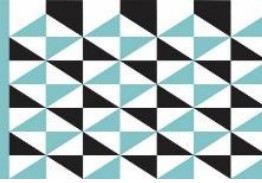


**DURBAN UNIVERSITY OF TECHNOLOGY**

**DRIVERS OF CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABLE FIRM  
LEVEL GROWTH: A CASE OF SMALL AND MEDIUM ENTREPRISES IN KWAZULU-  
NATAL**

**STUDENT FULL NAME: PRAVEEN KUMAR VASALA**

**OCTOBER 2023**



**DRIVERS OF CORPORATE SOCIAL RESPONSIBILITY STRATEGY AND  
SUSTAINABLE FIRM LEVEL GROWTH; A CASE OF SMALL AND MEDIUM  
ENTREPRISES IN KWAZULU-NATAL**

Submitted in fulfilment of the requirements of the  
degree of **Doctor of Philosophy** in Management Sciences  
Specialising in  
Business Administration  
in the  
Faculty of Management Sciences  
at the Durban University of Technology

**STUDENT FULL NAME: PRAVEEN KUMAR VASALA**

**OCTOBER 2023**

**APPROVED FOR FINAL SUBMISSION**

Supervisor (Affiliation): DUT ( Signature)

Date: 17 /07/2024

## DECLARATION

I, **Praveen Kumar Vasala**, Student Number: **21033369**, declare that the work submitted is my original work and has not been submitted to any university for degree or non-degree purposes. I further declare that the work cited in this study is fully referenced as per the academic requirements of the Durban University of Technology.

**Signature:**

A handwritten signature in black ink, appearing to read 'Praveen Kumar Vasala', written over a horizontal line.

## **ABSTRACT**

The study investigated the role of firm level resources in adopting corporate social responsibility (CSR) strategy and firm level growth. Firm resources drive specific CSR strategy selection, implementation, and drive firm level growth. This premise was drawn from the consensus that Small and Medium Enterprises (SMEs) are critical for economic growth in developing and developed economies. For Instance, in South Africa, aggregate economic growth is influenced by the micro-level performance of individual firms. Thus, in this vein, there is growing recognition of SMEs' important role in economic development. They are often described as efficient and prolific job creators, the seeds of big businesses, and the fuel of national economic engines, with much hype placed on their ability to create employment. Nevertheless, for a multiplicity of reasons, the success rate of SMEs in South Africa is low, and several studies have identified a lack of finance as one of the main reasons for the low success rate. This study used literature and data to capture the nexus of firm level resources, CSR strategy and firm level growth. For instance, in the present study, the theory of the growth of the firm and Resource Based Views (RBVs) was used as a theoretical framework to illuminate the firm level resources that inform CSR strategy and enhance firm level growth. From the total population of SMEs in KwaZulu-Natal (KZN), this study developed a stratified sampling process that showed the major economic sectors, such as the manufacturing, mining, retail and technology sectors. Primary data were collected through a cross-sectional survey using a closed ended research instrument and analysed using advanced econometric estimations, the structural equation model (SEM) and the path analysis (PA). The evidence suggested a bidirectional causal influence between firm level growth imperatives and CSR strategies in SMEs in KZN, albeit the intensity of causality seemingly varied per industry and the implemented CSR strategy.

**Keywords:** Firm Resources; CSR Strategy; Firm Growth; SMEs

## ACKNOWLEDGEMENTS

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- My supervisor **Professor Abdulla Kader** for providing excellent guidance and motivation during the trying times of this academic endeavour.
- The entire Durban University of Technology (DUT) staff for their unwavering support and guidance throughout this academic endeavour.
- My entire family for providing unwavering support and love in the trying times of this academic journey.

## DEDICATION

*This study is dedicated to my late Mother, Mrs Shobha Rani Vasala and my Loving wife Mrs Hima Bindu Vasala for their endless love, support and encouragement*

## LIST OF ACRONYMS

Acronym	Description
ADF	Asymptotic Distribution Free
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
DCCI	Durban Chamber of Commerce and Industry
DUT	Durban University of Technology
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
GLS	Generalised Least Squares
KI	Kurtosis Index
KZN	KwaZulu-Natal
MICEB	Mulawarman International Conference on Economics and Business
ML	Maximum Likelihood
NGO	Non-governmental Organisations
PA	Path Analysis
PCB	Pietermaritzburg Chamber of Business
PEB	Pro-environmental Behaviour
PLS	Partial Least Squares
SDG	Sustainable Development Goals
SEM	Structural Equation Model
SI	Skewness Index
SME	Small and Medium Enterprises
SURE	Seemingly Unrelated Equation
TBL	Triple Bottom Line
WLS	Weighted Least Squares
ZCB	Zululand Chamber of Business
RBV	Resource Based Views

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## **CHAPTER ONE: INTRODUCTION AND BACKGROUND OF THE STUDY**

### **1.1 INTRODUCTION**

The present study investigated the drivers of corporate social responsibility (CSR) strategy and firm growth in the KwaZulu-Natal (KZN) province of South Africa. In particular, this study investigated the role of firm level resources in driving CSR and firm level growth. Consistent with this objective, the present study is based on the premise that specific firm level resources are critical in adopting a CSR strategy that enhances competitive advantages and firm level growth (Baumgartner, Gelbmann & Rauter, 2017). Thus, sustainable firm level growth enhances firms to develop organisational resources that enhance a sustainable CSR initiative.

Furthermore, from a macroeconomic perspective, Kumar, Antony and Tiwari (2019) suggested that Small Medium Enterprises (SMEs) are drivers and enablers of economic growth in developing and developing economies including South Africa. For instance, in South Africa, SMEs contribute 91% of registered companies; SME contribute 60% of the labour force and their total economic output and productivity account for an estimated 34% of South Africa's Gross Domestic Product (GDP) (Statistics South Africa, 2019). Given the critical socio-economic role played by SMEs, it is vital that they grow and succeed (Massoud, 2019).

For example, South Africa experiences contemporary economic challenges that are driven by declining and contrasting economic activity. However, many of these challenges to a large extent are linked to low macro-economic objectives such high inflation, low exchange rate, unemployment and lack of support for SMEs as well difficulties in the ease of starting business that relate to corporate governance. Furthermore, Massoud (2019) suggest that South Africa's unemployment rate is approximately 32.5% and it is expected to increase by a similar margin in the next few years. However, if one were to include discouraged work seekers between the ages of 16 to 60, then the unemployment rate would be roughly 40%. In 2014, at least 65% of children in South Africa lived in households with at least one working adult. The other 35 % (over 6.5 million children) lived in households lived under the poverty datum line. Between 2003 to 2011, there was only a slight decrease in unemployment due to increased commitment to the soccer World Cup in South Africa, with the proportion of

children who live in unemployed households hovering around 35 %. Olawale and Garwe (2019) posit that the development of SMEs is a significant component of the sustainable solution to South Africa's macro-economic challenges as well as development issues. However, most new SMEs do not grow, about 95% of SMEs do not develop into listed corporate. The failure rate in South Africa (95%)'s SMEs development has a causal effect on the South Africa's economic growth and development.

Despite their importance, contribution to economic development and growth, SMEs, in South Africa are faced with several challenges that impede on organisational growth and performance. Apart from SME's access to external funding which is one of the major reasons that impede SMEs growth rate, the Global Entrepreneurship Monitor (GEM) Reports (2016) seemingly suggests that South African SMEs also suffer from lack of expertise and management skills, lack of advertising as well as poor investment in CRS which results in stagnant growth.

In this instance, this high rate of business failure results in business closures and a generally high unemployment rate in the economy (Mahembe, 2019). In the recent past, South Africa experienced a viral decline of economic growth signalled by high unemployment, and even through SMEs play a pivotal role in reducing unemployment and enabling economic growth, nonetheless, in their efforts to do so, the chances of survival are close to none. And the role of SMEs in reducing unemployment and enabling a sustainable economic growth and development is seemingly weakened.

In a recent surge of studies, several studies suggest that access to external sources of funding has a positive causal impact on the SMEs growth imperatives, similar studies around the world also contend that CSR have an equally important role in enabling sustainable growth and performance for SMEs. Nevertheless, there is a paucity of studies undertaken in South Africa that buttress this academic standpoint. Therefore, the academic consensus is that general agreement in developing countries that there is very little information on SMEs and that research on ethics and social responsibility in SMEs is limited. Theoretical developments from SMEs' perspectives are virtually non-existent (Fatoki & Chiliya, 2019).

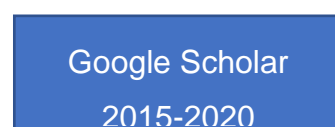
Notably, from the dearth studies that investigate the relationship between CSR and drivers of corporate performance and sustainable development, there is a general belief that research on CSR in SMEs is insufficient in developing countries. Nonetheless, Delchet-Cochet and Vo (2017) posit that while articles have been calling for research on CSR in SMEs, academic endeavours in this academic direction are elusive, and a considerable amount of research is needed. In this view, the stakeholder inclusivity approach to social responsibility as postulated in this study provides a consistent and integrated a theoretical framework that enable the development of recommendations which enhance adoption and implementation of CSR by SME businesses. Therefore, this study narrowed the gap in the literature by examining the role of social responsibility on firm level growth in the KZN province of South Africa.

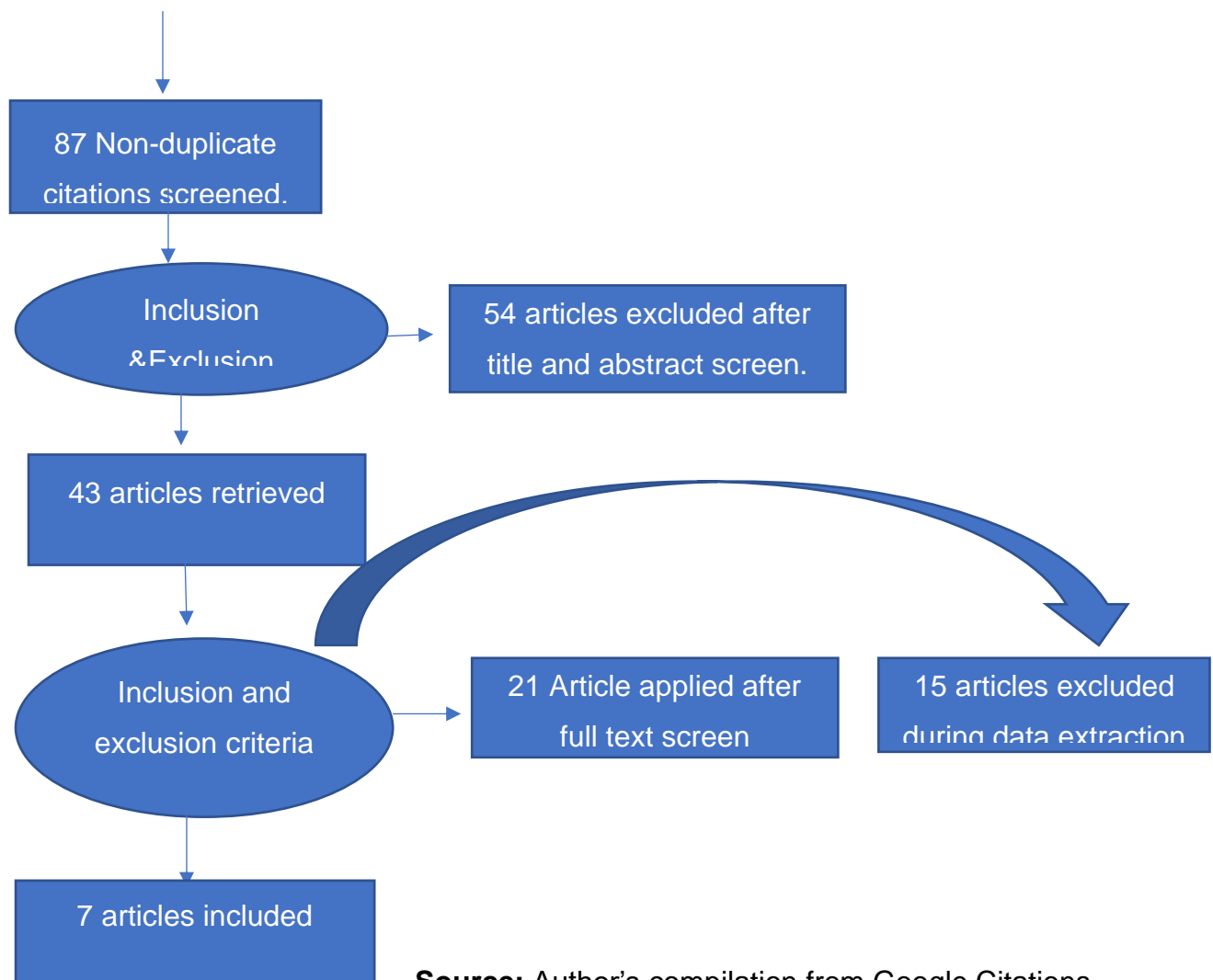
In particular, in the KZN province, Statistics South Africa (2019) suggested that CSR drives 30% of societal development issues from SMEs. In return, SMEs receive intangible assets from society, such as skills and competences, entrepreneurship, and goodwill. Therefore, the present study argues that elements of the CSR have a causal impact on firm level growth imperatives. Arising from this argument, a proposal was put forward to use the theory of the growth of the firm (Penrose, 1959) and the RBVs (Barney, 1991) as a theoretical lens to illuminate the causal relationship between firm level resources, firm level growth and CSR strategy.

## **1.2 PROBLEM STATEMENT**

In the present study, the prevailing problem manifests in two perspectives. First, from an academic perspective, there is a dearth of studies that investigates a theoretical framework that link drivers of CSR strategy with sustainable firm level growth. In particular, CSR strategy is informed by firm level resources and creates sustainable competitive advantages such as goodwill, recognised as a tangible asset and understood to create corporate image and value. Figure 1.1 below illustrates the paucity of studies that link CSR and sustainable firm level growth using the prism method.

**Figure 1.1 Google Citations**





**Source:** Author's compilation from Google Citations

From the literature analysis, 97 articles were identified regarding the nexus between firm level growth and CSR. After further screening, 10 articles were found to be similar and thus were removed from the analysis, 54 articles were removed after reading abstracts, and 43 were read in full to determine the context and legibility. Furthermore, after full-text reading and screening, 21 articles were excluded for not conforming to the required standard and inclusion criteria; and 15 more were excluded during data extraction. After the final selection, a total number of seven articles were considered. Of the seven articles, only three explained the link between the drivers of CSR and firm level growth. However, on examining all of the three documents, none developed a theoretical framework that linked firm level growth and CSR.

Second, the problem was that; in the absence of a theoretical framework that embraced the link between firm level growth and CSR, there was no empirical evidence to test the relationship between drivers of CSR and firm level growth. Thus, the present study attempts to fill this research gap.

Third, as noted above, there was no theoretical framework or empirical evidence that linked the drivers of CSR to firm level growth. Therefore, it was evident that there was a significant absence of strategic policy initiatives informed by theoretical and empirical evidence of the nexus between firm level growth and drivers of CSR.

### **1.3 AIMS OF THE RESEARCH**

Therefore, the aims are:

- To theoretically construct a dual approach model that examines the link between drivers of CSR and firm level growth.
- To empirically test the boundaries between CSR and firm level growth theory.

### **1.4 RESEARCH OBJECTIVES**

The objectives of the study are:

- To investigate the influence of drivers (Firm level Resources) on CSR strategy selection.
- To investigate the influence of drivers (Firm level Resources) on the CSR strategy implementation process.
- To investigate the causal impact flowing between CSR and firm level growth.
- To investigate the causal impact flowing from the level growth variables to CSR.

### **1.5 RESEARCH QUESTIONS**

- What is the influence of drivers (Firm level Resources) on CSR strategy selection?
- What is the influence of drivers (Firm level Resources) on the CSR strategy implementation process?
- What is the causal impact flowing from CSR and firm level growth?
- What is the causal impact flowing from firm level variables to CSR?

## **1.6 LITERATURE THEMES**

This section delves into the literature review of the present study. The literature review critically explores the relevant and available literature regarding the framework of CSR and organisational growth. It provides an overview of CSR and its relative influence on the performance of SMEs. This research study reviews seminal and contemporary studies on the importance of CSR and relative strategies SMEs employ to enhance firm level growth. The academic searchlight of the study is twofold. The study used the RBV theory (Barney, 2015:102) and the Firm's Growth (Penrose, 1959:45) as an academic lens to illuminate the relationship between CSR and organisational growth. In this view, the theoretical underpinnings of the RBV were used as a driver of organisational performance by means of the initial investment of SMEs, CSR, and organisational sustainability. Second, a series of studies investigated the importance of CSR in the context of firm level growth (Latapí Agudelo, Jóhannsdóttir & Davídsdóttir, 2019; Zaman, Jain, Samara & Jamali, 2022; Barauskaite & Streimikiene, 2021). These studies asserted that the firm level resources created through CSR initiatives, such as human capital, competencies and goodwill, are critical in the creation of linkages that enhance organisational performance.

## **1.7 METHODOLOGY**

In this study, a positivist research philosophy was adopted to answer the initial research question and test the study hypotheses. Creswell & Creswell (2017) stated that a research design is defined as a structure, plan, and a strategy of design that integrate the scientific process to develop reliable and valid conclusions and findings. The aim is to maximise the validity of the eventual results.

### **1.7.1 Data collection**

In this study, a cross-sectional survey research instrument was used to collect primary data from study respondents using a closed ended research questionnaire (See Appendix A). A research instrument was used to collect primary data from SMEs in KZN province of South Africa. The study started with an expansive survey by way of the self-administered structured questionnaire (Creswell & Creswell, 2017) to be able to generalise results to a target population. The questionnaire was emailed to the participants.

### **1.7.2 Data analysis**

The research philosophy of the present study is premised on a positivist approach. Therefore, a quantitative analysis was used as the method of data analysis. The data analysis approach is informed by both inferential and descriptive statistics. Using descriptive statistics, the study used measures of central tendency, measures of variation and measures of skewness to understand the spread of the data.

In inferential statistics, the study used the Structural Equation Model (SEM) as a model estimation procedure to test the research hypothesis. In econometrics, SEM is a binary and multivariate econometrics analysis technique that is used to analyse structural relationships. For example, SEM is a combination of multiple regression analysis and factor analysis that is used to estimate structural relationships in an econometric model.

