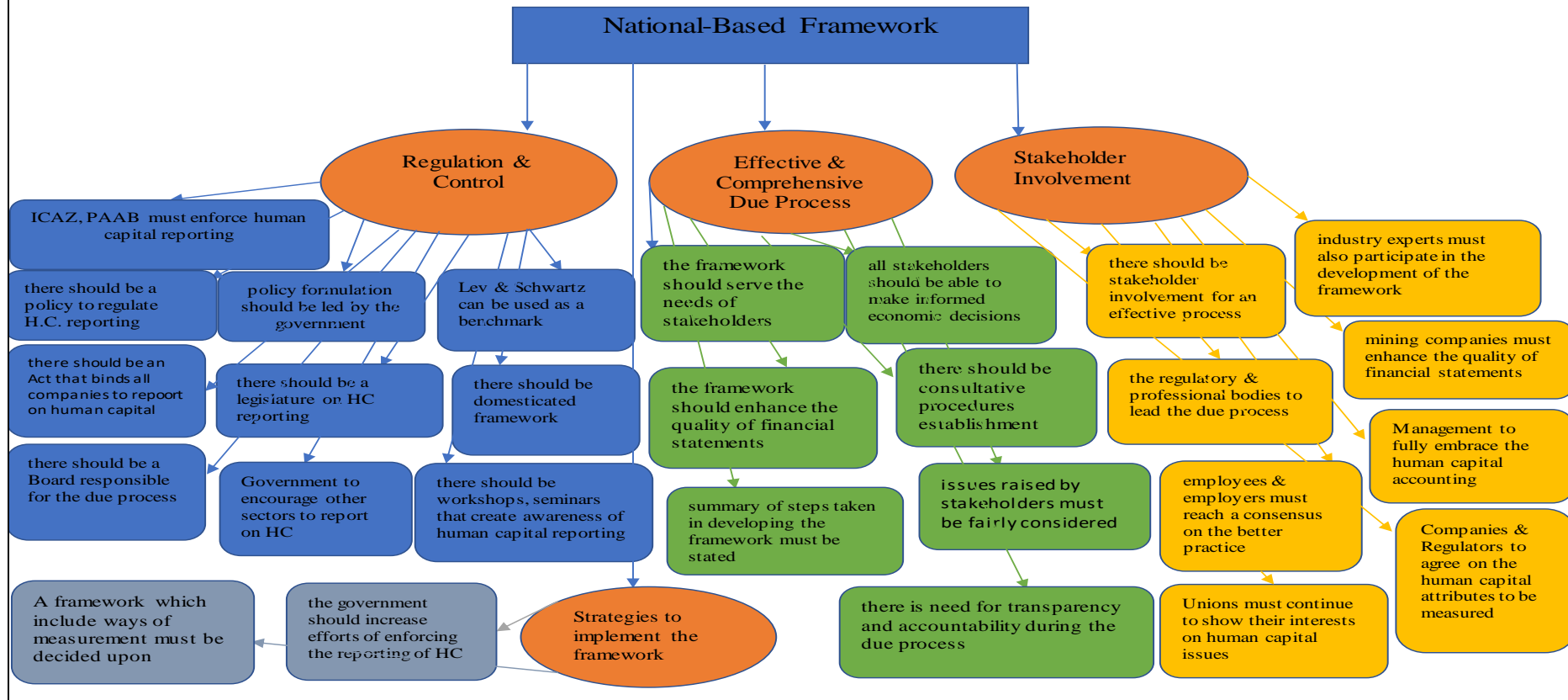


Figure 6.14: Theme 7: Domesticated human capital measurement and disclosure framework

### 6.11 Summary of Themes: Convergence towards framework development

The results of this study prove that there is a need to establish a framework to measure and disclose human capital. The qualitative analysis reveals that mining companies are currently reporting qualitative information about human capital, whose disclosure is voluntary. However, some of them are guided by GRI, IR and other reporting guidelines. In Zimbabwe, these reporting guidelines are not fully adopted, which makes it difficult to compare information from one company to another in the mining industry. Also, human capital is found under different sections in the corporate annual reports. Some of the information is found in the Chairman's report, Directors' report, health, wellness and safety, and the employee engagement section. Other companies created sections for human capital reporting. The quantitative measurement of human capital information such as return on employee investment, investment in training, demographics, talent management, skills gap, and value-added per employee and expert, costs of absence, resignations and the retention rates are not fully disclosed in financial statements. Indications show that this information is for internal use by management.

The qualitative data analysis revealed different opinions regarding the measurement and disclosure of human capital in financial statements by the mining sector in Zimbabwe. Among other responses, "mining companies should disclose this element as an intangible in the financial statements so that stakeholders can make informed decisions. This is because human capital is embedded with skills, competency and talent, which in turn increase firm value and company competitiveness". This shows that although companies know that human capital is their greatest asset, participants are sceptical about the move to measure and disclose it. The main reason is that IFRS is silent about the matter. Hence, companies indicated the challenges they might face to measure it effectively. The other reason is uncertainty about which information should be reported and who, among the employees, should be included in the calculation of the value of human capital. **Theme 1** focused on the attributes of human capital and showed that a talented and skilled workforce are key resources for competitive advantage. Health, wellness and safety are the first priority. Other companies consider it their first value. A safe and healthy environment lowers injury costs, reduces turnover, increases productivity and enhances the quality of goods and services. Highly skilled and talented professionals allow companies to meet their set strategic objectives and goals. Other themes revealed the factors that influence the measurement and disclosure of human capital information. **Theme 2** showed the international and local regulatory frameworks, while **Theme 3** revealed internal control

systems and policies. Listed mining companies are mandated by the Zimbabwe Stock Exchange (ZSE), International Financial Reporting Standards (IFRS), the IASB, GRI framework and the Integrated Reporting framework (IR) to report all material, reliable and relevant financial and non-financial information. Such information could be human capital. The findings show that accounting reporting frameworks, such as IR and GRI, were not adopted by companies in Zimbabwe. Their adoption is voluntary. The study established that companies that had adopted frameworks such as IR and GRI are multinational companies such as Anglo-American. As a result, human capital information is not fully reported in financial statements. In theme 3, companies disclosed information to stakeholders based on company policies and systems. Hence, participants indicated that their companies consider the stakeholders' key interests and costs involved in disclosing additional information such as human capital (cost-effectiveness).

The following questions were asked to assess the need for a human capital measurement and disclosure framework: RQ2: What is the link between human capital and company financial performance? RQ3: What is the relationship between the value of human capital and the value of a company? The former question became theme 4, and the latter became theme 5. In theme 4, the answer is that human capital is a key resource of competitive advantage. An enabling environment results in employee productivity, which is improved through training programmes, employee engagement and talent management practices. Human capital contributes to economic growth. Companies invest in human capital to increase their return on investments (ROI). As a result, the competitive advantage of a company is driven by increased ROI, improved productivity and economic growth attained through the highly skilled and talented workforce. Theme 5 reveals that companies seek to maximise shareholders' wealth. For a company to maximise shareholders' wealth, it must create value, which is the result of its business model. Companies indicated that human capital is the key driver of value creation. Some refer to it as an essential building block for creating value. Human capital is a pillar of innovation capacity. Theme 6 answered a question on human capital measurements currently used in Zimbabwe. The study obtained human capital measurement metrics. Most of them were for internal use only by the management for planning purposes. In the financial statements, there was a lack of indicators approaches that can be used by stakeholder groups to make informed decisions. The only available information on human capital is mainly focused on compliance with international and local labour laws. Relevant, material and reliable human capital information is lacking in the financial statements of Zimbabwean mining companies.



Theme 7 focused on how human capital can be measured and disclosed in financial statements. The study shows that companies may accrue benefits such as goodwill, attraction and retention of highly skilled and talented professionals and gain a competitive advantage from fully reporting human capital.

The reporting of human capital could lead to financial costs. Human capital measurement and disclosure is considered worthy if the companies themselves view human capital as an asset. Theme 6 (indicators approach) shows that companies recognise the importance of human capital to success and value creation. It was established that a human capital measurement and disclosure framework is required in Zimbabwe. The framework would act as a guideline on reporting human capital in the financial statements. Figure 6-15 is a summary of themes converging towards a human capital measurement and disclosure framework by mining companies in Zimbabwe.

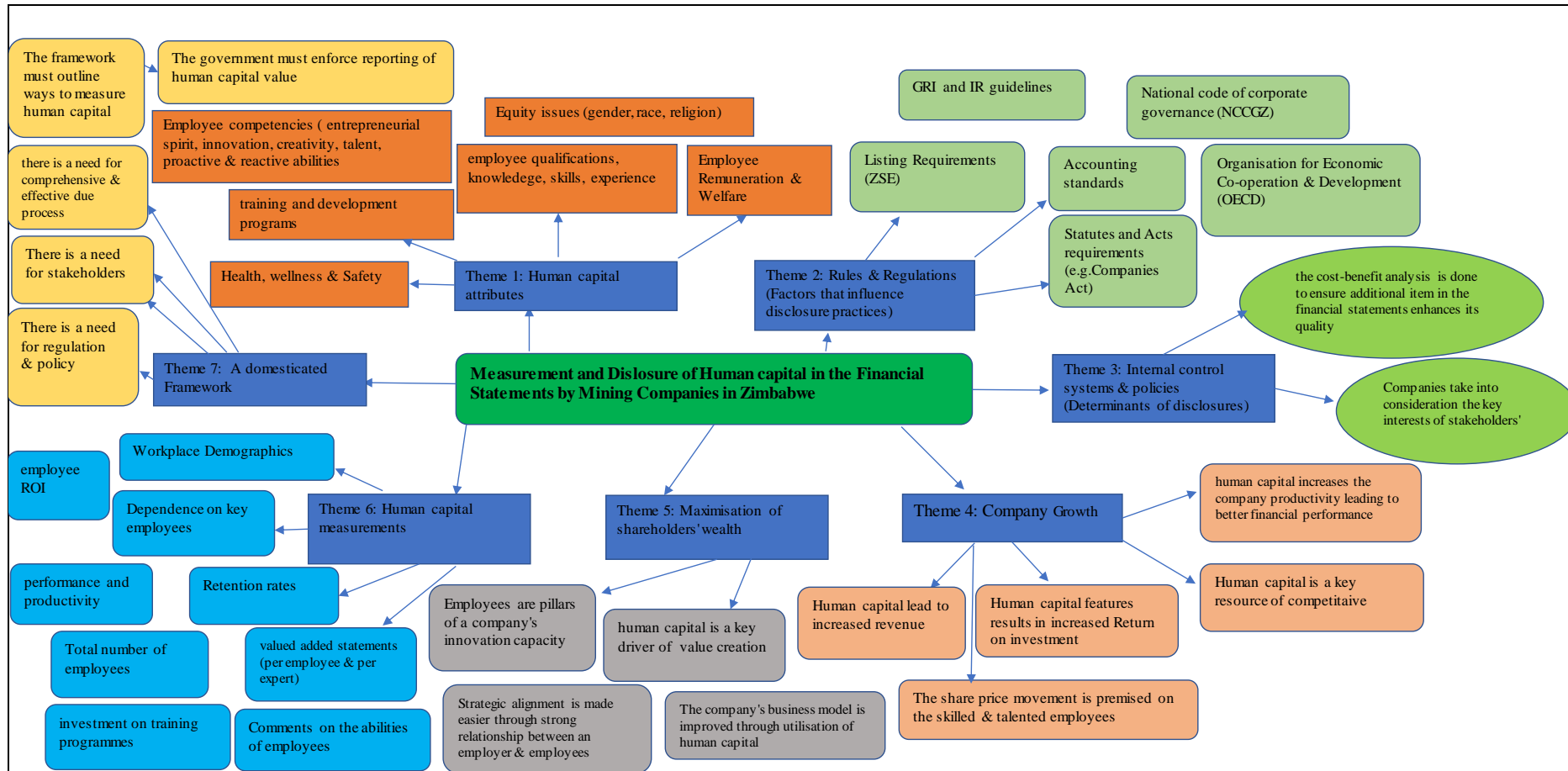


Figure 6.15: Convergence of themes towards the measurement and disclosure of human capital

## **CHAPTER SEVEN**

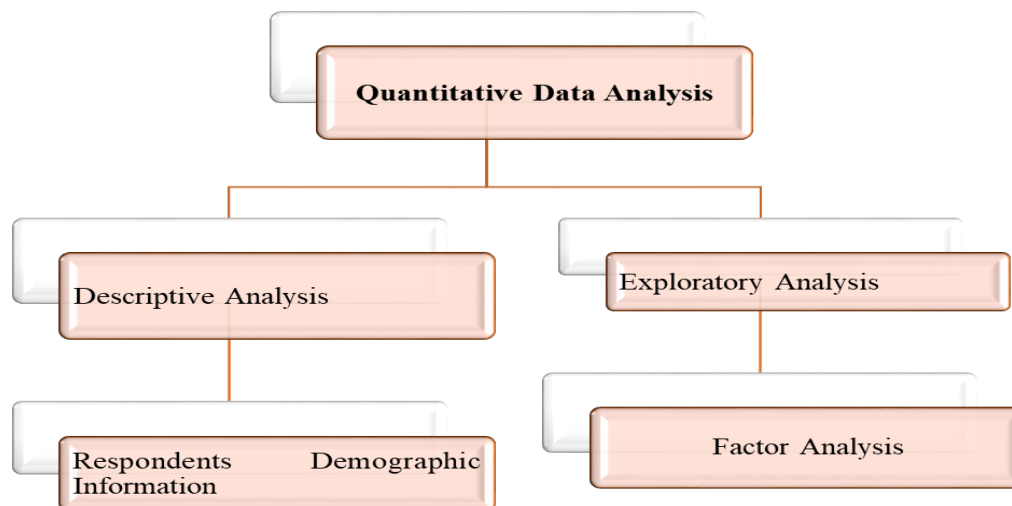
### **QUANTITATIVE DATA ANALYSIS AND INTERPRETATION**

#### **7.1 Introduction**

This study used the mixed methods research approach with an exploratory sequential design of qualitative (QUAL) research and quantitative research (QUANT). The previous chapter presents qualitative results using thematic analysis. The data analysis identifies seven themes and establishes the implications of qualitative results on quantitative variables. Hence, the qualitative results built a foundation for the quantitative phase. Quantitative data was gathered using a survey questionnaire. Factor analysis was used to analyse and interpret the results, leading to a conclusion about the problem under consideration.

The quantitative results in this chapter show the perspectives of the mining sector on measurement and disclosure of human capital in financial statements in Zimbabwe. The data is presented using tables, graphs and charts extracted with the SPSS application. The illustrations reveal the relevance of human capital measurement in the mining sector in Zimbabwe. This chapter also presents descriptive statistics, which include sample data, graphs, pie charts and the link between the study demographics. The study measured the adequacy of the sample using the KMO-MSA value and Bartlett's Test of Sphericity.

This chapter is organised as follows. Section 7.2 summarises the respondents' demographic profile, followed by section 7.3, which analyses background information regarding components of financial statements and six types of capitals. Section 7.4 discusses the extent to which human capital is narratively reported in financial statements. Section 7.5 outlines the relationship between human capital and the value of a company. Section 7.6 focuses on the findings of factor analysis. In this section, highly correlated significant variables are established to measure and disclose human capital in financial statements. A summary of the chapter is provided in section 7.7. Figure 7.1 illustrates the procedures used for quantitative data analysis.



**Figure 7.1:** Quantitative data analysis procedures

Source: (Own research)

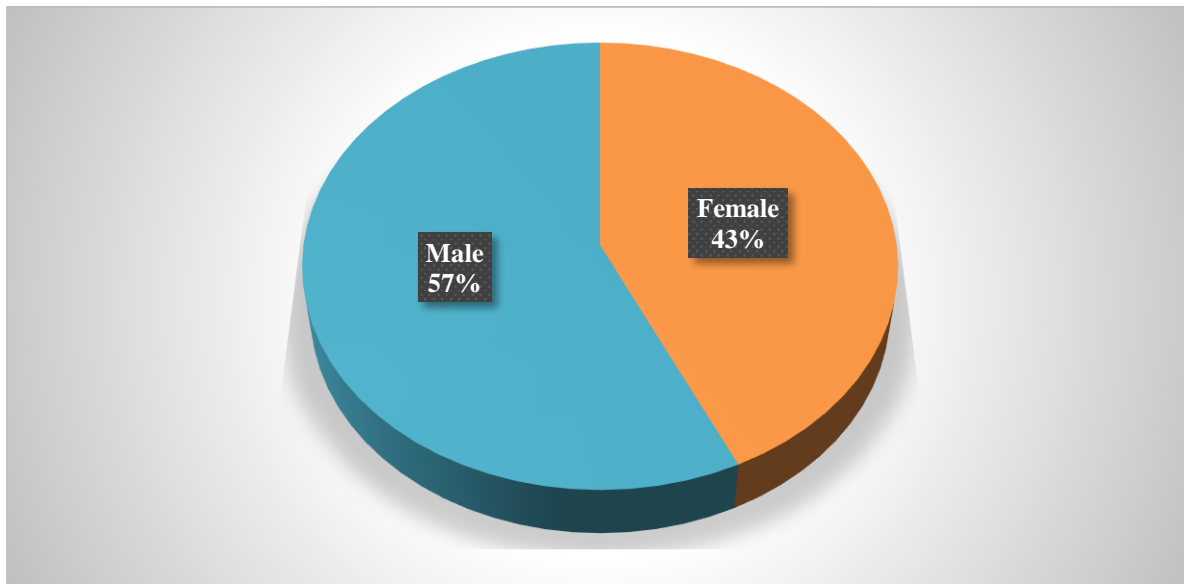
## 7.2 The demographic profile of the respondents

Chapter 5 of this study, which presents the research methodology, briefly discusses the relevance of the respondents' demographic information. This information captures the context for the composition of the research findings. The respondents' information is part of the independent variables of the survey questionnaire administered to large-scale mining companies. These variables include gender, age group, nationality, employment status, academic qualifications, job position and professional experience. These factors were identified during the literature analysis because they are important for the measurement of human capital. They provide information about the respondents. The information is necessary to determine whether the respondents were a representative sample of the target population for generalisation purposes. The previous chapter establishes dependent variables such as rules and regulations, internal control systems and policies, company growth, and the maximisation of shareholders' wealth. These dependent variables are measured against independent variables established in this chapter to determine whether they affect the measurement and disclosure of human capital in financial statements. A survey questionnaire was administered to large-scale mining companies. The targeted population was managers and employees of mining companies who have professional and technical skills. The group of employees included artisans, engineers, metallurgists, mine surveyors, operators, assemblers and technicians. Their inclusion is discussed in chapter 5 under the research population sub-heading. The selected mining companies are situated in the Bulawayo, Midlands, Harare and Mashonaland provinces

in Zimbabwe. The administration of the survey questionnaires yielded 251 responses out of a possible 300, resulting in a response rate of 83.67%.

### 7.2.1 Gender

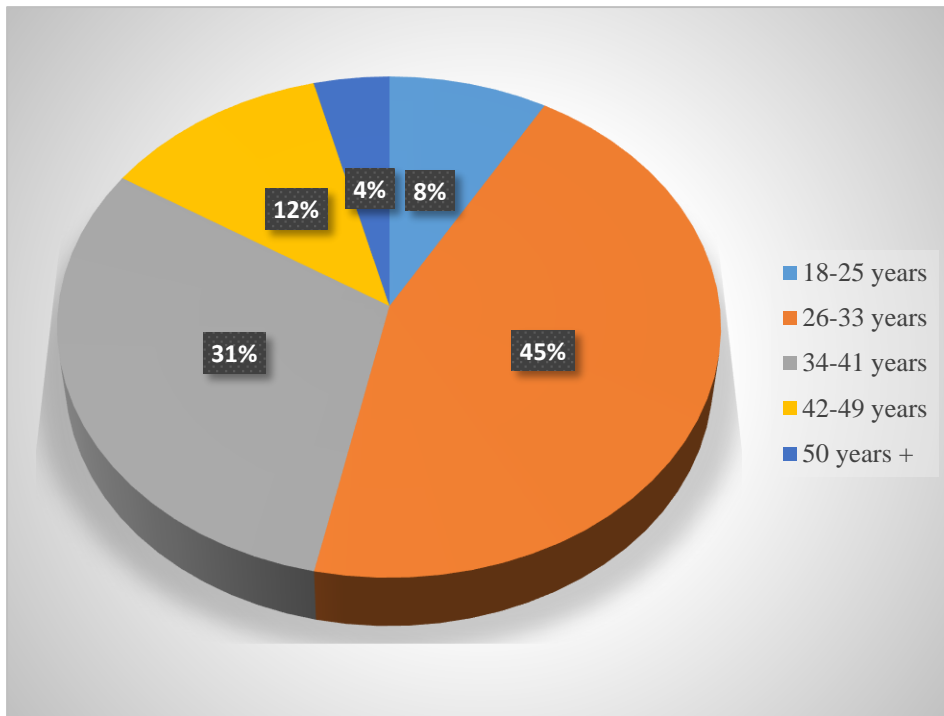
Figure 7.2 illustrates the gender of the respondents. It shows that 57% of the respondents were males, while 43% were females. There are more men than women in the mining sector due to the risks associated with mining.



**Figure 7.2:** Gender of the respondents

### 7.2.2 Age group

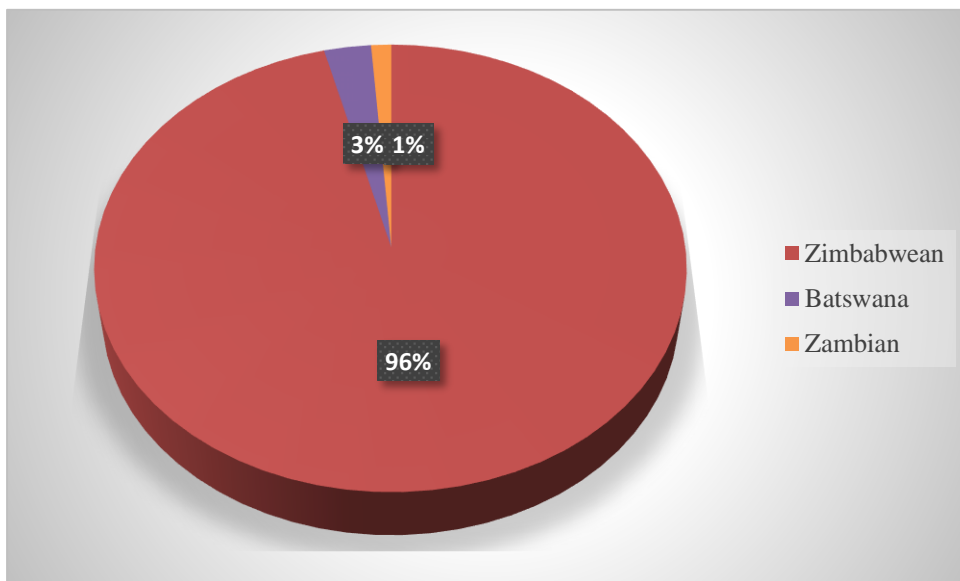
Figure 7.3 illustrates the age distribution of the respondents. The age groups were 18-25 years (8%), 26-33 years (45%), 34-41 years (31%), 42-49 years (12%) and above 50 years (4%). Most of the respondents were aged between 26-33 years, followed by 34-41 years. The minority age group was 50 years and above.



