

Analysis of the Effect of Human Capital Investment on  
Company Performance

By

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Mini-Dissertation

Submitted In fulfilment of the requirements for the degree of

**MASTER OF BUSINESS ADMINISTRATION**

in the

**Faculty of Management Sciences and Law**

(Turfloop Graduate School of Leadership)

at the

**University of Limpopo**

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2019

## DECLARATION

I, Matimba Faith Masuluke, hereby declare that the mini-dissertation “Analysis of the Effect of Human Capital Investment on Company Performance, South Africa” submitted to the University of Limpopo for fulfilment of the degree of Master of Business Administration has not been previously submitted for any degree by me and that it is my own work in design, in execution and all material contained herein has been duly acknowledged by means of complete references.

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Signature

.....

Date

## **DEDICATION**

I dedicate this work to my family and my friends who have tried by all means to give me support during the period of my studying. No enough words can explain the way I feel about the sacrifices that you made but with these words I would like to thank you for the support, love and encouragement.

## **ACKNOWLEDGEMENT**

I give extraordinary appreciation to Almighty God for giving me the strength and great wellbeing which offered me assistance to create concrete defense of this work. Moreover much appreciation to my husband Shannie Masuluke for his encouragement and my kids Ntokoto and Vun'we Masuluke for their understanding. I would also like to thank my lovely Sister Katekani Ramothwala and Brother Keith Mabunda for their perceptive thoughts about this study as well as my mother Tlangelani Aniekie Mabunda for taking care of my kids during this project.

The Turfloop Graduate School of Leadership (TGSL) lectures not only taught us the course material but have been supportive in so many ways (Prof Kanjere thank you!), motivational and inspirational. My appreciation goes to the University of Limpopo for honouring my academic efforts.

My colleagues at the Limpopo Department of Corporative Governance Human Settlement and Traditional affairs, Housing Finance, have been long suffering during my frequent absence from work on account of attending lectures (Mrs Tema MT and all Housing Finance team, thank you).

I would really like to explicit my inner most gratitude to Mrs Libago AV, the Director of Departmental Expenditure and Housing Finance and my work mother who gave me the biggest opportunity of a lifetime: a supportive work environment to be able to undertake this MBA programme.

Finally, I would like to thank my supervisor Professor Collins Ngwakwe who energetically examined this work and contributed useful thoughts and proposals which helped my thinking.

## ABSTRACT

This research examines the effect of human capital investment on the firm's performance in South African companies. This research is important given that the human asset has been proven to be one of the most important assets in the organisation and therefore this research set out to examine whether human assets actually contribute to the performance of the firm in the Johannesburg Stock Exchange Social Responsible index (SRI).

Therefore the objective of this research was to examine the relationship between human capital investment and firm performance in terms of sales turnover, share price and net profit. Secondary data on human capital investment and companies' performance (sales turnover, net profit and share price) were collected from integrated report archives of the 28 best performing companies in the JSE SRI Index for the six years from 2010 to 2015. The theoretical foundation was on the human capital theory and related previous literature. The research adopted a quantitative paradigm and applied the regression statistics, which were analysed with the aid of the excel software. Findings from the regression analysis indicate p value of 0.04 for HCI and sales turnover, p value of 0.69 for HCI and the share price and p value of 0.16 for HCI and net profit. This therefore, means that, within the sample of companies, there is a significant relationship between human capital investment and sales turnover of firms and no significant relationship between human capital investment and share price, and net profit of companies. This finding indicates that the result may change from negative to positive with a longer period of data. Over the long term companies that invest in HC would experience profitability (within a range of 10 to 13 years) (Blundell et al, 1999). This means that future research should use a longer period of data and include more companies outside of the JSE SRI Index companies. The research recommends that there is a need for companies to invest in human capital to improve companies' performance and to win customers' confidence.

Key words: human capital investment; net profit; financial performance; sales turnover; share price

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# CHAPTER 1

## INTRODUCTION

### 1.1 BACKGROUND OF THE STUDY

This research focuses on the effect of human capital investment on a company's performance. According to Hall (2014) firms in South Africa and the whole world are facing high competition, regardless of the type of industry in which they are working. Therefore, firms will then have to put more effort into their human assets to improve company performance both financially and non-financially.

Human assets include competences of understanding, skills and character traits which are required to carry out the job in order to produce economic value (Prajogo & Oke, 2016). Human capital represents the investment that firms embark on in order to improve their economic productivity. Investing in human capital is a way that firms use to provide employees with educational skills in the form of training that result in an increased performance (kwon & Rupp, 2013). Firms should provide employees with training that will enable them to improve their business activities, which will also minimise wastage of resources but increases overall employee efficiency (kwon & Rupp, 2013).

It is outlined in Dalen, Kuzey & Uyar (2013) that production achievement is made of the functions of the firm over a given period. Firms need to focus more on employees' development curriculum, not only to achieve firm's goal but most importantly for the long term survival and sustainability of the firm. Therefore the human capital investment will increase its sustainability and economic value. The effective human capital will assist the firm to overcome the competition that firms are currently facing. Therefore, this study will investigate the effect of human assets investment on a firm's performance.

## 1.2 RESEARCH PROBLEM

The effect of investing in human assets in South African firms is not clear (Fatoki & Rungani, 2015). Several researchers have been published in this area and its impact on financial performances. In any case, a research on the impact of human capital investment on firm's performance in South Africa has not been inspected.

The firm's effectiveness depends more on successful human capital which affect the firm's performance that also measures both its financial and non-financial performance (Hall, 2014). Kwon et al (2013) indicate that firms that contribute less to human capital can suffer negative affect on its performance in terms of share costs and its turnover.

Fatoki et al (2015) demonstrated that there is a solid connect between human, social and monetary resources and the performance of SME in South Africa. It has been discovered in South Africa that most of the firms rely more on government to do their business and not much effort is invested on human capital. This study of Fatoki et al (2015) did not analyse the effect of investing in human assets and net profit, sales revenue or share price. Therefore, the current study will cover this loophole in South Africa.

Research done by Mlingi, Jagero & Komba (2012) on the link between the Job training and workers efficiency revealed that workers efficiency depends on the training employees have received. It also reveals that job training programmes have a positive influence on the worker's performance.

This previous research only focused on training and employee performance, although there is a relation with the current study, but this previous research did not cover how the job training of employees would affect the firm performance in terms of share price, sales revenue and net profit. Therefore, this proposed research will expand the previous research by looking at how human capital investment could affect company's profit. This research study will fill this knowledge gap.

### **1.3 MOTIVATION OF THE STUDY**

Due to the recent financial downgrade in South Africa, it is critical for firms to invest more in human capital to achieve both financially and non-financially. According to Bryant & Javalgi (2016) developed nations pay more attention developing human assets, by devoting efforts on human capital satisfaction. This research analyses the impact of human capital funding on a firm's performance. Firm is seen in terms of money related and non-financial (Dalen et al, 2013). This study will create a finding that clarifies the impact and the relationship between human capital investment and a firm's performance (in terms of net profit, share cost and deals income). Doing this will add the existing literature, which did not cover this area.

### **1.4 SIGNIFICANCE OF THE STUDY**

The outcome of this study will generate knowledge applicable for all firms particularly in South Africa. This information may be advantageous not just too academic but also to managers and workers in any business. Other than that, the results will be relevant for management and investors of the firms and all organisations who may draw some insight from the research on investment of human capital for the purpose of improving performance of firms in South Africa and government for policy making.

The findings will help the researcher to amplify understanding of the relationship between firm's performance and human capital. Apart from that, this might lead to accomplishment of a Master's Degree and could serve as a benchmark for progress examiners on the same or comparable subject.

### **1.5 AIM OF THE STUDY**

The reason of this study is to examine the impact of human capital investment on company's performance of all South African firms. Human capital investment makes a difference in improving employees' aptitudes, capacities and also add to their potential to work more proficiently and viably. This research will identify the interface between human capital investment and firm's performance.

## 1.6 OBJECTIVES OF THE STUDY

The objectives are:

- To examine the relationship between human capital investment and sale revenue.
- To examine the relationship between investment in human capital and the share price.
- To examine the relationship between human capital investment and net profit.

## 1.7 RESEARCH QUESTIONS

The questions appear below:

- What is the relationship between human capital investment and sales revenue?
- What is the relationship between human capital investment and share price?
- What is the relationship between human capital investment and net profit of a firm?

## 1.8 DEFINITION OF CONCEPTS

Human capital investment: According to kwon et al (2013) investing in human capital is a way that firms use to provide employees with educational skills in the form of training that will achieve an increase in the firm's performance.

Firm performance: Dalen et al (2013) describes performance as the result of activities of a firm over a given period.

Net profit: Profit is determined by means of deducting from sales the fees incurred in producing those sales (Venieris, 2015).

Share price: is the price of one percentage of a number of saleable shares of a company, spinoff or different economic property (Venieris, 2015).

Sales revenue: According to Omnamassivaya & Prasad (2017) income revenue is profits acquired from promoting goods or services over a period of time.

## 1.9 STRUCTURE OF THE DISSERTATION

This dissertation is divided out into five chapters. **Chapter 1** gives the relevant foundation to the study by sketching out the presentation, the issue articulation, aim of the study, investigate questions, the significance of the research and definition of terms.

**Chapter 2** surveys existing literature related to the impact of human capital speculation on firm's performance.

**Chapter 3** presents the study plan, the research area, the study population, and the technique utilised for testing, data collection and examination.

**Chapter 4** analyses the data, and the findings and the results are stated, interpreted and analysed in accordance with the objectives of the study.

The conclusion of the study is provided in **Chapter 5**. In this chapter, recommendations are submitted for future research purposes.

## 1.10 CONCLUSION

This clarified the setting of the research by giving a presentation about the impact of human capital performance on the firm's performance, articulating the issue, clarifying the significance of the study and defining the critical terms. The aim, objectives and questions were presented. The next chapter deals with the literature review.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This chapter reveals what other researchers have written in discussing the effect of human capital investment on a firm's performance. The chapter begins with the concept of human capital investment. The chapter also examines the theory of human capital and closes by consultation of the relationship between human capital investment and sales turnover, share price and net profit.