## **1.8 STRUCTURE OF THE DISSERTATION**

### **Chapter One: Introduction and Background of the Study**

This chapter presented background and the context of the study. This informed on the research questions, study objectives, the statement of the problem and the research hypotheses. This, in particular, oriented the reader and informed on the context of the present study.

### **Chapter Two: Imperatives of Corporate Social Responsibility and Sustainable Firm Level Growth**

This chapter analyses and synthesises literature evidence on social responsibility strategy and small and firm level growth in medium enterprises, with particular attention to the influence of CSR on growth of SMEs. The chapter examines the role of firm level resources of CSR strategy planning, implementation, and execution.

### **Chapter Three: Corporate Social Responsibility in SMEs**

The researcher examined the current literature in the following ways:

The chapter synthesises literature trends and implementation of CSR by SMEs in the KZN province. Thus, theoretical underpinnings of CSR and the firm level growth framework are developed and formulated therein.

#### **Chapter Four: Research Methodology**

This chapter critically examines the research methodology and methodological procedures that were used in the study. In particular, this study used the SEM, as explained in the data analysis section.

#### **Chapter Five: Data Analysis, Results Interpretation and Discussion**

The chapter provides an in-depth detail of the results deduced from a series of advanced econometrics estimations such as the SEM, the PA and the latent variable analysis. For ease of reference, the presentation in this chapter is informed by the strata's in the population of the study.

#### **Chapter Six: Conclusion and Recommendations**

Following the analysis, interpretation and discussion of results, this chapter presents the conclusion and recommendations based on the rejection and acceptance of the null hypothesis.

### **1.9 CHAPTER CONCLUSION**

Chapter One provided a background and an orientation of the present study. In particular, the chapter provided the research questions, the problem statement, the research objective, literature themes and the research methodology. In the next chapter, the researcher will provide an in-depth analysis on the imperatives of CSR and sustainable firm level growth.

## **CHAPTER TWO: IMPERATIVES OF CSR AND SUSTAINABLE FIRM LEVEL GROWTH**

### **2.1 INTRODUCTION**

This chapter reviews the literature for this study, in particular, the imperatives of CSR and sustainable firm level growth. It provides a critical exploration of the relevant and available literature regarding a framework on CSR and organisational growth. It also provides an overview on CSR and its relative influence on the manner SMEs perform as economic entities. Therefore, the chapter reviews seminal and contemporary studies on the importance of CSR and the relative strategies that are employed by SMEs to enhance firm level growth. The academic searchlight is focused on two areas; the use of the RBV theory (Barney, 2015:102) and the Growth of the Firm (Penrose, 1959:45) as academic lenses to illuminate the nexus between CSR and organisational growth. The theoretical underpinnings of the RBV are used as a driver of organisational performance through the initial investment of SMEs, CSR, and organisational sustainability. Secondly, substantial research work has been carried out to investigate the importance of CSR within the firm level growth context. These studies asserted that the firm level resources created through CSR initiatives such as human capital, competencies and goodwill are critical in creating linkages that enhance organisational performance.

### **2.2 THEORETICAL FRAMEWORK – FIRM LEVEL RESOURCES**

The CSR discipline presents various theories as well as a proliferation of controversial, complex, and sometimes unclear approaches. The section seeks to interrogate the imperatives of CSR and discusses sustainable firm level growth through categorization of the major CSR concepts and related approaches into four classes: (1) instrumental theories, that views the corporation as a mere tool for creating wealth, and its social activities regarded as a method for the achievement of economic goals; (2) political

theories, which are concerned with the power wielded by corporate entities within society and the positive exercise of this power within a political domain; (3) integrative theories, where corporations are focus on the satisfying the demands of society; as well as (4) ethical theories whose foundation is the ethical responsibilities of corporations to society (Islam, Pitafi, Xiaobei, Rehmani, Irfan & Mubarak, 2021; García-Sánchez & García-Sánchez, 2020; Okafor, Adeleye & Adusei, 2021; Dmytriyev, Freeman & Hörisch, 2021; Orazalin & Baydauletov, 2020).

In practical terms, each one of the four CSR theories represents the different dimensions relating to profits, political dynamics, social issues, and ethical matters. As a result, the majority of the current theories that relate to CSR might be generally categorized as instrumental, political, integrative, and ethical theories (Latapí *et al.*, 2019; Zaman *et al.*, 2022).

CSR functions need to be understood as a four interconnected nexus that is pervasive across different segments of society. This means that the idea of corporate relationships with communities includes the four concepts together with some degree of interrelatedness among them. This is reflected in every theory as dimensions and connections. Alabdullah, Ahmed & Muneerali (2019), citing the seminal work of Freidman (1962), stated that CSR is designed for wealth creation as the concept is mainly concerned with culture and its value systems pertaining to the market access, privacy of property and the creation of wealth (Meseguer-Sánchez, Gálvez-Sánchez, López-Martínez & Molina-Moreno, 2021; Endrikat, De Villiers, Guenther & Guenther, 2021). This way certain values are always present in every form of corporate life, although they often get questioned. The Friedman theory embraces the dictates of the concept of free markets, legal and ethical traditions everywhere. Jensen (2000) also accepted this integration of some social demands of business into companies as long as it remains viable on a long-term basis.

With respect to political dimensions surrounding the Friedman view there is a useful working framework that blends with the social nature of the business with clear political outcomes. Society is seen as a system with groups that operate on the basis of single function approaches with clear purposes. For this reason, the major objective of a corporate entity is to create wealth (Carson, 2018). It is a common belief that businesses that operate in environments of liberal markets are actually superior in the

allocation of scarce resources to the beneficiaries because society can achieve an optimum situation in the form of Pareto optimum. Following Foss and Klein (2018), the free-market aspect suggested that the satisfaction of all people involved in the nexus is critical in the intention to meet the social demands without disturbing the operational capacity of others. However, when decision makers do not consider the secondary consequences of their actions in the presence of external factors, it either disadvantages or benefits others. In this regard, the market is neither adequate nor its balance at Pareto optimum. Consequently, the balance is not achieved (Awaysheh, Heron, Perry & Wilson, 2020; Saha, Cerchione, Singh & Dahiya, 2020; Kong, Antwi-Adjei & Bawuah, 2020).

Jahn and Brühl (2018), stated that generally, theories on CSR use an empirical methodology and are descriptive, explicit, and present, which is a conditional prescription which normally takes long-term profits as the main goal. Most of these are focused on four main aspects, namely, (1) to meet objectives that produce long-term profits, (2) to use business power in a responsible way, (3) to integrate social demands and (4) to contribute to a good society by doing what is ethically correct. This is what leads to the classification of the most relevant theories on CSR and related CSR concepts into four categories namely, instrumental, political, and integrative value theories. Most of the theories considered do not explicitly show a relationship with each specific approach, for the aspects considered in other groups of theories. There is a need for further research to analyse these four dimensions and their connection and consider their contributions and limitations (Kong *et al.*, 2020; Úbeda-García, Claver-Cortés, Marco-Lajara & Zaragoza-Sáez, 2021).

The main purpose of a theoretical framework is to equip a study with the necessary viewpoint perspective and perspective from whence to examine a chosen topic or area of research. As already pointed out, this study adopted the RBV as a theoretical concept for the illumination of the framework of CSR. The theoretical consideration revolves around the realisation that RBV assumptions provide a clear linkage between goals of an organisation and the organisation's human resources, that create and enhance intangible assets such as institutional knowledge, patent rights, trademarks and provides an entrepreneurship approach (Naseem, Shahzad, Asim, Rehman & Nawaz, 2020; Canh, Liem, Thu & Khuong, 2019).

In this case, the Theory of the Growth of Firm is predominantly based on the value creations through the enhancement and maximum use of tangible and intangible resources such as skills and aptitude (Penrose, 2009:23; Barney & Mackney 2016:370). The RBV is anchored on defining a firm as described in the seminal work of Penrose (2009:38). Penrose (2009) defines a firm as collection of various assets, human capital, financial capital, and technology. The development of CSR is critical for developing intangible assets such as knowledge, core capabilities, patents, and trademarks. For example, CSR is a systematic process that develops intangible assets.

Recently, Penrose's theory of Growth of the Firm has been corroborated by the RBVs perspective that emphasizes a firm's dynamic capacity including a causative effect on organisational performance (Barney & Mackey 2016:370). These theories underscore the fact that a firms' dynamic capacities and resources are integral in their competencies and capabilities that enable the firm to create new products and processes as well as adapt to an unstable business environments. They anchor the firm's competitive advantages. In this view, firm level dynamic capabilities influence organisational processes such as managerial capacities and organisational process knowledge, positions, technology, endowment, intellectual property, and options that are available for strategic positions (Ting, Azizan, Bhaskaran & Sukumaran, 2019; Thuy, Trung, Khuong & Liem, 2021; Kasamani & Mostafa, 2020).

In this realisation, organisational processes are principally concerned with how SMEs transform through the learning processes, adding value by knowledge development, and creating a critical organisational performance path. In this instance, organisational knowledge development enhances value adding knowledge processes that are fundamental in organisational growth imperative (Suriyapongprapai, Chatjuthamard, Leemakdej & Treepongkaruna, 2022; Khan, Yang & Waheed, 2019). In this view, organisational knowledge development is concerned with current functions such as technological innovations and intellectual property and other critical strategic alliances with suppliers and vital accounts (Khan *et al.*, 2019).

Currently, a series of academic studies augment the RBVs and suggest that an integrated approach of knowledge and capacity development. This notion anchors on the intensity of competitive advantages that can illustrate distinguishable types of CSR

strategies and knowledge bases. In this view, the higher the order of the intellectual base the higher the capacity of competitiveness and consequently the higher the chances of a firm early investing and more intensity than multinational with more basic capabilities (Hamzah, Gozali, Octari & Pratiwi, 2022; Chijoke-Mgbame, Mgbame, Akintoye & Ohalehi, 2020; Sasongko, Alipudin & Uria, 2019).

Furthermore, firm strategies are usually over dependant on the capacity to utilise resources. However, utilisation of resources is a consequent of the linkage between tangible assets and innovation. This study pays attention to the seminal work of the RBV that scholars have noted (Barney, 2015) and analyses the linkage of resource utilisation and human capital through innovations that power organisational objectives and their relative impact on performance. The RBV will be used as the lens of illuminating the relationship between CSR and performance. The RBV is principally anchored on the assumption that firms generate value by enhancement and utilisation of the firm resources that include tangible assets and intangible assets, skills, and innovation (Barney, 2015:102).

From the CSR perspective, the theory emphasises that innovation is responsible for identifying and developing resources that drive both performance and growth (Mackey, Barney & Dotson 2017:325). It is also essential to note that further extension by Barney (2015:100), consider the assumption of organisational procedures policies and systems that enhance the exploitation of resources. Martin and Cerdin (2015:432) assert that the systems should be designed to capture, create, leverage, and protect value that is a consequent of firm talent assets. According to Arebgeshola (2019:432), the theory is anchored on a core set of assumptions, it assumes that an economic incentive which hinges on managerial option inspired by efficiency that the options made are maximising the value that managers will endeavour to maximise these options. The theory is governed by economic rationale; the systems that prevent imitation of resources are a function of causal uncertainty and social complication.

In a number of studies, Tatoglu *et al.* (2016:280), Vaiman and Brewster (2015:152) show that the relationship between CSR and RBV is anchored on collective path dependence rather than on significant individuals in the system. CSR is viewed through a historical perspective that guides action. CSR is significant in different

cultures and strategic approaches and therefore it needs to encompass broader motives than mere economic goals (Bowman & Hird, 2015:78).

### **2.3 CORPORATE SOCIAL RESPONSIBILITY**

Following Porter (2020) CSR is understood as a business model that regulates itself in order enable the firm to meet its capacity to be socially accountable for the benefit of the public and its stakeholders. Also known as corporate citizenship, companies make use of CSR as means to promote the development of intangible assets such goodwill. This way companies are aware of the nature of effect they have on all social aspects, these includes social, economic, and environmental. Furthermore, CSR strategy includes implementation of strategies by firms that are intended to have a positive influence a specific society that a business operates from. Therefore, the overriding motive behind the adoption and implementation of CSR strategy is for corporations to pursue other pro-social objectives over and above the theory of profit making.

Comparatively, recently, a growing surge of studies suggest that companies take CSR as a significant part of their brands, that target developing and enhancing sustainable competitive advantages. Thus, in this view, companies are of the belief that customers are more likely to engage in business with companies are viewed to be more ethical and prefer brands that have invested in development of their societies (Munasinghe & Malkumari, 2020; Dacanay, 2018; Kumar, *et al.*, 2019).

From this perspective, CSR activities are an important component of corporate strategic planning initiatives as they target a long-term alignment of business processes and societal development. According to Porter (2020), the transition toward strategic CSR has had an impact in several firm level activities. For instance, many firms have taken steps to align their value chain activities and CSR strategic positions. Therefore, in this approach, attempts have also been made to minimize dependence on tendencies. CSR strategic initiatives are predominant among large corporate entities. However, in the recent past, small businesses also participate in CSR through donating and other charity related works in the community (Olawale & Garwe, 2019; Delchet-Cochet & Vo, 2017).

As argued by Olawale and Garwe (2019), investing on CSR initiative amongst SMEs must be aligned to respective organisational needs and capacities, and do not adversely affect their economic viability. In addition, Olawale, and Garwe (2019) suggest that a Triple Bottom Line (TBL) strategy, is a tried and tested effective tool for SMEs in developing countries that aids them to meet social and environmental standards without affecting their competitive capacity.

In the context of this study, the TBL approach is used as a method for recording and assessing corporate operations against social, economic, and environmental factors. From its theoretical implications, the TBL approach attempts to get aligned to organisational goals in line with developments in the world by providing them with more sustainable sets of work aims than over and above the theory of profit making. Therefore, this perspective suggests that for an organisation to achieve sustainable firm level growth, they must be financially sustainable as well as mitigate the negative environmental impacts while acting in conformity with social expectations.

In this instance, a proper implementation of CSR strategy might enhance a number of competitive benefits like higher numbers of sold products and increased prices as well as expanded access to capital and markets. It also leads to raised production capacity and quality performance, an efficient human resources base, heightened customer loyalty, better brand image and reputation, improved decision making and risk management processes (Baumgartner *et al.*, 2017; Fatoki & Chiliya, 2019).

Theoretical strategies on CSR which view long-term profits as the mainstay generally make use of empirical methods in describing explicitly concepts. Their general statement takes the form of: “if you want to maximise profits you must assume CSR in the way proposed by this theory”. This way, the ethical theories prescribe the use of a normative methodology. The integration of empirical and normative aspects of CSR, or economics and ethical codes, has proved to be a great challenge. Some authors (Thiesen, 2020; Sharma, 2019) have made attempts to resolve this challenge is not yet over. This absence of integration has been condemned as the major cause of the paradigm shift for the business and society field (Awaysheh *et al.*, 2020).

- A first group where the corporation is assumed to be an instrument for the creation of wealth and practice of social responsibility. The economic

interactions between businesses and communities are the only ones considered. As a result, any assumed social activity is embraced only when forms it with wealth creation. This group of theories is called instrumental since they present CSR as a mere tool for the achievement of the purpose of profit making. In this group of theories CSR is viewed as the strategic weapon for the attainment of economic goals and, effectively, the creation of wealth. The proponents of this approach include the Friedman view that states that “the only one responsibility of business towards society is the maximisation of profits to the shareholders within the legal framework and the ethical custom of the country” (Friedman,1970). Instrumental theories are well established with a deep tradition that has enjoyed a wide range of acceptable business culture so far.

- A second group is that one which presents the social power of corporation as based on an emphasis of relationship with society in the political domain. Under this classification of theories, the corporation takes social responsibilities and rights or takes part in certain social duties.
- A third group deals with theories which concern themselves with what businesses are supposed to do as part of their merging with social demands. It asserts that businesses depend on society for its continuous growth and existence. It is called the integrative theories group.
- A fourth group of theories is one that conceptualizes the relationship between business and society as embedded with ethical values. From an ethical point of view organizations are supposed to accept social responsibilities as a duty over and above any other consideration. This group is called as ethical theories.

## **2.4 ECONOMICS OF CORPORATE SOCIAL RESPONSIBILITY**

Parsons (2001) sees the existence of the four interrelated challenges in any action system as follows:

- 1) the problem of marshalling of resources from the environment and then spreading them down the system, which needs them to adapt to the environment.
- 2) the problem of placing priorities in the system goals and organizing the system resources to attain the goals;

- 3) the problem of coordination and maintenance viability among the different system units; and
- 4) the problem of making sure that the players in the social system show appropriate value system.

This entails motivating and managing the internal conflicts and strains of the players in the social system. That involves the preservation of the basic structures of the system an adjustment to accommodate the dynamic conditions within the framework that the basic structures provide.

According to Parsons these challenges require four prerequisites for the maintaining a social system: adapting (A), goal attaining (G), integrating (I) and maintaining of pattern or latency (L). According to Porter and Kramer (2002), a context of competitiveness consists of four related aspects of the local business environment that determine potential productivity. The first aspect in this case is the factor condition, which denotes educating employees, exploiting natural resources, using high quality technological institutions and physical infrastructure (Adiputra, Wijaya & Affandi, 2020; Gangi, D'Angelo, Daniele & Varrone, 2021; Kanuto & Xionying, 2022; Yang, Bento & Akbar, 2019; Husnaini & Khusnah, 2021; Nair & Bhattacharyya, 2019).

The second aspect is linked to the demand conditions which determine the way the firms influence the quality and the size of local market by developing literate and well-informed customers. The third, the context for strategy and rivalry involves a decision on how the firm could invest in the incentivisation and encouragement of competition for the reduction of corruption, the prevention of the cartels and facilitates the opening of markets. The last one is the firm's investment in related industries and in supporting and strengthening the relationship with suppliers of services, components and machinery (Solikhin, Lubis & Siregar, 2019; Lin, Law, Ho & Sambasivan, 2019; Singh & Misra, 2021; Islam *et al.*, 2021).