**Figure 7.3:** Age group of the respondents

### 7.2.3 Nationality

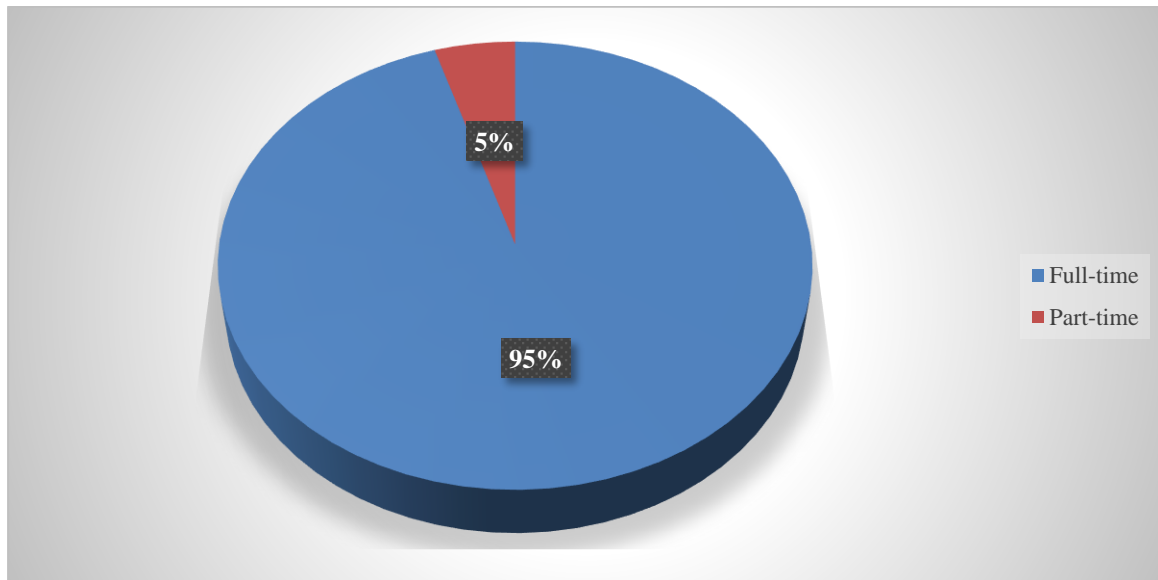
Figure 7.4 shows that most of the majority of the respondents were Zimbabweans (96%), followed by Batswana (2.8%) and Zambians (1.2%). This shows that the mining companies give first priority to locals, as they are deemed as familiar with the local regulatory reporting frameworks.



**Figure 7.4:** The nationality of the respondents

#### 7.2.4 Employment status

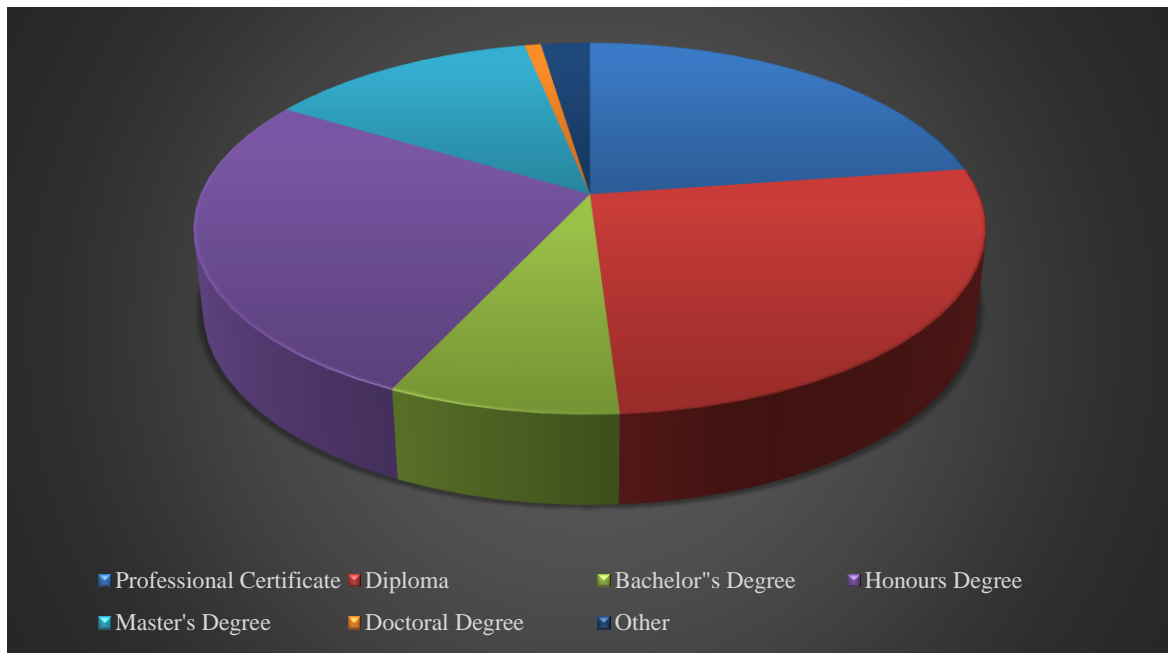
Figure 7.5 illustrates the employment status of the respondents. 95.2% of the respondents were employed on a full-time basis, whilst 4.8% were employed on a part-time basis. This shows that mining companies sustain full-time employees and that part-time employees get contracts when there is a need. Hence, there is a lower percentage of part-time respondents.



**Figure 7.5:** Employment status of the respondents

#### 7.2.5 Highest qualification

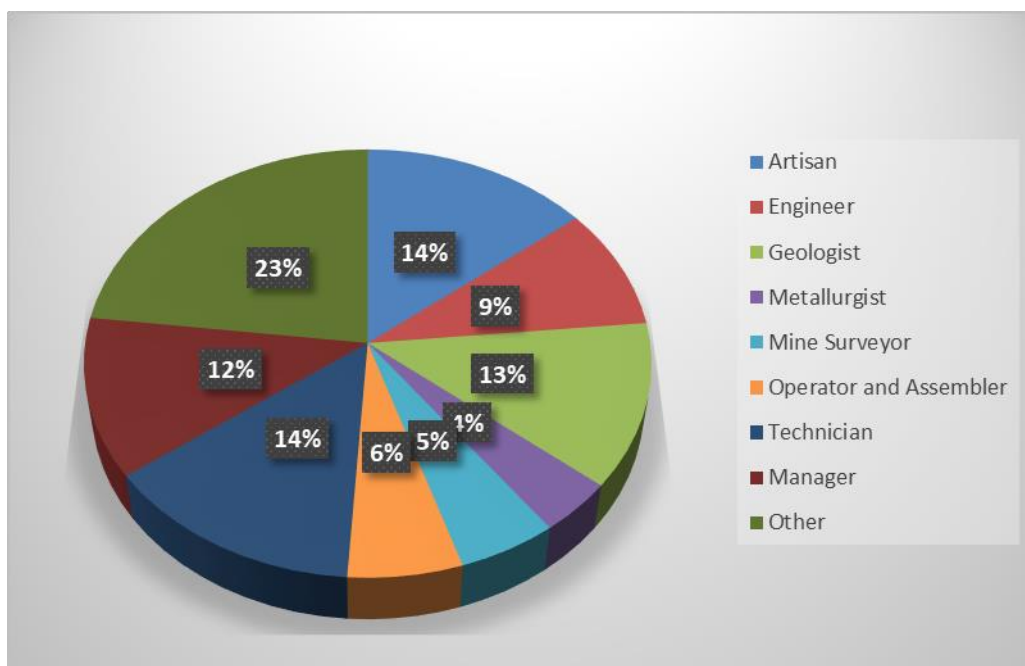
Figure 7.6 demonstrates the highest academic and professional qualifications possessed by the respondents. Most respondents hold honour's degrees (26.7%), followed by diplomas (26.3%) and professional certificates (22.7). Holders of bachelor's degrees account for 8% of the respondents, while the rest have post-graduate qualifications such as master's degrees (13.1%) and doctorates (0.8%) degrees. The "Other" category represents 2.4% of the respondents, who have professional qualifications, including accreditations such as ACCA (Association of Chartered Certified Accountants), CPA (Certified Public Accountants), CIMA (Chartered Institute of Management Accountants), IPMZ (Institute of Personnel Management of Zimbabwe) and CAs (Chartered Accountants). Most of the respondents are educated. This plays a major role in enhancing the validity and reliability of the results of this study.



**Figure 7.6:** Highest qualifications of the respondents

### 7.2.6 Job positions

Figure 7.7 shows the positions occupied by the respondents as follows: Other (23.1%); artisans (14.3%); technicians (13.9%); geologists (12.4%); managers (12%); engineers (9.2%); operators and assemblers (6%); mine surveyors (5.2%) and metallurgists (4%). Respondents such as CFOs, CEOs, and accountants fall under the “Other” category and manage the mining companies.

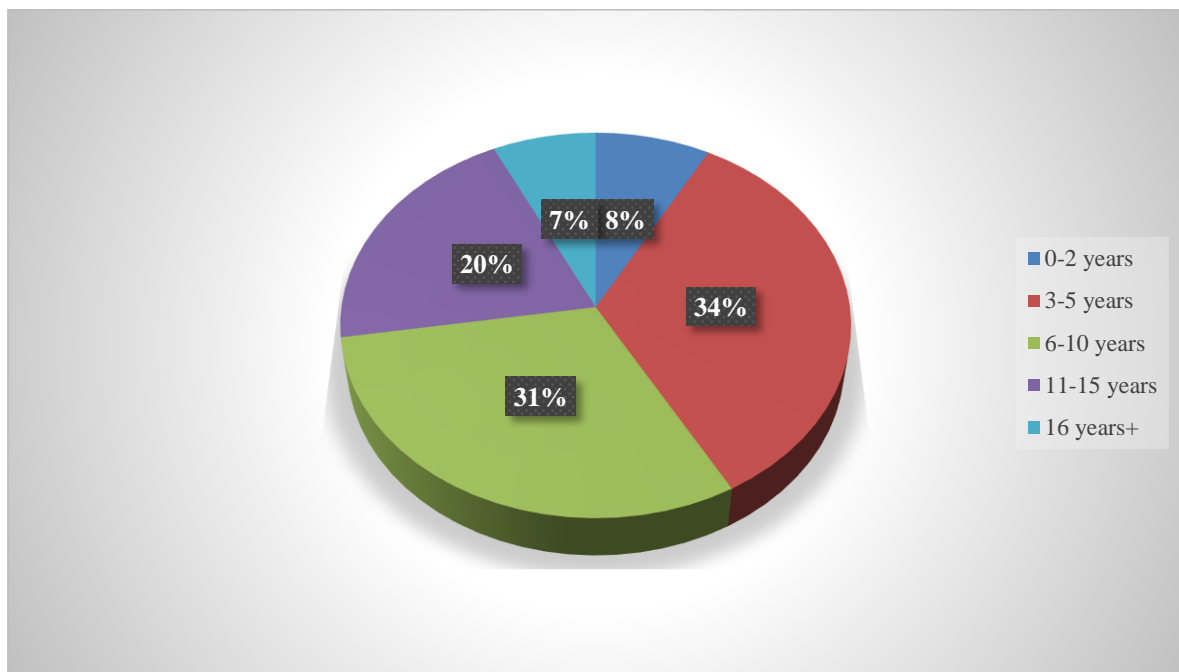




**Figure 7.7:** Job positions of the respondents

### 7.2.7 Work experience in years

Figure 7.8 illustrates the respondents' work experience as follows: 0-2 years (8%); 3-5 years (34%); 6-10 years (31%); 11-15 years (20%) and 16 plus years (7%). The survey revealed that most respondents have long service ranging from 3-5 years and 6-10 years. Few respondents worked from 0-2 years. The longest-serving respondents worked for more than 16 years. The longer the working experience, the more valuable the information the respondent supplied.



**Figure 7.8:** Work experience of the respondents

The following section focuses on the components of financial statements. This study measured their importance to mining stakeholders for decision-making. This study also captured the importance of the six types of capitals which are outlined in the integrated reporting framework, and how stakeholders utilise them for decision-making. These include human capital, financial capital, manufactured capital, intellectual capital, social and customer relationship capital, and natural capital.

## 7.3 Background information

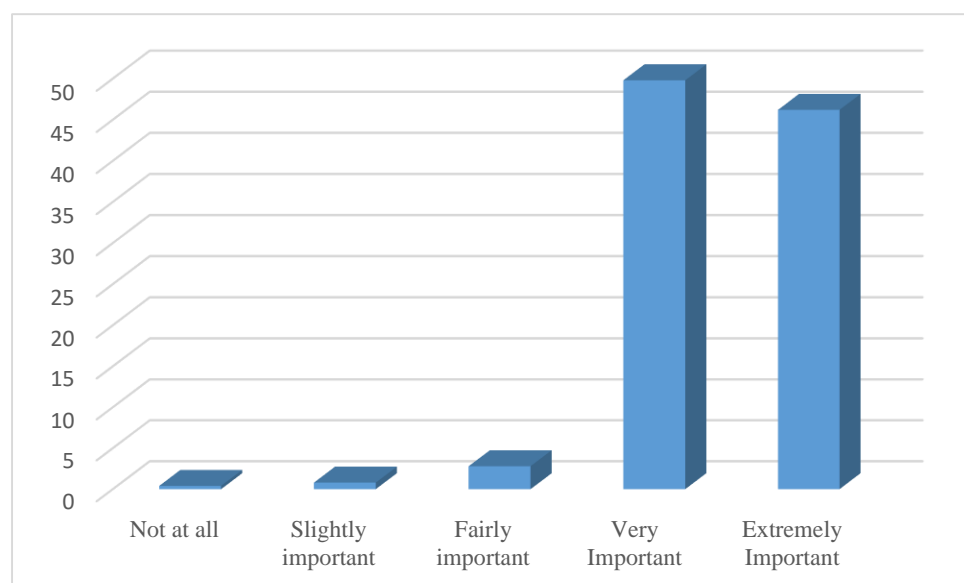
### 7.3.1 Components of financial statements

The main components of financial statements are the statement of financial position, statement of profit or loss, statement of cash flows, statement of changes in equity and notes to financial

statements. Users of financial statements measure performance, value and liquidity using these components. This helps them to make informed decisions about a company's future. It was necessary to assess if the respondents understood the importance of the aforementioned components of financial statements for their decision-making. This information was used as a background check before introducing the human capital component, which was the key research focus area of this study. The respondents were also asked to indicate if human capital reports were important during their decision-making process. Their responses were used to assess if companies acknowledge human capital in their working environments. The information was also used to ascertain whether the regulation of human capital as a part of financial statements would broaden the scope of stakeholders for decision-making, particularly stakeholders who rely on financial statements. The feedback was used to assess whether human capital information provides some leverage in improving accounting reporting methods in Zimbabwe.

This study used a five (5)-point Likert type scale to measure the importance of the components of financial statements during the decision-making process. One (1) represents that these components are not important at all, two (2) represents that they are slightly important, three (3) represents that they are fairly important, four (4) represents that they are very important, while five (5) represents that they are extremely important. The closer the mean to five, the more important the component to the respondents and vice versa.

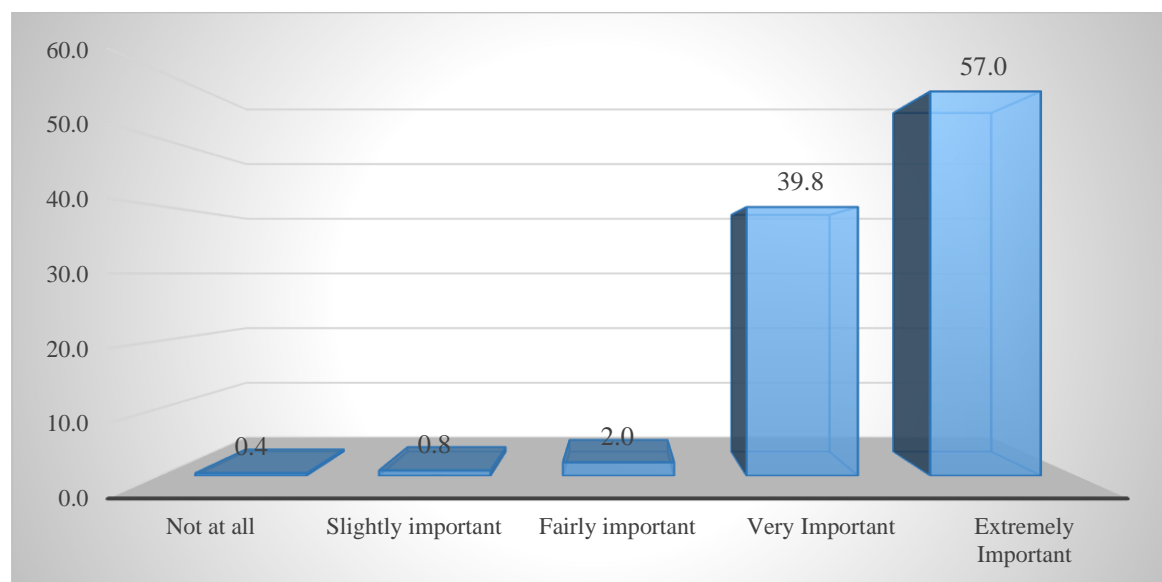
### 7.3.1.1 Statement of financial position (Balance sheet)



**Figure 7.9:** The importance of the statement of financial position

Figure 7.9 shows that 46.2% of the respondents perceived the statement of financial position as extremely important, followed by 49.8% who considered it as very important. 2.8% stated that it was fairly important. However, 0.8% and 0.4% of the respondents perceived the statement of financial position as slightly important and not at all important, respectively. Most respondents perceived the statement of financial position as an important component of financial statements, whilst the smallest number of respondents indicated that the statement of financial position is less important during the decision-making process. This study further observed that the positive feedback regarding the importance of the statement of financial position from the respondents provides assurance regarding the relevance of fully measuring and disclosing human capital in financial statements.

### 7.3.1.2 Profit and loss and other comprehensive income

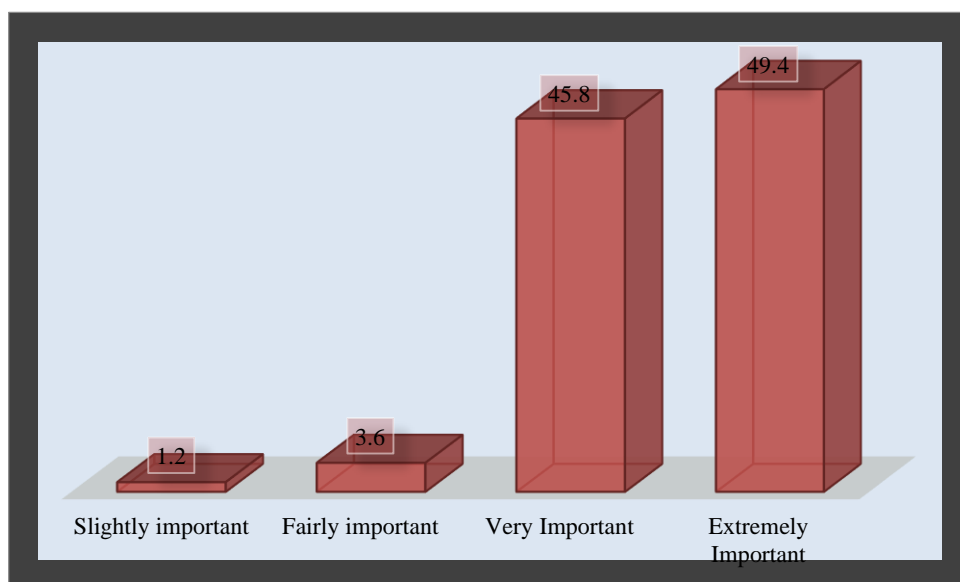


**Figure 7.10:** The importance of **the statement of** profit and loss

Figure 7.10 shows that 57% of the respondents said that the statement of profit and loss is extremely important, followed by 39.8% who considered it as very important. 2% said that it is fairly important, while 0.8% and 0.4% perceived it as slightly important and not at all important, respectively. Most respondents perceived the statement of profit and loss as an important component of financial statements, whilst the minority revealed that the statement of profit and loss is less important during the decision-making process. As such, human capital could be useful to primary stakeholders such as investors in assessing the efficiency and predicting future profitability and productivity of a company. The results give assurance that human capital is also an important component in decision-making.

### 7.3.1.3 Statement of cash flows

Figure 7.11 illustrates that 49.4% of the respondents perceived the statement of cash flows as extremely important, followed by 45.8% of the respondents who considered it as very important. 3.6% stated that it is fairly important, while 1.2% said it is slightly important. Most respondents perceived the statement of cash flows as an important component of financial statements. In contrast, the minority perceived the statement of cash flows as less important during the decision-making process. This study emphasises that enhancing employees' productivity can lead to more cash inflows which may result in improved liquidity. Since the respondents considered the statement of cash-flows as an important component in decision-making, it is clear that human capital has a positive link with the statement of cash-flows. This is based on the immense contribution of human capital in driving economic benefits to the entity.