#### **2.2 HUMAN CAPITAL INVESTMENT**

In the new world of economic forces, it is a challenge for corporates to become more competitive and develop a more flexible workforce (Bayraktar et al, 2017). This has imposed growing strain on establishments to find new methods of creating resources necessary to construct teams with the potential to analyse challenges that companies are experiencing (Nasiripour, 2012). The choice to stay in step with financial, social and technological trends and still continue to be aggressive in the marketplace has made human capital investment into an exceptionally important issue for both employees and companies (Saeidi, Sofian & Saaeidi, 2015).

Meihami & Meihami (2014) recommend that companies should therefore take cognisance of all the external factors that can impact on human capital investment in a business. Companies have the obligation to make contributions towards the powerful human capital funding of their workforce (Sutia, Sudarma, Djumahir & Rofiatu, 2013). Human capital investment is defined as the investment that companies make for employees to acquire competences of knowledge, skills and personal attributes required to perform the job, in order to produce economic value (Prajogo et al, 2016). Sahana & Mallick (2016) define human capital investment as the action used by companies to develop staff.

A prime challenge facing companies is to teach its employees in a manner that equips them with the necessary understanding, talents and attitudes to their work efficiently (Ravi et al, 2017). According to Tadiac, Barac & Plazonic (2015) the shortage of human capital has resulted in low productivity, older personnel becoming redundant, a higher employee turnover, and a probable fear of technological developments and can even result in an illiterate team of workers (Tadiac et al, 2015).

Murphy & Topel (2016) indicate that companies need proper knowledge and skill to have competitive advantage. In order for companies to acquire the knowledge and skills required, they should invest in human capital (Sheehan, 2014).

Odhong et al (2014) regard money spent on the training and education of employees, as being human capital investments. Employees are referred to as human capital due to the fact that personnel cannot be separated from their knowledge and capabilities in the manner that they can be separated from their economic and physical assets (Muna, 2012).

Veltri & Silvestri (2017) reveal that companies' spending money in employees' education and training to upgrade a company's operations, will minimise misuse of assets by untrained employees and will increase the performance of workers. Investing in human capital differs in relation to the financial background of the company (Veltri & Silvestri, 2017). To invest in human capital companies will require funds to spend for employees training and workshops (Mat et al, 2015) and this depends on the company's financial background, the demand for skills and the cost of educational programmes (Habib et al, 2016). A skilled and flexible labour force will definitely assist in making industries in the country more competitive (Joshi, 2015).

The success of the company in a highly competitive marketplace and the decision to invest in the development of human capital ought to be a company's decision (Kotobe & Kothari, 2016). Company's success does go hand in hand with social responsibility and investment in human capital (Sanyal et al, 2017). Human capital investment is therefore the key to addressing issues of shortcomings in the present global knowledge economy (Shahzad et al, 2015).

## **2.3 TYPES OF HUMAN CAPITAL INVESTMENT**

According to Kim & Ployhart (2014) there are two different types of human capital investment. Education, training and development are regarded as human capital investment in companies.

### **2.3.1 Education**

Human capital investment via education is the most powerful lever for enhancing both employees' opportunity and company's competitiveness within the commercial enterprise (Shahzad et al, 2015). Sahana et al (2013) define education as the planned, systematic and sustained attempt to transmit, evoke or collect information, attitudes, values, skills and sensibilities, and any achievement that results from the effort, intended or unintentional. Unskilled people can also obtain education in the form of fundamental adult training to assist them to increase simple literacy and numeracy skills (Sakamoto, 2016).

Education in a work place is defined as the qualification that employees acquire after attending in higher education institutions (Yu, Shen & Liu, 2015). Companies often offer bursaries to workers to attend formal classes in colleges or universities to acquire the required skills (Elnaga & Imran, 2013). Education is used to improve workers technical skills in different areas of work (Sahana et al., 2016).

Education includes a deliberate method of developing intellectual capacities through presenting ideas to get help to understand the work concepts and teaching employees how to follow the work process (Mahoney & Kor, 2015). It is therefore seen as a medium term change effort intended to prepare employees for promotion, for enhanced intelligence and technical abilities in their current job (Kim & Ployhart, 2014).

### **2.3.2 Training**

Training is most often conducted by employers and managers working on the job with staff, showing them how to perform a work related task (Sakamoto, 2016). Training refers to the planned acquisition of understanding, abilities and skills to perform a selected mission or job in a vocational setting (Saks & Burke-Smalley, 2014).

Training is the way in which a supervisor uses a logical strategy to alter the information, competencies and to empower employees to achieve the company's objectives (Aragon et al, 2014). Training is an assignment oriented, it focuses on the work accomplished in an organisation based on activity or task descriptions (Saks & Burke-Smalley, 2014). The task requirements will decide on training standards for unique process (Khan et al, 2016). Therefore education targets to improve worker performance in an agency while work requirements are low because of lack of understanding, abilities, and negative attitudes among employees (Esteban-Lloret et al, 2016).

Training is additionally seen as arranged mediation planned to cope with expected shortcomings in understanding, mind-set and abilities (Habib et al, 2016). Rowland, Hall & Altarawneh (2017) suggest that it has to be considered that training should be synchronised with a company's project, strategy and goals.

As Jones et al (2016) state training is executed to guarantee that a task is performed effectively and so the conduct change which is introduced by instruction becomes quantifiable in terms of a company's necessity. Training and schooling are the most essential investments in human capital (Falola et al, 2014). Training and schooling both create instances in which an employee can achieve the abilities, knowledge and attitudes that satisfy organisational goals (Elnaga & Imran, 2013).

### **2.3.3. Development**

According to Falola et al (2014) development also focuses on outputs and implies improving some thing or becoming more advanced. Kim & Ployhart (2014) state that development is visible as a long term trade effort meant to develop a man or woman's skills through enjoyment and to give them new insights into themselves, their occupation, profession and their corporation. Improvement features focuses on sustained work and centres on the long term increment of work force in a way that fulfils their possibilities (De Grip & Sauetmann, 2013).

### **2.3.4. The difference between education and training**

Education creates a preferred foundation that prepares the character for existence, Elnaga & Imran (2013), while training prepares the character to perform specific responsibilities in a particular job (Kim & Ployhart, 2014).

The tremendous differences among education and training are stated in the following points:

- Training refers to an act of inculcating unique talents in a person (Rasula et al, 2012). Education is all about gaining theoretical information in the school room or any group (Ravi et al, 2013).
- Training is completely based on practical application, which is just contrary in the case of education that includes theoretical orientation (Sheehan, 2014).
- The idea of education is narrow whilst the idea of training is relatively wider (Odhong, Were & Omolo, 2013).
- Training entails hands on action regarding the precise task (Muna, 2012). Alternatively, education entails getting to know within the study area (Odhong, Were & Omolo, 2013).
- The reason for training is to improve the overall performance and productivity of personnel (Rasula et al, 2012). As opposed to education, wherein the reason is to develop a sense of reasoning and judgement (Nasiripour, 2012).

Consequently, human capital investment through schooling and training has usually been the most effective lever for improving each employee's opportunity and agency's competitiveness inside the market worldwide (Yu et al, 2015).

## **2.4 COMPANY PERFORMANCE**

Shaw, Park & Kim (2013) define corporation performance as the consequence of activities of a company or investment over a given time frame. The accomplishment of a venture measured towards known standards of accuracy, completeness and price. Overall performance is deemed to be the fulfilment of an obligation, in a way that releases the performer from all liabilities beneath the settlement (kwon & Rupp, 2013).

A company's performance influences both the inner and outer environment components (Bryant & Javalgi, 2016). The internal elements are the elements inside the company that affect the procedure and the favourable outcome of the company's activity (Bryant & Javalgi, 2016). The external environment includes different elements from outside the organisation which are beyond the company's control. Managing both the external and internal environment element is crucial for the performance of any company (Bryant & Javalgi, 2016).

The existence and success of companies are invariably linked to the quality of its workforce's knowledge, skill and expertise (Bapna et al, 2013). Employees are the most important internal asset that influences the performance of the company (Delen et al., 2013). According to Backman (2014) the quality of workers is one of the important elements in the company. The company performance starts when an individual enters a labour force (Backman, 2014). According to Vidija et al (2016) the induction of workers is an important way for the company to start production. Company's human resource departments should give workers procedure manuals to perform their duties effectively and efficiently (Sung & Choi, 2014).

It is indicated in Vidija et al (2016) that workers who are inducted and trained properly about their company they perform their task very well and produce good results as per their company's expectation. Therefore the company's human assets are the main source to assist the company performance (Vomberg et al, 2015).

Vomberg et al (2015) explain that companies should use their capital to train and develop their workers in order to succeed. Training of employees will assist the company to obtain their goals and objectives because employees will then possess the required skills and knowledge (Sung & Choi, 2014).

It is concluded on Saiedi et al (2015) that when workers give an outstanding service to clients, they are performing work extraordinary. The production of the company is found on the performance of employee especially in providing and satisfying the need of the company's client (Eisingerich et al, 2016).

According to Pivac et al (2017) companies rely on employees to perform the job they were appointed into a predetermined standard. Each employee requires a particular set of competencies in order to perform the job successfully according to a specific standard (Mestier, Schauer & Townsed, 2017).

## **2.5 THE IMPORTANCE OF HUMAN CAPITAL INVESTMENT**

The existence and success of companies are invariably linked to the quality of its employee's, knowledge, skills and expertise (Shahzad et al, 2015). Human capital investment through training and development is the main source of increasing comprehension and expertise of workers, though some companies still consider human capital investment to be costly (Canlas, 2017).

While workers are attending their workshops and training development programmes they fail to perform their duties and this will delay finishing of tasks (Veltri & Silvestri, 2017). Regardless of the disadvantages human capital investment (education and training) give both the worker and the organisation the job satisfaction which makes the price spent and the time for training a valuable effort (Murphy & Topel, 2016).

Investing in an organisation's human assets is more important to ensure that any employee's skill set is now more than enough for meeting the company's goals (Papay et al, 2016). Investing in human assets can thus contain a selection of different methodologies, and is important as technological investments and procedural techniques constantly are; they often result in actual upgrades in a corporation's backside line (Bapna et al, 2013). Human capital investment is a crucial thing in achieving the nation's monetary goal, corporation's method and operational dreams (Bryant & Javalgi, 2016).

## **2.6 THE BENEFITS OF INVESTING IN HUMAN CAPITAL**

According to Murphy & Topel (2016) investing in human capital benefits both the employee and the company. Investing in human capital allows the employees to gain more knowledge and expertise, and results in effective and efficient performance by an organisation (Habib et al, 2016).