According to Carroll and Brown (2018), markets theoretically take away social power from business hence, there is no need for social responsibility. These zero equations of no power and no responsibility is a proper theoretical model for pure competition, but it is in theory only and it's inconsistent with the power realities of modern organisations. They have such a great initiative, economic value and leverage in their

work with social effects (Carroll & Brown, 2018). Various models have been proposed as a means to explain how and why partnerships are built and how to determine, measure and evaluate partnerships. That is not the only problem as, according to Kim and Thapa (2018), the idea of sustainable development is quite slippery, contested and/or ideologically a paradox. With several objectives and ingredients, complex interdependencies and considerable moral uprightness, the concept is increasingly getting more popular and has introduced an important element to the CSR debate (Nirino, Ferraris, Miglietta & Invernizzi, 2022; Hermuningsih, Kusuma & Cahyarifida, 2020).

It appears that most of current CSR theories are focused on four main aspects:

- 1) achieving goals that produce long-term profits,
- 2) Making use of business power responsibly.
- 3) The integration of social demands, and
- 4) Contribution to a good society by doing what is ethically correct.

Further studies may investigate the four categories and their link to the related theories and assess their contribution and shortcomings. The revised economic CSR has a moral code which is independent of investor property rights. The holistic standards for the ordinary wellbeing of business and corporate social performance (CSP) are consumption. Consumption is the major objective and goal for all productivity and hence the interest of the producer has to be taken care of whenever possible for the promotion of the consumer (Smith, 1996). This open moral code stresses gains of material nature for the entire society attained through competent and viable markets. Property rights for investors are effectively subordinated to the general wellbeing while defended. The idea is at variance with the instrumental citizenship that invests in property rights. While utilitarianism is in conflict with consequentialism it explicitly defines the main ethical CSP model (Wood, 1991), an outcomes-based orientation is not an entirely satisfactory theoretical synthesis. Utilitarianism and ethical CSR continue racing against moral concepts that are linked to competing political philosophies (Javed, Rashid, Hussain & Ali, 2020; D'Amato & Falivena, 2020; Uyar, Kilic, Koseoglu, Kuzey & Karaman, 2020).

From an economics perspective, no expensive responsibility action should be done on voluntary basis. Responsibility should be based on minimal commitment by the public to which one may reasonably add customary business ethics. Recent literature on the economics of CSR tends to omit the points which were emphasised by Friedman (1970). Clear restrictions of firms' external handicaps to public policy in recent literature is not a non-negotiable condition, it is an oversight. The debate between economic and ethical CSR then really concerns expanding ethical concerns and public policy (Salam, Jahed & Palmer, 2022; Bai & Yan, 2020; Mackey, Mackey & Barney, 2007; Úbeda-García *et al.*, 2021).

Friedman (1970) dismissed discretionary CSR and instead preferred the strict fiduciary responsibility concept based on economic wealth creation as the best contribution of business to the general welfare. His dismissal of discretionary altruism in preference for fiduciary responsibility covers most of the ethical questions, in that the dismissal matches with minimal public policy while reducing moral reflections to customary business ethics. Friedman (1970) gives his recognition to an instrumental case for wise altruist extension of public policy. He argues that the absence of rational rigour and serious ambiguity of ethics for CSR is the major source of its weakness. Some champions of stakeholder theory or the global corporate citizenship theory effectively agree that ambiguity and absence of rigour in CSR (Al-Hawari, Quratulain & Melhem, 2021; Xue, Jiang, Guo, Liu, Wu & Hao, 2022; Achmad & Yulianah, 2022) are problematic.

Economic CSR rests on the highly stylised assumption that is consistent with Friedman's descriptions. Friedman (1970) posits that depictions of the economic approach should not be unfairly narrow (Sadiq, Nonthapot, Mohamad, Chee Keong, Ehsanullah & Iqbal, 2022; Patuelli, Carungu & Lattanzi, 2022). The stylised explanations focus on the public traded joint stock corporations. The scenario is a capitalist-based economy where government intervenes for the purpose of steering economic activities to meet regulations and public goods provision standards at a minimal level but meeting Smith's prescription (Kharlanov, Bazhdanova, Kemkhashvili & Sapozhnikova, 2022; Su, Liang, Cai, Chen & Fahad, 2022; Shahzad, Baig, Rehman, Saeed & Asim, 2022; Pan, Abbas, Álvarez-Otero, Khan & Cai, 2022).

The stylisation may be taken as idealisation of as platforms for socially desirable regulations and privatisation. The share owners have enough leverage to create private wealth (Smith, 1976). Fiduciary responsibility is not a universal standard but just takes an instrumental and long-term definition (Jensen, 2000). Strategy allows wise altruism, and that concept may keep elongating with growing expectations of stakeholders and society (Feng, Akram, Hieu & Tien, 2022; Dhar, Sarkar & Ayithey, 2022; Prasad, Kumar, Devji, Lim, Prabhu & Moodbidri, 2022).

## **2.5 ISSUES OF MANAGEMENT**

The process of social responsiveness in relation to issues of management within the organisation is an approach that arose in the 1970s (Sethi, 1975). It is important to factor in the discrepancy between the organisational expectations on performance and the real organisational performance. These discrepancies are located in the “zone of discretion” at which some unclear signals are received from the environment by the company (Garriga & Melé, 2004:92). The company is always the one that feels the discrepancy and elects a reaction so as to eliminate it (Ackerman & Bauer, 1976). Ackerman (1973) further processes the requisite elements with respect to the insider structures of an organisation and how its mechanisms are integrated in order to manage matters of a social nature within it. The manner in which a social objective is selected, organized, and synthesized across the organisation is called “process of institutionalisation”.

Sharma (2019) argues that corporate conduct ought not to be judged by the quality of decisions they reach but by the process they employ to reach that decision. As a result, he emphasizes the concept of process rather than product as a more suitable approach to CSR issues. Jones (2020) propounded a parallel process regarding the political process used to assess the appropriateness of the CSR process in which all interests have been factored. Jones (2020) has therefore changed the criteria in the ingredients used the decision-making process rather than results and gives more attention to the process of implementing CSR targets instead of the of conceptualising the process (Pfajfar, Shoham, Małecka & Zalaznik, 2022; Madanaguli, Srivastava, Ferraris & Dhir, 2022).

The idea of “social responsiveness” was broadened to involve the “Issues Management”. Issues Management’ involves the idea of social responsiveness but stresses the method used for making responding to social issues at a corporate level. He and Harris (2020) defines Issues management as a process by which corporations identify, evaluate, and respond to social and political issues which have a significant impact upon it (Dhar, Harymawan & Sarkar, 2022; Zheng, Rashid, Siddik, Wei & Hossain, 2022; Bag & Omrane, 2022).

Furthermore, issues management tries to lower incidences of “surprises” accompanying social and political changes to serve as an early warning mechanism for possible environmental hazards and opportunities. Furthermore, it stimulates more systematic and effective reactions to special issues by acting as forms of coordination and integration agency within the company. Issues management studies have been impacted by the strategy field, as it has been viewed as a peculiar group of strategic issues (Sroka & Szántó, 2018), or a separate group of international studies (Demir & Budur, 2019).

This resulted in the interrogation of topics related to issues (identifying, evaluating, and categorising), formalising stages of social issues and management issue response. Other elements, factored in the process incorporating corporate reactions to communication relations and interactions, pressures of interest groups and business matters, organisational size, commitment of top managers and other corporate factors (Usmani, Wang, Ahmad, Ullah, Iqbal & Ismail, 2022; Lahouel, Zaied, Managi & Taleb, 2022; Kolling, Ribeiro & de Medeiros, 2022).

## **2.6 CORPORATE SOCIAL RESPONSIBILITY AND ORGANISATIONAL GROWTH**

According to Kechiche & Soparnot (2018:34), although CSR has customarily been associated with large corporates and SME business sector has in the recent past revealed a steady growth that contribute significantly to economic development and achievement of macroeconomic objectives in both developing and developed economies. Therefore, academic attention has been shifted to research analysis of principles and practice of CSR in SMEs for growth and drivers of organisational performance. SMEs are not merely small versions of large corporates, and this attracted has attracted a huge academic interest and endeavour to uncover the

bidirectional causal relationship between SMEs and capital investment through CSR initiatives.

Nonetheless, CSR remains a complex, broad and continually evolving concept that encompasses a variety of ideas and practices as well firm level resources and objectives of investing at a specific CSR strategy. Therefore, the practice has so far primarily been concentrated on the large corporates, but its wider application in SMEs is of central importance, concerning their significant growth trends and the contribution to the economy through employment and wealth creation (Munasinghe & Malkumari, 2020).

Dacanay (2018:34) assert that “in order to understand better CSR in SMEs, academic endeavours should turn the focus away from formalised and standardised routines and rather pay attention to other types of CSR practices. If we insist on studying formal CSR benchmarks as they are often practiced by large firms, we may perpetuate the common misconception that SMEs are laggards when it comes to CSR.”

According to Preuss and Perschke (2019), an argument is advanced that medium-sized firms occupy a transition stage, where some CSR initiatives that are significant of small enterprises are important and might resonate well with CSR design and planning of large corporates. Nevertheless, the ideology of growth and ethical organisational behaviour are in recent times ever more relevant to SMEs and are the basis and an important component of every SMEs longer-term business strategy and planning.

Pushpakumari (2016), contend that the SMEs growth and organisational performance might be measured using financial metrics such as market share, sales growth, and profitability. Further, Preuss and Perschke (2019) buttress Pushpakumari (2016) contend that in assessing the performance and the growth of SMEs both financial and non-financial metrics should be taken into context. Non-financial measures of performance are linked to customer satisfaction, brand loyalty, and the reputation of the firm such as brand loyalty and corporate image (Panait *et al.*, 2022; Ivanova-Gongne, Torkkeli, Hannibal, Uzhegova, Barner-Rasmussen, Dziubaniuk & Kulkov, 2022).

In large corporates, it is imperative to give high priority to CSR since it's no longer considered as a cost that hinder and impede organisational growth and performance. Therefore, it has become a strategy to develop firm level intangible firm level resources such as goodwill, corporate image and brand, something on which success, survival, and growth may depend (Vancheswaran & Gautam, 2016). According to Delchet-Cochet and Vo (2017), "Over the past fifteen years, discussion about CSR and its implementation in practice has increased in both variety and volume."

In South Africa, CSR dominated most business platforms over time and in the recent past, for example, the post-apartheid in South Africa. Dacanay (2018:34) posit that, 'this historical pattern of forced resettlement of black communities within the country has had clear spatial implications in terms of the relative vulnerability that many black South Africans face in relation to their relative exposure to hazardous polluting substances and poor working conditions". In a broader institutional background, the use of CSR capital investment techniques might have the potential to improve environmental or labour management practices in individual SMEs (Li, Xu, Mclver, Liu & Pan, 2022; Wang, Shahid, Binh An, Shahzad & Abdul-Samad, 2022; Dal Mas, Tucker, Massaro & Bagnoli, 2022).

In the recent past, CSR strategic standpoint is proving to be a contemporary value adding strategy for SME growth but a consideration of its challenges and hurdles. According to Littlewood and Holt (2019), a topical subject of academic interest on CSR in SMEs uncovers the challenges that businesses face concerning the planning and the implementation of many aspects of CSR, partly due to cost of CSR that might reduce profitability particularly in price-sensitive markets, but also these challenges frequently link with lack of knowledge, resources, and expertise. Littlewood and Holt (2019) assert that in comparison to large firms, SMEs confront a unique set of issues.

For example, SMEs oftenly face the challenge to survive turbulent business environment, serve local markets, and deal with less stakeholder pressure. Fatoki and Chiliya (2019:22) pointed out that "the problem becomes more evident when SME owners from different cultural backgrounds must make decisions on social responsibility". The growth of SMEs is related to the management framework and strategic direction of value adding decision making that is adopted by owners of SMEs towards CSR as a growth strategy.

Davies and Crane (2018:8) concluded that “Employee buy-in is a key factor in ensuring SME engagement with CSR.” To grow significantly, managerial decision making and SMEs owners must decide how SMEs can design and implement CSR strategies that are aligned with profit making objectives, in particular, CSR objectives must take into cognisance all pillars of sustainability such as ecologically sustainable, and economically competitive (Davies & Crane, 2018). From and SMEs perspective CSR represents an option for further growth.

## **2.7 ETHICS OF CORPORATE SOCIAL RESPONSIBILITY**

In a recent series of studies, the ethical approach to CSR suggests that defects of corporate morality and indifferent business conduct pose a risk to social advantages when dealing with sensitive stakeholder management practices approach as well as expansive public policy. From this standpoint, Boubaker, Liu & Zhan (2022) contend that ethical CSR is a shared principle of unbiased reflection that expansive public policy and practicing broad self-restraint as well as altruism (Boubaker, Liu & Zhan, 2022; García-Sánchez, Hussain, Aibar-Guzmán & Aibar-Guzmán, 2022; Abbas & Dogan, 2022; Latif, Ong, Meero, Abdul Rahman & Ali, 2022).

Furthermore, Abdul Rahman & Ali (2022) contend that altruism is defined as voluntary contributions made by the large corporate and SMEs to the society based on humanitarian need and business objectives. Thus, altruism might involve either uncompensated or costly contributions to stakeholders or general welfare (Ehsan, Tariq, Nazir, Shabbir, Shabbir, López & Ullah, 2022; Darendeli, Fiechter, Hitz & Lehmann, 2022; Ryou, Tsang & Wang, 2022; Al Amosh, 2022).

In this vein, altruism is different from philanthropy which is discretionary wealth transfer of net income to stakeholders to address the needs of the society. “Altruism operates through moral self-restraint and/or political choice to avoid exploiting market opportunities that are left legally unregulated” (Ullah, Hameed, Kayani & Fazal, 2022:67). From these authors’ views, it is possible to link the history of the long-established CSR conceptualisation and terminology through key works that illuminate evolution and content with an ethical perspective (Ullah, Hameed, Kayani & Fazal, 2022; Fonseca, Silva, Sá, Lima, Santos & Silva, 2022; Wut, Xu & Wong, 2022).

In this connection, the concept of altruism has found itself to be most socially relevant in the relationship between social investment and CSR strategy design planning and the implementation process.

In seminal studies, Carroll (1991) further perfected the differentiation of Bowen's basic CSR theoretical framework model into a canonical set of defined cumulative responsibilities of CSR and their respective link to corporate objectives, depicted characteristically as a subdivided 'pyramid' cross-walked to stakeholder categories. The pyramid is a vertical triangle that illustrates CSR strategies and their relevance and importance in corporate decision making and societal needs (see the diagram below).

**Figure 2.1: CSR strategies**



Source: Adopted from Carrol (1991)

In this connection, all four CSR dimensions are morally embedded in the firm level strategy and managerial decision making (Beji, Yousfi, Loukiland & Omri, 2021): managerial decision-making process has to respond to all directions equally the same time and the same pace. Notably, this pyramidal form as illustrated in Figure 2.1 integrates a proposed theoretical synthesis of economics and ethics that inform CSR strategies in which both legal and economic responsibilities are mandatory. For instance, broad economic responsibilities include aspects such as regulatory

framework (for producing goods and services yielding jobs and profits) are the pyramid's foundation as they are informed by the essence of the firm (Battisti, Nirino, Leonidou & Thrassou, 2022; Landi, Landolo, Renzi & Rey, 2022; Mio, Costantini & Panfilo, 2022; Cardinali & De Giovanni, 2022).

In this regard, economics, ethical perspectives rationally concur on the economic dimension concurrently, as long as firm level economic objectives and environmental objectives such as ecological sustainability, full employment and no significant negative externalities are satisfied. These three perspectives also concur on legal and regulatory conformity as a meaningless abstraction. Nonetheless, the three perspectives disagree, on scope and content of regulatory and criminal law as well as on whether to litigate or settle civil lawsuits based on their merits (Brogi, Cappiello, Lagasio & Santoboni, 2022; Mukhuty, Upadhyay & Rothwell, 2022; Lööf, Sahamkhadam & Stephan, 2022).

Furthermore, at the top of the pyramid is voluntary corporate philanthropy which is understood as desirable by both stakeholders and the society. And the economic perspective of CSR strategy treat philanthropy as either discretionary altruism by executive decision-making process that violate short-term fiduciary responsibility or at best, prudent altruism aligning short term objectives and responsibility with long-term fiduciary responsibility (Friedman, 1970). Indeed, Friedman (1970:34) suggest that he ethical perspective and idealised citizenship promotes both altruism (prudent and discretionary) morally commendable as well as socially desirable. In essence, instrumental corporate citizenship transforms philanthropy CSR strategy over and above prudent altruism into a strategic position that target at developing corporate reputation such corporate image and brand as well as market opportunities (Chatzopoulou, Manolopoulos & Agapitou, 2022; Lööf *et al.*, 2022; Teixeira, Coelho, Fontoura, Sá, Silva, Santos & Ferreira, 2022).

In ethical CSR, an argument is advanced that the float between mandatory compliance of both a legal and economic perspective as well as desirable philanthropy of either a prudent or voluntary nature. On the other hand, stakeholders and society still expect ethical conduct from corporate and SMEs beyond mandatory and regulatory legal compliance. For example, ethical decision makers engage in non-partisan moral reflection beyond the law that put business interest at the pinnacle of decision-making

pyramid. Economic CSR eschews moral choices in managerial decision making and justifies the selection of other CSR strategies in with business objectives (Wilson, 1989). However, unethical decision-making process cannot be trusted even to carry out corporate mandatory and legal ethical requirements (Friedman, 1970. From an instrumental citizenship perspective, philanthropy can be understood from the lens of Carroll's pyramid as a subdivision and an allocation of financial firm level objectives within economic responsibilities. In this instance, the economic perspective suggests that other forms of CSR as voluntary wealth transfer away from investors. As noted in the above discussion, ethical CSR is a much broader concept of expansive public regulation and policy that focus on self-restraint and altruism. In South Africa, as evidenced from literature analysis, two leading examples of morally insensitive conduct by management in public corporate might be compared to recent corporate scandals at Eskom, Transnet, or Prasa where units were sold to privately owned companies linked to government officials.

For instance, the modern outcomes oriented CSP framework (Wood, 1991) suggest that measurement of all corporate impacts on general welfare should be focused on social investment to the society and capital investment to the organisation. Loosely translated, CSR is about balancing the cost of CSR implementation and the benefits of investing in such CSR initiatives. This approach embeds Carroll (1991)'s theoretical frameworks and it illustrates the multidimensional conception of responsibilities and the choice of decision making by corporate executives. The framework is also embedded in Davis's (1960:24) proposed "Iron Law of Responsibility: if the business sector sufficiently offends society, increased government regulation will probably follow".