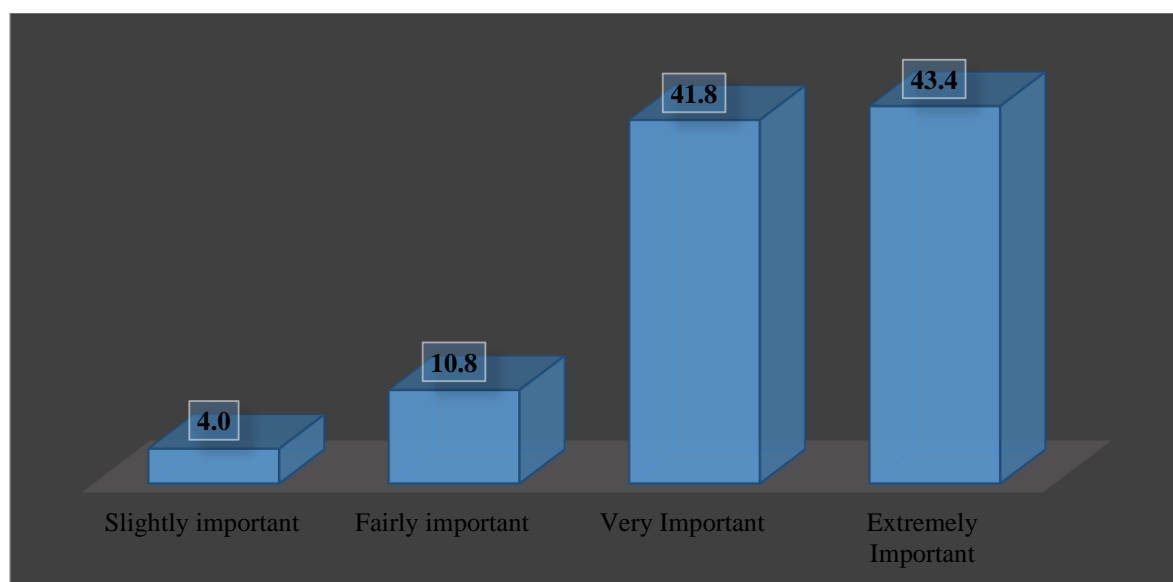


**Figure 7.11:** The importance of the statement of cash flows

### 7.3.1.4 Statement of changes in equity

Figure 7.12 shows the following results: 43.4% of the respondents perceived the statement of changes in equity as extremely important, followed by 41.8% who considered it as very important. 10.8% stated that it was fairly important while, 4% said it is slightly important. The findings reveal that most of the respondents perceived the statement of changes in equity as an important component of financial statements. However, a minority said that the statement of changes in equity is less important during the decision-making process. The statement of changes in equity reflects shareholders' equity. As stated earlier, the maximisation of

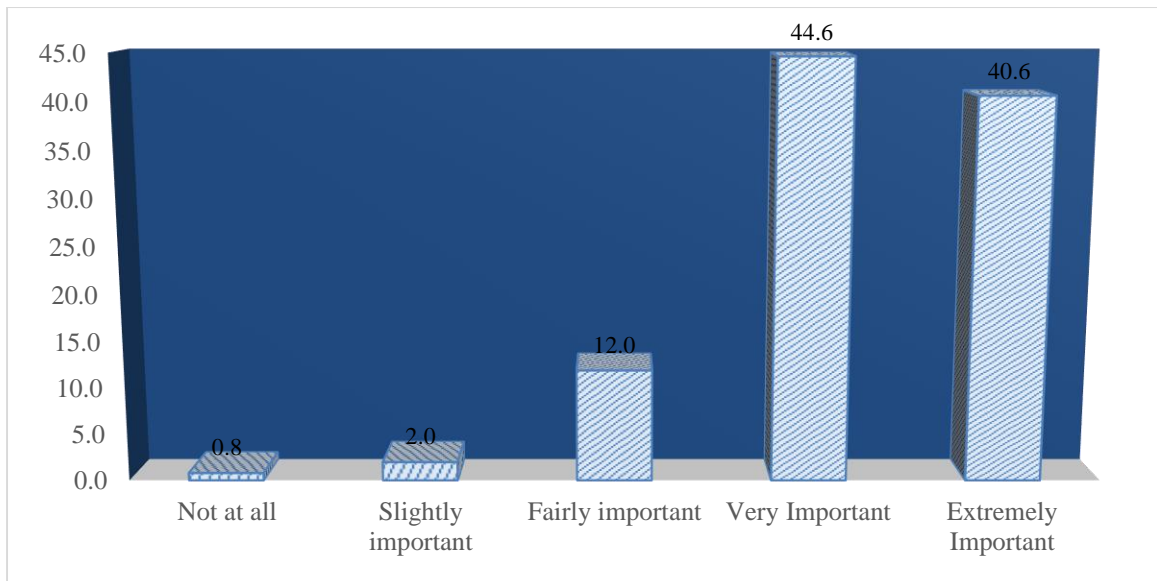
shareholders' wealth depends on human capital aspects such as skills, expertise, training and development, and knowledge. The fact that respondents viewed the statement of changes in equity as an important component shows that human capital is also an important component in decision-making. This is based on the contribution of human capital to the maximisation of shareholders' wealth.



**Figure 7.12:** The importance of the statement of changes in equity

### 7.3.1.5 Environmental reports

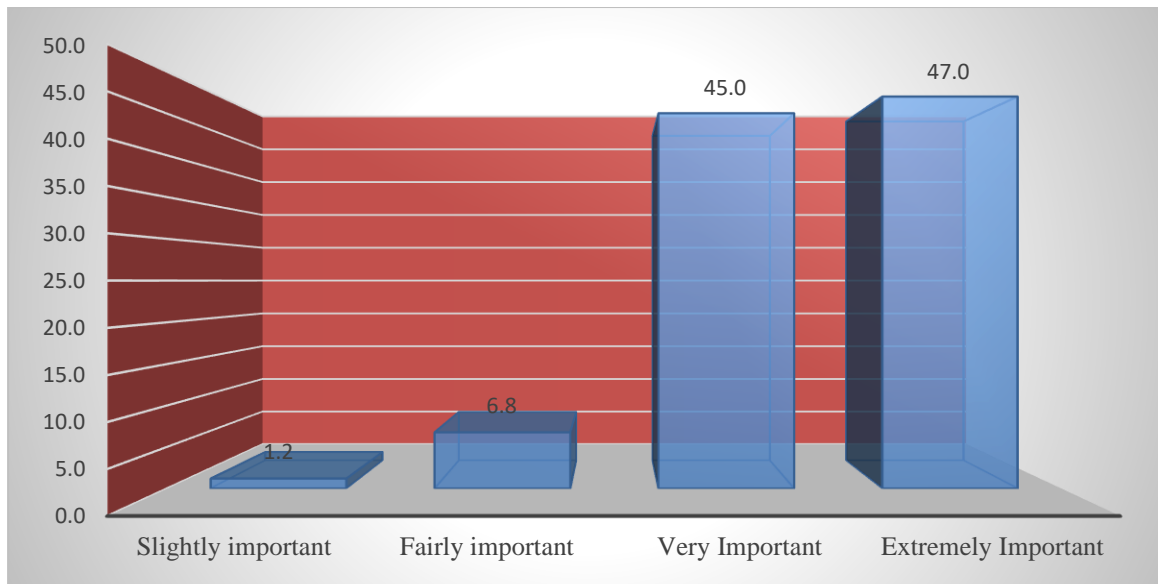
Figure 7.13 illustrates the following results: 40.6% of the respondents perceived environmental reports as extremely important, followed by 44.6% who considered them as very important. 12% stated that they are fairly important, while 2% and 0.8% said that they are slightly important and not important at all, respectively. Most respondents perceived environmental reports as important components of financial statements. The positive feedback on environmental reports is an assurance that human capital is decision-useful. Both human capital and environmental reports are part of sustainability reports that provide detailed overviews of initiatives relating to human and natural capital.



**Figure 7.13:** The importance of environmental reports

#### **7.3.1.6 The human capital report (employees report)**

Figure 7.14 illustrates the following results: 47% of the respondents perceived human capital reports as extremely important, followed by 45%, who considered it as very important. 6.8% stated that it is fairly important, while 1.2% viewed it as slightly important. Most of the respondents perceived human capital reports as a decision-useful component of financial statements. This study observes that human capital reports should be fully incorporated in financial statements either as stand-alone reports or as part of sustainability reports so that mining companies can create an image of their hidden value. This hidden value emanates from some of the human capital aspects which are not measured and disclosed in financial statements, creating information asymmetry. Human capital is currently measured using the wages and salaries aspect. Nonetheless, the study's observations give an assurance that human capital reports provide decision-useful information, particularly when all the aspects are measured. Stakeholders can use human capital reports to assess whether companies are meeting their heterogeneous needs. Adelowotan (2013) points out that human capital contributes immensely to financial performance and maximisation of the shareholders' wealth. The following section discusses the importance of the six types of capitals used by companies as value drivers.



**Figure 7.14:** The importance of human capital reports

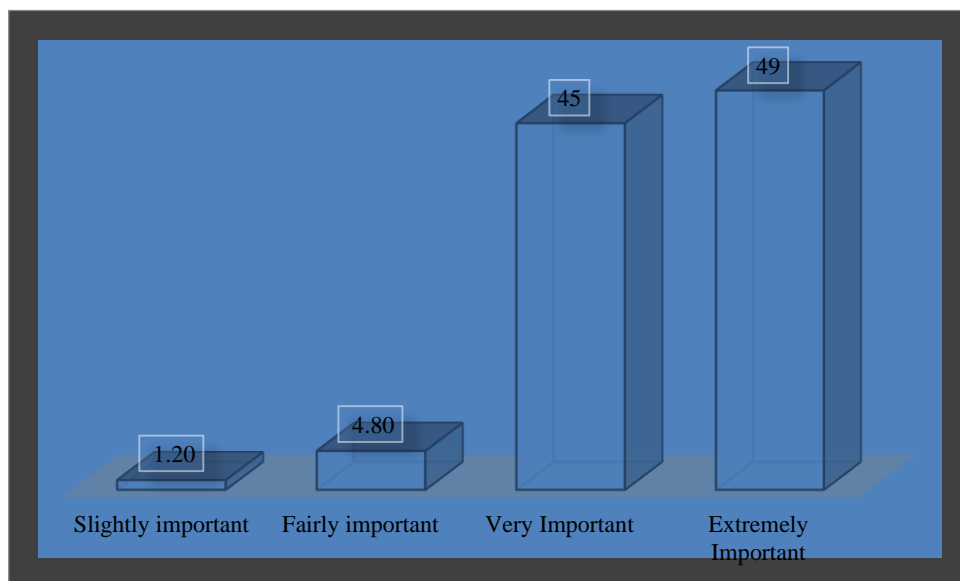
### 7.3.2 Six types of capital

The IIRC (2013) states that there are six categories of capitals that drive value and are better explained using a company's business model. These include financial capital, manufactured capital, natural capital, social and relationship capital, intellectual capital and human capital. These capitals store value. They are inputs to a company's business model. Their value depends on organisational business activities. Considering that the primary test for the importance of human capital is its impact on decision making (Abhanyaswa & Abeysekera, 2008), respondents were asked to indicate the importance of these six types of capitals on decision-making. The inclusion of other capitals in this study is based on their relationship with human capital and value creation. These different types of capital are intertwined, interdependent and complementary (IIRC, 2013). Therefore, this study seeks to establish if companies depend on all the capitals (as opposed to only financial capital) for their competitiveness, performance and sustainability. The feedback is used in this study to measure the extent to which human capital is treated as an important value creation component in financial statements by Zimbabwean mining companies. This study also seeks to establish whether human capital is treated differently from other capitals in terms of value creation and company financial performance. Although this is not one of the study's objectives, it is necessary to aid in obtaining clarification on how mining companies treat human capital.

#### 7.3.2.1 Financial capital

Figure 7.15 reflects the following results: 49% of the respondents perceived financial capital as extremely important, followed by 45% of the respondents who considered it as very

important. 4.8% stated that it is fairly important. However, 1.2% of the respondents perceived financial capital as slightly important. This study observed that most respondents thought that financial capital is useful in decision-making. In the context of this study, the aforementioned feedback provided background information that financial capital is an important capital in mining companies. The chances are high that financial and human capital have a positive linkage as they complement each other during the value creation process.

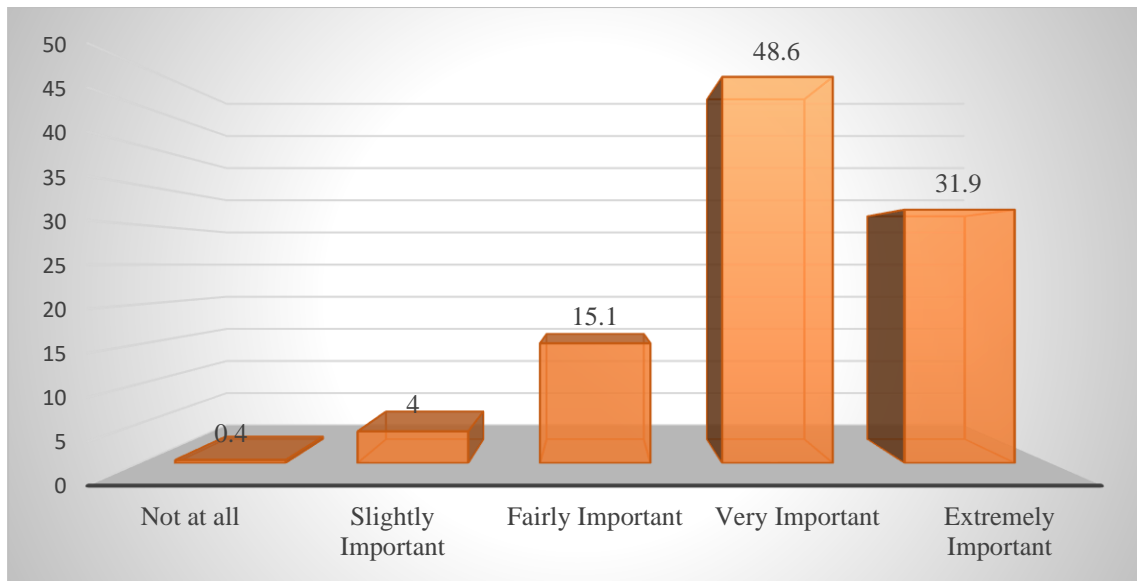


**Figure 7.15:** The importance of financial capital

### 7.3.2.2 Manufactured capital

Figure 7.16 reveals the following results: 31.9 % of the respondents perceived manufactured capital as extremely important, followed by 48.6 % who considered it as very important. 15.1 % stated that it was fairly important, while 4% and 0.4% said that manufactured capital was slightly important and not at all important, respectively. Most respondents perceived financial capital as decision-useful. It was observed that manufactured and human capital have a positive link. They are inputs for value creation and complement each other. Most respondents rated human capital highly like other capitals.

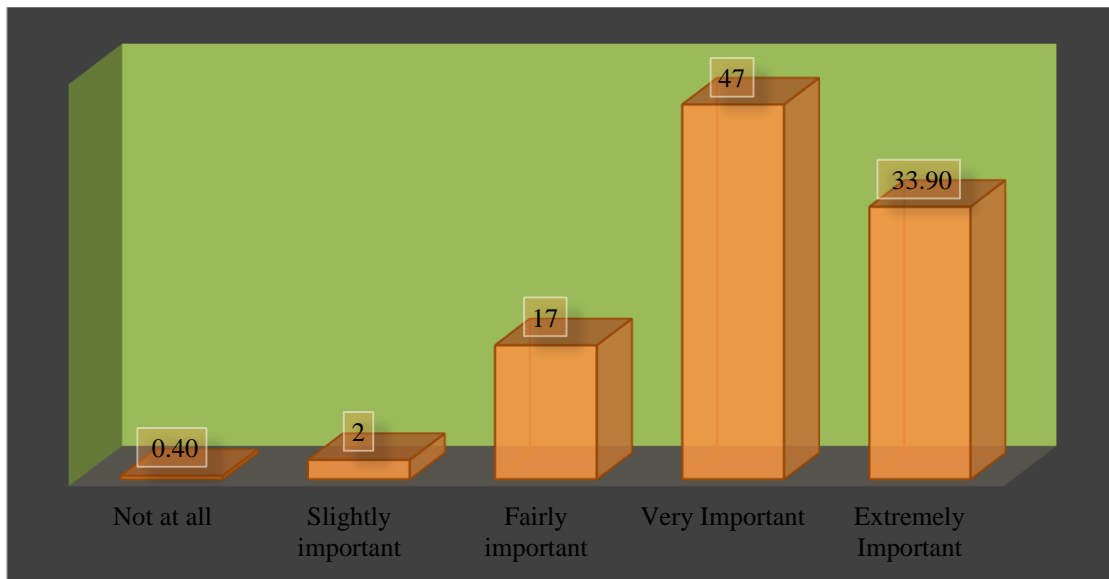




**Figure 7.16:** The importance of manufactured capital

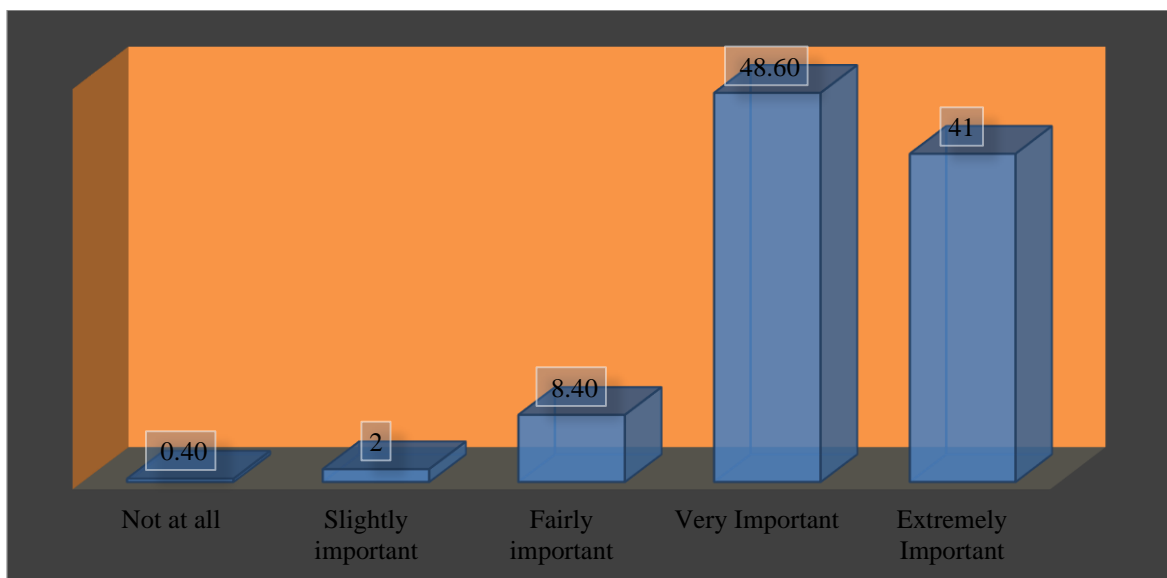
### 7.3.2.3 Social and relationship capital

Figure 7.17 reveals the following results: 33.9 % of the respondents perceived social and relationship capital as extremely important, followed by 47% who said that it is very important. About 17% stated that it is fairly important. However, 2% and 0.4% said it is slightly important and not at all important, respectively. Most respondents perceived social and relationship capital as an important component during the decision-making process. However, a small percentage of the respondents perceived social and relationship capital as less important. It was observed that social and relationship capital complement other capitals, such as human capital, intellectual capital and organisational and information capital. It was further observed that there is a positive and strong relationship between human capital and other capitals. As such, human capital is relevant and worthy of recognition in financial statements.



**Figure 7.17:** The importance of social and relationship capital

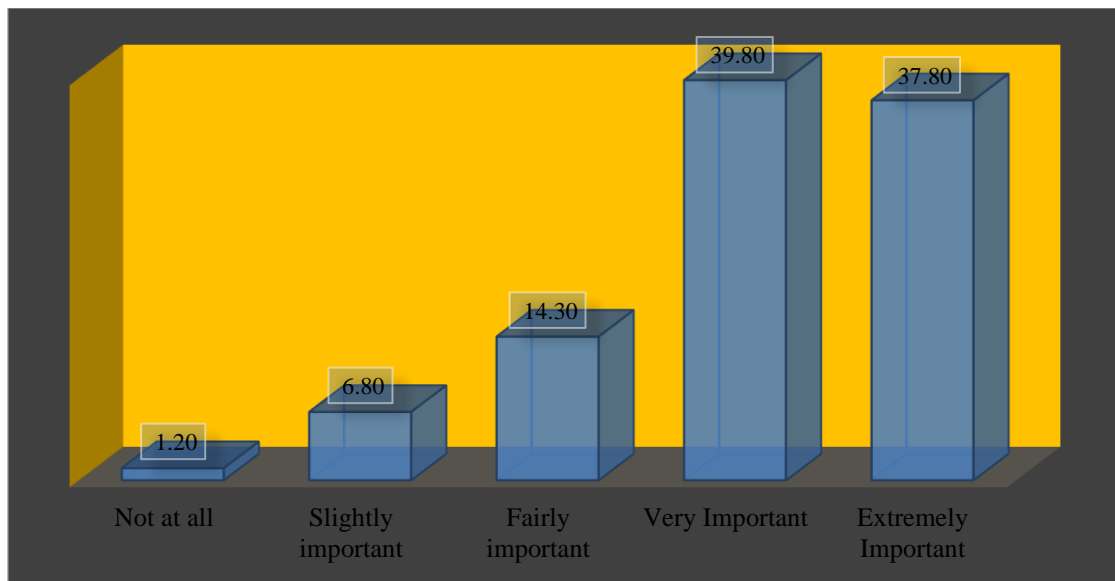
#### 7.3.2.4 Intellectual capital



**Figure 7.18:** The importance of intellectual capital

Figure 7.18 reveals the following results: 41% of the respondents perceived intellectual capital as extremely important, followed by 48.6% who considered it as very important. 8.4% stated that it is fairly important, while 2% and 0.4% said it is slightly important and not at all important, respectively. Most of the respondents perceived intellectual capital as a decision-useful component. The respondents acknowledged the importance of intellectual capital in companies and that human capital is part of intellectual capital. Human capital emerged as a significant component that contributes immensely to the performance, competitiveness and sustainability of mining companies in Zimbabwe.

### 7.3.2.5 Natural capital



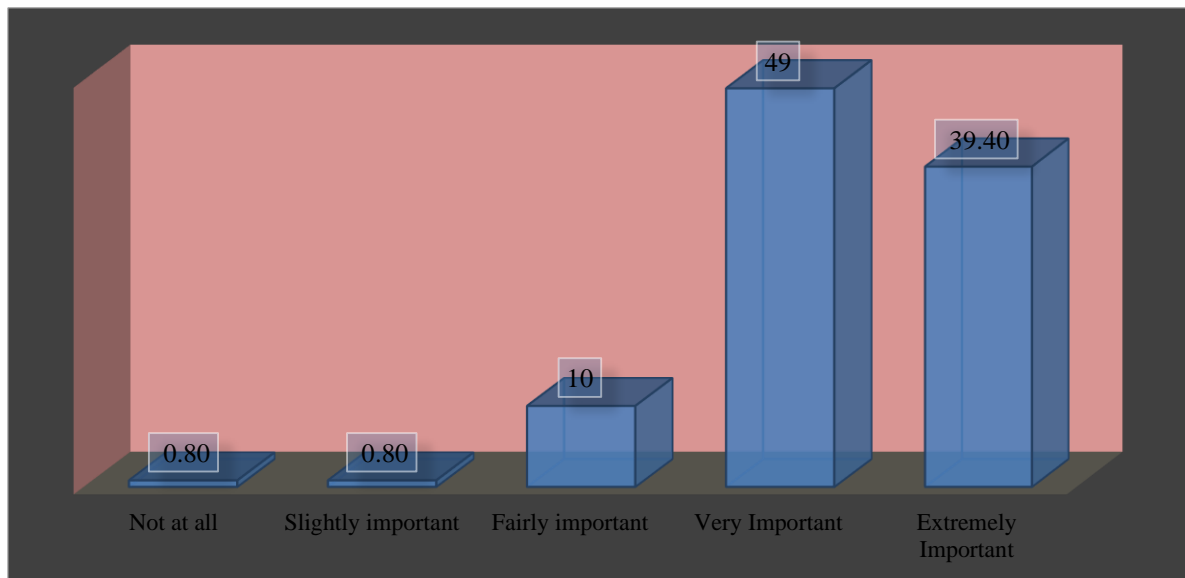
**Figure 7.19:** The importance of natural capital

Figure 7.19 reflects the following results: 37.8% of the respondents perceived natural capital as extremely important, followed by 39.8% who considered it as very important. 14.3% stated that it is fairly important. However, 6.8% and 1.2% said it is slightly important and not at all important, respectively. Most of the respondents perceived natural capital as useful for decision-making, while a smaller percentage of the respondents revealed that natural capital is not useful for decision making. This shows that natural capital is a decision-useful component and that natural and human capital have a positive link. Both are inputs that complement each other during the value creation process. Hence, the respondents rated human capital as an important capital that should be recognised as other capitals in financial statements.