### **2.6.1. Employees benefit from education and training in the following important ways (Hall, 2015)**

- Employees are empowered to make more decisions and solve issues extra effectively.
- Motivational variables of recognition, success, growth and duty are internalised and operationalised.
- Employees are able to deal with strain, tension and conflict.
- Job satisfaction will grow, knowledge, communicate abilities and attitudes will improve.

### **2.6.2. The company benefits from human capital in the following important ways (Hall, 2015)**

- The skills and talents of employees at all stages will improve.
- Employees will become aware of the company's goals.
- The morale of the body of workers will increase.
- The corporate image may be greater.
- The relationship between superiors and subordinates will improve.
- It contributes to business enterprise development.
- It contributes to improved productivity and level of work.
- It helps to keep prices down.
- It improves the business enterprise climate.
- Staff are helped to adjust to needs of trade.
- A positive climate for growth and conversation could be created.

Lonial & Cater (2015) conclude that among all of the different types of assets available to the company, human assets have the greatest potential for improving any company's ability to compete. While material costs, labour costs, and other factors may differ, depending on the type of business and the sector the business is trading in, this human assets offers companies a real opportunity to outsmart their competitors (Kou et al, 2017).

## **2.7 HUMAN CAPITAL THEORY**

This research is supported by human capital theory. The human capital theory provides a fundamental justification for public expenditure on training (Taylor, 2017). This study used human capital theory because it highlights on how training increases the performance and efficiency of workers (Bryant et al, 2016). The theory of human capital was developed by Schultz (1960s) and later on by Becker (1962) and Tan, (2014). These researchers define human capital in dissimilar ways. Schultz defines training as an investment purpose and Becker define Human capital investment as a gain in training (Gilies, 2017). However it defines that both their explanations of human capital theory complement one another because human capital development will be addition to individual knowledge and profit to the company (Marginson, 2017).

Human capital theory is used to describe the circumstance of employee's performance (Taylor, 2017). It was once presumed that labour production corresponded with the human capital development wishes that have been suitable for their tasks. Human capital theory relates to human capital investment through training, worker expertise, skills and performance (Marginson, 2017).

Human capital theory is a popular educational theory that is being used globally (Marginson, 2017). Training and education should be regarded as an investment that provides gain to employees, companies and the government (Gilies, 2017). Canlas (2016) highlighted that human capital theory encourages government education systems and training development.

Human capital theory had a deep effect on the number of social and human behaviour (Bracker & Cohen, 2015). Human capital theory presumes that training governs the performance of labourers and this controls the returns.

Since the 1960s human capital theory has been utilised as the social and human conduct act, associated to work and training (Marginson, 2017). Human capital investment contribute to more skills and knowledge that allow employees to be more productive. Tan (2014), describes human capital theory as education and training acquired by workers and also as assets in the way of training. Such assets are regarded as investments and they contribute to revenue (Karodia et al, 2014). Human capital theory shows that investing in workers education and training adds value to the people of the country (Gilies, 2017).

Human capital theory reveals that skills and knowledge are very useful in enhancing the performance of the people (Murphy & Topel, 2016). Hence the human capital theorists give reasons that people skills and knowledge contribute to people's performance (Canlas, 2016). According to Wenzel (2017) human capital theory assists in adding to the effect of employees on the company and their offering to the investors benefit. It reveals the human resource operations that produce financial gain (Storey et al, 2016).

## **2.8 THE RELATIONSHIP BETWEEN HUMAN CAPITAL INVESTMENT AND SALES TURNOVER**

It is believed in Kwon & Rupp (2013) that investing in human capital will add more value to the company. Human capital investment value begins with a focus on the needs, goals and beliefs of the main stakeholders (Jha et al, 2017). The customers are regarded as the main stakeholders, as they are the ones who have to be satisfied first (Pizman, Shapoval & Ellis, 2016).

It is highlighted in Hall (2017) that human capital investment through employee training and development strategies enhances productivity and employees tend to deliver outstanding services to customers. Through human capital investment employees become more productive and produce more quality products and services to satisfy the clients (Blut et al, 2015). Ponte, Pesci & Camussone (2017) believe that companies that contribute more client satisfaction by delivering quality products and services that will generate more sales revenue.

This therefore gives the company shareholders and owners' confidence that the business will be sustained in the future (Joshi, 2015). An improvement in productivity and sales revenue is very important to attaining a higher economic growth rate of the country and maintain the competitive advantage of the company (Torkkeli et al, 2017).

### **2.8.1 Sales turnover**

The success of the company is decided by the company's income (Board & Skryzpacz, 2016). Sale turnover is the engine of the company and more sales must be generated to improve the company profit. The company sales turnover is the total money of goods and services rendered annually (Basiri, Lohan & Moore, 2017).

The company's sales turnover normally includes the amount of money from sales and the total items of merchandise sold (Cooper, 2017). Sale revenue is an easy way to describe money flowing in the company from the selling of products and rendering of solutions (Cooper, 2017).

According to Board & Skryzpacz (2016) the company's sales turnover is the main source for determining the profit of the company. The company should therefore, introduce strategies to improve the generation of company's income (Cooper, 2017). This will help the company to produce more effectively and efficiently and to gain more profit (Regner & Riener, 2017).

### **2.8.2 Human capital investment and sales turnover**

Bhattacharya, Harold Doty & Garavan (2014) conducted a study on the company's conditions and production effect of human assets development. The study examined the relationship between the company's conditions and the effect of human assets development. The study reveals that big companies that invest more in human assets they incur higher expenditure on workers and small companies spend less on workers' cost. The results indicate a strong link between company's conditions and production effect of human assets development. The findings are that in the long run companies with higher training expenditure will improve in terms of productions and are likely to increase sales turnover.

Mat, Mansur & Mahmud (2015) conducted a study on the connection between human resource investment and lucrative evolution in Sabah. The objective of the study was to examine the impact of human assets investment on training, wellbeing and movement to lucrative evolution. The researcher used time series data for 30 years and regression analysis was used. The study found that there is a positive significant and a strong connection between human resource investment and financial gain.

Jones et al (2013) conducted a study on the effect of employees training on small and medium - enterprises production. The study used 3521 data sets. The researcher considered the connection of the fulfilment the small enterprises have to their workers' education requirement and the effect of education on company performance. The study used both correlations and multiple regression analyses. The study reveals more in the link between employees training and company production.

Khan et al, (2016) conducted a study on the effect of education of workers on workers' productivity along with job fulfilment of workers. The study evaluates the effect of education of workers on workers production along job fulfilment. The researcher sent one hundred and fifteen questionnaires to workers in management and senior management positions. The study used the convenience sampling method to collect data. Ninety one percent of workers responded. The results reveal that there is a positive significance in effect of education and job fulfilment with workers' performance. The findings further show that education of workers will influence greater job fulfilment in workers and they will perform their tasks effectively and efficiently.

Esteban-Lloret et al (2016) conducted a study on the influence of workers' education development and the company's production. The study indicates that workers' education development is the critical task of human resource management to ensure that companies achieve their set goals. The study used contextual factors to examine workers' education and it discussed the connection between workers education development and company's production. The research used 374 companies to collect data and use the questionnaire method. The study found that there is a positive significant and a strong relationship between workers' education development and company production.

Rowland et al (2017) conducted a study on human capital development: challenges of management and controlling production in Jordanian banking. The aim of the research is to examine the connection of company's management, production control and human capital development in the banking industry of Jordan. The study used the mixed method technique and conducted interviews with executive management and Human resource development management using questionnaires and documentary analysis. The study used all banks in Jordan to collect data. The result shows that human capital development is not influenced by company's management. The findings reveal that there is not enough proof that human capital development will improve workers' motivation and job fulfilment which will add value to the company's management. The connection of management and human capital development are not significant and not discussed along production control. The research concludes that there is no link between human capital development and company production control.

De Grip & Sauermann (2013) conducted a study of the impact of human assets funding on the performance of Italian companies. The study examines the impact of human assets investment on the performance of Italian companies and the effect of education on European economic growth. The study used the survey method to collect data. The overall results indicate there is a strong relationship between human assets development and the company's production. The overall results show that in the long run investing in workers at the corporate level will impact more on the performance of the company but less on the economic growth.

Sahana & Mallick (2016) conducted a study on the power of employee training and evolution. The study indicates that education and training in firms add value in improving skills and knowledge of workers to increase their productivity. Therefore, the firm's production relies on the productivity of its workers. The study also emphasises that it is vital for firms to invest in human assets to gain competitive advantage. Furthermore, through human assets investment, the impact of education has to be examined in order to achieve the return on investment, since workers are reckoned to be the vital capital of a firm. The study used the descriptive research method and collected data from 100 participants on a structured questionnaire. The

data were analysed using correlation and regression analysis. The result shows that there is a strong relationship between education and workers' productivity.

Jain & Roy (2017) investigated how the pressures on companies from capital markets influence their human asset strategy. It has been revealed from this research that for the past three decades, technology innovations, banking deregulation and new financial intermediaries have all caused an increase pressure on companies. The study evaluates the connection between human capital funding and a share turnover. The researchers collected data from 221 establishments in Canada and the results show that companies with higher share turnover are less likely to invest in human capital.

Khan et al (2017) considered the effect of human capital development and productivity of the banking sector in Pakistan. The study examined the link between human capital development and productivity. The researcher used three hypotheses to determine the effect of all the variables, training, training design and delivery styles on employee's productivity. The sample size used was 100 participants. The findings reveal that training and development have a positive effect on employees' and companies' productivity.

Habib, Hossain & Essien (2016) conducted a study on the analysis of the impact of education on workers' productivity in the Nigerian Hotel sector. The study evaluates the productivity of workers at the Sheraton Hotel and resorts in Lagos and how to increase hotel performance in terms of workers educational programmes in the hotel sector. The study examines the impact of education on workers' productivity. It is revealed that there is a positive connection between education and rewards to encourage staff to increase their productivity in the Sheraton hotel. It is indicated from the result that education contributes more to encourage employee's productivity and that rewards should be used to motivate employees to perform effectively and efficiently to reach the goal of the company.

Falola et al (2014) investigated the impact of human capital development on staff production. The study investigates the impact of human capital development through education on workers' production and the performance of firms. The study revealed

that human capital development through education programmes encourages workers' production and firms should always make provision to subsidise employee training programmes. The study used a descriptive research: the simple random sampling method issued 223 questionnaires which were answered by selected banks. The findings indicate that there is a significant connection between human assets development and workers production. The study concluded that banks should encourage the training of employees to improve workers' production and customer satisfaction.