In this connection, a firm level decision making process need to target and understand the capacity of resources in the implementation of the CSR strategy, the needs and of the society and the most likely benefit that might be induced by social investment. This consideration takes into account the social, and stakeholder issues in practical terms affecting corporate source allocation decisions. This is quite understandable (Ureña, Penalver & Conesa, 2022; Severt, Shin, Chen & DiPietro, 2022; Ismael, Yeşiltaş & Andrea, 2022). Nonetheless, informed definition, prediction and measurement are debatably critical to effective management decision making process and control

mechanism of multiple activities and issues (Jensen, 2000; Sánchez-Torné, Morán-Álvarez & Pérez-López, 2020). Ethical CSR apparently does not meet either of the criteria.

In addition, both criteria are not valid descriptions of management decision making process because the overriding motive of business decision making process to provide and enabling environment to maximise economic. Management is not a science but an art (Ali, Danish & Asrar-ul-Haq, 2020). Therefore, in concrete terms, firm level decision making process intend to integrate the business objectives and the regulatory framework that support the adoption and the implementation of CSR strategies (Bibi, Khan, Hayat, Panniello, Alam & Farid, 2022; Mehmood & Hanaysha, 2022; Khanra, Kaur, Joseph, Malik & Dhir, 2022)

According to Kim and Thapa (2018:23 ), ethical CSRs planning, and implementation process is quite clear and only appear unclear if viewed as a rigid rule (which economic CSR is) when it is necessarily diffuse, and thus lacking in logical rigour, when it is properly a general stance or principle. There is fundamental difference between a rule and a principle. In particular, principles are vague and broad and are hierarchically in nature by relative weights. On the other hand, rules are generally concrete, narrow, and simply functional. Therefore, the basic notion of CSR is straightforward.

For instance, a narrowly instrumentalist and economic conception is insufficient, and counterproductive to illuminate the objectives of the firm in adopting CSR strategy and the needs of the society. A rational firm level decision making process reflects self-restraint, altruism, and general welfare. In some instances, there are scenarios that moral concerns are deemed superior to legally acceptable fiduciary responsibility. And no rational individual can strictly follow a functional rule without reflecting in principled fashion on the origins and effects of the rule (Wernicke, Sajko & Boone, 2022; Camilleri, 2022; Wong, Kim & Lee, 2022; Deng, Cherian, Ahmad, Scholz & Samad, 2022).

Following Wong, Kim, and Lee (2022:24) ethical CSR advice to instrumentalist decision makers can only be situational given the endowment of firm level resources and the societal need that might boost tangible resource and positively impact on firm level performance. In this context, both social performance and financial performance

increases or declines from a certain status quo. From any social and financial status quo or situation, a change in firm activity or external conditions results in one of four general outcomes (Ye, Al-Fadly, Huy, Ngo, Hung & Tien, 2022; Wentzel, Fapohunda & Haldenwang, 2022).

- “If financial performance and social performance rise jointly, the outcome is a win–win efficiency gain without governmental intervention or moral reflection. Strategic investment in market conditions under the guise of citizenship behaviour falls into this category. This outcome corresponds to Adam Smith’s expectation about a relatively free market economy. If financial performance rises while social performance stays constant – a Pareto optimum efficient gain, this circumstance borders dangerously on business incentive always ignoring social performance” (Wong, Kim and Lee 2022:24).
- For instance, both organisational financial performance and social performance decline, the outcome is a decline in firm level efficiencies. And governmental intervention is desirable because corporate self-restraint and altruism have proven inadequate (D’Souza, Ahmed, Khashru, Ahmed, Ratten & Jayaratne, 2022).
- According to Bibi, Khan, Hayat, Panniello, Alam (Farid, 2022:25), “in the case of a rise in financial performance and a decline in social performance, there is a conflict between fiduciary responsibility and social responsibility. The conflict is a welfare transfer from society to the firm, as occurs with negative externalities. This transfer is an absurd tax on society in Adam Smith’s sense (*The Wealth of Nations*, 1776). An invisible hand case justifying strict fiduciary responsibility would be that in the long run social performance will be higher than in the short run”.
- In the contrary, in the case of a decline in financial performance together with a rise in social performance, there will be a misalignment between the planning and implementation of CSR strategies against the needs of the society. Friedman (1970:24) “admitted to a strategic case for prudent altruism. A more complicated case would be that a short run rise in social performance which leads over time to a decline in financial performance, which then leads to an even worse social performance outcome. Adam Smith’s invisible hand argument predicts this possibility of unintended negative consequences”.

Notably, evaluation of relationships between financial and social performance dimensions becomes more complicated where the latter's own components do not move together. For instance, more job creation for less ecological sustainability is a tough trade-off (Su, Obrenovic, Du, Godinic & Khudaykulov, 2022; Barnabè & Nazir, 2022).

## **2.8 CONCLUSION**

In this chapter, the evidence in the literature on the dynamics of CSR imperatives was discussed in the context of seminal and contemporary studies that underpin CSR and firm level growth. This chapter illuminated the imperatives of CSR strategies as a driver of sustainable firm level growth. In the next chapter, the study will discuss the relevance of CSR strategy in KZN.

## **CHAPTER THREE: CORPORATE SOCIAL RESPONSIBILITY STRATEGIES IN SMEs**

### **3.1 INTRODUCTION**

Most of the literature on CSR tends to concentrate on large corporate organisations and overlook the SMEs. Consequently, there is insufficient literature available on the latter to facilitate our full understanding of the role of SMEs in CSR. However, of late there has been a shift in the research focus necessitated by the aggregate impact of SMEs on the economic development of countries. A growing body of literature seems to show that the SMEs are influenced by factors of both an internal and external nature, which motivates them to undertake CSR in terms of community development, skills development, environmental management, and supply chain (Minutiello & Tettamanzi, 2022; Kumar, Sahoo, Lim & Dana, 2022; Galletta, Mazzù, Naciti & Vermiglio, 2022).

Evidently, clear benefits accrue from the CSR engagement, ranging from improved community relations to job satisfaction, to employee loyalty as well as to business growth and profitability. Despite this reality, SMEs initially faced several challenges in their adoption and implementation of CSR programmes as they were constrained by a milieu of challenges including limited resources, and a lack of training and support services.

These challenges can effectively be ameliorated through building an expanded resources base, up-skilling programmes, and development of formal SME-tailored instruments to guide the implementation of intervention strategies aimed at creating incentives and support services for SMEs adopting CSR (Suriyankietkaew, Krittayarungroj & Iamsawan, 2022; Viererbl & Koch, 2022; Ma, Wang, Zhou, Lai, Zhou & Bashir, 2022).

The concept of CSR has triggered considerable interest among a large spectrum of people, such as intellectuals, the corporate world, and the society at large, since its genesis via the seminal work of Bowen (1953) on the social responsibility of businesses. The evolution of the concept originates in large corporate organisations and (Abrahamson & Piazza, 2019) considers it 'as a global trend incorporating business corporations, states, international organisations and civil society organisations.

However, the CSR discourse has tended to focus largely on large businesses and organisations which are expected to behave responsibly; which have, apparently, expanded exponentially in recent years in response to the desire by academics to define the relationship between business and the communities in which they operate (Almashhadani & Almashhadani, 2022; Achi, Adeola & Achi, 2022; Ang, Shao, Liu, Yang & Zheng, 2022).

### **3.2 CORPORATE SOCIAL RESPONSIBILITY**

Industry Canada (2009:1) defines CSR as “an evolving concept that currently does not have a universally accepted definition”. This is supported by Shabbir, Shariff, Yusof, Salman & Hafeez (2018) who noted that issues of definition regarding CSR have remained an area of intellectual contestation right from the outset. Carroll (2021); Wood (1999); Camilleri (2020), Catalysts Consortium (2002); Wickert, 2021); Obalola (2008) and Gatti, Vishwanath, Seele & Cottier (2019) also presented SCR as an evolutionary concept whose definition was still undergoing further negotiation by scholars.

Davis and Blomstrom (1975:39) on the other hand, considered CSR as “obligations of decision makers to take actions which protect and improve the welfare of society as a whole, along with their own interest”. This suggested that CSR aimed to offer protection and improvement to society thereby bringing benefits to society. Carroll (2021) further asserted that CSR is “the social responsibility of business [which] encompasses the economic, legal, ethical and discretionary expectations that society has of organisations at a given point in time”.

Carroll went on to offer a four-dimensional definition of CSR which involves the conduct of a business so that it is economically viable, adheres to the law, has a strong ethical orientation and provides social support. Voluntarism and or philanthropy is given as a discretionary dimension. CSR is “the commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large, to improve their quality of life” (Madhuwanthi & Somachandra, 2019). This view was corroborated by Industry Canada (2007:1) who saw CSR as “the way firms integrate social, environmental and economic concerns with their values, culture, decision making, strategy and operations in a transparent

and accountable manner thereby establishing better practices within the firm, creating wealth and improving society”.

The EU Commission (2002, 347:5) presented the concept of CSR as “a phenomenon in which companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis”. Freisleben (2011:53) also stated that CSR is about the company having an ethos or set of values – sometimes expressed in the vision, mission and goals of the organisation and many business practices, to produce an overall positive impact on society. Many academics such as Liu and Fong (2021) also agreed with this notion of mutual benefits for both the company and its immediate environment, as well as a positive impact on society as a whole, when they stated that “CSR is largely understood as a range of voluntary initiatives, beyond legal and contractual requirements, which, if undertaken effectively, should eventually benefit the workforce, their families and local communities; and ultimately improve the overall welfare of the community and contribute to economic development”.

In South Africa, the idea of corporate obligation is also emphasised by Andrei, Panait and Voica, (2018) who define CSR as an “obligation of businessmen to pursue those policies, to make those decisions to follow those lines of action, which are desirable in terms of objectives and values to the society of their location”. All these definitions are flexible enough to accommodate the various concerns regarding CSR, as demonstrated in the growing body of literature. Economic viability and philanthropic issues and all their implications can be accommodated in the definitions. The same applies to the issues of content, context, inter-cultural, and/or country peculiar analyses which can be successfully undertaken (Boone, Buyl, Declerck & Sajko, 2022; Girschik, Svystunova & Lysova, 2022).

For instance, Kumar, Antony and Tiwari (2019) suggested that Small Medium Enterprises (SMEs) are drivers and enablers of economic growth in developing and developing economies including South Africa. For instance, in South Africa, SMEs contribute 91% of registered companies; SME contribute 60% of the labour force and their total economic output and productivity account for an estimated 34% of South Africa’s Gross Domestic Product (GDP) (Statistics South Africa, 2019). Given the

critical socio-economic role played by SMEs, it is vital that they grow and succeed (Massoud, 2019).

Since the 1950s, the CSR notion has developed from mere idealism to the specific identification of SCR practices in listed companies as well as SMEs. At the moment, CSR is incorporated deeply, on a daily basis to managerial practices that enable firm level growth in both large companies and SMEs. However, in the SMEs, the degree of integration of the concept is not as clearly defined as in the large companies mainly because of the use of informal communication channels and tools, and its close proximity to the stakeholders (Úbeda-García, Marco-Lajara, Zaragoza-Sáez, Manresa-Marhuenda & Poveda-Pareja, 2022; Ananzeh, Al Amosh & Albitar, 2022).

These two reasons complicate efforts to assess the impact of the companies and their actions when implemented, thus causing a silent social responsibility to emerge. There is a lack of studies on SCR within SMEs because of the industry's heterogeneous nature, its customised structures as well as the semi-informality of management systems, which all prevent the results from being easily analysed. As a result, the CSR concept has had to adapt to the context of SMEs because it is not easy to 'cut and paste' practices borrowed from large companies.

Hence, CSR is considered to be a direct outcome of the business action where practices are established voluntarily and characterised by their economic, legal, ethical and other expectations that the community has on the company. Jenkins (2008) concurred with this view when he stated that despite the diversity of SMEs, one can find social practices where people agree to work together in a conducive environment while promoting an equitable distribution of wealth and the protection of the environment (Ren, Huang, Liu & Yan, 2022; Khatib, Abdullah, Elamer & Hazaea, 2022; Egorova, Grishunin & Karminsky, 2022).

Despite the fact that CSR has experienced a substantial and steady theoretical evolution in the recent past, many authors are still trying to define it in an attempt to find an unanimously accepted concept. Rehbein, den Hond and Bakker (2018) in their seminal study, developed a theoretical and conceptual evolutionary scale of concepts or approaches related to CSR that went from 1950 to 2002. These authors identified 10 levels of evolution, as well as strategic implementation approaches that can be

adopted by SMEs to enhance organisational performance. This seminal study was complemented by Simpson and Aprim (2018), who extended the time series of the study until 2003, hence, emphasising on the analysis CSR concepts the strategic application as well in management practices. These two studies brought the existing discrepancy to the fore, in the conceptualisation as well as in the identification of responsible practices by companies (Mazur, Walczyna & Cichorzewska, 2023; Ahmad, Ullah, AlDhaen, Han, Ariza-Montes & Vega-Muñoz, 2022; Chuah, Sujanto, Sulistiawan & Aw, 2022).

Rehbein *et al.*, (2018) defined SCR as “a concept under which companies decide voluntarily to contribute to the achievement of a better society and a cleaner environment” and was defined as “the voluntary integration by companies of social and environmental concerns in their business operations and their interactions with their stakeholders”. To make this definition operational, companies voluntarily carry out practices with the aim of contributing to the improvement of the society to which they belong, as well as to avoid degrading the environment with the business activity they develop (Hassan, Rabbani, Brodmann, Bashar & Grewal, 2022; Zhang & Kong, 2022; Litvinenko, Bowbrick, Naumov & Zaitseva, 2022; Zhou, Liu & Luo, 2022; Li, 2022).

The authors stated that the concept covered two dimensions. First, the dimension refers to firm level internal systems and mechanism. For instance, from internal systems the understanding is that socially responsible practices include human resource management, adoption to change, health and safety in the workplace as well as environmental impact management of natural resources. Second, the dimension that refers to “responsible practices developed by local communities, business partners, suppliers, and consumers in society, as well as those related to global ecological problems” (Liu, Yang, Zhang & Zhang, 2022 :38). In many cases, these practices were considered as an element applied only by large companies (Liu, Yang, Zhang & Zhang, 2022; Agrawal, Majumdar, Majumdar, Raut & Narkhede, 2022; Waldron, Navis, Karam & Markman, 2022). However, other authors supported the idea that “SMEs could be and sometimes are socially responsible by nature, and affirmed that the main reason why such companies do not undertake social responsibility actions is because they are hampered by a series of additional expenses” (Huang,

Chau, Tang & Iqbal, 2022 : 38 ; Humphreys & Trotman, 2022; Xu, Mohammad, Nawaz, Samad, Ahmad & Comite, 2022).

### **3.3 CORPORATE SOCIAL PERFORMANCE (CSP)**

The need to achieve or establish the results of CSR by quantifying and measuring them has led to the introduction of the CSP in the CSR equation. Maier, Pollach and Ravazzani (2019) stated that formulating actions is quite different from measuring the results that have been generated by those actions. It is also necessary to mitigate or reduce both negative social and environmental impacts generated by business activities, while increasing the company's sustainability efforts.

CSP is therefore studied under two dimensions. One dimension is the approach where the principles of social responsibility are devised to meet the interests of the various corporate stakeholders. The expectations of society are that business organisations should undertake CSR beyond the legal obligations and profit realisation and include social and economic development as well as environmental sustainability. While big businesses have managed to attract a large corpus of literature, SMEs on the other hand, have hardly generated any literary interest to enhance researchers' understanding of the concept's engagement in the industry. The SMEs are a significant sector worldwide in terms of the economic, environmental, and social impact they have on national economies. They account for an economic input that exceeds 90% in terms of world business enterprises (WBCSD, 2009).

Business organisations and society enjoy a symbiotic relationship, as all businesses are a product of society because they survive due to society's patronage (Moon & Parc, 2019). Consequently, society exercises a degree of regulation on businesses in terms of the way they execute their services. CRS therefore should include a number of programmes that a business enterprise is expected to perform, in order to meet the objectives of multiple stakeholders and keep cordial relationships with the community from which the business is derived.

Corporate entities are often regarded as progressive partners in the communities in which they operate. They contribute to the creation of wealth, job opportunities but also to the development of products and services that are needed by those communities. However, in recent times, evidence suggests that the pressure on

businesses, in particular, SMEs to play an important social role on issues involving stakeholders, keeps mounting (Sharma, Sharma & Devi, 2009). In 2009, the World Business Council for sustainable development contends that SMEs play an integral part of society, and their roles intend to keep societal wellbeing through CSR strategies. The two are interdependent and work together to ensure mutual understanding and responsible behaviour (WBCSD, 2009).

These are the features that directly impact the manner in which SMEs relate with the CSR concept, as the latter's initiatives are also designed to satisfy these qualities. For example, other factors of the CSP theoretical model originally developed by Carroll (1979) encompassed an identification of the social issues that business needed to address and a specified philosophy of responsiveness to those issues. Acknowledging that social issues could change over time, based on the kind of industry firms operate, is an effective starting point. CSP is a systematic attempt at leveraging social issues that are of high interest to firms. In this regard a management strategy mode of action-oriented responsiveness has to be identified, despite this aspect being vaguely addressed in Carroll's (1979) conceptualisation. Employing a simple differentiation between reactive, defensive, accommodative, or proactive responsiveness strategies, firms should make good use of the social issues around industries (Ilham, Arliansyah, Juanda, Sinta, Multazam & Syahputri, 2022; Clauß, Kraus & Jones, 2022; Zhao, Wu, Chen & Zhou, 2022).

In 1991, Wood reviewed and improved the CSP theoretical framework and introduced important aspects that go beyond the defining and identifying several types of SMEs responsibilities to explore conceptual factors that relate to the principles motivating responsible behaviour, the processes of responsiveness and the outcomes of performance. Wood (1991)'s improved theoretical framework put CSR into a broader context of organisational management , planning , performance and sustainable growth than just a stand-alone concept as well as conceptualised CSP; being the creation of organisational strategy that particularly configure the principles of social responsibility, implementation of social responsiveness, as well as observable outcomes, as they relate to firms' societal relationships as well as they relate to the concept of profit making.