### 7.3.2.6 Human capital

Figure 7.20 shows the following results: 39.4% of the respondents perceived human capital as extremely important, followed by 49% who considered it as very important. 10% stated that it is fairly important, while 0.8% and 0.8% said that it is slightly important and not at all important, respectively. Most respondents perceived human capital as decision-useful, whereas a minority revealed that human capital is not decision-useful. Human capital is an intangible asset that creates the future economic value of a company through the utilisation of employee competencies and a company's capabilities (Schmidt, 2004). This definition reflects the feedback from the respondents, who said that human capital is an important component for decision-making. Cronje & Moolman (2013) contends that investment in human capital allows companies to yield high investment returns. The consideration of human capital as an important

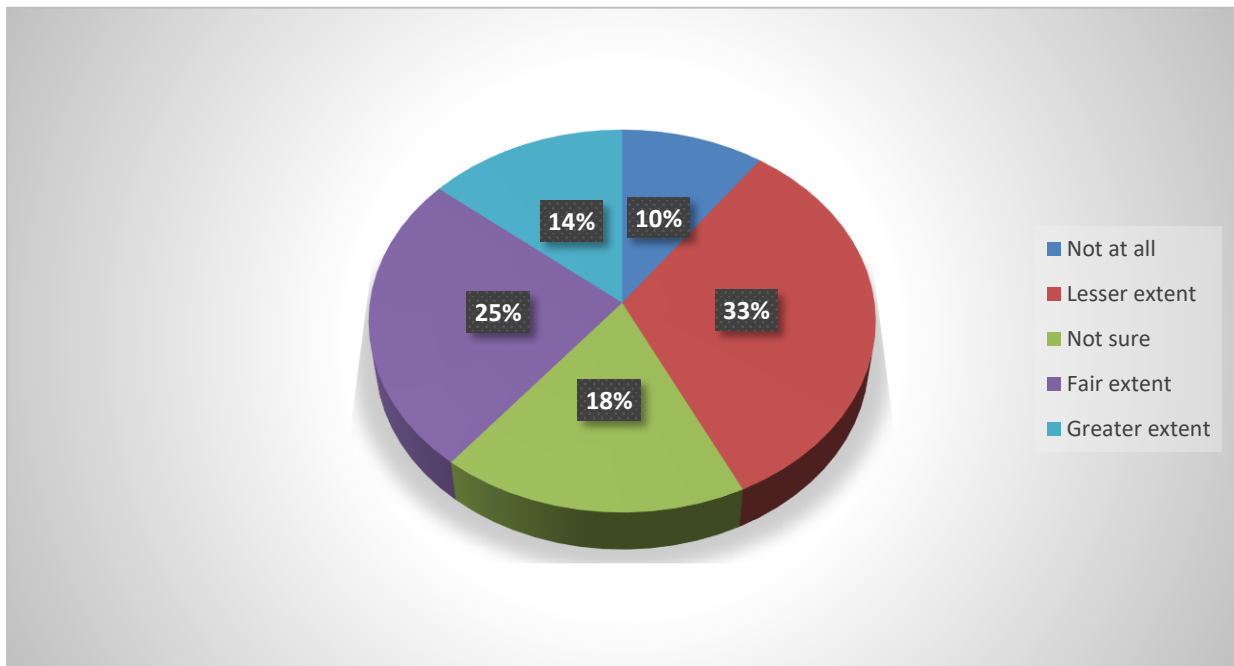
component agrees with the assertion that in the knowledge economy, competitive advantage depends on the qualities of human capital. It is no longer based on physical tangible assets. The following section analyses the extent to which human capital is narratively reported in financial statements by Zimbabwean mining companies.



**Figure 7.20:** The importance of human capital

#### **7.4 The extent to which human capital is narratively reported in financial statements**

This section intends to determine the extent to which human capital is narratively disclosed in financial statements. The respondents were asked to indicate their responses on a 5-point Likert scale. During the coding process, 1 represented 'not at all', 2 represented 'to a lesser extent', 3 represented 'not sure', 4 represented 'fair extent' and 5 represented 'to a greater extent'.

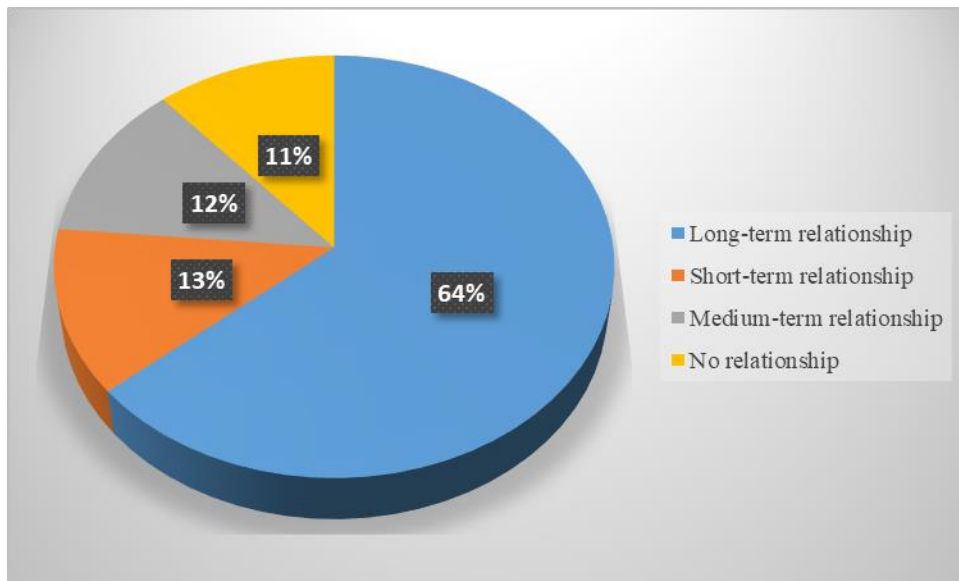


**Figure 7.21:** The extent to which human capital is narratively reported

Figure 7.21 illustrates the following results: 33% of the respondents indicated that human capital is narratively reported to a lesser extent, followed by 25% of the who indicated that it is reported to a fair extent. 18%, 14%, and 10% of the respondents indicated not sure, greater extent and not at all narratively reported in financial statements, respectively. Most respondents confirmed that there are low levels of human capital reporting in financial statements. The respondents generally have a low awareness of the human capital intangible assets. Some do not see the need to report on them. This may be attributed to the lack of an established and generally accepted human capital reporting framework. The results are similar to the findings of Adelowotan (2013), who indicated that despite the importance of human capital, it is hardly found in financial statements. The following section seeks to determine the relationship between human capital and the value of a company.

### **7.5 The relationship between human capital and the value of a company**

This section seeks to establish the relationship between human capital and the value of a company. The respondents were asked to indicate whether there is 1- long-term relationship, 2- short term relationship, 3-medium term relationship and 4 -no relationship at all. One of the objectives of this study is to determine the relationship between human capital and the value of a company. The results from this question provide a basis for the measurement and disclosure of human capital in financial statements.



**Figure 7.22:** The relationship between human capital and the value of a company

Figure 7.22 reflects the following results: 64% of the respondents indicated a long-term relationship between human capital and the value of a company, followed by 13% who spoke of a short-term relationship. 12% of the respondents said that there is a medium-term relationship between human capital and company value, while 11% indicated that there is no relationship at all. Most respondents indicated that there is a long-term relationship between human capital and the value of a company. However, the literature shows that few studies measured the relationship between human capital value and the value of a company. Nonetheless, Adelowotan (2013) found that companies spend huge sums of money on aspects of human capital such as skills and expertise. This implies that companies invest in human capital to retain and attract a skilled workforce and to maximise shareholders' wealth. In addition, companies aligning individual goals with their strategic objectives to maximise shareholders' wealth. Companies want a strong and long-term relationship with their employees. To maintain long-term relationships, it is imperative for companies to develop a human capital measurement and disclosure framework. The following section examines the results of a factor analysis that was performed to establish and explain the correlations within the data set of extracted variables.

## 7.6 Results of factor analysis

An exploratory factor analysis (EFA) is a statistical method used to establish a set of variables within a data set that has a strong correlation. The EFA's primary goal is to identify the underlying relationship between the measured constructs. Hair et al. (2014) say that "factor

analysis is an interdependence technique whose primary purpose is to define the underlying structure among the variables in the analysis”. Literature provided the tools for analysing the structure of the variables’ correlation. The established and highly correlated variables were named factors or constructs.

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett’s Test of Sphericity were used to determine whether it was viable to conduct a factor analysis. The KMO value is a measure of the correlation structure of the variables on which an EFA is performed. If the KMO value is high, the variables under consideration are highly correlated. It means that it is possible to form a factor or construct. The KMO statistics demonstrate a disparity that ranges from 0 to 1. When a value is 0, it demonstrates a diffusion in the correlations pattern, meaning that factor analysis is not appropriate. A KMO close to 1 shows that the variables under consideration are highly correlated and that it is possible to form a factor or construct. The principal component analysis extraction technique and direct oblimin rotation were used to extract the variables with eigenvalues of more than 1.0. All statistical tests were done at a 5% level of significance. The following subsections present the results of the extracted factors which were of interest to the study. Items that were cross-loading or were not contributing significantly to the constructs were discarded. The analysis of the extracted factors was done based on the research objectives of the study. In addition, the following sub-section displayed the mean values and standard deviation scores of human capital measurement and disclosure in financial statements by Zimbabwean mining companies. The highest mean values and standard deviation scores were analysed based on the respondents’ perspectives.

#### **7.6.1 Factors that influence the measurement and disclosure of human capital**

This part presents factors that influence human capital measurement and disclosure. The main objective is to establish key determinants of human capital disclosure practices. The factors were divided into three groups, namely structure-related, performance-related and market-related factors. A factor analysis was conducted to determine possible reasons that made companies reluctant to disclose human capital information. The findings revealed that companies are reluctant to measure and disclose human capital in financial statements because of fear of giving away vital information to labour. Also, companies are unable to link human capital performance to company strategy. These results are similar to the findings of Foong et al. (2003), who submit that companies are sceptical about disclosing human capital information because of fear of divulging important information to rivals.

### 7.6.1.1 Structure- related factors

Table 7.3 presents the results of factor analysis for the structure related factors. The KMO of the identified factor was 0.524. The associated Bartlett's Test of Sphericity was found in this case as statistically significant at  $p \leq 0.00$ . Only one factor was extracted. It accounted for 52.63 % of the total variance. The mean for the respondents was 3.98. Cronbach's alpha was 0.54.

**Table 7.1:** Structure-related factors

Questionnaire statements	Structure-related factor
Audit committee	0.846
Board size/composition	0.739
Assets-in-place	0.563
<b>Cronbach's Alpha</b>	<b>0.54</b>
<b>Mean &amp; Standard Deviation</b>	<b>3.98 ±0.65</b>

The reduced and extracted variables found during the factor analysis consisted of the audit committee, board size/composition and assets-in-place (e.g. fixed or non-current assets). A mean of **3.9788** and a standard deviation of **0.64669** was confirmed. The analysis shows that mean scores were between 'agree' and 'strongly agree' ratings on the five-point Likert scale for this factor. On average, the respondents agreed that structure-related determinants influence the measurement and disclosure of human capital in financial statements. This implies that board effectiveness, as well as the assets in place, have a great influence on the reporting of human capital in financial statements by Zimbabwean mining companies. The findings of this study were similar to La Porta et al. (2000), who reveal that company board effectiveness is a key determinant of effective corporate governance. The measurement and disclosure of human capital indicate that corporate governance systems and policies were put in place.

### 7.6.1.2 Performance-related factors

Table 7.4 presents the results of the factor analysis for performance-related factors. The KMO of the identified factor was 0.798. The associated Bartlett's Test of Sphericity was statistically significant as  $p \leq 0.00$ . Only one factor was extracted. It accounted for 52.26 % of total variance. The mean for the respondents was 4.21. Cronbach's alpha was 0.77.

**Table 7.2:** Performance related factors

Questionnaire statements	Performance-related factor
Cost-effectiveness	0.743



Return on training investment	0.737
Liquidity of a company	0.737
Employee return on investment	0.726
Return on equity	0.668
<b>Cronbach's Alpha</b>	<b>0.77</b>
<b>Mean &amp; Standard Deviation</b>	<b>4.21±0.54</b>

A factor analysis was carried out on performance-related factors that influence human capital reporting in financial statements of selected mining companies in Zimbabwe. The extracted variables include cost-effectiveness, return on investing in training, liquidity of a company, employee return on investment and return on equity. A mean of **4.2072** and a standard deviation of **0.54003** was confirmed. Looking at Table 7.4, it is evident that, on average, the respondents agree that performance-related factors influence human capital measurement and disclosure in financial statements. Smith, Yahya and Amiruddin (2007) contend that companies disclose their profit margins to attract and retain investors and to boost their confidence. The research findings concur with Buzby (1975), who conclude that profitable companies share more information in their financial statements about the strategies they implemented to reach their strategic objectives.

### 7.6.1.3 Market-related factors

Table 7.5 displays the results of the factor analysis for the market-related factor. The KMO of the identified factor was 0.77. The associated Bartlett's Test of Sphericity was statistically significant as  $p \leq 0.00$ . The factor which was extracted accounted for 51.49 % of total variance. The mean for the respondents was 4.08 and Cronbach's alpha was 0.76.

**Table 7.3:** Market-related factor

<b>Questionnaire statements</b>	<b>Market-related factor</b>
Lobby groups pressure	0.775
Media exposure	0.774
Level of debt	0.702
Creditors' pressure	0.666
Government pressure	0.662
<b>Cronbach's Alpha</b>	<b>0.77</b>
<b>Mean &amp; Standard Deviation</b>	<b>4.08± 0.613</b>

A factor analysis was conducted on the market-related factors that influence human capital reporting. The significant extracted variables include pressure from lobby groups, media

exposure, level of debt (leverage/gearing), credit pressure and government pressure. A mean of **4.0757** and a standard deviation of **0.61280** was confirmed. The mean score implies a tendency towards a higher end of the Likert scale of above 4, meaning that the above variables were highly correlated and influenced the reported human capital aspects. Fontana and Macagnan (2012) say that there is a positive link between a company's debt size and disclosure of human capital information, among other elements of financial statements. These results are similar to research findings derived from this study, implying that debt-financed mining companies make have a responsibility to inform their key stakeholders on how they are financed. This allows them to retain and attract investors and to gain trust from other key stakeholders. Such companies ensure that all material and relevant information, including human capital information, is made available to users and preparers of financial statements on a timely basis. The identified factors that influence the measurement and disclosure of human capital were considered important by the respondents. This implies that there is a need for companies to identify these factors based on the mining industry's policies and systems.

#### **7.6.1.4 Non-disclosure related factor**

Table 7.6 displays the results of the factor analysis for non-disclosure related factors. The KMO of the identified factor was 0.65. The associated Bartlett's Test of Sphericity was statistically significant as  $p \leq 0.00$ . The factor which was extracted accounted for 59.17 % of total variance. The mean for the respondents was 4.31. The Cronbach's alpha was 0.65.

**Table 7.4:** Non-disclosure-related factor

<b>Questionnaire statements</b>	<b>Non-disclosure related factor</b>
Fear of giving away vital information to labour	0.799
Protection of the powerful and wealthy at the expense of the poor	0.763
Failure to link the importance of human capital to company strategy	0.744
<b>Cronbach's Alpha</b>	<b>0.65</b>
<b>Mean &amp; Standard Deviation</b>	<b>4.31±0.62</b>

A mean of **4.3121** and a standard deviation of **0.62003** was confirmed. The mean score shows a tendency towards a higher end of the Likert scale above 4. In table 7.6, on average, the respondents agreed that non-disclosure related issues are some of the reasons why companies are reluctant to disclose human capital information. Nonetheless, the non-disclosure of human capital value in financial statements results in information asymmetry and lowers the confidence of investors. This might have a negative impact on the cost of capital of an entity.

The findings of this study are similar to Foong et al. (2003), who found that companies are sceptical about disclosing human capital information because of fear of divulging important information to rivals.

### **7.6.2 Human capital and company performance**

This study seeks to establish the link between human capital and company financial performance. Hence, factor analysis was carried out on the attributes of human capital that influence the financial performance of Zimbabwean mining companies. Human capital attributes such as commitment, creativity, capabilities /abilities, teamwork, skills and expertise, personal experience and professional experience have a positive link with a company's financial performance. In addition, this study conducted a factor analysis on performance attributes to determine whether there is a possible relationship between human capital and the performance attributes of a company. These attributes consist of after-tax return on sales, overall response to competition, the relationship between expenses and income, future prospects, profit growth, profit margin and sales growth. The findings reveal a positive relationship between human capital and the performance indicators of a company.

Furthermore, the study conducted a factor analysis on factors that negatively affect the financial performance of Zimbabwean mining companies. These factors consist of human error (negligence), fraudulent/criminal activities by employees, lack of recognition and poor overall corporate culture. The results reveal that the exposure of employees has an impact on the competitiveness, financial performance and sustainability of a company. Lastly, this study performed a factor analysis on the critical success factors for employee management. The extracted variables include communicating with and engaging employees properly and frequently, promoting a good relationship between employer and employees, aligning employee goals with a company's strategy, and exploring employees' needs and constraints to companies.

#### **7.6.2.1 Employee competence-related factor**

The results for employee competencies related factor are illustrated in Table 7.7. The KMO of the identified factor was 0.858. The associated Bartlett's Test of Sphericity was statistically significant as  $p \leq 0.00$ . The only extracted factor accounted for 50.02 % of total variance. The mean for the respondents was 4.35. Cronbach's alpha was 0.83.

**Table 7.5:** Employee competencies related factor

Questionnaire statements	Employee competence-related factor
Commitment	0.735
Creativity	0.734
Capabilities	0.711
Teamwork	0.699
Skills and expertise	0.695
Professional experience	0.691
Personal experience	0.685
<b>Cronbach's Alpha</b>	<b>0.83</b>
<b>Mean &amp; Standard Deviation</b>	<b>4.35± 0.485</b>

A mean of **4.3517** and a standard deviation of **0.48524** was confirmed. The analysis shows that mean scores were between 'agree' and 'strongly' agree ratings on the five-point Likert scale for this factor. This implies that human capital attributes play a key role in the success of a company. This is one of the reasons why companies invest in training and development. Their aim is to equip their workforce to improve productivity and company growth. Reed (2000) contends that human capital has a positive effect on the financial performance of a company.

#### 7.6.2.2 Profitability measure-related factors

Table 7.8 shows the results of the factor analysis for the profitability measures related factor. The KMO of the identified factor was 0.84. The associated Bartlett's Test of Sphericity was statistically significant as  $p \leq 0.00$ . The extracted factor presents 50.3 % of the total variance. The mean for the respondents was 4.27. Cronbach's alpha was 0.83.

**Table 7.6:** Profitability measures related factor

Questionnaire statements	Profitability measures-related factor
After-tax return on sales	0.759
Overall response to competition	0.731
Relationship between expenses and income	0.719
Future prospects	0.714
Profit growth	0.698
Profit margin	0.682
Sales growth	0.655
<b>Cronbach's Alpha</b>	<b>0.83</b>
<b>Mean &amp; Standard Deviation</b>	<b>4.274±0.517</b>

A mean of **4.2738** and a low standard deviation of **0.51708** was identified. The mean score indicated a tendency towards a higher end of the Likert scale of above 4. Looking at Table 7.8, on average, the respondents agreed that profitability measures imply a positive relationship between human capital and the company. This signifies that human capital reporting leads to a positive impact on the long-run profitability of a company. Mouristen et al. (2004) contend that the disclosure of human capital leads to high chances of attracting valuable resources that allow a company to gain a competitive advantage. The findings of this study confirm the importance of human capital and its contribution to the financial performance of a company. It illustrates the need for mining companies to measure the contribution of human capital to company success.

### 7.6.2.3 Employees' exposure related factor

Table 7.9 shows the results of the factor analysis for employees' exposure-related factors. The KMO of the identified factor was 0.7. The associated Bartlett's Test of Sphericity was statistically significant as  $p \leq 0.00$ . The extracted factor presents 50.0 % of the total variance. The mean for the respondents was 4.08. Cronbach's alpha was 0.67.

**Table 7.7:** Employees exposure related factor

Questionnaire statements	Employees exposure-related factor
Human error (negligence)	0.75
Fraudulent/ criminal activities by employees	0.738
Lack of recognition	0.714
Poor overall corporate culture	0.618
<b>Cronbach's Alpha</b>	<b>0.67</b>
<b>Mean &amp; Standard Deviation</b>	<b>4.08±0.564</b>

A mean of **4.0827** and a standard deviation of **0.56382** was confirmed. This implies that a mean score shows a tendency towards a higher end of the Likert scale above 4. The findings indicate that if there are poor internal control systems and policies in a company, financial performance is negatively affected. Poor financial performance affects the credibility of a company and makes it less attractive to investors. Therefore, it is important to devise a measurement tool to reduce negative financial performance. The results conform to a survey report by the World Bank.

#### 7.6.2.4 Success indicators factor

Table 7.10 presents the results of the factor analysis for critical success-related factors. The KMO of the identified factor was 0.75. The associated Bartlett's Test of Sphericity was found in this case as statistically significant as  $p \leq 0.00$ . Only one factor was extracted. It accounted for 54.70 % of total variance. The mean for the respondents was 4.36. Cronbach's alpha was 0.72.

**Table 7.8:** Success indicators factor

Questionnaire statements	Critical success related factors
Communicating with and engaging employees properly and frequently	0.781
Promoting good relationship between employer and employee	0.765
Aligning employee goals with the company's strategic objectives	0.736
Exploring employees' needs and constraints to companies	0.671
<b>Cronbach's Alpha</b>	<b>0.72</b>
<b>Mean &amp; Standard Deviation</b>	<b>4.36±0.5</b>

A mean of **4.3625** and a standard deviation of **0.49953** was confirmed. The mean shows a tendency towards a higher end of the Likert scale, implying that the response rates were between "strongly agree and agree" as shown in table 7.10. The results show that for companies to remain competitive, there is a need to engage their employees, promote good relations in the working environment and meet the interests of employees. The results are consistent with the findings of Adelowotan (2013), who reveals that companies need to recognise their employees and enhance their skills through training and development for the maximisation of shareholders' wealth.

#### 7.6.3 Human capital value and the company's value

This study conducted a factor analysis on the human capital attributes and their contribution to value creation by Zimbabwean mining companies. These human capital attributes include employee health, wellness and safety, employee motivation, employee training and development, the relationship between employees and management, low level of employee turnover, and positive employee behaviour. These factors are significant for a company's value creation.

### 7.6.3.1 Value drivers related factors

Table 7.11 shows the results of the factor analysis for the value drivers' related factors. The KMO of the identified factor was 0.824. The associated Bartlett's Test of Sphericity was statistically significant as  $p \leq 0.00$ . Only one factor was extracted, and it accounted for 52.5 % of total variance. The mean for the respondents was 4.37. Cronbach's alpha was 0.82.

**Table 7.9:** Value drivers' related factor

Questionnaire statements	Value drivers' related factor
Employee health, wellness and safety	0.806
Employee motivation	0.767
Employee training and development	0.745
Relationship between employees and management	0.712
Low level of employee turnover	0.667
Positive employee behaviour	0.636
<b>Cronbach's Alpha</b>	<b>0.82</b>
<b>Mean &amp; Standard Deviation</b>	<b>4.37±0.502</b>

A mean of **4.3699** and a standard deviation of **0.50232** was confirmed. The analysis showed that mean scores were between "agree and strongly agree" ratings on the five-point Likert scale for this factor. After the analysis, a new factor was named value drivers. The respondents agreed that human capital is a value driver in a company. Also, an enabling work environment allows employees to enhance their efficiency and effectiveness. The relevance of human capital to value creation is shown through investment in training programs that enhance employee skills and productivity. Mining companies ensure that individual employees' goals are aligned with their strategic objectives. They do this to retain a skilled and talented workforce. Human capital acts as a pillar of innovation in mining companies. Louli-Baklouti and Triki (2018) argue that new economic systems heavily depend on human capital potentials to create the value of a company. The new economy has no solid base, making human capital intangibles integral to company success and value. Therefore, these attributes must be considered when a measurement framework is developed.