Elnaga & Imran (2013) studied the influence of human assets funding on staff performance. The objective of this study was to examine the influence of human capital investment on staff performance and how education can improve a company's performance. The study used qualitative research and reviewed multiple case studies on the importance of education in encouraging the production of the labour force. The study went on to evaluate the human capital development theory and its impact on workers' development. Furthermore, the study provides inputs that company executive management should investigate the challenges that could cause low production in the company. This study is limited as there is no enough proof to link the connection of human assets funding and staff performance. The study concluded with the recommendation that further research should be done by applying a dissimilar model of analysing on examining the effect of human assets funding on staff performance.

Schulz, Chowdhury & Van de Voort (2013) conducted a research on the link between a company's performance and human assets and satisfaction. This study was supported by theory of human capital. The study collected data from thirty eight thousand three hundred and ninety staff representing 76 business enterprises in the Information Technology industry. The findings indicate that there is a connection between company performance and human assets.

Sutia et al (2013), researched the effect of workers' development and management on Airports production. The study used both primary and secondary data, sample size of 25 Airports as a sampling methods. The findings of this research indicate that workers' development, training and management improve the organisation's production.

## **2.9 THE RELATIONSHIP BETWEEN HUMAN CAPITAL INVESTMENT AND SHARE PRICE**

It is revealed in Hall (2014) that companies that spend their money on human capital investment create competitive advantage for the company. Human capital investment through training and development adds to the creation of human abilities and company's capabilities to make these substantially better than those of competitors (Karodia et al, 2014). A company's capabilities give investors' confidence in future earnings and increase market capitalisation (Kwon & Rupp, 2013).

### **2.9.1 Human capital investment and share price**

Mariappanadar & Kairouz (2017) investigated the effect of human property investment declaration and company performance on share price. The aim of the research was to analyse the connection between human capital investment declaration and share price and capital in the sector of banking. The study used 145 questionnaires in the first phase of the research. The study on phase two used 157 questionnaires and data analysis making use of logic regression analysis and the confirmatory factor method. The result shows that shareholders are more interested in the company's production and human capital investment in order for them to decide on whether to buy or sell shares. The research concluded that human capital investment, company performance and share price are very important for shareholders in taking the decision about investment in companies.

Mahoney & Kor (2015) conducted a study on improving human assets knowledge on company performance. The study aimed to clarify how human assets knowledge can be improved in order to achieve the company goal. Human assets development is regarded as the key to improving and advancing the company's main activity. The study reveals that it is necessary to create ways that support human assets development and employee skills. The study outlines how vital it is for the company to invest in human assets and the effect on company performance in terms of financial gain. The study analyses the challenges of a traditional shareholder model and the effects on company's employee development. The study explains the procedure which the company used to invest in employee development.

Aragón et al (2014) investigated on education and company production value. The study indicates that is not always that education influences the production value of the company, but it assists in enhancing other company's end results. Furthermore, the study highlights that company training is one of those activities that allow the connection between education and production. The study used empirical evidence from a Spanish company. The finding is that there is no significant relationship that education has an effect on the company's production value.

Saks & Burke-Smalley (2014) conducted a study on how the change of education is linked to the company production. The study wants to bridge the interval between basic education and comprehensive education and company production. The study revealed that there are three method used for employee development which are on job training, school classes and computer training. The study used the survey method and the findings indicate that all three methods have positive significance for the change of education and company production. These finding indicate necessity for the change in education for company productivity and highlights the fact that company results can be achieved by participating in educational programmes and creating ways to enhance the change in education.

Kim & Ployhart (2014) conducted a study on the impact of education on a company's output and financial gain. The study investigates how education encourages company productions and the ability to generate greater value. Furthermore the study emphasise that recruitment and employee development are the most important aspects in human assets management and are regarded as tools for any company to be more productive. The study used company' profit for 359 companies for over 12 years. The study highlighted that recruitment, internal development and employee engagement effect company financial gain and share price through the impact on company workers' performance. Furthermore, the study indicates that recruitment and employee development add more value to the company in terms of financial gain, which will persuade the investors to invest in the company and this will affect the share price. The results show that business enterprise that invest in human property will overcome the competition by producing more, satisfying its customers and attracting more investors.

Bai (2013) piloted on the effect of workers' competencies and skills on the company performance in Pakistan. The objective of the study was to analyse the effect of workers' competencies and skill on the satisfaction of both the company and workers. The researchers used the simple probability simply random method and data was arranged primarily making use of questionnaires. The result indicates that there is a strong connection between satisfaction of workers and clients which finally connects with the company performance.

Ravi et al (2013) on the research named the evaluation for the effect of employee skills investment. The study used cross-sectional methods and aimed to examine and analyse the process. The sample was collected from three hundred and twenty best producing companies in Pakistan. The researcher collected data using self-administered questionnaire method from employees and directors working in training management within the producing companies. The finding indicates a powerful link of employee skills investment and the company returns. The study concluded that companies that encourage employee training experience more workers high performance which add to company's productivity and attract more investors which will eventually affect share price.

Bracker & Cohen (2015) coordinated a study on the effect of education and evolution action on small company production. The study reveals that education and evolution play a crucial part in the company's production. The study collected data from 73 deputy directors of information technology and used these to analyse the effect of education and evolution on a company's production. The findings reveal that there is a link between education, evolution and company production.

Karodia et al (2014) reviewed the effect of human assets funding and workers' conduct. The research concentrates on the effect of human assets funding and workers' conduct at private companies in the United State of America. Human assets funding is an important way to enhance the conduct of employees in the company. The study revealed that human capital investment will help workers to perform well in their specialisations and their skills and knowledge will be advanced. Lack of human capital investment in the company minimises the company's performance, as the company relies on employees with the relevant attributes and knowledge to achieve

the objectives of the company. The study used a random sampling to select respondents and used questionnaire to collect data on the quantitative method. The result shows that insufficient assets and a poor employment environment affect the education and evolution of workers. The results indicate that human capital investment will enhance the workers' conduct and that of the company.

Ahmed et al (2016) coordinated a research on the link between education, evolution and performance. The aim of the research is to evaluate the importance of education and evolution in university employees' production. The study used quantitative and survey methods. The study used questionnaires to collect data from 205 participants. The data was analysed using multiple regression. The study concluded that there is a strong connection between education, evolution and university employees' production. Furthermore, the university productivity was impacted by bonuses and other benefits to university employees. It is recommended that because there is a powerful connection between education, evolution and university production, the human resource section of the university should consider giving bursaries and bonuses for the university employees to improve the university performance.

Ravi et al (2013) conducted a research on training, education and workers' production. The research evaluated the relationship between training, education and workers' production. The study used panel data set to check whether there is a relationship between education and production of workers. The results show the strong relationship between education and workers' production. The research concluded that formal education obtained outside the company will enhance the workers' production.

Jegade et al (2016) did a research on the effect of employee training on firm production. The aim of the research was to examine the relationship between employee training and development on firm production. To test the effect of employee training and development the study used the structural equation model. The sample size used in the study is 329 firms in Slovenia and Croatia with 50 or more workers. The findings indicate workers' training on IT has a strong relationship on the firm production.

Aworanti (2017) examine the link between employee development and a share value of eleven firms in the same industry for five years. The study used the integrated annual reports of these firms to analyse data. The study reveals that there is significant and a strong connection between the employee development and share value. The research advises that the sectors should improve and enhance employee development through training and workshops.

Real et al (2014) studied the effect of employee training to company production. The research's purpose was to examine the effective of employee training and company production. The study used 140 as the sample size in the Spanish industrial firms. The research used the variance – based structural equation model to analyse the data. The result shows that there is a connection between the employee training and company production. The findings conclude that the connection between small companies and company training is more significant for the number of big firms than for the group of small companies. Furthermore, the effect of employee training on company is better in small companies than in big companies.

Raineri (2016) studied the effect of human capital investment on workers' production. The objective was to recognise the effect of human capital investment on workers' production. The study used primary data and self-administered questionnaires to collect data from school employee educators in Nowshehra district. The study used 250 questionnaires and allocated to workers. Eight questions were disposed of and 217 questionnaires were brought back and 209 questionnaires were completed well. From the findings, it was revealed that there is a strong link in human capital funding and workers' production.

## **2.10 THE RELATIONSHIP BETWEEN HUMAN CAPITAL INVESTMENT AND NET PROFIT**

### **2.10.1 Net profit**

Companies work to make profit by rendering services and selling products to customers (Seidi et al, 2015). According to Kanwal & Hameed (2017) companies should examine their accounts on a regular basis to improve their product and services in order to increase their profit. Profit is influenced by number of element and a number of products and services sold and procurement in the company (Zentes, Morschett & Schramm-Klein, 2017).

Storey et al (2016) indicate that the net profit of the business is the remaining money after the company minus its expenditure from revenue. In most cases, companies reduce expenditures and maximise their income to improve their net profit (Li et al, 2016). According to Fornell et al (2016) firms can improve their income by engaging additional customers in producing new products and services, and giving more notice of goods and services to their customers.

A company's production is determined by its net profit (Schulz et al, 2013). Storey et al (2016) reveal that profit is the main measure that is utilised to determine the firm's production. To survive and succeed in the long run the company will have to operate in profit (Gomez-Bezarer, Przychodzen, 2017).

### **2.10.2. Human capital investment and Net profit**

Shaw, Stop & Kim (2013) conducted a study that assessed the human capital losses and organisation's execution. The investigate uncovered that contributing more on human asset management leads to losses of human capital, since representatives will be more proficient and will at that point explore for superior associations that will suit the aptitudes they have obtained. The study predicts that, since workers will be leaving the company, the turnover rates unequivocally influence the company's monetary execution and efficiency adversely.

The study conducted by Bapna (2013) evaluated the connection between human capital investments through employees training and employee performance in an organisation. The researcher used panel data because there is a connection between employee training and employee performance. The study indicate that not all the training improves the performance of employees. The results of this paper reveals that human property investment through training is more important as it improves the employee's performance and has a positive contribution to economic growth of the country.

Vomberg, Homburg & Bornemann (2015) coordinated a paper on the contribution of human capital and trademark to company performance. The purpose of this research was to determine the connection between development and the brand equity on company value. The findings give proofs that there is a constant significant connection between the two variables.