The improvement of Wood's (1991) theoretical framework constituted a substantial improvement in CSR research and academic output. For example, a study using Wood (1991)'s theoretical framework to illuminate the relationship between CSR and the drivers of organisational performance and growth would take into account the principles that motivate a firm's social responsibility actions and decision making at three levels of analysis: namely, organisational, institutional, and individual. Thus, the driving factor behind firm level CSR responsibility strategy might originate from the principle of legitimacy (institutional level). For example, this might emanate from the motive to maintain legitimacy and credibility as a responsible corporate citizen in a shared environment. Or, the motivation could come from an organisational sense of public responsibility, particularly, in regard to organisational performance and growth related to the firm's primary and secondary areas of involvement. Third, the motivation could stem from selective options of managerial decision making their personal responsibility preferences and inclinations as well towards a specific CSR strategy. The managerial behaviour might also be influenced by the cost that involved in implementing a specific CSR strategy. There is also room for interactivity among two or more of these principles in motivating CSP (Kusa, Duda & Suder, 2022; Zhu, Xu, Wang & Zhang, 2022; Liu, Li & Liang, 2022).

**Figure 3.1: Hierarchy of Corporate Social Responsibilities**



**Source:** Carroll (1991)

### **3.4 SMALL AND MEDIUM-SIZED ENTERPRISES (SMES)**

There is no universally accepted definition for the concept of SMEs. They vary in context and content, depending on the countries, industries, organisations, agencies, and academia. SMEs are however commonly defined as business entities that have

a workforce that ranges between 1-100 employees and sometimes up to 250 employees. This is a statistical definition that places the lower limit for the number of employees for “small scale enterprises” at between 5-10 employees and the upper limit at 50-100. The medium-sized enterprises’ upper limit is placed at 100-250 employees. The European Union Standard definition for SMEs is that it includes any type of business with fewer than 250 employees with a turnover of up to €50 million as well as a balance sheet of about €43 million. This definition is definitely not a universal one which can be applied to all countries, as SMEs sizes differ from one country to another.

There is also a qualitative definition for SMEs that focuses on aspects such as market share, ownership status or the existence of a formalised structure of the bureaucracy (Enderle, 2021). The SMEs are therefore distinguishable from their larger counterparts, by virtue of such characteristics as owner-management, independence, a multiplicity of tasks, firefighting, cash limitations, personal relationships, and informality (Spence & Lozano, 2000). Most SMEs are generally oriented on daily problems and are less dominated by formality as well as being characterised by a more interpersonal relations culture. Enderle (2021) reiterated the commonly held belief that SMEs have a high level of interrelation with their operational space but are subject to market dynamics that are driven by large enterprises through the supply chain. Lee, Ha & Yoon (2022 :31) stated that SMEs carry small business responsibility, in which the entrepreneur exhibits the following characteristics:

- “Treats customers, business partners and competitors with fairness and honesty.
- Cares about the health, safety and general wellbeing of employees and customers.
- Motivates the workforce by offering training and development opportunities.
- Acts as a “good citizen” in the local community.
- Is respectful of natural resources and the environment”.

### **3.5 CONTRIBUTION OF SMES TO ECONOMIC DEVELOPMENT**

SMEs contribute immensely to the economies of both developed and developing nations by generating employment and developmental projects. In Europe SMEs

constitute 99% of all companies, and they generate around 75 million jobs in various industries, including textiles, construction, and furniture (EU Report, 2005). SMEs also provide about 80% of the jobs in Europe while in the United States, small businesses constitute more than 99% of all employed people, with 52% of them coming from the private sector. In Canada, SMEs businesses employ approximately half of the country's workforce (Princic, 2003). In China, SMEs contribute significantly to national income growth, employment growth, export expansion and economic structure optimisation (National Development Reform Commission of China, 2010). SMEs constituted up to 45% of employment in townships and 60% of GDP in China until 2006. In South Africa, SMEs contribute about 91% of formal business entities and about 57% of the GDP, as well as nearly 60% of employment opportunities (Kimanzi & Gamede, 2020). In Asia, SMEs remain a critical source of employment and income creation, contributing more than 60% of jobs (Asian Association of Management Organisation, 2007). In Australia, the Australian Bureau of Statistics (2007), reported that SMEs constituted up to 95% of Australia's industrial output. These figures compare favourably with what happens in developing countries where SMEs constitute 90 % of enterprises and account for at least 50% of employment in such countries. Worldwide, SMEs account for between 50% and 60% of employment and more than half of GDP on average.

The above statistics demonstrate that there is a need to engage SMEs in CSR activities, since they help to create employment opportunities, drive economic growth, promote private sector development, and provide opportunities for equitable distribution of income in society (Than & Penpokai, 2019). Than and Penpokai (2019) also argue that SMEs support economic development and sustain lives in developing countries as they do the following:

- 1) They tend to use more manpower in their production processes than their larger counterparts, in the process boosting employment, that leads to more job opportunities and wider income distribution.
- 2) They sustain livelihoods in simple ways and add value to processing activities in economies based on agriculture.
- 3) They nurture and mentor entrepreneurship.

- 4) They contribute to the building up of systematic productive capacities and help to create resilient economic systems through synergies between small and large enterprises.

Within the African context studies undertaken demonstrate that SMEs provide support for social transformation of the rural communities through their social responsibility actions (Higgs & Hill, 2019). The SMEs in this regard provide opportunities for capacity building and economic empowerment of communities, as well as contribute to rural infrastructure development.

In Nigeria, a developing country in West Africa, studies conducted on SMEs indicate a rising tradition in the promotion of entrepreneurship enterprises; thus, contributing significantly to efforts to curb unemployment in the country (Kowo, Adenuga & Sabitu, 2019). The SMEs also assist in driving national development as in the cases of developed economies (Esther, David & Scholastica, 2018). They have gained prominence as centres of industrial creativity, innovation, and employment creation (Kowo *et al.*, 2019). For instance, enterprise training in educational institutions in the Niger Delta region of Nigeria boosted the development of corporate enterprises and business acumen and facilitated the changing of the mindsets of the youth, to encourage them to venture into business operations after graduation rather than kidnapping or holding victim's hostage to get ransoms. The close ties between SMEs operators and their employees, their operational environment, as well as with their business partners tend to make them adopt a naturally responsible approach towards business. The SMEs are, therefore, as responsible as large enterprises (Looz-Zambrano, Santos-Roldán & Palacios-Florencio, 2022; Huang, Wang, Chin, Huang & Cheng, 2022).

### **3.6 EMERGING INTEREST IN SMES-CSR DISCOURSE**

The realisation of the aggregate impacts of SMEs on national economies has led to the recent revival of interest to engage in SMEs-CSR discourse among scholars and the research community. Most of the growing research is focusing on integrating CSR into SMEs as well as the issues these businesses face as they grapple with social challenges in reaction to society's pressures and expectations. These studies highlight

the various ways in which CSR is slowly but surely emerging as both a condition and strategy for SMEs (He, Cheng, Swanson, Su & Hu, 2022; Khan, Johl & Akhtar, 2022).

Solovjova and Sivolapova (2022) stated that SMEs consider CSR not only as an extra activity, but as an integral part of their entire operational culture. Rozsa, Belas, Khan and Zvarikova (2021) stated that while CSR remains informal and unstructured, it is embedded in the daily management systems of SMEs. The following shows the major differences between SMEs and larger corporate businesses (Spence, 2007):

- 1) There is no codification of CSR in SMEs.
- 2) CSR in SMEs is driven more by personal motivation than other motivations.
- 3) The manager-cum-owner is the main figure responsible for the development and implementation of CSR activities.
- 4) The entrenchment of the firm in local communities influences the way the firm chooses to conduct its social responsibility.
- 5) The success of the firms is closely linked to their reputation, and this makes the companies act with honesty and integrity.
- 6) In small firms the role played by human resources generates a high commitment to such organisations displayed by employees and their families.
- 7) The operational environment in which the SMEs do business directly affects their approach on how CSR activities are handled.

### **3.7 MOTIVATIONS OF DRIVERS FOR SMES ENGAGEMENT IN CSR**

Several factors motivate SMEs to engage in CSR. The main drivers are the internal and external forces that help, compel, and propel SMEs to identify with CSR programmes (Van & Nguyen, 2019).

Esther *et al.*, (2018) showed that the following internal factors motivate or drive SMEs to engage in social responsibility activities:

- 1) The manager's ethical orientation determines his level of commitment to the cause of SCR implementation programmes in the enterprise.
- 2) The implementation is purely based on moral values, as the SMEs view giving something back to the community of business location as the 'right thing to do'. These are values of good citizenship in the community.

- 3) Where the enterprise anticipates gaining benefits from community from its CSR engagement or philanthropy, it may choose to plough back such benefits into the community, in order to improve its image and gain customer loyalty.
- 4) It is believed that identifying strongly with the community drives SMEs to want to engage in CSR programmes.

The following are seen as the external pressures that drive SMEs to want to engage in CSR programmes:

- 1) The pressure from the supply chain from large organisations compels SMEs to adopt ethically responsible practices to sustain their business relationship with such big firms.
- 2) The pressure from communities, the local media as well as from non-governmental organisations and community-based organisations often bears on the SMEs to take up social responsibility.
- 3) The desire to avoid sanctions and negative publicity is another driving factor for SMEs to want to undertake CSR.
- 4) Customer loyalty is also paramount for SMEs that decide to undertake socially responsible practices in order to retain and attract customers continuously.

### **3.8 STRATEGIES OF ENGAGEMENT IN CSR**

Inyang (2013) stated that SMEs adopt several strategies in engaging in CSR in the communities of their operations; and these strategies exhibit the different aspects of their CSR initiatives as follows:

- 1) **Community involvement or development:** The comparatively localised character of SMEs makes it easy for employees and owners to be well known in the community. This assists SMEs to strongly identify with the community, which is a good thing for their growth. The community-related activities they engage in include sports, health and education, as well as other philanthropic work.
- 2) **Employee-related initiatives:** In view to the fact that employees are very important stakeholders in SMEs engagement in CSR, the SMEs should develop a sustainable relationship with their employees at organisational level. These

in turn enhance employee motivation and it is a critical aspect in organisational performance.

- 3) **Consumerism:** Consumerism relate to issues of ethical uprightness and honesty in product safety, advertising, durability and reliability of products and services, fair pricing, as well as responsiveness to customers' complaints and need. Therefore, SMEs have a responsibility to deliver quality services and product to enhance the customers' wellbeing, as this can impact positively on their revenues.
- 4) **Environmental initiatives:** It is important that SMEs must be sensitive maintaining a sustainable environment by using environmentally friendly operational or production process such as energy conservation, efficient production process that minimise wastages as well as reduce air, water and soil pollution. For instance, SMEs might be more proactive in CSR strategies that big corporate as an investment in CSR may improve organisational performance (Erin, Bamigboye & Oyewo, 2022; Behl, Kumari, Makhija & Sharma, 2022; Konadu, Ahinful, Boakye & Elbardan, 2022).
- 5) **Supply chain:** In some instance, SMEs come under pressure from large organisations which force them to comply with the regulations and protocols of corporate citizenship. Through the procurement process, these organisations include social and environmental criteria that enable a positive influence on the CSR behaviour of SMEs. Therefore, these large organisations require their suppliers including SMEs to adhere to CSR requirements as part of business relationship and to play an important role in enabling and enhancing good corporate citizenship in their supply chain partners and networks. In this way, SMEs implement CSR responsible strategic initiatives as good corporate citizens to be included in value adding business networks that improve their organisational performance and sustainable growth (Xu, Zhu, Metawa & Zhou, 2022; Kücükgül, Cerin & Liu, 2022; Islam, Ahmad & Ahmed, 2022; Jelonek, Tien, Dao & Minh, 2022).

### **3.9 BENEFITS OF IMPLEMENTATION OF CSR BY SMES**

Several studies have identified a number of benefits that SMEs derive from the engagement and implementation of CSR programmes (Singh & Dhir, 2019; Wymer,

2021; Risks, 2005; Cortes & Lee, 2021). Table 3.1 below shows how several researchers have identified different benefits for SMEs. These benefits can be grouped under three categories; namely, of social, commercial, and human resources benefits, as illustrated in Table 3.1 below.

**Table 3.1: Benefits of CRS Strategies**

<b>Social Benefits</b>	<b>Commercial Benefits</b>	<b>Human Resource Benefits</b>
<ul style="list-style-type: none"> <li>- Enhanced government relations</li> <li>- Thwarting negative publicity</li> <li>- Building and maintaining client relationships</li> <li>- Enhanced reputation</li> <li>- Enhanced professional image</li> <li>- Increased confidence and loyalty- Improved image and reputation</li> <li>- Improved trust and understanding</li> <li>- Larger, more prominent profile</li> <li>- Benefits company culture</li> <li>- Community improvement</li> <li>- Community goodwill</li> <li>- Better reputation</li> </ul>	<ul style="list-style-type: none"> <li>- Increased sales</li> <li>- Brand differentiation</li> <li>- Enhanced brand image</li> <li>- Ability to reach new customer segments</li> <li>- Increased visibility</li> <li>- Enhanced corporate image</li> <li>- Better market position</li> <li>- More business</li> <li>- Cost savings and increased efficiency</li> <li>- Risk management</li> <li>- Customer satisfaction</li> <li>- Sales growth</li> <li>- Profit growth</li> <li>- Raising quality</li> <li>- Better productivity</li> </ul>	<ul style="list-style-type: none"> <li>- Improve employee recruitment</li> <li>- Morale and retention</li> <li>- Building staff morale</li> <li>- Show concern for staff and their interest</li> <li>- Increased employer motivation</li> <li>- Increased attractiveness to potential recruits</li> <li>- Happy workers</li> <li>- Employability</li> <li>- Employee loyalty</li> <li>- Motivated workforce</li> <li>- Higher employee motivation</li> </ul>

**Source:** Adopted from Inyang (2013: 18)

### **3.10 CONSTRAINTS AND CHALLENGES ASSOCIATED WITH ADOPTION AND IMPLEMENTATION OF CSR BY SMES**

Insofar as benefits do exist, several barriers or constraints associated with adoption and implementation of CSR by SMEs also abound and have been identified over the years, as follows:

- 1) “The cost of implementing CSR is often seen as too steep within the context of the financial base of most SMEs, which lack the necessary resources to embark on such activities and when survival is usually the greatest economic desire.

- 2) There are time constraints which affect commitment to CSR initiatives since small business operators are preoccupied with day-to-day management of the business and with bigger issues.
- 3) A large number of SMEs possess limited knowledge about social performance issues.
- 4) There is a lack of awareness of the benefits of CSR, with little or no understanding of the business case for SMEs.
- 5) There is a lack of capacity on the part of most SMEs to collect and analyse useful data in sustainable development.
- 6) SMEs have no systematic incentives or frameworks to engage with CSR issues.
- 7) There is a lack of information on CSR activities at the disposal of SMEs, and this affects their commitment.
- 8) Most of the existing CSR tools and guidelines are designed mainly for large corporate organisations and are of limited value or relevance to SMEs.
- 9) Generally, SMEs do not enjoy sufficient support mechanisms to guide and enhance their adoption and implementation of CSR programmes.
- 10) SMEs are constrained from getting involved in CSR initiatives due to the fear of additional regulatory and bureaucratic burdens” (Lee, Han, Radic & Tariq, 2020:13).

### **3.11 OVERCOMING THE CONSTRAINTS TO IMPLEMENTATION**

These challenges or constraints cited above place a considerable burden on most SMEs in ways that sometimes offset the benefits (Lee, Han, Radic & Tariq, 2020). To overcome that burden, SMEs require modest resources to provide comprehensive information about the nature of CSR activities and the appropriate strategies and tools to employ, to be able to achieve desired results. There is a need to develop tools that are specific and formalised enough to deal with SME peculiarities that go beyond the informal networks (Abdulaziz-Alhumaidan & Ahmad, 2019; Dalla-Pria & Rodríguez-de-Dios, 2022; Ellili, 2022).

Instruments and standards tailored to meet the specific requirements of SMEs need to be developed, as the existing ones were developed for large commercial organisations and are quite inappropriate to deal with the concerns of SMEs. These

will go a long way towards guiding their efforts to adopt and effectively implement and report on their CSR policies, processes, and performances. When such support exists, the small business operators will be able to raise their commitment to higher levels. For instance, Abdulaziz-Alhumaidan and Ahmad (2019) observes that the Austrian CSR Quality Seal specifically for the guidance of SMEs, helps them to communicate their sustainability and performance so effectively that they actually exhibit a visible relevance for the stakeholders. This kind of specialised guidance and support is helping SMEs to develop a clear picture of their social and environmental performance or conduct.

In this instance, SMEs operators require training and development interventions to educate employees on the themes related to corporate citizenship, business ethics and responsible CSR initiatives. As such, knowledge capacity through training and development and media exposure might enhance the necessary awareness regarding the core concerns of CSR initiatives. Such training and development enable SMEs to understand the very concept of CSR, business relationship and networks for their engagement and the process of embedding CSR initiatives into their business functions (Shi, Yu, Li & Wang, 2022).

Abdulaziz-Alhumaidan and Ahmad (2019) stated that by placing CSR and corporate citizenship at the core of business network and operational strategy, CSR becomes more aware on the benefits of investing on CSR strategies. For example, there is also a need for government intervention despite the fact that CSR is essentially a voluntary gesture. This would help the SMEs as government could provide a level playing field. In this regard, the ratification of relevant legal and regulatory framework by government might enable to encourage CSR strategy through tax policy incentives for CSR practices. Therefore, the creation of the enabling institutional infrastructure might help provide visibility for CSR, while government creates incentives for them to adopt CSR practices and further build their capacity to effectively implement the programmes (Cordeiro, Galeazzo & Shaw, 2023).

### **3.12 CSR AMONG SMALL AND MEDIUM ENTERPRISES (SMES)**

The corpus of knowledge on the relationship between CSR and SMEs is rapidly expanding as buttressed by a recent surge of studies such as Perrini (2020), Lee

(2021), and Hopkins (2022). SMEs are distinct from big corporations in a number of ways, including firm level resources at their disposal, motives to engage in CSR, and the importance of managerial values, the level of involvement, CSR strategy selection and implementation as well as stakeholder prioritisation. These aspects motivate several strategic positions in which CSR is viewed and implemented in SMEs, as contrasted with large companies.