### 7.6.4 Human capital measurements methods

This study performed a factor analysis on how Zimbabwean mining companies measure human capital. Human capital metrics such as cost of resignation, workforce turnover, return on employee investment, return on training investment, comments on the abilities of key

employees, costs of absence, employees' qualifications, experience and skills are regarded as key measurements of human capital.

#### 7.6.4.1 Human capital measurement related factor

Table 7.12 presents the results of the factor analysis for human capital measurements related factors. The KMO of the identified factor was 0.865. The associated Bartlett's Test of Sphericity was found in this case as statistically significant as  $p \leq 0.00$ . Only one factor was extracted. It accounted for 51.2 % of total variance. The mean for the respondents was 4.33. Cronbach's alpha was 0.84.

**Table 7.10:** Human capital measurements related factor

Questionnaire statements	Human capital measurements related factor
Cost of resignation	0.753
Workforce turnover	0.752
Return on employee investment	0.74
Return on Investment training	0.732
Comments on the abilities of key employees	0.704
Cost of absence	0.671
Employees' qualifications, experience and skills	0.656
<b>Cronbach's Alpha</b>	<b>0.84</b>
<b>Mean &amp; Standard Deviation</b>	<b>4.33±0.4887</b>

A mean of **4.3301** and a standard deviation of **0.48871** was confirmed on human capital measurements. The mean showed a tendency towards a higher end of the Likert scale above and this implies that the response rates were between "very useful and useful" as shown in table 7.12. On average, the respondents agreed that human capital measurements related items are decision-useful. The results are similar to Adewolotan's (2013) findings. Despite their usefulness for decision-making purposes, these variables are disclosed voluntarily. In addition, some of the variables were hardly identified in financial statements, leading to information asymmetry, which hinders key stakeholders from making informed decisions. Therefore, it is important to measure and disclose human capital as an asset in financial statements.

The KMO of identified factors ranged from 0.524 to 0.865 for respondents. The KMO values were close to 1, which reflects that the patterns of correlations were relatively compact. Therefore, the factor analysis produced reliable factors. In addition, the associated Bartlett's



Test of Sphericity was statistically significant in all fifty-one cases as  $p \leq .000$ . The findings of this study were measured by Cronbach's Alpha and revealed that all the identified factors had acceptable levels of reliability as there were 0.50 and above. This shows that there are high levels of consistency of the 5 - point Likert scales used in the questionnaire, as confirmed by Field (2005).

## **7.7 Summary and conclusion**

This chapter presents descriptive statistics, factor analysis, inferential analysis, ANOVA and correlations among extracted significant variables regarding human capital measurement. Managers and employees of Zimbabwean mining companies were the respondents of this study. In addition, the quantitative results in this chapter indicate that human capital attributes immensely contribute to value creation and financial performance in a company. The findings also reflect a long-term relationship between human capital and the value of a company. This justifies why companies establish programmes and practices that enhance the capability and productivity of their employees. Despite its relevance, human capital is reported less in financial statements by Zimbabwean mining companies. The government and professional bodies are silent about recognising human capital as an asset. They are also silent about adopting a standardised framework on how to report human capital. Notwithstanding, companies currently measure and recognise human capital as an expenditure in financial statements. These bodies should create awareness of the importance of human capital and should spearhead initiatives towards its recognition, measurement and disclosure in financial statements.

All key stakeholders must be involved. Employers and employees should reach a consensus on better practices to adopt and report on human capital. Mining companies concur that human capital is a key component for achieving goals. In addition, the knowledge economy shows that human capital is a "precious asset" for many companies and a key source of competitive advantage and sustainability. Using these findings, the study developed a framework for the measurement and disclosure of human capital by mining companies in Zimbabwe. The proposed framework is presented in the following chapter.

## **CHAPTER EIGHT**

### **THE PROPOSED FRAMEWORK FOR MEASURING AND DISCLOSING HUMAN CAPITAL IN FINANCIAL STATEMENTS**

#### **8.1 Introduction**

This chapter develops and presents a framework for measuring and disclosing human capital in the financial statements of mining companies in Zimbabwe. The preceding two chapters present the results and interpretation of qualitative and quantitative data. The shortcomings of the two chapters are identified and summarised below. This chapter has seven parts. Section 8.2 summarises the shortcomings identified in the literature review. Section 8.3 summarises shortcomings identified from the qualitative findings, while section 8.4 summarises the shortcomings identified from the quantitative findings. Section 8.5 links the structure of the framework and the shortcomings identified in the study. Section 8.6 summarises how the framework addresses the identified shortcomings. Section 8.7 concludes the chapter.

#### **8.2 Shortcomings identified in the literature review**

The literature review (chapters 2, 3 and 4) identified the following short-comings concerning the measurement and disclosure of human capital:

- The traditional accounting system does not account for all aspects of human capital.
- There is no generally accepted framework for reporting all the aspects of human capital.
- The relationship between the value of human capital and the value of a company is currently unknown due to uncertainty.
- There is no consensus on the aspects of human capital that companies should report and how they should report them in financial statements.

#### **8.3 Shortcomings identified from the qualitative findings**

The qualitative findings revealed the following shortcomings concerning the measurement and disclosure of human capital:

- The factors that influence the measurement and disclosure of human capital by mining companies are not identified.
- Companies have no proper internal control systems and policies on the measurement and disclosure of human capital in financial statements.

- Users and preparers of financial statements do not know the benefits of disclosing human capital information in financial statements.
- Companies fail to align human capital with their strategic objectives.
- There is a lack of a context-based human capital measurement framework.

The following sub-section discusses the problems established from the literature review and from the qualitative research.

### **8.3.1 Lack of factors**

The qualitative findings show that human capital disclosure practices adopted by companies vary and depend on different factors. The respondents revealed that companies rarely evaluate the impact of factors such as liquidity, profitability, company size, key stakeholders' interests, level of leverage, and company growth on the measurement and disclosure practices of human capital. This means that Zimbabwean mining companies are not aware of the most relevant factors.

### **8.3.2 Lack of measurement and evaluation**

The respondents revealed that they face difficulties in linking human capital and financial performance. The companies are not fully matching the attributes of human capital to company competitiveness, performance and sustainability. Regardless of their performance appraisal techniques, there is a gap that affects the alignment of the value of human capital with company financial performance. The benefits of disclosing human capital information in financial statements remain unknown by users and preparers.

Most respondents revealed that they did not know the benefits of disclosing human capital. This implies that the impact of human capital on company value creation and financial performance are unclear. The features of human capital and human capital investments are attributed to individuals and the company. Some of the respondents were asked whether the competencies of employees have any influence on company performance. They said that they spent huge sums of money on training and development programmes. However, they know very little about the returns for companies. The impact of human capital on company competitiveness, performance and sustainability are important not only because of the large amounts invested in employees' skills and knowledge but also because it is necessary to know who benefits from these investments.

### **8.3.3 No alignment of human capital with company strategy**

The respondents observed a non-alignment of company strategy and human capital in their workplaces. The failure to align human capital with company strategy is a cause of concern, as it affects the ability of companies to reach their goals. The findings reveal that human capital is a pillar of value creation. Moreover, human capital has a positive link with other capitals, with which it is complementary. The non-alignment of human capital value with company strategy should be addressed through a context-based human capital measurement and disclosure framework.

### **8.3.4 No consensus on the aspects of human capital to be reported and how to report them in financial statements**

The qualitative findings reveal a lack of consensus about the need to report human capital, what to report and how to report it in financial statements. The disagreements by relevant stakeholders lead to the disclosure of human capital on a contextual basis rather than in line with an accounting reporting framework. Most respondents indicated that there was a lack of policies for the regulation of the measurement and disclosure of human capital. The government and professional bodies have not provided a guideline on to report on human capital as an intangible asset in financial statements (Petty and Guthrie, 2000; April et al., 2003; Adelowotan, 2013). This is a cause for concern, bearing in mind that human capital is a significant resource that contributes immensely to the financial performance of companies and value creation. The failure by policy-makers to intervene has led to the adoption of multiple methods that are riddled with flaws.

### **8.3.5 Factors to be measured and how they can be measured**

The research findings reveal that there is a lack of consistency in measuring and disclosing the value of human capital. The methods that are currently used are riddled with flaws, leading to inaccurate measurement of human capital (Flamholtz, 1999). The findings also indicate an expectation gap in the type of human information required by stakeholders and the type of human capital information supplied by the preparers of financial statements. The framework in Figure 8.1 is proposed to ensure that human capital is appropriately measured and disclosed. It calls for industry coordination, and that human capital statements should provide quantitative and qualitative human capital information. The following attributes of human capital have been identified and considered key aspects of human capital to be measured and disclosed in financial statements: employee education, skills, expertise, knowledge, creativity and

innovation. Other factors include training and development, equity issues, health, wellness and safety.

The research findings show that the measurement of human capital is currently based on the salary aspect, which is prescribed in 1AS 19. Employees are paid for their labour based on market rates. Certificates issued by learning institutes represent the skills possessed by each individual. This entails that the value of human capital is measured by the total salaries and wages paid by the company. The labour market rates are fixed based on skills possessed by individual employees. However, this study shows although employees may have similar skills and jobs in a company, their execution of duties differs.

This study shows that the value of human capital value is context-dependent. It depends on the specific business context and factual occurrences (Weber, 2011). Factual occurrences can be defined as the actual moment when individual employees discharge their duties. This is a moment when the value of an employee is established. The value of an employee varies from company to company. The use of direct labour costs is not sufficient to establish the value of human capital. This implies that the FASB and other intellectuals have failed by omitting to establish an appropriate and generally accepted framework to measure the contribution of employees to value creation and financial performance.

#### **8.4 Shortcomings identified from the quantitative study**

The quantitative findings reflect that human capital is narratively reported, albeit to a lesser extent, in financial statements. Notwithstanding, human capital influences the maximisation of the shareholders' wealth. In addition, the findings show that companies are reluctant to disclose human capital because of the fear of giving away vital information to labour and competitors. The other possible reason is the failure to link the importance of human capital to company strategy.

#### **8.5 The structure and purpose of the framework**

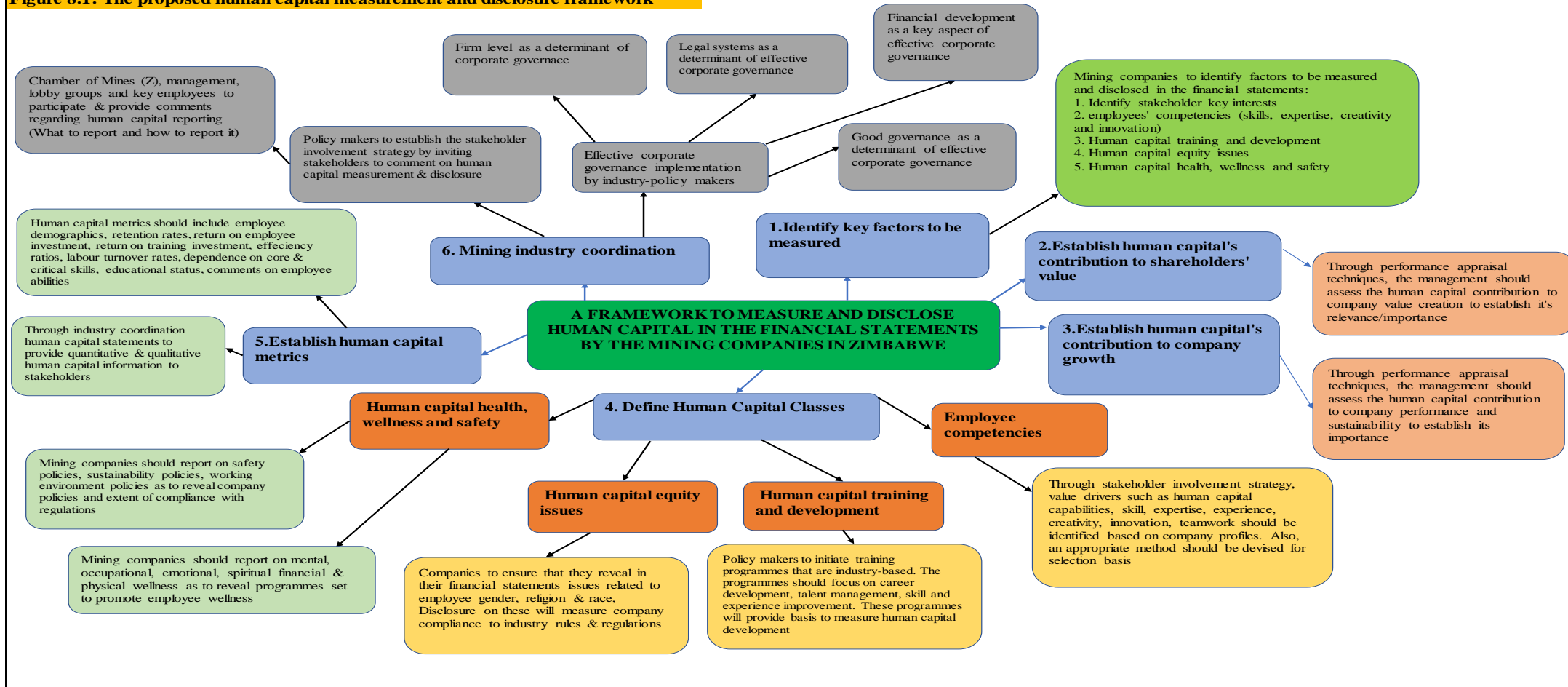
Given the above problems, the framework in **Figure 8.1** provides solutions to the shortcomings that were identified from the findings of the study. This section also provides a link between the structure of the framework and the shortcomings. The weaknesses identified are grouped based on the research objectives outlined in chapter 1 of the study. The same is done for the themes of the framework.

The framework consists of six primary factors that address the shortcomings identified from the research findings. The first objective of the study focuses on factors that influence the measurement and disclosure of human capital. The findings reveal that the factors that influence human capital disclosure practices and the factors to be measured and disclosed in financial statements are not known. The first primary factor of the framework suggests that there is a need to identify the factors that influence the measurement and disclosure of human capital in financial statements. It follows that the factors of human capital that require measurement and disclosure also require identification for consistency and harmonisation.

The findings also reveal that there is no certainty about the relationship between the value of human capital and the value of a company. This means that the benefits of disclosing human capital information in financial statements are unknown to stakeholders. The shortcomings are addressed in the proposed framework through the establishment of factor 2 and factor 3. The two factors indicate that companies need to ascertain the contribution of human capital to financial performance and value creation. This can be achieved through the adoption of performance appraisal techniques, such as 360 degrees feedback. The two factors of the framework are aligned to research objectives 2 and 3 of the study. The second research objective seeks to determine the link between human capital and financial performance. The third research objective seeks to determine the relationship between the value of human capital and the value of the company.

Factor 4 represents human capital classes to address the lack of consensus on the aspects of human capital which should be reported and how they should be reported in financial statements. The factor for human capital classes is based on the research objective that seeks to establish current methods for measuring human capital. Factor 5 of the framework presents human capital measurements. This study identifies aspects of human capital that should be measured in financial statements. It addresses the lack of an established and generally accepted framework for reporting the aspects of human capital. The proposed framework suggests that for all human capital aspects to be fully reported in financial statements, there is a need for the mining industry to coordinate. Coordination is presented in factor 6 of the framework. Thus, factor 6 encompasses stakeholder engagement and effective corporate governance as strategies.

**Figure 8.1: The proposed human capital measurement and disclosure framework**



**Figure 8.1: The proposed framework for measuring and disclosing human capital**

## **8.6 The framework as a solution to the shortcomings**

The framework presented in Figure 8.1 has six primary factors that address the weaknesses identified from the findings of the study. These factors consist of identification, the establishment of the contribution of human capital to company value creation and company growth, the definition of human capital classes, the establishment of human capital metrics, and mining industry coordination. Maul et al. (2015) submit that “within scientific contexts the term measurement has only one meaning and that is, the assessment of quantity”. This implies that measurement can be referred to as assigning quantitative values to objects or events based on certain rules.

The proposed framework in Figure 8.1 reveals that measuring and disclosing human capital requires six primary factors. The factors are as follows:

- Primary factor one – identification of factors that comprise human capital (only factors which this study deems to be necessary for measurement and disclosure in financial statements by Zimbabwean mining companies).
- Primary factors two and three – measurement of the impact of the contribution of human capital to shareholders’ wealth and company growth, respectively.
- Primary factor four – definition of human capital classes which are required for the measurement and disclosure of human capital in financial statements. These include expertise, skills, innovation, creativity, training and development, equity issues, and health and safety.
- Primary factor five – current practices for measuring and disclosing human capital information. There is no consistency among mining companies in Zimbabwe on this aspect. Some of the factors considered include employee demographics, return on employee investment, labour turnover, retention rates, costs of absence, educational status, comments on the abilities of employees, and dependence on critical employees.
- Primary factor six -mining industry coordination, which consists of the stakeholder engagement strategy and the implementation of effective corporate governance. These can be measured using the company level, sound legal systems, good governance and financial development systems.

The six primary factors were scaled down into three categories based on the nature of these factors. The first category outlines the factors of human capital that require measurement and



disclosure in the financial statements of Zimbabwean mining companies. The second category consolidates primary factors 2, 3, 4 and 5 based on the assumption that the contribution of human capital to value creation and company growth can be measured using employee competencies, which consist of skills, expertise, innovation and creativity. The other classes of human capital include training and development, equity issues, and health and safety. The third category measures the key interests of stakeholders and the key aspects of effective corporate governance. The following section discusses these three categories.

### **8.6.1 Philosophies that support measuring and disclosing human capital**

Prior to the discussion on how to measure and disclose the attributes of human capital in financial statements, this study outlined various philosophies that support the measurement of human capital. It discussed theories borrowed from other disciplines, such as the corporate governance discipline. It also outlined the stakeholder engagement philosophy, the maximisation of shareholders' wealth, and finance theories such as the pecking order theory and theories by Modigliani and Miller. These theories reveal the impact of human capital on company capital structure, economic growth, competitiveness. They also illustrate how companies behave towards external debt financing when they invest in human capital.

The Modigliani-Miller theory (1958) says that in a capitalist market, all market players have access to available information and that the market has the capacity to operate without transaction and bankruptcy costs. This theorem further stipulates that the value of a company does not depend on the debt-equity ratio but on operating profits. The research findings reveal that human capital plays a major role in the financial performance, competitiveness and sustainability of a company, thereby making it a valuable resource that companies should recognise and fully measure and disclose in their financial statements to enable stakeholders to make informed decisions.

Myers (1984) propounded the pecking order theory, which confirms that various companies prefer to finance their projects with internally generated funds, such as retained earnings. According to Myers (1984), if internal funds are insufficient, companies opt to use debt rather than equity because shares are very costly compared to debt. This theory assumes that companies that are more profitable have full capacity to accumulate retained earnings to limit external finance. The following section outlines aspects of human capital that should be measured and how they should be measured.

### **8.6.2 Classes for measuring and disclosing human capital**

Currently, attributes of human capital such as academic qualifications, skills, expertise and knowledge are measured using the salary aspect. This entails that the monetary value of human capital is based on market rates and certificates issued by institutions to individuals. Lazear (2004) argues that wages and salaries are based on the weight placed by companies on the employee's generic or critical skills. The valuation of human capital based on wages and salaries is also advocated by Schwartz and Lev (1971). Their model does not consider the early retirement of an employee, the employee's knowledge (experience and expertise), and the health, wellness and safety of the workforce, among other attributes. As a result, the use of salaries to represent the net worth of employees is a bone of contention. Multiple factors, such as the level of education, innovativeness and productivity, should be considered before establishing the value of human capital. The challenges highlighted above trigger the need for developing a framework for the measurement and disclosure of human capital.

This study recognises human capital as an intangible asset in financial statements based on the relevance of aspects of human capital, such as the competence of employees, their contribution to the creation of value and company success. Cronje and Moolman (2013) argue that human capital significantly contributes to a company's competitiveness, value creation and sustainability. This is in line with the thinking of the 21<sup>st</sup> century. The research findings show that "brain power" is required and encompasses personal attributes such as skills, expertise, knowledge, creativity and innovation, which improve financial performance, productivity, growth, innovation capacity and economic development. This study indicates that these employee competencies, knowledge and creativity embodied in individual employees result in the production of economic benefits. This qualifies human capital as an intangible asset that should find its place in the statement of financial position.

#### **8.6.2.1 Measuring the competency of employees**

The framework in Figure 8.1 suggests that employee competency can be measured using the productivity of an individual employee and their innovativeness. Mining companies should measure employee productivity using the growth in value-added output (real gross output less intermediate inputs) per unit of labour and capital input. This means that outputs and inputs can be counted numerically. This formula is based on Bombardier et al. (2009). This measurement would assist mining companies in Zimbabwe to identify technocrats from employees with general skills.

The framework also suggests that the competence of employees can be measured using their innovativeness. Lukes and Stephan (2017) submit that there are five aspects of employee innovation, namely, idea generation, idea search, idea communication, idea implementation, teamwork, and overcoming obstacles. As such, employee innovativeness can be calculated using revenue from new products and services. In addition, entities can measure employee innovation using the cost of innovation investment and the market share from new products and services.

**Table 8.1:** Measurement of employee’s competencies

Aspect	How it should be measured
<b>Skills and expertise</b>	This study suggests that human capital skills and expertise could be measured using employee productivity. Employee productivity contributes immensely to a company’s financial performance and value creation. It can be enhanced through training and development.
<b>Creativity and innovation</b>	This study suggests that to measure the innovativeness and creativity of an employee, the total costs related to research and development can be used. Creativity and innovativeness depend on the dexterity of the employee.

**Source:** Own source

### **8.6.2.2 Disclosure requirements for employee’s competencies**

This study suggests that companies should disclose the attributes of human capital such as skills, expertise, innovation and creativity. The basis for measuring the competency of employees and disclosing them is to enable stakeholders to appreciate how the value of human capital is obtained. The study further suggests that the hours worked to produce a product, the revenue generated by an employee, the rate of presenteeism and the absenteeism of each employee, expressed as a percentage or in monetary value, should be disclosed. These suggestions are based on Bombardier et al. (2009) and Abeysekera and Guthrie (2004).

Mining companies should consider disclosing the following information regarding employee innovativeness: the number of new products produced, entry into new markets, improvements

in current work processes, funds invested in innovation activities, individuals involved in championing the generated ideas and the time taken to implement the generated ideas. This study reveals that the measurement and disclosure of an employee's competency enhance investor confidence and supports the development of corporate governance systems that lead to economic growth.

**Table 8.2:** Summary of the disclosure process of employee competency

Aspect	What should be disclosed in the financial statement
<b>Skills and expertise</b>	Time taken to complete the task
	Quality of work
	Training costs incurred to enhance skills
<b>Creativity and innovation</b>	Time spent on innovation, e.g. brainstorming
	Total revenue value generated from new products
	The overall percentage of company capital invested in the innovation portfolio
	Number of employees engaged in innovation training
	Number and seniority of employees identified as entrepreneurs

**Source:** Own source

### 8.6.2.3 Measuring training and development

The framework suggests that mining companies in Zimbabwe should measure human capital training and development using the average hours of training per person during the reporting period. This suggestion is adopted from the corporate governance perspective, which is fully discussed by the World Bank (2010).