The research on development, team building and company production value conducted by Gamerschlag (2013) aimed at examining the effect of workers development, team building of employees on the performance of small and medium firms in Portugal. The researcher used the structural model approach and collected data selected from 189 organisations of 3 to 15 years in operation, and from 5 different business industries. The results revealed that the ability and behaviour of managers affects the production of emerging organisations.

The research of Sung & Choi (2014) was on the impact of human capital funding on employer transformation. The study examined the significance of human capital speculation and the company's advancements. The analyst utilised a time – lagged approach and the data was collected from 260 Korean companies in all the segments. The results show that training costs improve the learning environment that improve the company's change. The findings reveal the strong association between company internal training and change and it moreover shows that training outside company does not have an impact on inventive execution of the company.

Another study conducted by Sung & Choi (2014) examines the effect of different types of human resource development on company performance. The researchers used

both qualitative and quantitative approaches for both management and employee perspectives. The data was collected from 207 manufacturing companies for 5 years. The results reveal that employee development increases labour efficiency and productivity which increases the financial strength of the company. The findings of this study were that there is a positive link between human resource development and company performance, which therefore means human capital investment improves employee skills, labour efficiency and productivity which lead to good financial performance of the company.

A study conducted by Jegede et al (2016) on the impact of human capital, change and company value. The research aimed to decide the connection between human capital change and company value within the Nigerian mining division. The analyst utilised non-probability, purposive testing and collected information from 150 mining companies which gotten 70.6% rate input. It was recognized from the research that all sorts of human capital are significant for measuring the work proficiency within the mining companies. The result in this research indicates the solid connection between representative transformation and mining execution. The research concluded that there's a positive association between human resources, change and company esteem within the mining division.

Pivac et al (2017) did a study to examine the effect between human capital and company profit, which controlled by profit margin ratios. The sampling method used in this study was non-probability, purposive sampling of 5000 companies listed in the European Union from the Information Technology sector. The researcher used secondary panel data for a 5 year period. The results reveal that the company that spend more money in human capital investments increase expenditure and will increase profit after five years. The study also examined the companies that prioritise the skills of employees and showed that the outcome will differ in terms of size of the company.

Vidija et al (2016) conducted a research on human asset management and a company's progress. The research aimed to examine the effect of human assets management activities and a company's progress. Both qualitative and quantitative data on human resource management practice and the company's performance were

collected from the integrated report archives of 60 listed firms in the Nairobi Security Exchange (NSE). The researcher used the cross sectional -survey approach, the paper applied the multiple regression statistics, which was analysed with the aid of the Statistical Package for Social Science (SPSS) (Vadiji et al, 2016). Findings from the regression analysis indicate a likelihood that companies, that excel in human resource management practice will have a higher propensity to experience better productivity (Vadiji et al, 2016). In addition to the statistical findings, the study also disclosed the strong link between human resource management practice and company performance. This therefore, means that companies that perform good practice in terms of human resource management achieve good labour practice in the company. Furthermore, the study concluded that this will improve productivity, increase profit, and attract additional capital contribution to a company and increase sales turnover (Vadiji et al, 2016).

Wenzel (2017) performed a study pointed at uncovering the impact of workers' advancement on company's execution for companies within the social industry. The analyst utilised non-probability, purposive inspecting and utilised qualitative data by implies of open-ended surveys. The findings of this research empowered companies in Social Sector Organisations to develop their knowledge in terms of human capital advancement in order to dodge more challenges that the SSO are facing.

Chadwick (2017) considered the impact of employee development and company sustainability in Sweden. The objective of the research was to decide the influence of employee development and company sustainability in Swedish companies. It has been uncovered from the research that workers are human resources and their value is decided by the level of training obtained and work related experience. The study found that human resource impact the company's execution. Subsequently the research concluded that the development and survival of the company controlled by how human resources are regarded.

Another study was conducted by Chatterjee (2017) aimed at examining the effect of human capital on company productivity in various sectors. This revealed that human capital in company is regarded as employees attributes and this has a strong link to the performance of the company in terms of productivity.

The study of Georgidis & Pitelis (2016) analysed the link between employees and management development on organisation performance on the small and medium sized business. The researchers used a random selection method in the United Kingdom accommodation and food business industry. The result indicates a good relationship between employees' development and company performance in terms of profit and productivity than that of management development.

Ultimately, funding in human capital through schooling is very significant for the employer overall performance and is important for long term survival of the company. Following the study of Gómez-Bezares & Przychodzen (2017) it is indicated that companies investing in human capital stand out against their competitors by being more efficient and satisfying their clients. This lead to generation of revenue, profit and attracts more investors.

Munjaj & Kundu (2017) studied the employee development, training and the ompany's net profit. The study indicated that there may be a robust connection between worker improvement, training and the company's net profit. The study recommends that the organisation should reveal the detailed statistics about employee development and training on the company's annual reports.

Campbell et al (2017) examined the connection on the effect of employee training expenditure on the company's profit. The study analysed data using the regression model and found a strong connection between the employee training expenditure and the company's profit. The research indicates that the company's profit is affected by employee training costs and assets costs.

## **2.11 CONCLUSION**

In conclusion, many of studies regarding the effect of human capital investment have concentrated on the global situation with a handful arising from the South African context. The majority of studies highlighted the significance of human capital funding and productivity of the company. It is been indicated that companies need proper knowledge and skills to have competitive advantage. Therefore companies will be required to invest in human capital.

No studies were found, as far as the researcher is concerned, that have checked out the impact of human capital investment and a firm's performance in terms of sales turnover, share price and net profit in South Africa. This will help executive management and stakeholders of companies to consider investing in human assets in order to improve the performance of firms in South Africa.

Having reviewed the literature, the next chapter deals with the research methodology.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter deals with research method, population and area, the plan and techniques, data arrangement and assessment. The research method is to select the right technique to accumulate information.

#### **3.2 RESEARCH PARADIGM**

Turner et al (2017) define paradigm as a research culture with a set of convictions, values, and assumptions that a group of analysts has in common regarding the nature and conduct of research. There are two types of research paradigms namely: The positivist paradigm and anti-positivism paradigms

According to Su (2017) positivist paradigm emphasises on the importance of acquiring knowledge through scientific methods of enquiry. Positivist paradigm of investigating social reality is based on the philosophical thoughts of the French logician Eminent Comte, who emphasized perception and reason as implies of understanding human conduct (Turner et al, 2017). Strategies related to this paradigm include experiments and surveys where quantitative records are a norm (Su, 2017).

Jordan & Wood (2017) described anti-positivism as where the social truth is considered and interpreted according to the ideological positions that a man or woman hold. Jordan & Wood (2017) indicate that anti-positivist is a social technological knowledge that the social realm may not be situated to the same strategies of research.

The positivist approach is applicable to this study since the objective of this study involves measuring the connection between two variables. The researcher will use the correlation research design. This design is a form of descriptive, quantitative research. In the correlation research design, the researcher acquires information when one variable increases, the other variable either decreases or increases (Leedy & Ormrod, 2015).

### **3.3 RESEARCH METHOD**

Research methods refer to the tools that is used to do research (Rautiainen et al, 2017). According to Bertoa (2017) research methods is the process used to collect information and data for the purpose of making decisions in the company. It essentially includes the selection of quantitative, qualitative or mixed studies methods (Rautiainen et al, 2017).

Bryman (2017) defines qualitative studies as a method of realising for the meaning individuals or corporations ascribe to social or human hassle. A quantitative study is an approach for trying out objective theories through examining the connection of the various variables (Bryman, 2017). A combined technique is a method that involves the collecting of all qualitative and quantitative statistics, integrating the two styles of information. (Bryman, 2017).

During this study, the researcher employed quantitative technique studies due to the fact that positivist paradigm involves measurement of variables. Since this involves the relationship between dependent and independent variables, so as to measure the connection between those variables, a quantitative approach which employs statistical analysis becomes appropriate.

#### **3.3.1 Study Area**

The study was conducted at Sandton City in Johannesburg Gauteng Province at the Johannesburg Stock Exchange. This is because companies for this research are listed on the Johannesburg Stock Exchange.

#### **3.3.2 Target Population**

Harvey (2017) described a population as being the overall of the items about which data is desired. The target population of this research included all companies listed at the Johannesburg Stock Expenditure in social responsible index which was 31 in the 2016 index. This is because of the nature of the study which is dealing with the sustainability of companies.

### **3.3.3 Sampling method**

Sampling is the process of selecting a representative group from the population under study (Bryman, 2017). Sampling, according to Oba & Yamada (2017) means taking any portion of population as a representative of that population. There are two major types of sampling methods are probability and non – probability methods.

#### **Probability sampling**

Erba et al (2018) describe probability sampling as variety being each member of a populace has an equal chance of being selected. According to Oba et al (2017), the probability sampling approach means that every man or woman in a populace stands the same chance of being decided on.

#### **Non – Probability sampling**

Erba et al (2018) say that in nonprobability sampling, the researcher has no way of predicting that each member of the population will be selected in the sample. Nonprobability sampling not all members of the population have an opportunity of collaborating (Erba et al, 2018). The researcher used the non – probability type, which is the purposive sampling method.

### **3.3.4 Sampling size**

Sampling size defined as the number of observations taken from a population through which statistical inferences for the whole population are made. (Erba et al, 2018). The researcher applied the purposive sampling approach and studied 28 companies out of 31 socially responsible investment index in 2016. The other 3 companies were not selected because there was no expenditure amount on employee's development.

### **3.3.5 Sources of data**

#### **Primary data**

A primary information source is an authentic information supply and one in which the statistics are gathered first-hand with the aid of the researcher for a selected study (Patton, Murnane, & Willet, 2014).

#### **Secondary data**

Secondary information is the facts which have been already accrued which are easily available from different assets (Patton, Murnane & Willet, 2014). The main assets of secondary statistics are the internet, database and progress monthly reviews. The researcher used secondary data in this study, since the information was collected in the companies' annual financial statements.

### **3.3.6 Data collection methods**

According to Hanvey (2018) data collection techniques involve the steps of gathering, compiling, and modelling raw statistics in order to acquire for the motive of acquiring positive facts that can be applied to formulate conclusions with the aim of predicting results. The researcher used the amount spent on employees development and training, sales turnover, share price and net profit of the 28 company for a period of 6 years (2010-2015).