For instance, some studies indicate that personal values and preferences of the owner-cum-manager actually affect the CSR strategy of the firm, since small businesses are defined by their conflation of ownership and management issues. In SMEs, personal ethics from leaders and owners influence managerial decision-making process in ethics quite strongly and consequently affect organisational behaviour (Lee *et al.*, 2020) SMEs practice, non-formalised, non-systematic, non-structured CSR.

Abdulaziz-Alhumaidan and Ahmad (2019) posit that issues closer to the firm and main stakeholders take priority in terms of the CSR activities of SMEs and as a result, employee-oriented programmes and local society initiatives are the most frequently practiced CSR activities. As such, social capital and investment is a concept that is relevant and appropriate in the CSR of SMEs.

Social capital is constituted by the connections among individuals that make up the civic community and is often defined by close cooperation, trust, reciprocity, civic consultative engagement, and the collective wellbeing of all stakeholders (Cheffi, Malesios, Abdel-Maksoud, Abdennadher & Dey, 2021). Social capital and community integration are key strategic factors for SMEs for the purpose of maintaining their licence to operate and to improve their life expectancy (Lee *et al.*, 2020). When studying the SCR-SMEs nexus in Italy, the researchers (Lee *et al.*, 2020:20) stated that “it was worth highlighting that they paid particular attention to understanding whether CSR in SMEs was practiced as a structured managerial process, in order to benefit the main stakeholders for the process, or as factors that triggered CSR orientation in the sample SMEs”.

### **3.13 CORPORATE SOCIAL RESPONSIBILITY AND CORPORATE SOCIAL PERFORMANCE**

Generally, scholars are of the view that CSR and sustainability share a symbiotic relationship that exhibits interdependence. For example, it is difficult for corporate to obtain benefits at any cost without weighing the impact that their strategies and actions have on the value chain streams, efficiencies, internal and external environment. They are most likely to take out strategies that have low cost and high benefit to the business growth and sustainable development.

In view to CSR and CSP in SMEs, the adoption of these strategies imply selecting and developing CSR strategies that are double faced as they seek to improve the essence of business as well as contributing to improving the environment. However, CSR is the responsibility that is mandatory to each and every business in a specific environment (philanthropic, economic, social and environmental), and thus, CSR might also intend to minimise negative impacts on society and maximise positive ones.

In this context, social capital and business ethics have been interlinked to CSR strategy in terms of planning and implementation, which some studies recognise as interlinked, interchangeable and as one subsequent to the other. Although SCR and CSP have a close conceptual underpinning, social responsibility and business ethics are not the same concept they differ in their application and to different business environments. Notably, business ethics are much more aligned to internal environment of business while CSR is more inclined to external environment.

For instance, companies (SMEs and large corporate) develop and implement CSR strategies by taking into cognisance different levels of responsibility or areas of attention that are relevant to firm level objectives and societal responsibility needs (Lee *et al.*, 2020). These aspects include internal stakeholder such as (managers, employees, and employees representatives etc.), as well as external stakeholders such as (the supplies, environment, clients, etc.) and they set the social goals of organisations (Abdulaziz-Alhumaidan & Ahmad, 2019).

In this sense, Carroll (2021) suggests that large corporate and SMEs are not unethical, but they have a social contract and obligation which has specific goals and measurable objectives that are analysed and measured in specific time, cost, and benefits. (Cheffi

*et al.*, 2021) posit that the accountability and responsibility of corporates account for more areas than the economic and legal ones (Lee *et al.*, 2020). For example, philanthropy as a principal aspect of both CSR and business ethics has been developed through social initiatives and societal responsibility needs in order to influence the impact that corporate on the environment that is operating from. At this point, it is necessary to mention that the philanthropy developed by companies is focused on actions that seek to develop a change within their stakeholders, by taking a long-lasting view, which is to say, that can be maintained over time.

Two philanthropic factors are observed in the current study. First, the corporate factor, standardised and categorised process starts by establishing firm level objective which is measurable and aligned to short and long-term strategic goals, then proceeds to the design of a strategy in terms of time and deployment of resources and then determines implementation mechanisms that are needed to implement the designed strategies as well control mechanism in each strategy. Second, “corporate philanthropic actions include the development of corporate subsidy programmes, educational, health, and sports initiatives, and programmes to promote local art, among other activities” (Lee *et al.*, 2020:24).

This deviation triggers an important discussion regarding the relationship between CSR and financial performance in SMEs. Thus, two related questions that implore on the nexus between financial performance and CSR are raised.

- Do firms that implement CSR strategies outperform or underperform other companies in the same industry that do not meet the same social criteria?
- How much should a firm spend on CSR and what is the bidirectional causal relationship between CSR and firm performance?

In extant literature, in the relationship between financial performance and CSR, studies have primarily addressed the first question giving empirical evidence to support their findings, and empirical results are inconclusive. Recent studies indicate either no relationship (Cheffi *et al.*, 2021), a positive relationship (Lee *et al.*, 2020), or a negative relationship.

This leaves decision making process in SMEs without clarity in regard to the objective of investment in CSR. Specifically, in the second question that is more significant to

managerial decision-making process has not been directly examined in the academic literature.

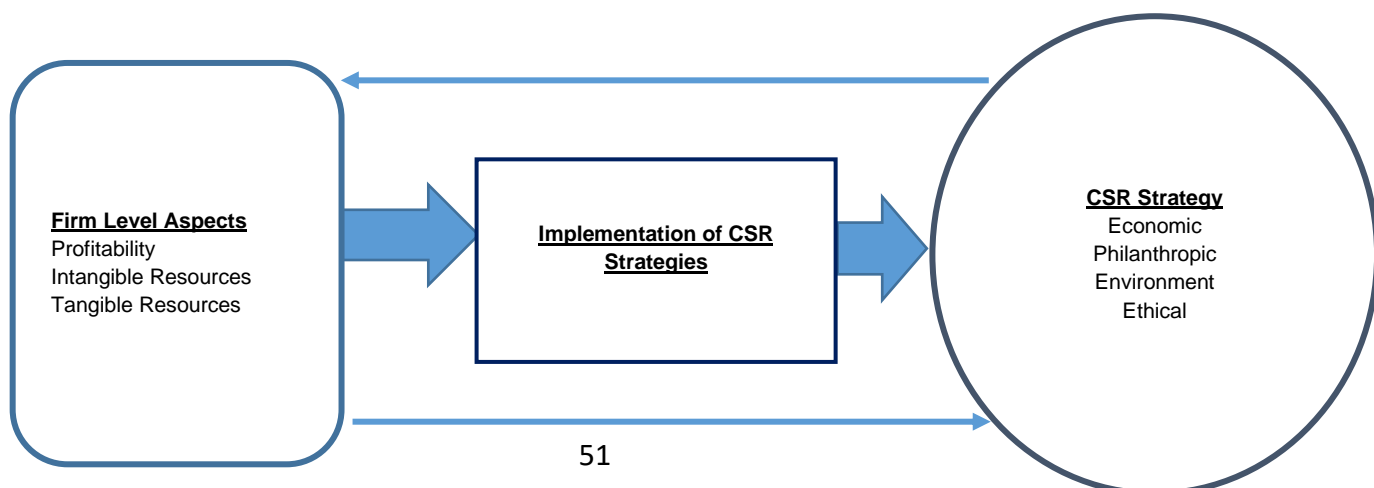
In this instance, managers and executives should be able to determine the appropriate level of CSR investment, based on a theory of the firm's perspective. This perspective assumes that managers of large corporate and SMEs often take decisions that target firm level profit making objectives (Cheffi *et al.*, 2021). Our framework applies generally to large corporate and SMEs that may have alternative objectives and are not subject to the market for corporate control.

### 3.14 CONCEPTUAL FRAMEWORK

The study conceptualises that SMEs as informed by several studies which have identified a number of benefits that SMEs derive from the engagement and implementation of CSR programmes (Singh & Dhir, 2019; Wymer, 2021, Risks, 2005, Cortes & Lee, 2021), as illustrated in the Figure 3.2 below. These benefits can be grouped under the three categories – social, commercial, and human resources benefits, as follows:

Hypothetically, firm level resources such as tangible, intangible and profitability resources enable the implementation of CSR which are described as economic, environmental, philanthropic, and environmental strategies. Scholars aver that CSR and sustainability share a symbiotic relationship that exhibits interdependence. For instance, companies cannot obtain benefits at any cost without considering the impact their strategies and actions have on the environment, and in the economic and social sphere. They are rewarded for their conscientiousness.

Figure 3.2: Conceptual Framework



### **Source: Author's compilation from literature review**

Following the conceptual framework, an evaluation of the various CSP dimensions (domains, principles, but especially processes and outcomes) suggests that what need to be developed are clear targets, cost dimensions and strategic implementation procedures in their pursuit of CSR. CSR is still largely understood in terms of cost and benefit analysis that align to the essence of the firm (Johan & Ariawan, 2022; Bruna & Lahouel, 2022).

Therefore, the understanding and practice of CSR are indeed mostly likely to be informed by specific institutional realities that the decision-making process is informed by firm resources, which might create an environment in which CSR initiative are largely shaped by firm heterogeneity variables that indicates the objectives of the firm. For instance, the level of societal development and government regulations might influence the sophistication and prominence of the CSR discourse in any particular society. These contextual factors might neither create an environment in which CSR is normatively legitimate and structurally possible. Or alternatively, a narrative in which the implementation of CSR is a direct result of hindsight, personal discretion, and initiative (Karim, Nahar & Demirbag, 2022).

As such, the improvement of living conditions particularly in developed economies is mostly likely to reduce the need of social investment on the communities that they operate from. Thus, developing countries are seemingly caught in a vicious circle, where private sector CSR initiative is an utmost need, nonetheless, effectively impeded by inconducive operational environment. This is the case and the context of SMEs in the current study. According to Cheffi *et al.*, (2021:42) "taking CSR a step forward in the context of developing countries is thus likely to require more systematic planning and stronger determination on the part of the private sector to set this new trend in motion. It must be founded in the realisation that embarking on a CSR programme is a major commitment, which may require changes in the way responsibility management has traditionally been approached. It is also likely to require a concerted effort and collaboration between the private sector, the public sector and the NGO sector and the leveraging of the strengths and resources of all partners. The effective metamorphosis of CSR in developing countries beyond the

boundaries of public relations is indeed difficult to imagine in the absence of synergies resulting from such cross-sector collaboration”.

From the analysis of the conceptual framework, the following hypothesis is presented:

**Hypothesis 1:** there is a positive relationship flowing from firm level resource and CSR strategy selection.

**Hypothesis 2:** there is a positive relationship flowing from CSR strategy selection to firms’ level resources.

**Hypothesis 3:** there is a positive causal relationship flowing from firm level resources and CSR strategy.

**Hypothesis 4:** there is a positive causal relationship flowing from CSR strategy to firm level resources.

### **3.15 CONCLUSION**

CSR represents the new millennium challenge and a true paradigm shift for business corporations. There is overwhelming evidence showing that that the CSR movement has picked up enough momentum to continue significantly to upcoming national economies. There have been historic breakthroughs in the theoretical understanding of CSR and now empirical studies must follow. The scarcity of research work addressing the philosophy and practice of CSR in developing countries needs to be urgently attended to. More studies must continue to build on Carroll’s (1979) and Wood’s (1991) conceptualisations. Despite good awareness and intentions, the CSR approach of companies remains amateurish and sketchy. This applies to SMEs locally and internationally.

## **CHAPTER FOUR: RESEARCH METHODOLOGY**

### **4.1 INTRODUCTION**

In this chapter, the discussion target is to explain and give detail on methodological procedures that are adopted to test the study hypotheses and achieve the study objectives. Therefore, the chapter provides a detailed knowledge development process for the scientific inquiry. For ease of reference, it addresses key central points that discuss and present the research philosophy, the data collection strategies, and the data analysis strategies. These strategies describe, in particular, how the scientific process enables gaining knowledge by means of implementing advanced econometric estimations complemented by following robust statistical procedures such as the Structural Equation Model (SEM) and the Path Analysis (PA) for testing the study objectives.

### **4.2 RESEARCH QUESTIONS, OBJECTIVES, AND HYPOTHESES**

The objectives of the study are:

- To investigate the influence of drivers (Firm level Resources) on CSR strategy selection.
- To investigate the influence of CSR strategy implementation processes on firm level resources.
- To investigate the causal impact between CSR and firm level growth.

#### **4.2.1 Research questions**

- What is the influence of drivers (Firm level Resources) on CSR strategy selection?
- What is the influence of the CSR strategy Implementation Process on firm level resources?
- What is the causal connection between CSR and firm level growth?

#### **4.2.2 Research hypotheses**

Consistent with the research questions and objectives, the following study hypotheses were formulated:

## Hypothesis 1

- **Null Hypothesis:** There is no positive relationship flowing from firm level resource and CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability values.
- **Alternative Hypothesis:** There is a positive relationship flowing from Firm Level Resource and CSR strategy selection, measured at  $p < 0.01$ , 0.5 and 0.10 probability values.

## Hypothesis 2

- **Null Hypothesis:** There is no positive relationship flowing from CSR strategy Selection to Firm Level Resources measured at  $p < 0.01$ , 0.5 and 0.10 probability values.
- **Alternative Hypothesis:** There is a positive relationship flowing from CSR strategy selection to Firm Level Resources measured at  $p < 0.01$ , 0.5 and 0.10 probability values.

## Hypothesis 3

- **Null Hypothesis:** There is no positive causal relationship flowing from Firm Level Resource and CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability values.
- **Alternative Hypothesis:** There is a positive causal relationship flowing from Firm Level Resource and CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability values.

## Hypothesis 4

- **Null Hypothesis:** There is no positive causal relationship flowing from CSR strategy Selection to firm level growth variables measured at  $p < 0.01$ , 0.5 and 0.10 probability values.
- **Alternative Hypothesis:** There is a positive causal relationship flowing from CSR strategy to firm level growth variables measured at  $p < 0.01$ , 0.5 and 0.10 probability values.

### 4.3 RESEARCH DESIGN AND PHILOSOPHY

According to Creswell and Creswell (2017), a research design is defined as a plan, structure, and strategy of investigation so conceived as to obtain answers to research questions or problems. The aim is to maximise the validity of eventual results. A quantitative methodology will be used to obtain and analyse the primary data. The researcher selected the Case Study Research Design as a framework for collecting data to answer the research questions.

For instance, the success of any scientific process relies heavily on the accuracy and appropriateness of the research design that is applied in the scientific process; as it relates to initial questions, objectives, and the study hypotheses. In this instance, the research design of scientific process is the master plan that informs the knowledge development procedures such as data collection, sampling strategy and data analysis procedures (Creswell & Creswell, 2017).

MacMillan and Schumacher (2001:166) stated that a research design is defined as a strategy for selecting methodological procedures that are relevant and argued that the scientific process include the sampling strategy, the sample size, the sampling process, and the data analysis process. Furthermore, the research design provides a scientific process that has sufficient rigour and relevancy to answer the initial research questions in a study. Saunders and Thornhill (2019) stated that a research design is defined as strategic methodological procedure of action that informs the relevance and appropriateness of methodological procedures followed in the context of the current study. Thus, the research design of a study provides critical methodological procedures that are fundamental to achieving the research objectives.

The research design is accurately aligned to the research questions and objectives of a study, the scientific process can easily test the study hypotheses. As noted in this study, the research design informs the specifications of the types of data needed, the evidence required to answer the research questions, test a theory, evaluate a programme. or describe a phenomenon. As such, the research design is expected to provide a systematic and scientific means to answer the research questions, achieve the study objectives and test the study hypotheses.

Therefore, to achieve this objective, the research design should be well specified and should take cognisance of the scientific process by assessing indicators such as the level of the methodological rigour, reliability, and the validity of the research findings. Creswell and Creswell (2017) further argued that the research design is a methodological framework that provides a platform for producing reliable and valid scientific findings in a specific scientific inquiry.

Having assessed the literature, the researcher advances an argument based on the use of various different research philosophies and designs that guide the scientific research inquiry. Research philosophies comprise; interpretative and positivist research philosophies (Creswell & Creswell 2017). Distinctions between these two approaches are usually based on their respective assumptions, methods, and philosophical orientations (Johnson & Onwuegbuzie, 2004).

Proponents of the quantitative approach adopt a positivist perspective. A positivist approach relies heavily on evidence that emerges from econometric and experimental analysis to explain the study phenomena. Conversely, in qualitative studies, interpretivism underpins the research by relying on the experience of the researcher to interpret the themes in a scientific inquiry. Thus, the ontological position of quantitative research is that there is only a single truth which is independent of the researcher's perception (Creswell, 2020). In qualitative studies, constructivists suggest that there are multiple realities including time and situation, from which the researcher cannot be independent (Babbie, 2007).

In this study, the quantitative study's goal is to measure and analyse the causal relationships between variables within a value-free framework (Babbie, 2007). Consistent with this objective, the present study adopted the positivist approach to test the causal relationship between the implementation of firm level growth and CSR strategy in SMEs in the KZN province in South Africa. The methodology was informed by the primary research questions that sought to uncover the causal nexus between the firm level imperatives that drive the adoption and implementation of the CSR strategy.

#### 4.4 THE TARGET POPULATION

In research, the target population refers to members or elements of a group under study and the term sample refers to a subgroup chosen from the population to participate in the research (Wegner, 2016). Consequently, the target population for this study was drawn from the membership list of three chambers of commerce which included the Pietermaritzburg Chamber of Business (PCB), the Durban Chamber of Commerce and Industry (DCCI), and the Zululand Chamber of Business (ZCB).

The 2018 membership lists showed that the three chambers under reviews had a collective membership of 4,474 organisations of various sizes. According to the definition of an SME (i.e., businesses with no fewer than 20 and no more than 200 employees), members on the list who did not meet the standard definition of SMEs would not adequately represent the target population and consequently would be discarded from the list. This preliminary screening process resulted in a sampling frame of 1,092 SMEs comprising 701 DCCI members, 300 PCB members, and 91 ZCB members.