**Table 8.3:** Summary of training and development measurement process

Aspect	How to measure the aspect
<b>Training and development</b>	<p>The total number of hours of training provided to employees divided by the number of employees. Training programmes should be put in place to enhance human capital skills, expertise, innovativeness and creativity, resulting in improved productivity and value creation.</p> <p>Companies can also utilise the number of training sessions given to each employee. The higher the frequency of the training sessions, the more competent the employees.</p>

**Source: Own source**

#### **8.6.2.4 Disclosure requirements for training and development**

This study suggests that companies should disclose all the relevant information on human capital training and development programmes. They should disclose the average training and development expenditure per full-time employee (which is the total cost of training provided to employees divided by the number of employees).

**Table 8.4:** Summary of training and development disclosure process

Aspect	What to disclose in the financial statement
<b>Training and development</b>	<p>Mining companies should disclose the returns on training investment.</p> <p>The total number of training sessions conducted by the company to enhance the competency of employees.</p>

**Source: Own source**

#### **8.6.2.5 Measuring health, wellness and safety**

The health, wellness and safety of employees are important aspects of human capital. A sound mind is more productive, creative and innovative, making the employee more competent. Based on the WEF (2020) stakeholder capitalism report, which focused on various corporate

governance aspects, this study adopts some measurement principles and tailors them to fit as solutions to the problems identified by the research findings. The framework suggests that mining companies in Zimbabwe should measure human capital health, wellness and safety using the number and rate of fatalities as a result of work-related injury; high-consequence work-related injuries (excluding fatalities); recordable work-related injuries; main types of work-related injury; and the number of hours worked.

**Table 8.5:** Summary of health, wellness and safety measurement process

Aspect	How to measure the aspect
<b>Health, wellness and safety</b>	This aspect should be measured using the number of accidents that occurred within the workplace, the costs of absence, actual hours worked and lost injury time. Mining companies should also report on safety policies, sustainability policies, working environment policies and the extent of compliance with laws and regulations

**Source:** Own source

#### **8.6.2.6 Disclosure requirements for health, wellness and safety**

Disclosure can be done either on a mandatory section in financial statements or on a separate human capital report. It should include the lost time due to injuries, number of accidents, injuries, deaths, health and safety training and development programmes, management of health-related absenteeism, and mental illness. Companies should also disclose information on how their workforces access non-occupational medical and healthcare services and the scope of access provided for the workforce.

**Table 8.6:** Summary of health, wellness and safety disclosure process

Aspect	What should be disclosed in the financial statement
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<b>Health, wellness and safety</b>	Companies should disclose the lost time injury frequency rate, the number of accidents, injuries, deaths, health and safety training and development programmes, management health-related absenteeism, and mental illness.
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**Source: Own source**

#### **8.6.2.7 Measurement of human capital equity issues**

The framework proposed by this study suggests that mining companies should measure human capital equity using the ratio of the percentage of women participating in the labour force to the percentage of men participating in the labour force. This will enable them to identify the productive group and plan training and development programmes. The measurement is based on the WEF (2010) Global Competitiveness Report.

One of the unfortunate findings of this study is that the more females in an organisation, the less productive the human capital because women are easily affected by factors such as maternity leave and domestic issues, as they are primary caregivers of children. The more males in an organisation (provided all factors remain constant), the more efficient human capital becomes. This conclusion is based on the consideration of variables that affect the productivity of women. Despite the suggested solution, this study encourages mining companies to get a deep understanding of issues of gender equality because gender diversity leads to better business outputs.

**Table 8.7:** Summary of human capital equity issues measurement process

<b>Aspect</b>	<b>How to measure the aspect</b>
<b>Human capital equity issues</b>	This aspect can be measured using the total number of males to females within a company. Companies should measure employees' productivity based on gender.

**Source: Own source**

### 8.6.2.8 Disclosure requirements of human capital equity

This study suggests that mining companies should have sections in their financial statements in which they report on human capital equity issues. They should disclose the total number of women and men they employ and the productivity rate per gender. The suggested disclosures are based on the WEF (2010; 2020).

**Table 8.8:** Summary of human capital equity issues disclosure process

Aspect		What to disclose in the financial statement
Human capital equity issues		<p>Mining companies should disclose the following:</p> <ul style="list-style-type: none"><li>• Total number of employees by gender and race</li><li>• Productivity ratio based on gender</li></ul>

**Source:** Own source

### 8.6.3 Stakeholder engagement strategy

The study findings reveal that there is little insight on how mining companies engage their stakeholders in the accounting reporting process, particularly when it comes to identifying material information regarding human capital. This study suggests that policymakers should establish a stakeholder involvement strategy by inviting stakeholders to comment on the measurement and disclosure of human capital. From the corporate governance dimension, companies ought to meet the needs of their various stakeholders and maximise the shareholders' wealth at the same time (King IV report, 2016). Hence, the proposed framework provides the specifics of each stakeholder and how it links to the measurement and disclosure of human capital. The stakeholders include investors, management, creditors, employees and host communities.

#### 8.6.3.1 Measuring investors' value

The neo-classical theory says that investors provide capital to companies to maximise their wealth (Matashu, 2016). The proposed framework suggests that the interests of shareholders can be measured using a company's discounted future cash flows (DCF). This signifies that the DCF method can be utilised by investors to estimate the fair value of an investment, in line with the writings of Laitinen (2019). The future cash flows of a company depend on the



performance and competitiveness of human capital. The present value of an investment can be calculated using the following aspects: reasonable estimations of expected future cash flows, terminal value and risk-adjusted discounted rate (cost of capital). Using discounted cash flows requires an investor to make a professional judgement.

**Table 8.9:** Summary of investor's value measurement process

Aspect	How to measure the aspect
<b>Investors' value</b>	<p>The interests of shareholders can be measured using the company's discounted future cash flows (DCF). The measurement and disclosure of human capital can result in lower costs of capital due to investor's understanding of the contribution made by human capital to the creation of value.</p> <p>Based on the secondary market valuations, the value of investors can be measured using the present value of returns realised from an additional dollar of investment.</p>

**Source:** Own source

### 8.6.3.2 Disclosure requirements of investors' value

The following information should be disclosed in financial statements: fair value of investors' investment, future cash flows, terminal value and discount rate.

**Table 8.10:** Summary of investors' value disclosure process

Aspect	What to disclose in the financial statement
<b>Investors' interests</b>	Mining companies should disclose their dividend policies, the extent to which the cost of capital was lowered or increased during the financial year, and the estimated future cash flows.

**Source:** Own source

### 8.6.3.3 Measuring management and Board Directors' value

Solomon (1963) states the traditional theory of capital structure, which says that there is an optimal structure of capital when the weighted average cost of capital is minimised, and the market value of assets is maximised. This entails that the goal of management should be to find the optimal mix of debt and equity that minimises the weighted cost of capital and maximises value (shareholders' wealth). The theory further emphasises that an optimal capital structure occurs when the marginal cost of debt is equal to the marginal cost of capital. This study suggests that the value of management and directors can be measured through the rate of lowering the cost of capital because the lower the cost of capital, the greater the present value of the company's future cash flows discounted by the weighted average cost of capital.

**Table 8.11:** Summary of management and Board of Directors' value measurement process

Aspect	How to measure the aspect
Board of Directors' interests	The Board of Directors' value can be measured by lowering the cost of capital.

Source: Own source

### 8.6.3.4 Disclosure requirements of management and Board of Directors' value

In financial statements, companies should disclose the cost of capital, the required rate of return, and the rate at which the cost of capital was increased or reduced.

**Table 8.12:** Summary of management and Board of Directors' interests disclosure process

Aspect	What to disclose in financial statements
Management and Board of Directors' interests	Mining companies should disclose their blending of cost debt and equity to achieve optimal capital structure coupled with the calculated weighted average cost of capital

Source: Own source

### 8.6.3.5 Measuring suppliers' value

Suppliers and customers were also part of stakeholders who contribute to the maximisation of the shareholders' wealth. Groep (2018) says that companies, through industry coordination, should collaborate with suppliers and customers to design a more effective business model for value creation. The following areas can be used to measure suppliers' value: quality, on-time delivery, service, price, total cost, lead time, defaulting, time of payment and responsiveness. These metrics were suggested by the Aberdeen Group (2002). This study recommends the adoption of these measures by Zimbabwean mining companies. These metrics could also guide companies to measure the performance of their suppliers.

**Table 8.13:** Summary of suppliers' value measurement process

Aspect	How to measure the aspect
<b>Defaulting</b>	Defaults can be measured using the percentage of all outstanding payments that a supplier has written off as unpaid after a prolonged period of missed payments.
<b>Lead time</b>	It can be measured using the average time between order and delivery, expressed as a percentage.
<b>Responsiveness of the supplier</b>	It can be measured using the percentage of times the supplier responded to requests and complaints.
<b>Delivery by the suppliers</b>	It can be measured using the time taken by the supplier to deliver goods or other information.
<b>Quality of the product</b>	It can be measured using the percentage of returned products. This reflects the number of customer warranty claims per annum

<b>Cost</b>	It can be measured using the cost variance from expected total costs. It can also be measured using the total carriage costs as a percentage of delivered sales
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**Source: Own source**

#### **8.6.3.6 Disclosure requirements of suppliers' interests**

King IV (2016) said that companies need to disclose how they engage with suppliers. On timeliness, a company should disclose the time taken by the supplier to deliver goods, whether all orders were delivered in full, defect rate or unplanned failure, product reliability, costs associated with a purchased product, lead time, the responsiveness of the supplier, and the time taken to handle complaints.

**Table 8.14:** Summary of suppliers' value disclosure process

<b>Aspect</b>	<b>What to disclose in the financial statement</b>
<b>Suppliers' value</b>	Mining companies should disclose the quality of the products, the responsiveness of suppliers, time taken to deliver goods and services, lead time, costs associated with the acquisition of goods and services, time of payment, and defaulting.

**Source: Own source**

#### **8.6.3.7 Measurement of customers' satisfaction**

Mc-Coll and Schneider (2010) submit that companies should measure customer satisfaction and use the measures for decision making. This study suggests that customers' satisfaction can be measured by using the following aspects: the product's market share (product performance), competitive prices, product quality, ethics in business relations, knowledgeable representatives, timely response, complaint rates, quality services. The recommended customer satisfaction measures are based on studies carried out by Mc-Coll and Schneider (2010). This study considers the above measures necessary for the mining industry in Zimbabwe.

### 8.6.3.8 Measurement of product quality

The quality of a product can be measured using the number of customer warranty claims per annum. This measurement is guided by Broeze (2018).

### 8.6.3.9 Measurement of the product's market share (product performance)

This study suggests that customer satisfaction can be measured using the product's market share. The value of the product market share can be calculated using the total number of units sold by an entity in the market over a period of time divided by the total number of units sold in the market as a whole multiplied by 100. The market share can be expressed as a percentage. The calculation of the product market share is based on the guidelines given by Lewis (2020).

### 8.6.3.10 Measuring timely response

This study suggests that timely response to a customer can be measured by the difference between the time a complaint is lodged by a customer and the time taken by management to resolve the complaint. This is the number of hours taken to resolve complaints. The calculation of this metric is based on the works of Broeze (2018), which this study considers relevant for mining companies in Zimbabwe.

### 8.6.3.11 Measuring ethical behaviour

This study suggests that the ethical behaviour of an entity can be measured using the total amount of monetary losses resulting from legal proceedings associated with anti-trust, anti-competitive behaviour, market manipulation, malpractice or violations of other related industry laws and regulations. The study adopts the guidelines presented by the WEF (2020) because in a mining company, maximising the shareholders' wealth needs a company to conduct itself ethically in line with applicable laws and accepted norms of corporate behaviour.

**Table 8.15:** Summary of the measurement process of customer satisfaction

Aspects	How to measure the identified aspect
Product quality	The quality of the product can be measured using the percentage of returned goods

<b>Product's share market</b>	The value of the product market share can be measured using units of products sold to the market. To increase the market share of a product, there is a need for a competent and skilled workforce.
<b>Responsiveness to inquiries and ability to resolve complaints (timely response)</b>	This aspect can be measured by the difference between the time a complaint is lodged and when it is resolved. Through staff development sessions, human capital should be trained on how to handle customers' inquiries and complaints.
<b>Ethical behaviour</b>	<p>This aspect can be measured using the sum of money spent by the company in litigation associated with unprofessionalism and lack of integrity and accountability.</p> <p>It can also be measured using the total number and nature of incidents of corruption confirmed during the year but which are related to previous years.</p> <p>It can also be measured using the total number and nature of incidents of corruption confirmed during the year and which are related to the current year.</p>

**Source: Own source**

#### **8.6.3.12 Disclosure requirements of customers' satisfaction**

Mc-Coll-Kennedy and Schneider (2010) submit that companies need to disclose the importance of customer satisfaction for decision-making purposes. This study suggests that companies should disclose information related to customers' satisfaction, such as the quality of products provided, how complaints and inquiries are handled by the company, the cost of production, and the prices of products. The significant issues are the focus of the company's participation in public policy development and lobbying, the company's strategy relevant to these areas of focus, and any differences between its lobbying positions and its purpose, policies, goals or other public positions.

**Table 8.16:** Summary of customer satisfaction's disclosure process

Aspect	What to disclose in the financial statement
<b>Customer satisfaction</b>	Mining companies should disclose the quality of infrastructure and products, personal relationships and affinity, product's market share, service efficiency such as responsiveness to queries, professionalism, and workforce's competency.

**Source:** Own source

### 8.6.3.13 Measuring the host community's interests

Tuck, Lowe and McRae- Williams (2005) posit that companies should engage the communities and measure their needs for legitimacy purposes. This framework suggests that companies should serve the interests of their host communities, which can be measured by the total expenditure incurred on the development of social infrastructure such as swimming pools, hospitals, housing and school facilities, youth development, and the provision of bursaries and scholarships. The qualitative findings reveal that the value of the host community can be created by investing in local economic development and corporate social investment initiatives, maintaining constructive relationships with communities, understanding, managing and addressing communities' expectations and concerns, contributing positively to socio-economic upliftment, promoting self-sustaining activities to create jobs and alleviate poverty, and embracing safe and sustainable mining to enable companies to make positive socio-economic contributions to society.

**Table 8.17:** Summary of the host community's value measurement process

Aspect	How to measure the aspect
<b>Host community's value</b>	This aspect can be measured using the total expenditure incurred by the company on corporate social responsibility. To maximise the shareholders' wealth, it is important for human capital to focus on legitimacy issues.

**Source:** Own source

#### 8.6.3.14 Disclosure requirements of host community's interests

The Deloitte Mining Charter (2019) encourages mining companies to disclose all relevant information relating to their corporate social responsibilities. For instance, issues such as infrastructure development and social activities sponsored by the company and scholarships awarded to students within the host community should be disclosed.

**Table 8.18:** Summary of the host community's disclosure process

Aspect	What to disclose in the financial statement
Host community's interests	The companies need to disclose business ethics, human rights, legal compliance, community relations, environmental responsibilities, corporate governance, labour standards, etc.

**Source:** Own source

#### 8.6.4 Effective corporate governance

The research findings reveal that there is a lack of rules and regulations on the measurement and disclosure of aspects of human capital, such as employee competencies (for example; skills, expertise, innovation, creativity). Therefore, the framework suggests that the industry policymakers should provide proper regulation and control systems through effective corporate governance regarding human capital measurement and disclosure. This will ensure transparency to stakeholders and maximise shareholders' wealth, which is the main objective of good corporate governance (Cronje & Moolman, 2013). Control and regulation systems should adhere to the four aspects of corporate governance, which are company level, legal systems, good governance and financial development (WEF, 2015).

##### 8.6.4.1 Measuring the effectiveness of the Board

Garcia-Torea et al. (2016) submit that board effectiveness indicators include the size and independence of the Board, CEO-duality, and presence of women on boards, number of meetings held, the establishment of specific board committees audit, compensation, nomination, corporate governance, and CSR. This study suggests that mining companies in Zimbabwe should adopt these indicators for measuring the effectiveness of their Boards because board effectiveness plays a major role in value creation and financial performance of a company, leading to the maximisation of shareholders' wealth.



**Table 8.19:** Summary of Board effectiveness measurement process

Aspect	How to measure the aspect
<b>Board size</b>	It can be measured using the average number of years when the size of the Board was within the range of 2 to 15 members, irrespective of the number of years in the period.
<b>Board independence</b>	It can be measured using the total number of independent non-executives expressed as a percentage of total number of directors of the company.
<b>CEO-Duality</b>	It can be measured using the average number of years when the CEO was not the chairperson at the same time with respect to the number of years in the period.
<b>Women experience</b>	It can be measured using the total number of women expressed as a percentage of the total number of directors in a period.
<b>Meetings held per period</b>	Meetings can be measured using the average number of years when the number of board meetings was higher than the mean for the entire sample with respect to the number of years in the period.
<b>Board experience</b>	It can be measured using the average percentage of board members during the period who had either an industry-specific background or a strong financial background.

<b>Audit, nomination, compensation, corporate governance, and CSR committee</b>	It can be measured using the average number of years that the Board had an audit, nomination, compensation, corporate governance, and CSR committees with respect to the number of years in the period.
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**Source: Own source**

#### **8.6.4.2 Disclosure requirements of Board effectiveness**

Based on the work of Garcia-Torea et al. (2016), this study suggests that companies should disclose the following information in financial statements: size and experience of the Board, CEO-Duality, established board committees, women experience, board independence, meetings held per annum etc. because the annual reports of some Zimbabwean mining companies do not provide the above disclosures. The findings reveal that board effectiveness indicators influence the performance of a company.

**Table 8.20:** Summary of board effectiveness disclosure process

<b>Aspect</b>	<b>What to disclose in the financial statement</b>
<b>Board effectiveness</b>	Mining companies should disclose the board size, independence, CEO-duality, women experience, meetings held per annum, committees such as audit, nomination, compensation, corporate governance, and CSR.

**Source: Own source**

#### **8.6.4.3 Measuring director's liability**

The director's liability influences the effectiveness of corporate governance. It can be measured using the total costs incurred by the company due to directors' breach of fiduciary and statutory duties. These measures are based on the World Banks' Corporate Governance Indicators report (2010).

**Table 8.21:** Summary of directors' liability measurement process

<b>Aspect</b>	<b>How to measure the aspect</b>
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<b>Director's liability</b>	<p>This aspect can be measured using the total amount of money lost by the company due to the director's negligence, violation of the company's provisions and other acts, fraudulent activities and misappropriation of the company's assets. This total amount is determined when a director is found guilty of negligence or abuse of office.</p> <p>To ensure effective corporate governance and effective human capital measurement and disclosure, mining companies in Zimbabwe should develop an anti-director self-dealing that measures the internal control systems put in place to regulate director self-dealing. The mining industry policymakers should enforce these laws at the company level.</p>
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**Source: Own source**

#### **8.6.4.4 Disclosure requirements of director's liability**

This study suggests that companies should clearly disclose when a director is liable for any loss, damages or costs sustained by the company as a consequence of any breach by the director.

**Table 8.22:** Summary of director's liability disclosure process

<b>Aspect</b>	<b>What to disclose in the financial statement</b>
<b>Director's liability</b>	<p>Mining companies should disclose rules and laws that regulate directors' self-dealings.</p> <p>Also, they should disclose damages paid by directors or the amounts directors have been ordered by the courts to pay in restitution.</p>

**Source: Own source**

#### 8.6.4.5 Measuring the protection of minority shareholders rights

Poor and Standard (2008) point out that shareholders' rights are likely to be low in countries that have weak legal systems. Therefore, the protection of minority shareholders is important (La Porta et al., 1997; La Porta, 1998) as it acts as an indicator of the success of the markets in attracting capital. Countries with poor investor protections have significantly smaller debt and equity markets. Shareholder rights can be measured using the number of restrictive governance provisions imposed on shareholders, as propounded by Jiraporn et al. (2003). This study suggests measures that can be used to protect the rights of minority shareholders. The first measure is the establishment of contractual protection under the shareholders' agreement. Under the shareholder agreement, the draft should allow minority shareholders to participate in management through board representation. They should be entitled to the fair and proper distribution of profits. Secondly, minority shareholders can be protected through weighted voting rights. Minority shareholders can further be protected by giving them the right to inspect the accounting and corporate secretarial records of the company.

**Table 8.23:** Summary of protection of minority shareholders' rights measurement process

Aspect	How to measure the aspect
Protection of minority shareholder's rights	<ul style="list-style-type: none"><li>• Weighted voting rights</li><li>• Right of inspection</li><li>• Right to fair profits distributions</li><li>• Contractual protections under the shareholders' agreement</li></ul>

**Source:** Own source

#### 8.6.4.6 Disclosure requirements for the protection of minority shareholders rights

This study suggests that the following information relating to shareholders' rights should be disclosed: availability of contractual protection under the shareholders' agreement and whether there is a clause that indicates that minority shareholders have weighted voting rights on particular matters. In addition, companies should disclose whether minority shareholders have a right to the distribution of resources and the right of inspection, among other things. The suggested disclosure requirements are in line with the study by Jiraporn et al. (2003).

**Table 8.24:** Summary of protection of minority shareholders' rights disclosure process

Aspect to	What to disclose in the financial statement
<b>Protection of minority shareholder's rights</b>	Companies should disclose whether minority shareholders have contractual protection under the shareholders' agreement, weighted voting rights, right of inspection and right to a fair distribution of resources.

Source: Own source

#### 8.6.4.7 Measurement of the protection of investors' rights

Kaufmann et al. (2011) submit that sound legal systems enhance the investors' level of confidence. This study suggests that mining companies should assess if they have sound legal systems that protect investors' rights through an assessment of their stock market liquidity movement. In a country with weak legal systems and poor corporate governance systems, investors seek protection. This entails that when investors are protected from expropriation, they are willing to pay more for financial assets such as equity and debt, making it more attractive for entrepreneurs to issue these securities (La Porta et al., 2000). However, Chung et al. (2012) point out that companies in countries with poor shareholder protection rights tend to have poor stock market liquidity. This study suggests that the protection of investors' rights can be measured by the total costs that have been incurred to protect the property of investors.

**Table 8.25:** Summary of the protection of investors' rights measurement process

Aspect	How to measure the aspect
<b>Protection of investors rights</b>	It can be measured using the total costs incurred to establish the rules and regulations that protect investors' rights.

Source: Own source

#### 8.6.4.8 Protection of investors' rights disclosures

This study suggests that companies should clearly disclose the rules and regulations that define and protect investors' rights. This is based on the work done by Kaufmann et al. (2011).

**Table 8.26:** Summary of protection of investors' rights disclosures

Aspect		What to disclose in the financial statement
Protection of investors' rights	of	Companies should clearly disclose rules and regulations that define and protect investors' investments.
		Also, companies can disclose the total costs incurred to ensure the effectiveness of investors' rights protection.

Source: Own source

#### 8.6.4.9 Measuring the voice and accountability aspect of effective corporate governance

This study suggests that the voice and accountability aspect can be measured using the extent to which there is transparency in information dissemination and notification, the rate at which there is support of civil society, and differentiation and control of power by the public. This measure was derived from the World Bank's report (2010). This study deems it necessary for Zimbabwean mining companies to use similar indicators to measure voice and accountability. This study further suggests that mining companies in Zimbabwe should ensure that they promote a democratic stance in the decision making process to their stakeholders as a strategy to attract and retain investors.

**Table 8.27:** Summary of voice and accountability measurement process

Aspect		How to measure the aspect
Voice and accountability		This aspect can be measured using the total number of occasions when key stakeholders were part of the strategic decision-making process.
		To ensure effective corporate governance, companies should promote the participation of stakeholders in decision making to boosts investors' level of confidence.