The researcher arranged the data in a panel data cross sectional type. According to Ertur & Musolesi (2017) cross-sectional panel data is a type of data collected by observing many subjects (such as firms or individuals) at the same point in time. The panel data was arranged making use of 28 companies multiply by 6 years which gives 168 observations

### **3.3.7 Data analysis**

Data evaluation is the procedure of analysing, cleansing, reworking, and modelling information with the purpose of suggesting conclusions (Hanvey, 2018). The researcher used the Regression Model to analyse data.

*The Regression Model for Secondary Data Analysis:*

The three research questions will be analysed separately using simple regression model as follows:

**Research question 1:** What is the relationship between human capital investment and sales revenue?

*Regression Model* :  $\gamma_1 = \beta_0 + \beta_1\chi_1 + \varepsilon$

Where:  $\gamma_1$  = Sale revenue(dependent variable)

$\beta_0$  = regression intercept

$\beta_{1-3}$  = regression coefficient (the gradient)

$\chi_1$  = Human capital investment ( first independent variable)

$\varepsilon$  = error

**Research question 2:** What is the relationship between human capital investment and share price?

*Regression Model* :  $\gamma_2 = \beta_0 + \beta_1\chi_1 + \varepsilon$

Where:  $\gamma_2$  = sales revenue (dependent variable)

$\beta_0$  = regression intercept

$\beta_1$  = regression coefficient (the gradient)

$\chi_1$  = Human capital investment ( first independent variable)

$\varepsilon$  = error

**Research question 3:** What is the relationship between human capital investment and net profit?

*Regression Model* :  $\gamma_3 = \beta_0 + \beta_1\chi_1 + \varepsilon$

Where:  $\gamma_3$  = Net Profit (dependent variable)

$\beta_0$  = regression intercept

$\beta_1$  = regression coefficient (the gradient)

$\chi_1$  = Human capital investment (first independent variable)

$\varepsilon$  = error

**Measurement of variables:**

The variables (dependent and independent) have been measured and are limited to published annual reports of the organisations; independent external auditors have also ratified these variables. The researcher used the annual amount invested on employee training and development as proxy for human capital investment. Human capital investment is the independent variables and dependent variables are sales turnover, share price and net profit.

**3.4 VALIDITY AND RELIABILITY**

Validity is defined as the degree to which a research study measures what it intends to measure (Csikszentmihalyi & Larson, 2014). There are two main sorts of validity: internal and external. Inner validity refers back to the validity of the size and check itself, whereas external validity is the capacity to generate the findings to the whole population (Csikszentmihalyi & Larson, 2014). The measurement of variables for this research was deemed valid given that the data was collected from the companies listed on the Johannesburg stock exchange whose annual report were already validated by external auditors and stock exchange.

Reliability is a manner of assessing the best of the size process used to accumulate information in a dissertation (Charalambous, 2014). In order for the consequences to be considered within the research, the measurement procedure ought to first be dependable (Charalambous, 2014). This research is reliable given that the researcher used Standard model of statistical analysis which is the regression model in analysing the data. This therefore means that future researchers can repeat this research using the same model to achieve related result.

**3. 5 ETHICAL CONSIDERATION**

The data for this study is composed from the secondary source which is the annual reports of firms. These data are freely available to the public but the researcher gave credit to the owners of the data and used the annual reports in original form without any attempt to change the data, to avoid plagiarism.

### **3.6 CONCLUSION**

In conclusion this study is a quantitative approach to analyse the effect of human capital investment on company performance in South Africa. It was conducted at Sandton City in Johannesburg in Gauteng Province at the Johannesburg Stock Exchange. The study involved the research paradigm of the positivist approach which involves the measurement of variables. The best 28 companies, which is 90% of the entire number of socially responsible investment index in 2016, were purposively selected from the listed companies in the JSE social responsibility index.

The data were collected from the companies' annual financial statements and the researcher used the annual amount invested on employee training and development as proxy for human capital investment. The study was designed using the positivist paradigm because it measures the relationship between variable using a statistical or mathematical approach. Data was arranged in a panel data cross sectional type.

Having touched on the research methodology, the next section analyses the data and discusses the findings.

## CHAPTER 4

### DATA ANALYSIS AND RESULTS

#### 4.1 INTRODUCTION

This section presents the data analysis and the results from the analysis of the effect of HCI on company performance in South Africa. Data collected through quantitative methodology from the annual statement of companies listed in the JSE and the chapter concludes with clarification and discussing the outcome of the study.

#### 4.2 DATA ANALYSIS

Data was analysed using the Regression Model on human capital investment, sales turnover, share price and net profit. Data were collected from 28 companies for the period of 6 years (2010 – 2015) which makes 168 observations using panel arrangement of data.

This research set out to answer the following questions and hypotheses:

1. What is the relationship between human capital investment and sales turnover  
Regression model for research question 1:  $\gamma_1 = \beta_0 + \beta_1\chi_1 + \varepsilon$
  
2. What is the relationship between human capital investment and share prices?  
Regression model for research question 2 is:  $\gamma_2 = \beta_0 + \beta_1\chi_1 + \varepsilon$
  
3. What is the relationship between human capital investment and net profit?  
Regression model for research question 3 is:  $\gamma_3 = \beta_0 + \beta_1\chi_1 + \varepsilon$

Hypotheses were as follows:

H1<sub>0</sub> – There is no relationship between human capital investment and sales turnover.

H2<sub>0</sub> - There is no relationship between human capital investment and share price.

H3<sub>0</sub> – There is no relationship between human capital investment and net profit.

The data is analysed at an alpha ( $\alpha$ ) of 0.05, therefore, if the  $P$  value is less than 0.05 reject the null hypotheses but if the  $P$  value is greater than 0.05 the null hypotheses stand.

#### 4.2.1 Human capital investment and sales turnover

**Research question 1:** what is the relationship between the human capital investment and the company's sales turnover?

Null Hypothesis:  $H_0$ : there is no relationship between human capital investment and sales turnover

**Table 4.1: Statistical results and findings (HCI and sales turnover)**

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0,151741724							
R Square	0,023025551							
Adjusted R Square	0,017140163							
Standard Error	4425084,709							
Observations	168							
					Dependent = Sale Turnover			
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	7,66087E+13	7,66E+13	3,912324888	0,049588282			
Residual	166	3,25051E+15	1,96E+13					
Total	167	3,32712E+15						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	1479082,749	447946,5985	3,301918	0,001175808	594675,9046	2363490	594675,9046	2363489,593
HCI	-3482,299412	1760,551174	-1,97796	0,049588282	-6958,257291	-6,34153	-6958,257291	-6,341532476

The regression significance shows that  $P$  value is 0.04 which is less than 0.05. This is therefore an evidence to reject the null hypothesis. This result also indicates a significant correlation between human capital investment and sales turnover. From this finding, research question 1 has been answered.

## 4.2.2 Human capital investment and share price

**Research question 2:** What is the relationship between the human capital investment and the share price?

Null Hypothesis: H0: – there is no relationship between human capital investment and share price

**Table 4.2: Statistical results and findings (HCI and share price)**

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0,030053117							
R Square	0,00090319							
Adjusted R Square	-0,005115466							
Standard Error	1660,08525					Share Price = Dependent Variable		
Observations	168							
<i>ANOVA</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	413561,7201	413561,7	0,150065	0,698969			
Residual	166	457476584,3	2755883					
Total	167	457890146						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	758,7307935	168,0486567	4,514947	1,2E-05	426,9426	1090,518963	426,9426236	1090,518963
HCI	-0,255856957	0,66047663	-0,38738	0,698969	-1,55987	1,048160205	-1,55987412	1,048160205

The results from the regression significance indicate that P value is 0.69 which is greater than 0.05. This outcome also reveals a negative regression coefficient of -0.255, showing that R1 invested in HCI decreases share price by 25c within the short term. From this finding, research question 2 has been answered.

### 4.2.3 Human capital investment and net profit

**Research Question 3:** What is the relationship between the human capital investment and the net profit of a firm?

Null Hypothesis: H0: There is no relationship between human capital investment and net profit.

**Table 4.3: Statistical results and findings (HCI and net profit)**

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0,109900596							
R Square	0,012078141							
Adjusted R Square	0,006126804							
Standard Error	215743,9248							
Observations	168							Dependent = NP
<i>ANOVA</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	94463218355	9,45E+10	2,029484	0,156150267			
Residual	166	7,72654E+12	4,65E+10					
Total	167	7,82101E+12						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	69459,5981	21839,52706	3,180453	0,001755	26340,55829	112578,6379	26340,55829	112578,6379
HCI	-122,2808456	85,83524274	-1,4246	0,15615	-291,7503235	47,18863226	-291,7503235	47,18863226

The results indicate that P value is 0.16 which is far more than the research alpha level of 0.05. This means that the null hypothesis is not rejected and, indicates a negative significance, with no link between HCI and net profit. Therefore, this means that, within the sample of companies, there is no significant relationship between human capital investment and the net profit of a company. The findings also reveal a negative regression coefficient of -122.28, indicating that R1 spent in HCI decreases net profit by R122 within the short term. The researcher used a period of six years and the result shows that HCI reduces the net profit due to expenditure rising on HCI. From this finding, research question 3 has been answered.

### 4.3 DISCUSSION AND FINDINGS

This section presents the discussion and findings based on the research questions in relation to other various researchers.

#### **4.3.1 Discussion of the relationship between human capital investment and sales turnover.**

The result of examining the human assets investment and sales turnover shows a significance and positive relation connecting HCI and sales turnover. This result relates to the analysis performed by other researchers. The paper done by Bai (2013) outlined human capital investment in a form of training which affects the workers production. This lead to the productivity of the company.

Another study by Raineri (2016) reveals that investing human capital in a company through personnel selection, performance evaluation, training and empowerment practices, improves human resource performance and leads to employees producing more goods and services which will probably affect the sales turnover.

It is also indicated from the finding of Chowdhury et al (2014) that there is a strong interrelation of workers' development and efficiency in a company with higher standards of workers training than in a company with lower standards of employee training. These findings indicate a likelihood that companies which invest in human capital will experience higher productivity or value in terms of sales revenue.

The study conducted by Rowland et al (2017) shows that there is not enough proof that human capital development will improve workers' determination and job satisfaction which will add value to the company's performance. Elnaga & Imran (2013) also finds no enough evidence that HCI influence staff performance which will help company's production and it is recommended that executive management should investigate the challenges that will lead to no performance of the firm.