The business sectors in the market, according to (Stats South Africa, 2020) comprise; ' Agriculture 2.76%, mining and Quarrying 0.05%, Manufacturing 9.43%, Electricity, gas & water supply 5.06%, Construction 13.83%, Service 29.3%, Transport & storage 11.01%, Financial interpretation 10.22%, Community, social and personal 14.32 %, private households 4.01%. For this study, the sectors are clustered into four economic sectors, namely, retail and consumer, manufacturing, banking, and technology. The reason these sectors were selected was simply that they contribute 29.30% of the GDP in the KZN province. This large % may provide a fair reflection of social responsibility by SMEs in the KZN province.

In SEM analysis, generally SEM is a large sample econometric technique. However, if the sample size is not large, some statistical estimates in SEM (e.g., standard errors) may not be accurate, and the probability of technical problems in the analysis is greater (Kline, 2011). Following, Barret (2007) and Kline (2011) a rule of thumb is that a sample size with a minimum of 200 participants is considered large enough to produce reliable and valid results in SEM based scientific knowledge. Therefore, in this study, the

sample sizes in manufacturing, mining, retail, technology, and finance economic sectors are all above 200.

## **4.5 SAMPLING METHOD**

The sampling frame encompasses two primary methods for selecting samples: random sampling, which ensures every member of the population has an equal chance of being included, and non-random sampling, which involves selecting samples based on subjective judgment or convenience.

### **4.5.1 Random Sampling**

Random sampling is a fundamental method in research where each member of the population has an equal chance of being included in the sample. This technique is essential for achieving a representative sample, which is crucial for making generalisations from the sample to the broader population.

One of the primary types of random sampling is simple random sampling. In this method, every individual in the population has an equal probability of being selected. This can be achieved using random number generators or drawing lots, ensuring that the sample is unbiased and representative (Bryman, 2021; Saunders et al., 2020). Another form is systematic sampling, which involves selecting every  $n$ th member from a list after a random start. This method simplifies the process while maintaining randomness, ensuring that the sample is spread evenly across the population (Creswell & Creswell, 2021).

Stratified sampling is another significant type of random sampling. The population is divided into different subgroups or strata, and random samples are drawn from each stratum. This technique ensures that all key subgroups within the population are represented in the sample, increasing the precision of the estimates and enhancing the representativeness of the sample (Flick, 2020; Bryman, 2021). Cluster sampling, often used in large and geographically dispersed populations, involves dividing the population into clusters and then randomly selecting clusters to be included in the study. All members of the selected clusters are studied, making this method cost-effective and practical (Saunders et al., 2020).

Random sampling offers several advantages. It minimizes selection bias, ensuring that every member of the population has an equal chance of being included (Creswell &

Creswell, 2021). This unbiased representation enhances the generalizability of the findings to the entire population, which is crucial for making valid inferences (Bryman, 2021). Additionally, random sampling supports the use of inferential statistics, allowing researchers to estimate population parameters and test hypotheses with a high degree of confidence (Flick, 2020).

However, random sampling also has its limitations. Ensuring truly random sampling can be complex and costly, especially in large populations (Saunders et al., 2020). The practical difficulties of obtaining a complete list of the population and ensuring random selection can pose significant challenges. Despite these limitations, the robustness and reliability of random sampling make it a preferred method in many research contexts.

#### **4.5.2 Non-Random Sampling**

Non-random sampling, or non-probability sampling, involves selecting samples based on subjective judgment rather than random selection. This approach is often employed when random sampling is not feasible due to practical constraints or when specific, targeted insights are required.

Convenience sampling is one of the most straightforward types of non-random sampling. In this method, researchers select samples that are easiest to access. While this approach is quick and inexpensive, it may lead to significant biases and limit the generalizability of the findings (Flick, 2020; Bryman, 2021). Judgmental or purposive sampling involves the researcher using their expertise to select the sample, focusing on specific characteristics or qualities that are of interest to the study. This method is particularly useful in exploratory research and when studying particular phenomena that require expert knowledge (Saunders et al., 2020; Creswell & Creswell, 2021).

Quota sampling, another form of non-random sampling, is similar to stratified sampling but without random selection within strata. Researchers ensure that the sample meets certain quotas related to characteristics such as age, gender, or occupation. This method helps in achieving a sample that mirrors the population structure, albeit with potential biases due to the lack of random selection (Bryman, 2021). Snowball sampling is used for hard-to-reach populations, where initial subjects refer others, creating a "snowball" effect. This method is particularly useful in studying networks

and rare populations, although it can introduce biases based on the initial selection of subjects (Flick, 2020).

Non-random sampling methods offer several advantages. They are generally less expensive and quicker to implement compared to random sampling, making them cost-effective and time-saving (Saunders et al., 2020). These methods are feasible when random sampling is impossible due to practical constraints, allowing researchers to conduct studies in otherwise challenging situations (Creswell & Creswell, 2021). Additionally, non-random sampling is valuable for targeted research, particularly in qualitative studies where understanding specific groups or phenomena is crucial (Bryman, 2021).

However, non-random sampling has notable limitations. It is more prone to selection bias, which can significantly affect the validity and reliability of the results (Flick, 2020). The findings from non-random samples cannot be confidently generalized to the larger population, limiting their applicability (Saunders et al., 2020). Moreover, the subjective nature of the selection process can introduce researcher bias, potentially skewing the study's outcomes (Creswell & Creswell, 2021).

Both random and non-random sampling methods have their respective strengths and limitations. The choice between them depends on the research objectives, available resources, and the nature of the population being studied. While random sampling is ideal for achieving unbiased and generalizable results, non-random sampling is valuable for exploratory, qualitative, and specific research contexts where feasibility and focused insights are prioritized.

In this study, a simple random sampling process was implemented. Fisher (2017:207) stated that a simple random sample is a probability sample, in which each element of the sample has an equal likelihood of being selected. Therefore, each element had a specific number, and a computerised random generator was used to choose sample elements from the entire population. The study adopted this procedure, to make sure that each element had an equal opportunity of being selected in the sample.

#### **4.5.3 Sample Size**

Terris (2008:627) stated that the correct sample size depends on the nature and size of the population, as well as on the motive of the study. The size of the sample usually

depends on the study population, even though there is no standard procedure governing sample size. The rule of thumb is that there should sufficient cross section entries for statistical inferences to be considered reliable and valid.

Consistent with the above discussion, the present study adopted sampling procedure recommendations as applied by Kang'ahi, George and Jones (2012) to determine the sample size. The following equation illustrates the sampling procedure equation.

$$\frac{x^2 N \hat{P}(1 - \hat{P})}{d^2(N - 1) + X^2 \hat{P}(1 - \hat{P})}$$

Where,

N = required sample size,

N = the given population,

$\hat{P}$  = population proportion (assumed to be 0.5),

D = degrees of freedom,

$X^2$  = table value of chi – square (3.841 for 0.95 confidence interval).

From this calculation, the proposed sample size in this study is 320 SMEs in the KZN province.

## **4.6 MEASURING INSTRUMENT**

Measuring tools are used in research for the evaluation of participants and these instruments are distributed to participants for the purpose of collecting data on variables. The study started with an expansive survey by way of a self-administered structured questionnaire (Creswell & Creswell, 2017) to generalise results to the target population. The questionnaire was emailed to the participants.

### **4.6.1 Recruitment process and data collection method**

The recruitment process took, place on a volunteering basis. Telephone calls were used as a recruitment method, followed by emailing. Data was collected by means of a survey. The researcher meticulously asked the participants the same questions using a closed ended questionnaire. The geographical distribution of the respondents in the region justified the rationale behind the method (Ford & Tusting, 2018).

#### 4.6.2 Inclusion criteria

In this study, the following inclusion criteria were observed:

- SMEs in KZN province.
- SMEs in PCB, DCCI, and the ZCB.
- Cross sectional survey data was analysed.

#### 4.6.3 Exclusion criteria

The following inclusion criteria were observed:

- Listed companies in KZN.
- SMEs that were not registered in the PCB, the DCCI, and the ZCB.
- Panel and time series data.

#### 4.6.4 Motivation of study variables

In this section, the argument put forward sought to give detail about the study variables that were captured in the survey. The study variables that were informed by the literature analysis and review as discussed in Chapters Two and Three were as follows:

- **Profitability:** Is a measure that indicates firm level growth, given the implementation of short- and long-term strategies such as CSR strategies. In the financial literature, profitability is measured by a number of profitability ratios such as return on assets, return on Investment and Return from Equity. Nonetheless, in the study, this variable was measured using a 5-point Likert scale.
- **Tangible Resources:** As informed by the theory of the growth of the firm and the RBVs. Tangible resources refer to firm level companies and skills that drive entrepreneurship and strategic management. The data derived on this variable was collected using a 5-point Likert scale.
- **Intangible Resources:** As informed by the theory of the growth of the firm and the resources-based views. Intangible variables refer to firm level resources that are not movable such as land, buildings, and patents. The data for this variable was collected using a 5-point Likert scale.

- **Economic CSR:** In literature analysis, economics, citizenship, and ethical perspectives logically concur on the economic dimension; as long as CSP satisfies required shared conditions (such as full employment, ecological sustainability, and no significant negative externalities empirically); which are unlikely to be found as a global set. The data for this variable was collected using a 5-point Likert scale.
- **Ethical CSR:** In literature analysis, ethical responsibilities vary between mandatory compliance of both an economic and a legal nature, as well as desirable philanthropy of either a prudent or a voluntary nature. Either way, society and stakeholders still expect ethical conduct that goes beyond mandatory legal compliance. The data was collected using a 5-point Likert scale.
- **Philanthropic CSR:** In literature analysis, philanthropic CSR involves investing on the social capital; and community integration are key strategic factors for SMEs for the purpose of maintaining their licence to operate and improve their life expectancy (Lee *et al.*, 2020). The data on this variable was collected using a 5-point Likert scale.
- **Environmental CSR:** In literature analysis, an acceptable environment is achieved by designing environmentally friendly products or production processes, energy conservation, the efficient use of resources to minimise wastages and reduction in pollution. SMEs may start small, but eventually, they undertake large-scale environmentally responsible practices. The data was collected by means of a 5-point Likert scale.

#### 4.7 PILOT TESTING

A pilot test is intended to scrutinise the design and viability of the proposed research (Ford & Tusting, 2018). This gives the researcher an opportunity to use the results of the pilot study to adjust the actual research, if need be, to manage or avoid any negative consequences of producing research that is inconclusive.

Out of the target population of 1,092 SMEs in the KZN region, a sample of 10 SMEs were selected separately from the main sample, for pilot testing. An Emotional Intelligence programme was applied as a pilot to assess SME business owners. The

questionnaire was pre-tested to identify and remove any ambiguity and/or superfluous questions.

## **4.8 DATA ANALYSIS**

The research philosophy of the present study is premised on a positivist approach. Using this approach, quantitative analysis may be adopted for the data analysis. The data analysis approach is informed by both inferential and descriptive statistics. Using descriptive statistics, the researcher proposed to use measures of central tendency, measures of variation and measures of skewness to understand the spread of the data.

In inferential statistics, the study proposed to use the SEM as a model estimation procedure to test the research hypothesis. In econometrics, the SEM is a multivariate statistical analysis technique that is used to analyse structural relationships. SEM is a combination of multiple regression analysis and factor analysis. Therefore, it can be used to analyse the structural relationship between measured variables and latent constructs.

The data analysis approach is informed by some multivariate regression equations that in turn, are informed by the Seemingly Unrelated Equation (SURE). In addition, for Seemingly Unrelated Regression equations, each variable is treated as the explanatory variable as well as the dependent variable. Zellner (1962) contended that a seemingly unrelated regression analysis comprises examining relationships between numerous individual variables to discover whether their disturbances are correlated. Furthermore, Srivastava and Giles (1987), suggested that there are two major motivations for using SURE. First, is to enhance efficiency in estimation by testing the relationship of each variable in each the equation. The second motivation is to test restrictions that involve different limits in unlike equations.

### **4.8.1 Estimating the factors that influence adoption of CSR strategies**

Informed by the theoretical and practical needs, this study aimed to investigate the causal relationship between CSR strategy and firm level growth imperatives. For these purposes, the research inquiry adopted the SEM technique to achieve this objective, due to the multidimensional nature of CSR strategy and firm level growth imperatives.

In econometrics literature, SEM is one of the most prominent and robust statistical analysis techniques that are used to analyse cross sectional survey data. Nonetheless, as noted in the econometric literature, there are many approaches to conducting SEM, but the most widely applied method has been Covariance-Based Structural Equation Model (CB-SEM). However, in the recent past, researchers have also adopted the variance-based partial least squares (PLS-SEM) technique (Hair, Sarstedt, Ringle & Gudergan, 2017).

In essence, the CB-SEM is primarily used to test the theoretical underpinnings of a particular phenomenon as informed by the literature. This estimation is informed by determining how a proposed theoretical model can be estimated using a covariance approach. Nonetheless, in the PLS-SEM approach, the econometric estimations are principally concerned with testing a developed theoretical framework as in an exploratory study (Hair *et al.*, 2017).

In this study, to achieve the objectives of the study, an integrative approach of CB-SEM and PLS-SEM was adopted. For instance, the CB-SEM was used to uncover the relationship between study variables and the PLS-SEM was adopted to test the causal relationship between firm level growth imperatives and the adoption and implementation of CSR strategies.

#### **4.8.2 Fundamental concepts of SEMs**

Following Kline (2011), SEM's success can be attributed to the method's ability to evaluate the measurement of latent variables and the ability of a scientific measurement to test the influence of latent variable on dependent variables (Kline, 2011). For instance, in econometric analysis, the unobserved variables are termed latent factors, variables or constructs. The unobserved latent variable is estimated through one or more observable factors in the constructs.

Therefore, in the SEM model two kinds of sub-models are estimated. Whereas, in the measurement model and structural model, this analysis gives a more in-depth understanding on how decision making in terms of latent variables influence the study variables (Hoyle, 1995). In this instance, in SEM analysis, the SEM model estimation is twofold. It is firstly, a measurement model, which estimates through a confirmatory

factor analysis model; and secondly, the SEM model also estimates a PA model which informs the causality of study variables using a PLS regression approach.

In this connection, the estimation of both confirmatory factor analysis and PA are considered exceptional attributes of the SEM. In particular, in PA, independent and dependent variables are termed exogenous and endogenous variables respectively in the SEM estimation. Thus, in the SEM estimation, exogenous variables represent the variables whereby their changes influence changes on the other variable (explanatory variables).

Nonetheless, endogenous variables are variables that change in occurrence of changes in exogenous variables (dependent variables) (Hair *et al.*, 2017); and the application of SEM involves five logical steps such as model specification, identification, parameter estimation, model evaluation, and model modification (Kline, 2011; Hoyle, 2011; Byrne, 2010).

#### **4.8.3 Model specification**

SEM model specification, in this study, hypothesised relationships among the variables in an SEM, which are based on the literature analysis and the motivation of study variables in the drivers of CSR and imperatives of firm level growth. For instance, in both the CB-SEM and PLS-SEM, this process is informed by the literature analysis, as observed in Chapter Two and Three (Lei & Wu, 2007).

Kline (2011) posited that in the model estimation process, several key issues need to be considered. The literature analysis must inform on which measurable variables should be included in the SEM model, and it must also describe how to measure the theoretical variable, directionality, model complexity, and parameter status of the identified measurable variable.

In this realisation, the major concern in specification in a scientific inquiry is the model identification processes that inform the estimation of both explanatory and dependent variables. Thus, the model identification and model estimation were adopted to check whether the model was over-identified, just identified, or under-identified so as to eliminate the problem of model misspecification that results in spurious regression

analysis and unreliability of the scientific findings (Fan, Chen, Shirkey, John, Wu, Park & Shao, 2016).

In this study, the operationalisation of SEM enabled and enhanced the specification of each variable and each parameter in the econometrics estimations. In addition, the estimation of SEM ensured that the scientific process was in place to indicate which parameters were estimated from the data and which parameters were specific to a specific numerical value (usually 0 or 1). Thus, all the parameters that were estimated from the data were in a specified mathematical relationship to one or more other parameters in the SEM model (Kline, 2011; Byrne, 2010).

Of importance, in SEM model specification, the pre-estimation diagnosis in the SEM model, targeted the number of indicators per variable to eliminate unstable conditions, model misspecification and spurious regressions. Furthermore, adding more indicators might not be a feasible solution to the challenges of misspecification because some latent variables may have only a limited number of measures or even a single indicator available by design or other constraints (Anderson & Gerbing, 1988; Bagozzi and Yi, 2012; Hoyle, 2012).

## **4.9 DATA PREPARATION**

In this section, pre-estimation diagnostics that were adopted in the present study are explained in the context of their consideration and their importance, in enhancing and enabling the validity and reliability of econometric estimations.

### **4.9.1 Multivariate normality**

In cross sectional survey analysis and longitudinal econometric analysis, the lack of normality in variable distributions distorts the results of a linear regression. Thus, the impact of non-normality on SEM models, is informed by the extent and the source of data. In cross sectional survey analysis, the data is expected to have normal distribution tendencies, as in time series and longitudinal analysis. Therefore, the greater the extent of non-normality, the greater is the magnitude of the problem (West *et al.*, 1995).

In this instance, the lack of normal distribution tendencies in variables in a multivariate linear analysis is a big concern in the application of SEM in particular, and the application of other linear regression models in general. Regarding this challenge, one common econometric estimation solution is to examine univariate distributions for each observed variable, instead of trying to detect multivariate non-normality.

In this study, measures of central tendency and measures of variation were used to determine the normality of research variables, prior to the estimation of the SEM and the PA. Although the multivariate normality requirement appears to never be achieved exactly with raw empirical data (Hair *et al.*, 2017), it seems that SEM estimations with maximum likelihood (ML) are quite robust against the violation of normality (Fan & Wang, 1998). Therefore, in this study, the SEM estimations with ML estimations were adopted in estimating the SEM and PA.

Furthermore, as advised by Kline (2011) this study used the skewness and kurtosis coefficients of every variable in the study, which is a common way to detect whether or not the assumptions for multivariate normality are met. Econometrics literature suggests that, if the skewness coefficient is larger than 2 or the kurtosis is larger than 7, the variable suffers from severe non-normality and therefore, it cannot produce reliable econometrics estimations (West *et al.*, 1995).