Source: Own source

#### 8.6.4.10 Disclosure requirements of the voice and accountability aspect

This study suggests that companies should indicate whether voice and accountability is a key determinant of effective corporate governance. Therefore, companies should disclose in their corporate annual reports that they promote the participation of stakeholders in economic decision making. The disclosure requirements suggested by this study are based on the studies carried out by Kaufmann et al. (2011) and the World Bank (2010).

**Table 8.28:** Summary of voice and accountability disclosure process

Aspect	What to disclose in the financial statement
Voice and accountability	Mining companies should disclose measures taken to promote freedom of expression, freedom of association and free media.

**Source:** Own source

#### 8.6.4.11 Measuring government effectiveness

This study suggests that government effectiveness can be measured using the quality of public and civil services, the degree of its independence from political pressures, the quality of policy formation and implementation. The measurement of these indicators was adopted from Kaufmann, Kraay and Zoido-Lobaton (2011). Thus, to establish a quantitative measure, mining companies should rate the administrative and technical skills of the country's civil service (occupying middle and higher management roles) and the efficiency of the country's national bureaucracies. In addition, mining companies should rate the effectiveness of coordination between the central government and local-level government organisations, the state's ability to formulate and implement national policy initiatives, and the state's effectiveness at collecting taxes or other forms of government revenue. These ratings can be achieved through calculation of the total expenditure by the government on the provision of adequate and proper services to its citizens and the total costs incurred by the government on formulating and implementing policies that protect various stakeholders, particularly at firm level.

**Table 8.29:** Summary of government effectiveness measurement process

Aspect	How to measure the aspect
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<b>Government effectiveness</b>	<p>Government effectiveness can be measured using the total amount of money spent by the government on good quality provision to its citizens and the costs expended on policy formulations and implementations.</p> <p>The effectiveness of government promotes fair regulation of companies, protection of investors and efficient utilisation of resources.</p>
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Source: Own source

#### 8.6.4.12 Disclosure requirements of government effectiveness

This study further suggests that disclosures of government effectiveness should state the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Mining companies should evaluate the “inputs” required for the government to produce and implement good policies and deliver public goods. The disclosure of government effectiveness is based on the study by Kaufmann et al. (2011).

**Table 8.30:** Summary of government effectiveness disclosure process

Aspect to be disclosed	What to disclose in the financial statement
<b>Government effectiveness</b>	Companies should disclose the quality of services provided by the government, the statutory instruments put in place to promote business growth and value creation, systems and policies that promote human capital development, and the total expenditure by the government on providing quality services to its citizens particularly at company level.

Source: Own source

#### 8.6.4.13 Measuring regulatory quality

This study suggests that regulatory quality can be measured using the rate at which the government formulates and implements sound policies and regulations that permit and promote



private sector development. The measurement of regulatory quality is based on the guidelines presented by Kaufmann et al. (2011). The study considers the measurements relevant to mining companies in Zimbabwe.

**Table 8.31:** Summary of regulatory quality measurement process

Aspect	How to measure the aspect
<b>Regulatory quality</b>	<p>This study suggests that regulatory quality can be measured using the total amount of money spent on promoting the private sector development.</p> <p>This study suggests that regulatory quality, to some extent, influences the development of effective corporate governance. This can be only achieved when companies operate in a country with a sound legal system.</p>

**Source:** Own source

#### **8.6.4.14 Disclosure requirements of regulatory quality**

This study suggests that companies should disclose policies and regulations that promote their development. The disclosure practices are based on the studies done by Kaufmann et al. (2011). This study considers them necessary for mining companies in Zimbabwe.

**Table 8.32:** Summary of regulatory quality disclosure process

Aspect	What to disclose in the financial statement
<b>Regulatory quality</b>	Mining companies should disclose rules and regulations that promote the development of effective corporate governance and private sector development.

**Source:** Own source

#### **8.6.4.15 Measurement of financial development**

The WEF (2020) asserts that financial development relates to factors, policies, and processes that are necessary for the realisation of effective financial intermediation and markets and

access to capital. This study recommends that the financial development of a company can be measured using the total costs incurred to access financial markets expressed as a percentage of profits. The recommendation is based on the report of the WEF (2020). A good measurement of financial development is crucial to assess the development of the mining sector and to understand the impact of financial development on economic growth.

**Table 8.33:** Summary of financial development measurement process

Aspect	How to measure the aspect
<b>Financial development</b>	<p>This study recommends that financial development costs on the company can be measured using the total costs incurred by the company to access capital from financial markets expressed as a percentage of returns/profits attained from accessing capital from both local and international markets.</p> <p>Financial development promotes the implementation of corporate governance because companies are interested in access to finance in the capital market</p>

**Source:** Own source

#### 8.6.4.16 Disclosure requirements of financial development

The suggestions on the disclosure requirements of financial development are guided by the WEF (2020). This study suggests that companies need to disclose whether they finance their operations using equity, debt or both. They should also disclose the costs incurred to access financial markets.

**Table 8.34:** Summary of financial development disclosure process

Aspect	What to disclose in the financial statement
<b>Financial development</b>	Costs incurred to access capital from markets.

**Source:** Own source

The measurement and disclosure of human capital enhance the confidence of investors. Human capital contributes to a company's value creation and signifies a positive contribution to economic growth. Corporate governance aspects complement each other in the sense that an enabling environment is created for good corporate governance that enhances a company's financial performance, competitiveness and sustainability. This study suggests that the measurement and disclosure of human capital is an indication of an effective corporate governance system that is expected to enhance the economic efficiency and performance of the company and ultimately lead to economic growth through increased corporate and management accountability to stakeholders. In conclusion, the legal system, good governance and financial development positively impact financial performance and the economic development of a company through corporate governance (World Bank, 2015; Matashu, 2016).

## **8.7 Summary and conclusion**

This chapter proposes a framework for measuring and disclosing human capital in the financial statements of Zimbabwean mining companies. The framework seeks to provide solutions to the shortcomings that were identified from the literature review and qualitative and quantitative studies. The shortcomings are also summarised in this chapter. Six key systematic themes are identified as the way forward for human capital measurement and disclosure in financial statements. In addition, the framework requires a dedicated team of experts from all fields for it to work appropriately. The framework is a starting point for human capital reporting since there is no established and generally accepted reporting framework in Zimbabwe. The benefit of this framework is that it is flexible. It allows companies to develop human capital reporting guidelines based on key features that are specific to their human capital. The following chapter discusses key findings, conclusions and recommendations.

## **CHAPTER NINE**

### **KEY FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **9.1 Introduction**

This chapter presents the findings, conclusions and recommendations of the study. It is structured as follows. Section 9.2 restates the research problem, while section 9.3 focuses on the research questions and objectives of the study. Section 9.4 presents conclusions from the empirical findings, while section 9.5 summarises the research methodology. Section 9.6 outlines the contribution of the study to knowledge by summarising the proposed framework for the measurement and disclosure of human capital. Section 9.7 presents the policy implications of the proposed framework, whereas section 9.8 proffers the recommendations. In section 9.9, the chapter discusses future research. Section 9.10 summarises the limitations of the study. Section 9.11 concludes both the chapter and the study.

#### **9.2 Restating the research problem**

The research problem emanates from the reality that presently, listed Zimbabwean mining companies do not recognise, measure and disclose human capital as an intangible asset in financial statements but as an expenditure in the income statement.

#### **9.3 Restating the research questions and objectives**

##### **9.3.1 Research questions**

- Which factors influence the measurement and disclosure of the value of human capital in company financial statements?
- What is the link between human capital and the financial performance of listed mining companies in Zimbabwe?
- What is the relationship between human capital measurement and disclosure and the value of mining companies in Zimbabwe?
- Which methods are used by Zimbabwean mining companies to measure the value of human capital?
- Which framework can be used for the measurement and disclosure of human capital in the financial statements of listed mining companies in Zimbabwe?

### **9.3.2 Research objectives**

- To establish factors that influence the measurement and disclosure of human capital in the financial statements of Zimbabwean mining companies.
- To determine the link between the value of human capital and the financial performance of mining companies in Zimbabwe.
- To examine the relationship between human capital and the value of mining companies in Zimbabwe.
- To ascertain methods that could be used by Zimbabwean mining companies to measure and disclose human capital.
- To develop a framework for the measurement and disclosure of human capital.

This study sought to develop a framework for the measurement and disclosure of human capital in the financial statements of mining companies in Zimbabwe. The key aspects of human capital that should be measured and disclosed were unknown. Accounting bodies such as the IASB, ICAZ and PAAB (Z) are silent on the issue. Stakeholders may find it difficult to interpret the relevance of human capital in value creation and company performance due to the lack of an industry-specific framework for the measurement and disclosure of human capital. Hence, this study developed a human capital measurement and disclosure framework for Zimbabwean mining companies. Its research questions and objectives were designed to achieve this purpose. The following section presents conclusions from empirical findings which guided this study in the development of the proposed framework.

### **9.4 Conclusions from empirical findings**

Empirical findings indicate that currently, Zimbabwean mining companies do not measure and disclose human as an intangible asset but as an expenditure in the profit and loss account. Several factors influence the measurement and disclosure of human capital in financial statements. These are divided into three groups, namely, structure-related, performance-related, and market-related factors. General and specific factors influence human capital measurement and disclosure. The general factors include accounting reporting frameworks such as IFRS, integrated reporting (IR), GRI, and codes of corporate governance. However, the adoption of IR and GRI is still in the infancy stage in Zimbabwe. Specific factors include stakeholders' key interests, internal control systems, and policies. These specific factors vary from company to company.

The analysis of the link between human capital and company financial performance indicates a positive correlation between human capital aspects such as skill, innovation, creativity, and expertise. These contribute immensely to a company's financial performance and competitiveness, leading to economic growth. Human capital is enhanced through training and development programmes. Increased productivity leads to competitive advantage, which is an indicator of financial performance. The study also finds that the alignment of employees' individual needs with company strategic objectives has a significant influence on company performance. As such, employee engagement processes and the alignment of employees' individual needs with company strategic objectives promote the achievement of goals.

This study also found that there is a positive relationship between human capital and company value. Descriptive statistics revealed a long-term relationship, showing that it is imperative for companies to treat human capital like other capitals that create value. This leads to the conclusion that human capital should be considered as a key driver. It is impossible to achieve strategic goals without human capital. It was further found that the performance of a company drives the value of the company and that human capital efficiency enhances company financial performance. As such, human capital directly contributes to both financial performance and value creation, resulting in the maximisation of shareholders' value. The maximisation of shareholders' wealth indicates that a company has effective corporate governance.

This study also investigated methods used by Zimbabwean mining companies to measure and disclose human capital. It is found that companies treat human capital as a cost that should be minimised and not as an intangible asset that creates value. The failure to recognise, measure and disclose human capital as an asset is due to international and local accounting professional bodies, such as ICAZ, PAAB (Z) and IASB, which are silent on key aspects of human capital that should be measured. The lack of a generally accepted framework for the measurement and disclosure of human capital as an intangible asset leaves companies with no choice but to continue recognising human capital as an expenditure using the salary aspect. Human capital metrics include the total number of employees, their educational qualifications, dependence on core and critical skills, efficiency ratios, costs of absence, costs of labour turnover, comments on the abilities of key employees, return on employee investment, investment in training, and development programs. The adoption of human capital metrics by companies is context-dependent because only a few companies are aware of the importance of human capital to business strategy, leading them to adopt the aforementioned human capital metrics. As such,

an organisational context-dependent approach might be effective for these companies for a short period while a general framework is structured.

## **9.5 Research methodology**

The research methodology and design of this study were presented at length in chapter 5. Tashakkori and Teddlie (2011) discuss the philosophical foundations of mixed-method research and conclude that pragmatism endorses mixed-method research. This study used mixed-method research, necessitating a pragmatic philosophical stance. An exploratory sequential design was adopted. Creswell and Plano-Clark (2011) describe an exploratory design as a “two-phase type of design” which allows the results of the qualitative strand (phase 1) to inform the quantitative strand (phase 2). Studies by Morgan (2007) and Creswell (2014) show that exploration is needed when the measures or instruments are not available, constructs are unknown, and when there is no guiding framework or theory. The constructs for measuring human capital were hidden. Hence, there was a need for exploration in the qualitative phase and factor analysis in the quantitative phase. The research population, sample size, sampling techniques, and data collection instruments were discussed in chapter 5. The study utilised semi-structured interviews to collect qualitative data and survey questionnaires to gather quantitative data. The methodology chapter described approaches and methods used for the analysis and interpretation of the data. Thematic analysis was utilised to analyse and interpret qualitative data, while factor analysis was used for quantitative data. Both qualitative and quantitative results were synthesised to develop a measurement and disclosure framework.

## **9.6 Contribution of the study**

The contribution of the study is categorised into three, namely, contribution to the body of knowledge, practice and policy formulation.

### **9.6.1 Contribution to existing knowledge**

This research fills the gap in the literature by proposing a framework to measure and disclose human capital by Zimbabwean mining companies. The study contributes the following.

#### **9.6.1.1 Consistent ways of measuring and communicating the value of human capital**

This study proposes a framework for the measurement and disclosure of human capital. It identifies aspects of human capital that need measurement and disclosure in financial statements. The identification of aspects of human capital that are currently measured was not

successful. Some of the attributes of human capital have never been defined properly. In this study, they are identified and defined. Philosophies from other disciplines, such as finance and corporate governance, are used in this study to support arguments on the measurement and disclosure of human capital. Zimbabwean mining companies, like most other companies, measure human capital using the salary aspect (Mkumbuzi, 2015). This is a limitation, considering the immense contribution of human capital to company financial performance, competitiveness and sustainability.

Therefore, this study developed a framework to appropriately measure aspects of human capital such as skills, expertise, creativity, innovation, training and development, equity, and health and safety. The measurement of these attributes could assist in reducing information asymmetry, boost investors' confidence, and enhance the maximisation of shareholders' wealth. In addition, the proposed framework suggests that human capital should be measured based on factual occurrences by considering that the execution of jobs differs from person to person. Hence, the measurement and disclosure of human capital should also be based on the place and entity.

#### **9.6.1.2 Improving current methods of measuring human capital value**

This study proposes a comprehensive framework for the measurement and disclosure of human capital. It outlines methods to measure the key specifics of human capital. In the Zimbabwean context, there are methods for the measurement of human capital as an asset (Adelowotan, 2013). The measurement and disclosure of human capital are on a voluntary basis. There is no consensus on which human capital aspects should be measured. Therefore, the proposed framework provides the measurement basis and outlines the disclosure requirements for the factors of human capital that were identified in the preceding chapter for measurement and disclosure. The measurement methods are both quantitative and qualitative. The framework in Figure 8.1 suggests that employee competencies should be measured using employee productivity and innovativeness. It discourages remunerating employees based on market rates and the skills acquired. In addition, the framework suggests measuring human capital using the number of training sessions given to each employee to enhance their competencies. Companies are implored to use the total number of hours of training provided to employees divided by the number of employees. Moreover, health and safety should be measured using the number of accidents that occurred within the workplace, costs of absence, actual hours worked, and lost injury time. The proposed framework further suggests that the measurement methods should



ascertain the value of human capital in financial statements. The suggested measurements were adopted from the corporate governance discipline, particularly from the WEF (2020) stakeholder capitalism report and the WEF (2010) Global Competitiveness Report.

#### **9.6.1.3 Improving the consciousness of all stakeholders on the importance of measuring and disclosing human capital**

The proposed framework suggests that effective human capital measurement and disclosure could enhance stakeholder involvement. The framework provides solutions on the stakeholder involvement strategy and how the interests of stakeholders can be measured and disclosed by Zimbabwean mining companies. The study utilises the King IV Report to identify the key stakeholders of a company, which include investors, creditors, suppliers, customers, management, employees, and the host community. However, there is limited literature on human capital measurement and disclosure in the context of stakeholder engagement strategies. Therefore, this study provides a measurement basis for each stakeholder group. The investors' value can be measured using discounted future cash-flows. The pecking order theory prefers internal financing over external financing. As such, a company's capacity to finance its operations and other investments through internal funds reveal whether the company is performing well and if it is highly liquid. Therefore, it is important to note that human capital contributes to a company's performance and cash flows.

This study further suggests that the satisfaction of customers can be measured through aspects such as quality of the product, the product market share (product performance), competitive prices, product quality, ethics in business relations, knowledgeable representatives, timely response, and complaint rates. Management and board values can be measured by lowering the cost of capital of the company. The MM theory reveals that taxes lower the cost of capital and indicates the maximisation of the shareholders' wealth. The interests of suppliers of a company can be measured using the amounts paid for acquired goods and services, while the interests of the host community can be measured using the total amount of money spent by the company on its corporate social responsibility initiatives such as the construction of community infrastructure, improvements, and scholarships and bursaries awarded to community members by the company.

#### **9.6.1.4 The role of effective corporate governance on human capital measurement and disclosure**

The proposed framework for the measurement and disclosure of human capital promotes effective corporate governance among Zimbabwean mining companies. The primary objective of corporate governance is to maximise the shareholders' wealth. This study presents key determinants of corporate governance, namely, company level, legal systems, good governance and financial development. The study suggests that to ensure effective corporate governance at the company level, companies should measure board effectiveness, the directors' liability and shareholders' rights. The framework further suggests that companies should establish sound and protective legal systems and measure judicial independence, legal rights, investor protection, and efficiency of the legal framework. In addition, the framework provides for the measurement and disclosure of aspects of good governance, which include accountability, government effectiveness, regulatory quality, and the rule of law. Lastly, the framework suggests the measurement of financial development.

#### **9.6.2 Contribution to practice**

The findings are important to both accounting practice and the mining industry. This study improves ways of measuring and disclosing the value of human capital and gives a deep insight into the relationship between human capital value and the value of a company. The study provides a better understanding of how human capital contributes to the success of a company and value creation. It presents a greater awareness of the importance of employee satisfaction and motivation. These two are directly related to the capabilities of employees and have a bearing on their productivity and on the company's innovation capacity. The study also contributes to the accounting practice by providing a human capital measurement and disclosure framework to improve current practices.

#### **9.6.3 Policy implications**

This study gives policymakers more insights into how to regulate accounting for human capital. Companies may adopt the framework to improve investor protection. The proposed framework may be used to reduce information asymmetry and improve corporate governance practices for both practice and policy formulation. To ensure effective corporate governance, it is important to appropriately measure and disclose human capital. Hence, mining companies in Zimbabwe are implored to adopt the following measures:

- Mining industry policymakers need to tailor the codes of corporate governance to make them context-specific to enable the measurement and disclosure of human capital in the financial statements. This will improve the competitiveness, financial performance and sustainability of mining companies.
- Mining companies in Zimbabwe should ensure effective corporate governance through proper measurement and disclosure of aspects of human capital such as the effectiveness of the board, protection of minority shareholders, shareholder rights, director liability, disclosure, and transparency.
- Mining companies should ensure that the legal system ensures effective corporate governance through the protection of investors' rights, which can be achieved through strong legal rights, property rights, investor protection rights, the efficiency of the legal framework and judicial independence.
- Mining companies must promote good governance through enhancing political stability, government effectiveness, accountability, regulatory quality and control corruption. The measurement and disclosure of these aspects influence the effectiveness of corporate governance before measuring and disclosing the human capital component in the financial statements.
- Mining companies should initially measure all aspects of financial development systems, such as financing through the market, to ensure effective corporate governance before the measurement and disclosure of human capital.

## **9.7 Recommendations**

This study concludes that human capital measurement and disclosure affects the value, growth and competitiveness of a company. It follows that the measurement and disclosure of human capital are complex and require scholars and practitioners who are knowledgeable and well-prepared. The complexity requires extra caution to allow better engagement between stakeholders. The following recommendations are proffered to enhance the measurement and disclosure of human capital by Zimbabwean mining companies:

- Mining companies should identify factors to be measured and disclosed in financial statements. The identification of human capital aspects allows companies to measure each aspect's contribution towards the company's financial performance and value creation.

- Through stakeholder involvement strategies, mining companies should identify employees' competencies that are key drivers of company performance and value, and appropriately measure them.
- Policymakers should initiate industry-specific training programmes that focus on career development, talent management, skills and experience improvement to enhance company performance and value creation.
- Mining companies should reveal issues related to employee gender, religion and race in their financial statements to measure company compliance with industry rules and regulations.
- Mining companies should report on mental, occupational, emotional, spiritual, financial and physical wellness and identify programmes to promote employee wellness.
- Mining companies should report on safety policies, sustainability policies and the working environment to enhance an understanding of their compliance with regulations.
- There is a need for industry coordination to provide quantitative and qualitative human capital information to stakeholders for decision making.
- The Chamber of Mines, management, lobby groups and key employees should participate and provide comments regarding human capital measurement and disclosure.
- Mining companies should measure and disclose aspects of corporate governance such as good governance, board effectiveness, protection of investors' rights, protection of minority shareholders, and financial development. The measurement of these aspects will enhance the effectiveness of corporate governance and give stakeholders appropriate information for decision-making.

## **9.8 Future research**

Future research could focus on the following:

- The measurement and disclosure of human capital in other sectors of the Zimbabwean economy. The results of a comparative analysis could be used to design a universal approach for industries in Zimbabwe.
- Extending IAS 38, which deals with intangible assets, to incorporate the measurement and disclosure of human capital.
- Ascertaining human capital information that is relevant to stakeholders for decision-making.

### **9.9 Limitations of the research**

The study is limited to the measurement and disclosure of human capital in the financial statements of Zimbabwean mining companies. This is a limitation because Zimbabwe has many economic sectors which also rely on human capital. The other sectors also face similar problems in the measurement and disclosure of human capital in their financial statements. Incorporating human capital information in the financial statements will provide value relevant accounting information to stakeholders. The measurement and disclosure of human capital depend on particular places and factual occurrences, i.e. it is context-specific. The application of the proposed framework for the measurement and disclosure of human capital in sectors other than the mining industry will not yield identical results.

### **9.10 Conclusion**

This chapter presents a summary of the key findings of the study in line with research objectives and research questions. Weaknesses in the measurement and disclosure of human capital were identified. A framework to measure and disclose human capital is developed in this study as a solution to the weaknesses. The proposed framework is industry-specific in that it only applies to mining companies in Zimbabwe. The proposed framework could guide accounting practice, the mining industry and policymakers. The accounting practice may utilise the human capital measurement and disclosure framework to improve current practices and provide policymakers with more insights on how to regulate accounting for human capital value.

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### **Corporates Annual reports (2017-2019)**

Anglo-American mining company

Chamber of Mines of Zimbabwe (COMZ)

Falcon Gold

Hwange Colliery Company

Bindura Nickel Corporation

Implats mining company

Rio Zim Ltd

Zimplats Ltd

## **ANNEXURE A: DATA COLLECTION TOOL-RESEARCH INTERVIEW GUIDE**



**Title:** The Measurement and Disclosure of Human Capital in the Financial Statements by the selected mining companies in Zimbabwe.

### **INTERVIEW QUESTIONS FOR ACADEMIC RESEARCH**

#### **Target Group: Management Stakeholder Group**

The interview guide below is part of the Doctor of Philosophy in economic and management Sciences (PhD in Accounting Sciences) study that seeks to develop a framework for the measurement and disclosure of human capital value in the financial statements by Zimbabwean listed companies.

#### **Contact Details**

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### **IMPORTANT DEFINITION**

According to Bontis (1998) human capital represents the human factor in the company, which is the intelligence, competent skills, creativity, capability, innovation, experience and expertise that give the company its distinct character.