#### **4.3.2 The relationship between human capital investment and share price.**

Examining the relation connecting human capital investment and share price, the research results highlight there is not significance link between human capital investment and share price. This findings relates to Kim & Ployhart (2014) on the influence of employee development on the output and financial gain of companies. The results show that companies that invest in HC will overcome the competition by

producing more, satisfy their customers and attract more investors but there is a negative link between HCI and share price.

Ravi et al (2013) also concluded that in the research named 'The evaluation for the effect of employee skills investment', companies that encourage employee training experience more workers high performance. This adds to company's productivity and attracts more investors which will eventually affect share price.

It is revealed in Mariappanadar & Kairouz (2017) on the effect of HCI, company performance on shareholders share price. The result shows that shareholders are more interested in the company's production and human capital investment in order for them to decide on whether to buy or sell shares. The research concluded that human capital investment, company performance and share price are very important for shareholders in taking the right decision about investment in companies.

Companies will experience higher expenditure and this will affect the company's share price for a while, but over the long term companies that invest in human capital would experience profitability within a range of 10 to 13 years (Blundell et al, 1999).

#### **4.3.3 The relationship between human capital investment and net profit.**

In examining the link between human assets investment and net profit, the research results shows a no significance connection linking human capital investment and net profit. This finding indicates a likelihood that companies, which invest in human capital will have a higher propensity to experience expenditure for a number of years and will gain better financial performance or value in terms of net profit after a period of more than ten years. This finding relates to the research done by Shaw et al (2013) which evaluate the HCI and organisational performance. The study reveals that investing more on human capital will result in human capital losses because employees will be more literate and will then look for better organisations that will suit the skills they have acquired. The study further indicates that because workers will be leaving the company, the company's financial performance and productivity will suffer.

The study of Pivac et al (2017) also indicate that firms that spend more money on human capital investments will experience an increase in expenditure but there is a likelihood of gaining profit after five years. The study also examined the companies that prioritise the skills of employees the outcome will differ in terms of size of the company. On the other hand, Campbell et al (2017) examined the connection on the effect of employee training expenditure and company's profit. The study analysed data using the regression model and found a strong connection between the employee training expenditure and company's profit. Guery & Pendleton (2017) conducted a research of the employee development, training and company's net profit and the study indicated a powerful connection between workers training and the company's net profit.

Companies will experience higher expenditure and this will affect the company's net profit for a while, but over the long term companies that invest in human capital would experience profitability within a range of 10 to 13 years (Blundell et al, 1999).

#### **4.4 CONCLUSION**

In conclusion, the best 28 companies, which is 90% of the entire number of socially responsible investment index in 2016 for the period of six years (from 2010 to 2015) were examined for the reaction of HCI and thus performance in terms of sales turnover, share price and net profit. The result indicated the pragmatic connection linking HCI and sales turnover, but that there was no significant relationship between HCI and share price, and net profit. This, therefore, means companies that invest in human capital will surpass the competition by producing more and satisfying its customers and will be able to increase sales revenue. On the other hand, firms will experience higher expenditure and this will affect the company's net profit for a while, but over the long periods companies that invest in human asset will be able to gain competitive advantage and satisfy their client and this therefore will increase the company's performance. Having analysed the data and having discussed the findings, the following chapter concludes the report and offers recommendations.

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATION**

#### **5.1 INTRODUCTION**

This section of the research summarises the whole study by presenting a deliberation of how the targets of the research were executed. In the following sections, the three objectives of the research are set out and this is accompanied by a discussion of how the results of the research supplied an answer to each of the objectives. Section 5.2 presents a summary of the findings that addressed the research objectives raised in the beginning. Section 5.3 highlight the limitations, 5.4 makes recommendations and 5.5 present's conclusions.

#### **5.2 SUMMARY OF RESEARCH FINDINGS**

*Objective 1: to determine the relationship between human capital investment and sales turnover.*

The findings from the regression analysis in Table 4.1 indicate a significant and positive link between HCI and sales turnover. This result indicates that HCI has a strong impact on the sales revenue of the companies in South Africa. This finding is supported by Li, Chow & Chow (2014) who show that employees who received job training tend to be more effective and produce good results in their work place. It further indicates that, when employees produce good results, the company performs well and clients develop trust in company due to the quality services which is provided.

Bapna et al (2013) highlighted that workers are the most important resources for any company. Investing in different learning programs for these assets can significantly offer assistance increment employees' efficiency as well as the inspiration within the work environment. When the labourers know that the management cares enough to contribute within the future of the person in conjunction with the company. This leads to higher representative fulfilment which in turn boosts fulfilment and income.

In a survey deduced by the American Society of Training and Development in 1998, two organisations and their expenses for employee trainings were observed. The research discloses that an average of \$900 per worker saw 57% higher sales per individual. It was then declared by the president of the United State of America that companies investing more in human capital are more successful as proven by tangible results (Backman, 2014). This answer means that companies should encourage more job training for employees to improve workers' skills so they can be more efficiency and productive in their functional areas.

*Objective 2: to observe the relationship between human capital investment and share price*

With the purpose of identifying the connection between human capital funding and share price in Table 4.2 the researcher made used of regression analysis which tested at 0.05 significant levels. The findings from this analysis reveal that there is no connection between HCI and share price. These results, therefore, indicate that investing in HC does not impact the share price. This analysis means that share price is an indicator of the health of the company.

However, this findings contradicts the one by Mariappandar & Kairouz (2017) that companies that put more efforts into employee development will be productive in the long run and make more profit which will attract more investors and this therefore will eventually affect the share price. Firms should take HCI into consideration to realise more revenue or capital by attracting new investors, achieving more profit and contributing in the economic growth. This answer indicates that an incremental increase in training expenditure (human capital Investment) does not yield an increase in share prices.

*Objective 3: to note the relationship between human capital investment and net profit*

Using a panel data approach and the regression statistics, findings from the analysis show that human capital investment has a negative but not significant connection with the net profit. This means that there is a decrease in the company's net profit for a short period of six years. The company will experience a decrease in the bottom line because of the expenditure increase in human resources development whose effect will take some time (long-term) to be fruitful.

Sung & Choi (2014) revealed that customer satisfaction is led by the existence of well skilled employees who are more innovative and willing to provide more quality service delivery to their customers. This means with consumers being satisfied, in the long run the company will be able to produce and sell more and this will yield higher profit and better performance of the firm. It is also found in Pivac et al (2017) that companies that emphasise more on human assets investment have competitive advantage because of their capabilities and they make higher profit.

This then indicates that companies should not assess the HCI profit performance based purely on the short term because the benefit will take a while to mature. Consequently companies should focus on investing in HC in order to make more profit and maximise the wealth of the firm.

### **5.3 LIMITATIONS**

The result of this research is limited by the time and number of the companies used. The researcher used the companies found only in the socially responsible investment index of the JSE index which does not cover all the registered companies in South Africa. Also, the time coverage was limited from 2010 to 2015, the reason was that the Kings III came out in 2009 and the application began in 2010.

## **5.4 RECOMMENDATIONS**

The findings of this study are likely to change from negative to positive with a longer period of data. This means that future study should use a longer period of data and wider coverage of firms to include more firms outside of the JSE SRI Index companies. South Africa is facing difficulties on the issue of gender inequality. In order to close this gap it is recommended that firms should invest in human assets development for all the employees stressing on the participation of more women and youth.

## **5.5 CONCLUSIONS**

This research set out to examine the effect of human capital investment and performance of companies. The researcher analysed the connection between human capital investment and sales turnover, share price and net profit. The empirical literatures was reviewed to understand what other researchers have found related to this study. Furthermore, the study is supported by human capital theory because it accentuates employees' skill development. The study used secondary data, which were collected from the sampled companies' Annual Financial Statements.

The researcher embraced a quantitative approach as the research paradigm is positivists which included the relationship between factors. In order to measure the relationship between these factors, a quantitative approach which utilises statistical analysis was considered appropriate. The populace of this research comprised the companies recorded in FTSE/JSE Responsible Investment Index Series. The researcher considered 28 companies for the period of six years (2010 – 2015), which constitutes a panel data of 168 perceptions. These companies were purposively chosen based on the reliable accessibility of human capital consumption information over the six years of the research. The human capital expenditure was the reported monetary expenses spent on human capital development in the annual reports of companies and the regression statistics were applied to analyse the panel data.

The findings in this study indicate that within the period of six years human capital investment increase and courses the company's sales turnover to increase due to the efficiency of the employees after training. The results also reveal that within the short term HCI may decrease the corporates' bottom line due to increase in human capital development expenditure. This decrease may be short-lived; companies should not be discouraged by the brief short-term decrease in profit and performance arising from HCI. Over the long term companies that invest in HC would experience profitability (within a range of 10 to 13 years) (Blundell et al, 1999). The results revealed that companies that invest in human assets improve service delivery which tends to increase productivity and profitability attract new investors in the firm. Hence, companies are encouraged to put more efforts into investing in human development to secure their long term competitive survival. The researcher concludes that human capital investment has an impact on corporates performance. This research is contributing to the literature on human capital investment and the performance of companies. As far as the researcher is concern, this research is the first of its nature in South Africa.

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30 March 2017

F.M Masuluke (201724323)  
TURFLOOP GRADUATE SCHOOL OF LEADERSHIP  
MASTER OF BUSINESS ADMINISTRATION

Dear FM Masuluke,

#### FACULTY APPROVAL OF PROPOSAL

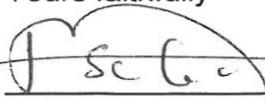
I have pleasure in informing you that your Masters proposal served at the Faculty Higher Degrees Committee meeting on **15 March 2017** and your title was approved as follows:

*"Analysis of the effect of Human Capital Investment on Company Performance"*.

Note the following: The study

Ethical Clearance	Tick One
Requires no ethical clearance Proceed with the study	✓
Requires ethical clearance (Human) (TREC) (apply online) Proceed with the study only after receipt of ethical clearance certificate	
Requires ethical clearance (Animal) (AREC) Proceed with the study only after receipt of ethical clearance certificate	

Yours faithfully

 31/03/2017

**Prof MP Sebola**

**Chairperson: Faculty Higher Degrees Committee**

CC: Prof CC Ngwakwe, Supervisor, Prof MM Kanjere, Acting Programme Manager and Prof MX Lethoko, Acting Director of School

Masuluke.MF

Excel spreadsheet comprising raw data of the JSE 2010 - 2015 FTFE/JSE responsible index

Data Collection Template

HCI = Human capital investment or expenditure

Anglo Gold Ashanti	Year	HCI	NetProfit	SalesTO	SharePr
	2010	272	112	54.02	32.982
	2011	279	1.587	65.69	38.536
	2012	395	897	63.18	25.7
	2013	255	-2.23	52.66	11.756
	2014	144	-58	49.65	9.415
	2015	132	-85	40.15	11.209
Barclays Africa Group Ltd	Year	HCI	NetProfit	SalesTO	SharePr
	2010	372	8.118	42.814	13.71
	2011	526	9.674	40.751	14.02
	2012	790	9.999	48.84	16.45
	2013	512	11.981	55.238	13.329
	2014	798	13.216	59.879	17.95
	2015	546	14.331	63.423	17.289
Barloworld LTD	Year	HCI	NetProfit	SalesTO	SharePr
	2010	80.5	44	40.83	6.551
	2011	119.1	1.017	49.823	7.21
	2012	156.6	1.559	58.554	8.47
	2013	120.1	1.609	59.498	9.6
	2014	129.2	2.143	62.101	9.684
	2015	140.5	1.713	62.72	17.818
BHP Billiton Ltd	Year	HCI	NetProfit	SalesTO	SharePr
	2010	0.12	12.722	52.798	45.03
	2011	0.10	23.648	71.739	35.15
	2012	0.11	15.473	70.477	36.07
	2013	0	11.223	53.86	37.23
	2014	0	13.832	56.762	30.42
	2015	0	1.91	44.636	25.6
British American Tobacco PLC	Year	HCI	NetProfit	SalesTO	SharePr
	2010	0.55	2.879	14.883	25.682
	2011	0	3.095	15.399	38.35
	2012	0	3.797	15.19	42.852
	2013	0	3.904	15.26	54.201
	2014	0	3.115	13.971	64.142
	2015	0	4.29	13.104	87.314
Exxaro Resources	Year	HCI	NetProfit	SalesTO	SharePr
	2010	6.3	5,235	17,155	500
	2011	4.4	7 657	12 126	2 199
	2012	9.7	9 647	12 229	2 734
	2013	13	8,844	13,568	1,463

		2014	15.02	306	16 401	-249
		2015	14.2	2 434	18 330	83
<b>Firststrand Limited</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	216	9,444	28,892	5 637.9
		2011	270	20,065	29,565	5 637.9
		2012	340	12 730	24 972	2 639
		2013	405	15 420	27 018	2 893
		2014	420	18 663	30 639	4 075
		2015	510	21 286	32 709	5 332
<b>Mondi Group</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	81	251	5610	37.8
		2011	88	357	5739	57.5
		2012	97	277	5790	50.1
		2013	108	414	6476	79.8
		2014	113	497	6402	97.40
		2015	105	645	6819	127
<b>Nedbank Group</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	244	4,900	13,215	480
		2011	301	6,184	15,412	605
		2012	352	7,483	17,324	752
		2013	396	8,670	19,361	895
		2014	491	9,880	20,312	1,028
		2015	501	11,162	20,844	2,261
<b>Netcare</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	32	1,460	22,474	94.1
		2011	38	1,855	23,221	122.1
		2012	42	2128	25174	139.50
		2013	46	5050	27382	381.20
		2014	45	2096	31783	157.5
		2015	41	2439	33711	178.9
<b>Sanlam</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	58.5	6,471	63,329	28
		2011	58.2	5,661	52,810	33.1
		2012	115	7,886	85,949	45.7
		2013	144	9,619	95,682	30.1
		2014	170	10,597	87,072	55
		2015	195	9,128	77,973	22.4
<b>Sasol</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	488	16,387	122,256	26.68
		2011	510	20,220	142,436	32.28
		2012	590	24,257	169,446	39.1
		2013	615	27,182	181,269	43.38
		2014	654	30,417	202,683	48.57
		2015	692	31,162	185,266	48.71
<b>Standard Bank Group</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	331	1,460	22,474	97.0
		2011	366	1,855	23,221	122.1

		2012	605	19,269	143,832	110.90
		2013	424	20,006	158,646	116.20
		2014	534	18,145	84,069	123.2
		2015	617	23,458	91,115	94.1
<b>Tiger Brands</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	10.13	2,175	19,378	1,386
		2011	16.0	2,578	20,479	1,629
		2012	10.9	2,747.80	22 677,0	865
		2013	10.1	2 555,1	27 003,5	1,629
		2014	7.7	1 904,8	30 072,0	950
		2015	10.8	3 109,5	28 660,0	1,065
<b>Truworths International</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	48	1,604	6,937	5,575
		2011	64	1,943	7,858	6,833
		2012	81	2227	8830	8,952
		2013	83	2408	9765	8,695
		2014	87	2410	10458	7,490
		2015	103	2460	11290	8,649
<b>Vodacom Group</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	55	4,196	58,535	566
		2011	71	7,979	61,197	460
		2012	68	10,203	66,929	710
		2013	56	17640	69,917	887
		2014	77	18246	75,711	785
		2015	130	17699	62037	864
<b>Woolworths Holdings</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	2.8	2,038.0	34.675	164.0
		2011	3.1	2,140.3	36.176	174.6
		2012	3.5	2,179.2	37.549	177.4
		2013	4.6	2,359.1	40.031	189.4
		2014	6.8	2,458.4	41.171	137.0
		2015	7.5	2,445.5	42.132	139.0
<b>African Rainbow Minerals Ltd</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	192	1974	11,425	88.00
		2011	157	3311	14893	89.95
		2012	170	3438	17530	76.50
		2013	184	1634	19844	50.20
		2014	196	3289	10004	31.15
		2015	199	104	9263	15.59
<b>Anglo American Group</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	17.5	10.116	46.025	1.935
		2011	19.1	3.687	51.117	1.365
		2012	7.1	-6.720	42.838	999
		2013	15.6	-1.514	52.404	556
		2014	16.0	372	55.612	301
		2015	14.8	-5.842	20.455	1368

<b>Gold Fields</b>		<b>Year</b>	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	229	362.9	18,308.1	-11
		2011	310	21.112	41.877	973
		2012	408	5,931.1	45,469.3	778
		2013	366	(3,602.8)	27,900.6	-811
		2014	468	20.4	2,868.8	-79
		2015	435	-242.6	2,545.40	-31
<b>Grindrod</b>		<b>Year</b>	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	9.5	273,417	29,390,576	171.6
		2011	9.8	348,817	35,885,258	111
		2012	3.9	905 292	27 262 223	141.8
		2013	2.34	1 262 050	15 662 026	199.1
		2014	2.31	1,075,977	13,912,482	147.6
		2015	1.84	-1,368,573	10,192,369	(189.8)
<b>Impala Platinum Hlds</b>		<b>Year</b>	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	272	4,794	25,446	786
		2011	357	6,810	33,132	1,105
		2012	354	4,299	27,593	685
		2013	428	1,075	30,032	330
		2014	331	-129	29 028	1
		2015	523	(4 139)	32 477	-603
<b>Intu Properties Plc</b>		<b>Year</b>	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	2.5			
		2011	2.8	33.6	516.1	16.5p
		2012	2.4	158.6	525.7	17.6p
		2013	3.9	364.0	533.2	37.8p
		2014	2.4	593.7	536.4	48.0p
		2015	4.8	513.0	571.6	39.3p
<b>Investec Ltd</b>		<b>Year</b>	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	127.2	346,133	309 878	44.0
		2011	144.8	420,516	2,238,783	49.7
		2012	130.3	247,527	2,299,925	25.7
		2013	161	310 092	703 607	36.1
		2014	189.1	371,866	495,043	43.1
		2015	251.6	409,910	539,041	47.5
<b>JSE</b>		<b>Year</b>	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	3.6	378,007	1,255,148	445.5
		2011	4.9	341,795	1,369,810	400.8
		2012	4.1	302 111	1 384 867	351.8
		2013	4.3	506 628	1 577 552	592.1
		2014	4.3	634,339	1,778,629	742.4
		2015	4.3	899,478	2,133,548	1 051.0
<b>Kumba Iron Ore</b>		<b>Year</b>	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	286	18,289	38,704	44.66
		2011	224.2	31.966	48.553	53.11

		2012	241	16.455	45.446	38.87
		2013	224.2	20.3	54.461	48.09
		2014	286	14.148	47.597	33.44
		2015	275	627	36.138	1.46
<b>Life Healthcare Group Holdings</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	13	835	8,786	14.44
		2011	13	1,492	9,812	19.30
		2012	13	1,743	10,937	31.75
		2013	13	2,054	11,843	35.74
		2014	13	3,118	13,046	44.54
		2015	13	2 228	14 647	35.00
<b>Massmart Holdings</b>		Year	<b>HCI</b>	<b>NetProfit</b>	<b>SalesTO</b>	<b>SharePr</b>
		2010	1.574	1,211.8	47,550.6	562.8
		2011	1.879	918.8	53,089.5	412.1
		2012	3.012	1,031.0	66,050.3	449.8
		2013	2.935	1,342.1	72,050.3	591.4
		2014	3.778	1,137.4	72,512.9	497.8
		2015	2.964	1,169.2	84,857.4	513.5

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## **BERNICE BRADE EDITING Member of the Professional Editors' Guild**

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To whom it may concern: Certificate of Editing

This letter serves to confirm that in **November 2018** I did the proofreading and the language editing for the Mini-Dissertation of

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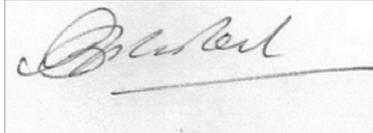
Titled: ***Analysis of the Effect of Human Capital Investment on Company Performance***

This document is being submitted in fulfilment of the requirements for the degree

**MASTER OF BUSINESS ADMINISTRATION**  
**In the Faculty of Management Sciences and Law**  
**At the Turfloop Graduate School of Leadership**  
**Of the UNIVERSITY OF LIMPOPO**

I have proofread and edited the entire Mini-Dissertation, including the introductory pages, and the list of references but I have not been asked to edit any Appendices. This editing principally involves proofreading, language, style and grammar editing; and also checking the text for clarity of meaning, sequence of thought and expression and tenses. I have also noted any inconsistencies in thought, style or logic, and any ambiguities or repetitions of words and phrases, and have corrected those errors which creep into all writing. I have written the corrections on the hard copy and have returned the document to the author, who is responsible for inserting these. Please note that this confirmation refers only to editing of work done up to the date of this letter and does not include any changes

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**Bernice McNeil BA Hons NTSD 23 November 2018**



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