## SECTION 1: INFORMATION ON THE ORGANISATION

Name of Organisation: \_\_\_\_\_

Type of Business: \_\_\_\_\_

Designation: \_\_\_\_\_

Contact Details: \_\_\_\_\_

## SECTION 2: BACKGROUND INFORMATION

1. What do you understand by the term human capital/ human assets/ human resources?

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2. Do you regard human capital information important to be disclosed in the annual financial statements? Give reasons for your answer

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3. How are you currently reporting the human capital component in your financial statements?

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4. What type of information is being considered human capital by the company?

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5. Are there any specific reasons for disclosing or not disclosing human capital information in the financial statements?

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6. What are the key determinants of human capital disclosure practices?

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### **SECTION 3: FINANCIAL PERFORMANCE**

1. How does human capital contribute on the competitive advantage of the company?

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2. What measures are used to assess the company's financial performance?

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3. What are the factors that negatively affect the company's financial performance?

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### **SECTION 4: THE FINANCIAL VALUE OF THE COMPANY**

1. Do you think there is any relationship between human capital value and the value of your company? -----

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2. Do you think, if human capital was to be recognised as an asset, there would be a long-run or short-run relationship to the performance of the company?

-----  
-----State your reasons-----  
-----  
-----

3. How does human capital contribute to the value creation of your company?

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-----  
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4. There is a popular statement that says “people are the greatest asset” of an organisation. What are your sentiments on the statement?

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## **SECTION 5: THE METHODS OF MEASUREMENT AND DISCLOSURE**

1. What are the methods/models used for disclosing human capital information?

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-----  
-----

2. Is the method effective for the company? Explain in detail

-----  
-----  
-----

3. Is the method not effective? State reasons of your answer

-----  
-----

4. Do you have any suggestions on the methods to report human capital component?

-----  
-----  
5. What do you think should formulate the value of human capital, if it was to be measured?

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-----  
-----

6. What change has the company shown in value after reporting on human capital?

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-----  
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## **SECTION 6: THE BENEFITS VS COSTS TO THE ORGANISATION**

1. What are the benefits accrued from measuring and disclosing human capital?

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-----  
-----

2. What are the costs of reporting human capital value to all stakeholders?

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-----  
-----

3. In terms of cost vs benefits, is human capital value measurement and disclosure worth continuing?

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## **SECTION 7: OVERALL OPINION**

1. What is your overall opinion on human capital recognition efforts made by your organisation?

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2. What is your suggestion on reporting human capital value?

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3. What is your overall opinion on human capital value being treated as an asset in the Financial Statements?

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Thank you for your cooperation and your time.

## **ANNEXURE B: DATA COLLECTION TOOL-QUESTIONNAIRE SURVEY**



### **RESEARCH QUESTIONNAIRE**

By

QUEEN MPOFU

The questionnaire is part of the Doctor of Philosophy in Economic and Management Sciences (PhD in Accounting Sciences) study that seeks to develop a framework for the measurement and disclosure of human capital value in the financial statement by selected Zimbabwe mining companies

#### **A INSTRUCTIONS**

1. You are kindly requested to complete this questionnaire; it will not take you more than 30 minutes to complete, and please do not write your name on this document.
2. By answering this questionnaire, you consent to take part in this study.

#### **B IMPORTANT DEFINITION**

According to Bontis (1998:63) document that human capital represents the human factor in the company that is the intelligence, competent skills, creativity, capability, innovation, experience and expertise that give the company its distinct character.

Contact Details

Queen Mpofu: queen.mpofu5@gmail.com Mobile: +27 786615932(Study)

Or

Professor W.S Musvoto: [Wedzerai.Musvoto@nwu.ac.za](mailto:Wedzerai.Musvoto@nwu.ac.za) Mobile: +27 762152255  
(Promoter)

### **QUESTIONNAIRE SURVEY**



To be completed by Managers and Employees

## **SECTION A: Respondents Demographic Information**

**INSTRUCTIONS:** Please indicate your response by making a cross (X) in the appropriate box or typing in the spaces provided.

### **1.1 Gender**

Female		Male	
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### **1.2 Age group**

18 – 25 Years		26 – 33 Years		34 – 41 Years	
42 – 49 Years		50 Years +			

### **1.3 Nationality**

Zimbabwean		Other (Please specify):	
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### **1.4 Employment status**

Full-time		Part-time	
-----------	--	-----------	--

### **1.5 Please state your highest qualification**

Professional Certificate		Diploma	
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Bachelor's Degree		Honors Degree	
Master's Degree		Doctoral Degree	
Other (Please specify.....)			

### 1.6 Job position

Artisan		Engineer		Geologist	
Metallurgist		Mine Surveyor		Operator and Assembler	
Technician		Manager		Other (Specify).....	

### 1.7 Number of years worked

0 – 2 Years		3– 5 Years		6 -10 Years	
11 – 15 Years		16 Years +			

## SECTION B

### GENERAL BACKGROUND INFORMATION

2.1	How important are the following elements of the financial statements to you? Indicate your rating on a scale ranging from Extremely important = 5, Very important = 4, Fairly important = 3, Slightly important = 2 and Not important at all = 1. [Please simply put a “circle” on a number representing your preferred answer. If you make a mistake, put an “X” across the circle and choose another answer. N.B. Apply this to all the following questions]					
2.1.1	Statement of financial position (Shareholders’ capital, Assets & Liabilities statement)	1	2	3	4	5
2.1.2	Profit and loss Account	1	2	3	4	5
2.1.3	Statement of cash flows (Cash inflows and outflows report)	1	2	3	4	5
2.1.4	Statement of changes in equity (Shareholders’ capital report)	1	2	3	4	5
2.1.5	Human capital report (Employees report/ Human Resources report )	1	2	3	4	5

2.1.6	Environmental report	1	2	3	4	5
<p>How important are the following six types of capitals to you for decision making purposes? Indicate your rating on a scale ranging from Extremely important = 5, Very important = 4, Fairly important = 3, Slightly important = 2 and Not all important = 1.</p>						
2.2.1	Financial capital (i.e. the pool of funds)	1	2	3	4	5
2.2.2	Manufactured capital (i.e. manufactured physical objects, not necessarily owned by the organisation e.g. mining infrastructure)	1	2	3	4	5
2.2.3	Customer and relationship capital (i.e. relationships within and between communities, groups of stakeholders and other networks)	1	2	3	4	5
2.2.4	Intellectual capital (i.e. organisational, knowledge-based intangibles)	1	2	3	4	5
2.2.5	Human capital (i.e. peoples competencies, capabilities and experience, and their motivations to innovate)	1	2	3	4	5

2.2.6	Natural Capital (i.e. renewable and non-renewable environmental resources)	1	2	3	4	5
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2.3	Indicate the extent to which human capital is narratively reported in the financial statements? Indicate your response on a scale ranging from Greater extent=5, Fair extent=4, Not sure=3, Lesser extent=2, Not all=1			
Greater Extent	Fair Extent	Not Sure	Lesser Extent	Not at All

## SECTION C

### FACTORS THAT INFLUENCE THE MEASUREMENT AND DISCLOSURE OF HUMAN CAPITAL

3.0	To what extent would you agree or disagree with each of the following statements on a scale ranging from Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2 to Strongly Disagree = 1.					
3.1	The following structure related-factors influence on human capital reporting					
3.1.1	Company size	1	2	3	4	5
3.1.2	Ownership structure	1	2	3	4	5
3.1.3	Listing status of the company	1	2	3	4	5
3.1.4	Growth of the company	1	2	3	4	5
3.1.5	Board size/composition	1	2	3	4	5
3.1.6	Audit Committee	1	2	3	4	5
3.1.7	Assets-in-place ( e.g. Fixed assets or Non-current assets)	1	2	3	4	5

3.2	The following performance related-factors influence on human capital reporting					
3.2.1	Profitability of the company	1	2	3	4	5
3.2.2	Liquidity of the company	1	2	3	4	5
3.2.3	Return on Equity	1	2	3	4	5
3.2.4	Cost Effectiveness	1	2	3	4	5
3.2.5	Dividend paid	1	2	3	4	5
3.2.6	Earnings per share	1	2	3	4	5
3.2.7	Employee Return on investment	1	2	3	4	5
3.2.8	Training Return on investment	1	2	3	4	5
3.3	The following market related-factors influence on human capital reporting					
3.3.1	Market to Book value ratio	1	2	3	4	5

3.3.2	Type of the industry	1	2	3	4	5
3.3.3	Stakeholders' key interests	1	2	3	4	5
3.3.4	Accounting standard requirements	1	2	3	4	5
3.3.5	Adoption of Integrated reporting framework	1	2	3	4	5
3.3.6	Level of Debt (Leverage/ Gearing)	1	2	3	4	5
3.3.7	Lobby groups pressure	1	2	3	4	5
3.3.8	Media Exposure	1	2	3	4	5
3.3.9	Government pressure	1	2	3	4	5
3.3.10	Creditor pressure	1	2	3	4	5
3.4	To what extent would you agree or disagree with each of the following statements which are considered to be possible reasons that make companies reluctant to disclose human capital					



	information. Indicate your response on a scale ranging from Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2 to Strongly Disagree = 1					
3.4.1	Fear of giving away vital information to competitors	1	2	3	4	5
3.4.2	Failure to link human capital's importance to company strategy	1	2	3	4	5
3.4.3	Fear of giving away vital information to labour (Employees & Unions)	1	2	3	4	5
3.4.4	Protection of the powerful and wealthy groups at the expense of the less privileged ones (poor)	1	2	3	4	5

## SECTION D

Link between human capital value and the company's financial performance

4.0	To what extent would you agree or disagree with each of the following statements on a scale ranging from Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2 to Strongly Disagree = 1.
4.1	The following human capital attributes have influence on the firm's financial performance.

4.1.1	Educational status	1	2	3	4	5
4.1.2	Innovation	1	2	3	4	5
4.1.3	Loyalty	1	2	3	4	5
4.1.4	Creativity	1	2	3	4	5
4.1.5	Commitment	1	2	3	4	5
4.1.6	Capabilities/Abilities	1	2	3	4	5
4.1.7	Professional experience	1	2	3	4	5
4.1.8	Personal experience	1	2	3	4	5
4.1.9	Skill and expertise	1	2	3	4	5
4.1.10	Team work	1	2	3	4	5
4.1.11	Entrepreneurial spirit	1	2	3	4	5

4.1.12	Competence and Talent	1	2	3	4	5
4.2	To what extent do you agree or disagree that the following performance attributes are the results of a positive relationship between human capital and the company?					
4.2.1	Productivity	1	2	3	4	5
4.2.2	Profit growth	1	2	3	4	5
4.2.3	Sales growth	1	2	3	4	5
4.2.4	Future Prospects	1	2	3	4	5
4.2.5	Return on Investment	1	2	3	4	5
4.2.6	After tax return on sales	1	2	3	4	5
4.2.7	Competitive Advantage	1	2	3	4	5
4.2.8	Overall response to competition	1	2	3	4	5

4.2.9	Profit margin	1	2	3	4	5
4.2.10	Relation between expenses and income	1	2	3	4	5
4.2.11	Return on capital employed (ROCE)	1	2	3	4	5
4.2.12	Return on investment (ROI)	1	2	3	4	5
4.3	To what extent do you think the following factors negatively affect the company's financial performance?					
4.3.1	Employee Incompetence	1	2	3	4	5
4.3.2	Human error (negligence)	1	2	3	4	5
4.3.3	Lack of satisfaction	1	2	3	4	5
4.3.4	High staff turnover	1	2	3	4	5
4.3.5	Fraudulent / criminal activities by employees	1	2	3	4	5

4.3.6	Lack of training	1	2	3	4	5
4.3.7	Lack of commitment	1	2	3	4	5
4.3.8	Poor relationship between management and it's employees	1	2	3	4	5
4.3.9	Poor overall corporate culture	1	2	3	4	5
4.3.10	Lack of recognition	1	2	3	4	5

4.4	To what extent would you agree or disagree with each of the following statements on a scale ranging from Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2 to Strongly Disagree = 1.					
	Critical success factors for employee management					
4.4.1	Managing employees with social responsibilities (economic, legal, environmental and ethical)	1	2	3	4	5
4.4.2	Exploring' employees needs and constraints to mining companies	1	2	3	4	5

4.4.3	Communicating with and engaging employees properly and frequently	1	2	3	4	5
4.4.4	Promoting good relationship between employer and employees	1	2	3	4	5
4.4.5	Aligning employee goals with the company's strategic objectives	1	2	3	4	5
4.4.6	Formulating appropriate strategies to manage employees	1	2	3	4	5
4.4.7	Assessing attributes (power, urgency, and proximity) of employees	1	2	3	4	5
4.4.8	Establishing accurately the influence of employees in the company	1	2	3	4	5

## SECTION E

### RELATIONSHIP BETWEEN THE HUMAN CAPITAL VALUE AND THE VALUE OF A COMPANY

5.1	What is the relationship between the human capital value and the value of the company? Answer by crossing (x) in the appropriate box			
Long-term relationship	Short-term relationship	Medium-term relationship	No relationship at all	

5.2	To what extent would you agree or disagree that the following human capital attributes contribute immensely to the value creation of your company on a scale ranging from Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2 to Strongly Disagree = 1					
5.2.1	Employee skills	1	2	3	4	5
5.2.2	Education status	1	2	3	4	5

5.2.3	Employee commitment and attitude	1	2	3	4	5
5.2.4	Recruitment and selection procedures	1	2	3	4	5
5.2.5	Relationship between employees and management	1	2	3	4	5
5.2.6	Employee training and development	1	2	3	4	5
5.2.7	Employee motivation	1	2	3	4	5
5.2.8	Employee health, wellness and safety	1	2	3	4	5
5.2.9	Low level of employee turnover	1	2	3	4	5
5.2.10	Positive employee behaviour	1	2	3	4	5
5.2.11	Employees entrepreneurial skills	1	2	3	4	5



## SECTION F

### HUMAN CAPITAL MEASUREMENTS

6.1	If you can identify the following human capital measurements. To what extent would consider the information useful for decision making purposes? Indicate your rating on a scale ranging from Very useful = 5, Useful = 4, Neutral = 3, of little useful = 2 to Not useful at all = 1					
6.1.1	Total number of employees	1	2	3	4	5
6.1.2	Employee breakdown by age, seniority, gender, nationality, educational level, years of service & etc. (Workplace Demographics)	1	2	3	4	5
6.1.3	Value added per employee	1	2	3	4	5
6.1.4	Employees' qualifications, work experience and skills	1	2	3	4	5
6.1.5	Comments on the abilities of key employees	1	2	3	4	5
6.1.6	Return on employee investment	1	2	3	4	5

6.1.7	Return on investment in training	1	2	3	4	5
6.1.8	Workforce turnover	1	2	3	4	5
6.1.9	Cost of resignations	1	2	3	4	5
6.1.10	Cost of absence	1	2	3	4	5
6.1.11	Productivity and performance rates	1	2	3	4	5
6.1.12	Dependence on critical/core employees	1	2	3	4	5
6.1.13	Retention rates	1	2	3	4	5

## SECTION G

**DIRECTIONS: READ EACH ITEM AND DECIDE WHETHER IT IS TRUE (T) OR FALSE (F) FOR YOU**

1. I constantly do my best	T	F
2. I have leadership skills	T	F
3. It is sometimes hard for me to go on with my work if I am not encouraged	T	F
4. I generally perform tasks with a lot of energy	T	F
5. On occasions I have doubts about my ability to succeed in life	T	F
6. I'm always willing to admit it when I make a mistake and learn from others	T	F
7. When I don't know something I don't mind at all admitting to it	T	F
8. When an employee leaves, my company has a training program for a successor	T	F
9. The company supports employees in upgrading their skills and qualifications	T	F
10. My company's employees are widely considered the best in whole mining industry	T	F
11. My company's is satisfied with it's employees	T	F
12. My company is assured that it is getting the most from it's employees	T	F
13. I constantly evaluate my actions	T	F

14. My company has talented and competent workforce	T	F
---	---	---

\*\*\*\*\*Thank you\*\*\*\*\*

**ANNEXURE C: ETHICAL CLEARANCE LETTER FROM THE MINISTRY OF  
MINERALS AND MINES IN ZIMBABWE**

All correspondence should be addressed to  
"THE SECRETARY"

Telephone: 777022/9

Fascimile: 752786/777044

Private Bag CY 7709, Causeway, Harare



**ZIMBABWE**

**Ministry of Mines and Mining**

**Development**

ZIMRE CENTRE

Cnr Nkwame Nkurumah and L.Takawira  
Harare

Ref: A/3/26/1

11 September 2019

Ms Queen Mpofo  
Faculty of Economics and Management Sciences  
Potchefstroom Campus  
North West University South Africa.

**RE: AUTHORITY TO CARRY OUT RESEARCH ON, "THE  
MEASUREMENT AND DISCLOSURE OF HUMAN CAPITAL VALUE  
IN THE FINANCIAL STATEMENT BY LISTED MINING  
COMPANIES": MS MPOFU QUEEN: PhD CANDIDATE: FACULTY OF  
ECONOMIC AND MANAGEMENT SCIENCES: POTCHEFSTROOM  
CAMPUS: NORTH-WEST UNIVERSITY, SOUTH AFRICA":**

The above subject refers.

Please, be advised that the Secretary for Mines and Mining Development has approved your request to conduct a research in State Owned Mining Companies on the, **"THE MEASUREMENT AND DISCLOSURE OF HUMAN CAPITAL VALUE IN THE FINANCIAL STATEMENT BY LISTED MINING COMPANIES"**.

You are also, advised that the information gathered in the research shall be used for academic purposes only, and you are required to submit a copy of the project report to the Ministry, upon completion of the research.

The Ministry wishes you the best in your research.

Onesimo Maza Moyo

**SECRETARY FOR MINES AND MINING DEVELOPMENT**

PERMANENT SECRETARY  
MINISTRY OF MINES AND MINING  
DEVELOPMENT

23 SEP 2019

P. BAG 7709, CAUSEWAY  
ZIMBABWE TEL: 0242-777043

cc: Director Mining Research, Value Addition and Beneficiation  
cc: Director Finance and Administration  
cc: Director Human Resources

## ANNEXURE D: INFORMED CONSENT



### INVITATION TO PARTICIPATE IN AN ACADEMIC RESEARCH STUDY

Title of the research study: The measurement and disclosure of human capital value in the financial statements by listed mining companies.

Name of the student:	Queen Mpofu
Contact Details:	0027 78 661 5932
Supervisor:	Professor Wedzerai Musvoto
Contact Details:	0027 63 130 1047

Dear Respondent

You are invited to take part in a research study that forms part of research conducted for a Doctorate's degree in school of Accounting Sciences at the North-West University, Potchefstroom Campus. Please take some time to read the information presented here, which will explain the details of this study. Please ask the study or the supervisor any questions about any part of this study that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you might be involved. Also, your participation is **entirely voluntary** and you are free to say no to participate. You are also free to withdraw from the study at any point, even if you do agree to take part now

The purpose of this study is to establish constructs (variables) that that can be utilised to measure human capital value and then develop a framework. You have been invited to be part of this research because you are qualified and knowledgeable. Also, because you are a stakeholder of a South African listed mining company or are involved in preparation of your company's financial statements, your opinions are very valuable for this study. The survey should take **only ten minutes** to complete.

The risks to you in this study are minimal and is mostly concerned with the inconvenience of time, but this will be limited by giving you the choice of the day that you would like to take part in the study. The information from all respondents will at all times be treated as confidential and will not be made available to any entity or third party. Neither your name nor that of your organisation will be linked to any responses as the responses will be captured anonymously. The information obtained from the questionnaires and interview guides will be used for academic research purposes only. Only the study and the supervisor will be able to look at your findings. Findings will be kept safe by locking hard copies in locked cupboards in the study's office and for electronic data, it will be password protected.

Although you will not receive any compensation for participating, the information collected in this study may benefit the mining industry by providing a framework that will improve ways of measuring and disclosing human capital value. Furthermore, it will enhance better internal understanding of how human capital helps the company create value over the long-term. While to accounting practice, how it will improve current practices on measuring and disclosing human capital.

If you have any questions or concerns about being participants in this study, please contact Miss Queen Mpofo on cell number 0786615932; E-mail-31932525@student.g.nwu.ac.za or her supervisor Professor Wedzerai Musvoto, E-mail-wedzerai.musvoto@nwu.ac.za. Thank you for taking time to assist me in my educational endeavours

Declaration by participant

By signing below, I.....agree to take part in the research study titled: The measurement and disclosure of human capital value in the financial statements by listed mining companies.

I declare that:

- I have read the above information/ it was explained to me in a language with which I am fluent and comfortable.
- The research was clearly explained to me
- I understand that taking part in this study is **voluntary** and I have not been pressured to take part

- I may choose to leave the study at any time and will not be handled in a negative way if I do so.

Signed at (place).....on(date).....20

Signature of participant.....

Declaration by the study

I (name).....declare that:

- I fully explained the purpose of the study and I am satisfied that the participant will adequately understand all aspects of the research, as described above.

**Signature of study**.....



## ANNEXURE E: ETHICS CLEARANCE LETTER



NORTH-WEST UNIVERSITY  
YUNIBESITHI YA BOKONE-BOPHIRIMA  
NOORDWES-UNIVERSITEIT

Private Bag X6001, Potchefstroom  
South Africa 2520

Tel: 018 299-1111/2222  
Web: <http://www.nwu.ac.za>

Economic and Management Sciences Research  
Ethics Committee (EMS-REC)  
Tel: 018 299-1427  
Email: [Bennie.Linde@nwu.ac.za](mailto:Bennie.Linde@nwu.ac.za)

25 October 2019

Prof D Schutte  
*Per e-mail*  
Dear Prof Schutte,

### EMS-REC FEEDBACK: 25102019

**Student: Mpofu, Q (31932525)(NWU-01405-19-A4)**

**Applicant: Prof D Schutte – PhD in Accountancy**

Your ethics application on, *The measurement and disclosure of human capital in the financial statements by the Zimbabwean listed mining companies*, that served on the EMS-REC meeting of 25 October 2019, refers.

#### Outcome:

The first phase of this study is approved as minimal risk. A number NWU-01405-19-A4 is given for three years of ethics clearance

Kind regards,

A handwritten signature in blue ink, appearing to read 'B. Linde'.

Prof Bennie Linde  
Chairperson: Economic and Management Sciences Research Ethics Committee (EMS-REC)  
Potchefstroom Campus

## ANNEXURE F: CERTIFICATE OF LANGUAGE EDITING

Noordbrug Sentrum  
99 Molen Street  
Potchefstroom, NW  
South Africa  
2531

Mobile: 078 873 1691

Email: [Felix.Dube@nwu.ac.za](mailto:Felix.Dube@nwu.ac.za)

29 April 2021

TO WHOM IT MAY CONCERN

**RE: CONFIRMATION OF LANGUAGE EDITING: THESIS BY QUEEN MPOFU  
(NWU STUDENT NO: 31932525)**

---

This letter confirms that I read, edited and proofread the thesis by Queen Mpofu (NWU student no: 31932525), titled “**The measurement and disclosure of human capital in financial statements by selected Zimbabwean mining companies**”.

In addition to ensuring consistency and accuracy of terminology, I rendered the following services:

- Language, spelling and grammar corrections
- Structure, logic and flow improvements
- Style and formatting

Should you have any questions, do not hesitate to contact me on the above details.

Sincerely,



Dr Felix Dube