In addition, Kline (2011) contended that, in classic SEM modelling, it is recommended to use more precise estimations of normality such as the skewness index (SI) and the kurtosis index (KI), to detect severe non-normality. For instance, Kline (2011) posited that; variables with absolute values of  $SI > 3.0$  are described as 'extremely' skewed, absolute values of  $KI > 10.0$  suggest a problem, and absolute values of  $KI > 20.0$  indicate a more serious one' (Kline, 2011:63).

#### **4.9.2 Missing values**

Similar to other statistical analyses, the estimation of SEM demands that missing values are considered and that necessary mitigating strategies be considered prior to the estimation of any linear regression analysis. It is, therefore, important to deal with missing values before the commencement of empirical analysis. The selection of methods for handling missing data is of paramount importance, to enable the reliability and validity of econometric estimations. The use of inappropriate methods for handling

missing data can lead to bias in parameter estimates, standard errors and test statistics, and inefficient use of the data (Kline, 2011).

In cross section survey analysis, Kline (2011) divided methods of dealing with missing data into four categories: (available case methods). These methods include econometric estimations such as single-imputation methods, model-based imputation, and special form of ML estimation for incomplete data as well as the moving average method. O'Loughlin, Martinand Ferrer (2018) stated that checking and handling of missing data in cross section survey data enhances the reliability of data and enables the validity of econometric analysis. In this study, to check for missing data, all entries were confirmed case by case, and the missing data was completed using a ratio moving average method. Furthermore, to improve on data entry and missing data, frequency distribution was also conducted to check on data entry mistakes and rectify them.

#### **4.9.3 Model estimation**

Following the pre-estimation diagnosis, as discussed in the above section, the model estimation coefficient is then estimated using Stata Basic Edition. In this study, the SEM and PA as recommended by Byrne (2010) and Kline (2011) was adopted to test both the influence of study variables and the causal relationship in variables. Therefore, as advised by (Hoyle, 2019:9) "The goal of estimation is to find values for the free parameters that minimise the discrepancy between the observed covariance matrix and the estimated, or implied, covariance matrix, given the model and the data".

For instance, the SEM model coefficient can be estimated using several methods and many steps (one, two or four steps). As evidenced from previous studies, several methods have been used in the estimation of SEM with a great degree of success. These estimations include ML, unweighted least squares, generalised least squares (GLS), weighted least squares (WLS), and asymptotic distribution free (ADF) (Hoyle, 2012, Anderson & Gerbing, 1988); and, these methods have a different way of estimating SEM coefficients, consistent with Hoyle (2012). The present study adopted the MLE as the basis of estimating both the SEM and the PA. The adoption of the MLE estimation is motivated by the fact that the MLE estimation enhances in

eliminating non-normality parameters that might reduce the reliability of econometrics estimations in the present study.

In addition, one key advantage of the ML estimation in SEM is the ability to estimate both measurement and structural models simultaneously. In particular, this process of estimation can be implemented in one-step; and while it gives the estimations, it also enhances and enables the validity of results. However, the best practice is to use a multi-step approach. For instance, a valid measurement model was used to make sense of the data and was then followed by the evaluation of the structural part of the model (Kline, 2011).

#### **4.9.4 Model evaluation**

In this study, the model evaluation was used to assess model performance or fit, with quantitative indices calculated for the overall goodness of fit. This test is essential as it informs on how the variables in the present study are specified to explain the nexus between firm level drivers and CSR strategies. In econometrics literature, post diagnostics estimations are critical in a given study, because they confirm the reliability and validity of econometric estimations (Kline, 2011).

For instance, post diagnostics is one of the most important steps in CB-SEM. The objective of evaluation is to determine whether the specified model offers an acceptable account of the data or should be rejected or re-specified (Barrett, 2007). In this study, a series of post diagnostic estimations was conducted to ascertain that the econometric model was specified, and the result of the analysis is reliable enough to produce valid research findings.

#### **4.9.5 Partial least square modelling (PLS)**

According to Wold (1980, 1982, 1985), PLS path modelling is an SEM technique based on an iterative approach that maximises the explained variance of explanatory variables. In this instance, the methodological features of PLS-SEM have encouraged its use exponentially in social science research study which is similar to the present study. The PA approach provides an excellent approach to test the causal effects of a study variable, as opposed to the CB-SEM approach. Therefore, these distinctive features include:

- An iterative algorithm which provides an explicit estimation of the latent variables and their influence over the dependent variables.
- PLS can be applied in small data samples and still provide reliable econometric estimations.
- Due to the fact that the PLS approach can be applied in small data samples, that makes it possible to overcome identification problems when formative measurement models are included.

Thus, in a PLS approach, the structural model or inner model – also called the inner relations and substantive theory – depicts the relationship among latent variables as multiple regressions (Hair *et al.*, 2011), as illustrated in equation 1 below.

$$\Xi_j = \beta_{j0} + \sum_i \beta_{ji} \xi_i + v_j \dots\dots\dots (1)$$

Where  $\xi_j$  and  $\xi_i$  are the dependent and explanatory variables, respectively, and  $\beta_{ji}$  are called path coefficients and measure the relationship among study variables (Martinez-Ruiz & Aluja-Banet, 2009).

In the present study, two types of theories were required to develop path models: measurement theory and structural theory. For instance, the measurement theory was represented by firm level variables and the structural theory was represented by CSR strategy variables. These variables were further alternated to take cognisance of the unidirectional assumption in the conceptual framework. Thus, the arrangement of the structural model is strongly supported by theory at the model specification stage (Hair *et al.*, 2011, 2017). The condition imposed is:

$$E \left( \xi_j / \xi_i = \sum_i \beta_{ji} \xi_i \right) \dots\dots\dots (2)$$

There is no linear relationship between predictor and residual. Mathematically, this is expressed as:

$$E \left( v_j / \forall \xi_{ji} = 0 \right) \text{ and } cov(v_j, \xi_i = 0) \dots\dots\dots (3)$$

For instance, in the measurement model, the relationship between explanatory variables ( $\xi_i$ ) and dependent variable manifest ( $x_{ih}$ ) variables in two different ways: which are identified as mode A and mode B. In the estimation, mode A is used for

dependent latent variables, whereas, in contrast, mode B is for explanatory variables and is more appropriate for a formative measurement model (Martinez-Ruiz & Aluja-Banet, 2009).

Furthermore, in the PA model, the reflective relationships estimate variance and covariance between study variables and indicators which are caused by latent explanatory variables. Therefore, the observed variables are treated as an effect of unobserved variables. Thus, in a reflective measurement model, the manifest variables or indicators are measured in the context of the standard error of the estimate. Nonetheless, formative measurements were used to minimise residuals in the structural relationships and manifest variables are treated as forming the latent variables in PA (Hair *et al.*, 2011; Fornell & Bookstein, 1982).

Following MacCallum and Browne (1993), the observed variables in a formative model are dependent variables; and, in a formative outer model the explanatory variables are assumed to be error-free, and the latent variable is estimated as a linear combination of the dependent variables plus an error term. As such, in this estimation all variables forming the construct should interpret that the error term represents all those non-modelled causes (Martinez-Ruiz & Aluja-Banet, 2009).

MacCallum and Browne (1993) observed that variables in a formative model are dependent variables that change due to the changes in explanatory variables. In mode A (i.e., when defining a reflective construct), one views blocks of variables or indicators, as dependent on a latent variable just as in normal regression modelling:

$$x_{ih} = \pi_{ih0} + \pi_{ih1}\xi_i + \varepsilon_{ih} \dots\dots\dots (4)$$

Where  $\pi_h$  represent the loadings. The condition imposed is:

$$E(x_h/\xi) = \pi_{h0} + \pi_h\xi + \varepsilon_h \dots\dots\dots (5)$$

with zero mean and uncorrelated with  $\xi$ . The loadings indicate the extent to which each indicator reflects the construct and represent the correlation between indicators and component scores.

In mode B (i.e., when defining a formative construct) one conceives the indicators as causing the latent variable. In other words, unobserved variables are generated by their own manifest variables as a linear function of them and a residual:

$$\xi_j = \sum_h w_{jh} x_{jh} + \delta_j \dots\dots\dots (6)$$

The parameters  $w_i$  represent weights. These help to determine the extent to which each indicator contributes to the formation of the constructs. Each block of manifest variables may be multidimensional. The condition imposed is:

$$E(\xi/x_h) = \sum_h w_h x_h, \dots\dots\dots (7)$$

This means the residuals  $\delta_i$  have zero mean and they are uncorrelated with the manifest variables  $x_i$ .

The basic PLS path modelling as designed by Wold does not take into consideration the higher order latent variable (Martinez-Ruiz & Aluja-Banet, 2009). According to Wold's algorithm each construct must be related to a set of observed variables in order to be estimated (i.e., first order model). However, the constructs that researchers might wish to examine could be quite complex and must be operationalised at higher levels of abstraction. Establishing such higher order models or popularly known in the context of PLS-SEM as hierarchical component models (HCMs), (Lohmöller & Lohmöller, 1989), usually involves testing higher order structures that contain two layers of constructs (Hair *et al.*, 2011). For this study, the multivariate regression equation is expressed in the following equations.

**4.10 SEM EQUATIONS RETAIL AND CONSUMER**

$$Profit_{it} = B_1 + Tangible + Intangible + Economic + Ethical + Philantropic + Environmental + a_i + U_{it} \dots\dots\dots (8)$$

Where  $Profit_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Economic + Ethical + Philantropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Tangible_{it} = B_1 + Profit + Intangible + Economic + Ethical + Philantropic + Environmental + a_i + U_{it} \dots \dots \dots (9)$$

Where  $Tangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + Intangible + Economic + Ethical + Philantropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Intangible_{it} = B_1 + Profit + tangible + Economic + Ethical + Philantropic + Environmental + a_i + U_{it} \dots \dots \dots (10)$$

Where  $intangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + tangible + Economic + Ethical + Philantropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Economic_{it} = B_1 + Profit + tangible + intangible + Ethical + Philantropic + Environmental + a_i + U_{it} \dots \dots \dots (11)$$

Where  $economic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + tangible + intangible + Ethical + Philantropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Etical_{it} = B_1 + Profit + tangible + intangible + Ethical + Philantropic + Environmental + a_i + U_{it} \dots \dots \dots (12)$$

Where  $ethical_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + tangible + intangible + Ethical + Philantropic +$

*Environmental* independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$\begin{aligned}
 &Phil_{it} = B_1 + Tangible + Intangible + Economic + Ethical + Ethical + \\
 &Environmental + a_i + \\
 &U_{it} \dots \dots \dots (13) \\
 & )
 \end{aligned}$$

Where  $Philanthropic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Economic + Ethical + Profit + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$\begin{aligned}
 &Environment_{it} = B_1 + Tangible + Intangible + Economic + Ethical + Ethical + \\
 &Philanthropic + a_i + \\
 &U_{it} \dots \dots \dots (14) \\
 & )
 \end{aligned}$$

Where  $Environment_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Economic + Ethical + Profit + Philanthropic$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

**4.10.1 Path analysis: Equations retail and consumer (firm level)**

$$\begin{aligned}
 &Profit_{it} = B_1 + Economic + Ethical + Philantropic + Environmental + a_i + \\
 &U_{it} \dots \dots \dots (15) \\
 & )
 \end{aligned}$$

Where  $Profit_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable  $Economic + Ethical + Philantropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$\begin{aligned}
 &Tangible = B_1 + Economic + Ethical + Philantropic + Environmental + a_i + \\
 &U_{it} \dots \dots \dots (16) \\
 & )
 \end{aligned}$$

Where  $tangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable  $Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Intangible = B_1 + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (17)$$

Where  $tangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable  $Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

**4.10.2 Path analysis in retail and consumer industry (CSR strategy)**

$$Phil_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (18)$$

Where  $Philanthropic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Ethical_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (18)$$

Where  $Ethical_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Economic_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (19)$$

Where  $Economic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Environment_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (20)$$

Where  $Environment_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

#### 4.11 SEM EQUATIONS MANUFACTURING INDUSTRY

$$Profit_{it} = B_1 + Tangible + Intangible + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (21)$$

Where  $Profit_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Tangible_{it} = B_1 + Profit + Intangible + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (22)$$

Where  $Tangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + Intangible + Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Intangible_{it} = B_1 + Profit + tangible + Economic + Ethical + Philanthropic + Environmental + a_i +$$

$$U_{it} \dots \dots \dots (23)$$

)

Where *intangible<sub>it</sub>* represents one dependent variable,  $B_1$  is the coefficient of the variable, *profit + tangible + Economic + Ethical + Philanthropic + Environmental* independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Economic_{it} = B_1 + Profit + tangible + intangible + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (24)$$

)

Where *economic<sub>it</sub>* represents one dependent variable,  $B_1$  is the coefficient of the variable, *profit + tangible + intangible + Ethical + Philanthropic + Environmental* independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Etical_{it} = B_1 + Profit + tangible + intangible + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (25)$$

)

Where *ethical<sub>it</sub>* represents one dependent variable,  $B_1$  is the coefficient of the variable, *profit + tangible + intangible + Ethical + Philanthropic + Environmental* independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Phil_{it} = B_1 + Tangible + Intangible + Economic + Ethical + Ethical + Environmental + a_i + U_{it} \dots \dots \dots (26)$$

)

Where *Philanthropic<sub>it</sub>* represents one dependent variable,  $B_1$  is the coefficient of the variable, *Tangible + Intangible + Economic + Ethical + Profit +*

*Environmental* independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$\begin{aligned}
 &Environment_{it} = B_1 + Tangible + Intangible + Economic + Ethical + Ethical + \\
 &Philanthropic + a_i + \\
 &U_{it} \dots \dots \dots (27)
 \end{aligned}$$

Where *Environment<sub>it</sub>* represents one dependent variable,  $B_1$  is the coefficient of the variable, *Tangible + Intangible + Economic + Ethical + Profit + Philanthropic* independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

**4.11.1 Path analysis: Equations in manufacturing (firm level)**

$$\begin{aligned}
 &Profit_{it} = B_1 + Economic + Ethical + Philanthropic + Environmental + a_i + \\
 &U_{it} \dots \dots \dots (28)
 \end{aligned}$$

Where *Profit<sub>it</sub>* represents one dependent variable,  $B_1$  is the coefficient of the variable *Economic + Ethical + Philanthropic + Environmental* independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$\begin{aligned}
 &Tangible = B_1 + Economic + Ethical + Philanthropic + Environmental + a_i + \\
 &U_{it} \dots \dots \dots (29)
 \end{aligned}$$

Where *tangible<sub>it</sub>* represents one dependent variable,  $B_1$  is the coefficient of the variable *Economic + Ethical + Philanthropic + Environmental* independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$\begin{aligned}
 &Intangible = B_1 + Economic + Ethical + Philanthropic + Environmental + a_i + \\
 &U_{it} \dots \dots \dots ..(30)
 \end{aligned}$$

Where *tangible<sub>it</sub>* represents one dependent variable,  $B_1$  is the coefficient of the variable *Economic + Ethical + Philanthropic + Environmental* independent

variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

Path analysis in Manufacturing Industry (CSR strategy)

$$Phil_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (31)$$

Where  $Philanthropic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Ethical_{it} = B_1 + Tangible + Intangible + Profit + a_i + \dots \dots \dots (32)$$

Where  $Ethical_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Economic_{it} = B_1 + Tangible + Intangible + Profit + a_i + \dots \dots \dots (33)$$

Where  $Economic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Environment_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (34)$$

Where  $Environment_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

#### 4.12 SEM EQUATIONS MINING INDUSTRY

$$\begin{aligned}
 Profit_{it} &= B_1 + Tangible + Intangible + Economic + Ethical + Philanthropic + \\
 &Environmental + a_i + \\
 U_{it} &.....(35)
 \end{aligned}$$

Where  $Profit_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$\begin{aligned}
 Tangible_{it} &= B_1 + Profit + Intangible + Economic + Ethical + Philanthropic + \\
 &Environmental + a_i + \\
 U_{it} &.....(36)
 \end{aligned}$$

Where  $Tangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + Intangible + Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$\begin{aligned}
 Intangible_{it} &= B_1 + Profit + tangible + Economic + Ethical + Philanthropic + \\
 &Environmental + a_i + \\
 U_{it} &.....(37)
 \end{aligned}$$

Where  $intangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + tangible + Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$\begin{aligned}
 Economic_{it} &= B_1 + Profit + tangible + intangible + Ethical + Philanthropic + \\
 &Environmental + a_i + \\
 U_{it} &.....(38)
 \end{aligned}$$

Where  $economic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + tangible + intangible + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Etical_{it} = B_1 + Profit + tangible + intangible + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (39)$$

Where  $ethical_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + tangible + intangible + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Phil_{it} = B_1 + Tangible + Intangible + Economic + Ethical + Ethical + Environmental + a_i + U_{it} \dots \dots \dots (40)$$

Where  $Philanthropic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Economic + Ethical + Profit + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Environment_{it} = B_1 + Tangible + Intangible + Economic + Ethical + Ethical + Philanthropic + a_i + U_{it} \dots \dots \dots (41)$$

Where  $Enviroment_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Economic + Ethical + Profit + Philanthropic$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

#### 4.12.1 Path analysis: Equations in mining (firm level)

$$Profit_{it} = B_1 + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (42)$$

Where  $Profit_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable  $Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Tangible = B_1 + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (43)$$

Where  $tangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable  $Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Intangible = B_1 + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (44)$$

Where  $intangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable  $Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

#### 4.12.2 Path analysis in manufacturing industry (CSR strategy)

$$Phil_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (45)$$

Where  $Philanthropic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Ethical_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (46)$$

Where  $Ethical_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Economic_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (47)$$

Where  $Economic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Environment_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (48)$$

Where  $Environment_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

#### 4.13 SEM EQUATIONS TECHNOLOGY AND FINANCE INDUSTRY

$$Profit_{it} = B_1 + Tangible + Intangible + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (49)$$

Where  $Profit_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Tangible_{it} = B_1 + Profit + Intangible + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (50)$$

Where  $Tangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + Intangible + Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Intangible_{it} = B_1 + Profit + tangible + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (51)$$

Where  $intangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + tangible + Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Economic_{it} = B_1 + Profit + tangible + intangible + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (52)$$

Where  $economic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + tangible + intangible + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Etical_{it} = B_1 + Profit + tangible + intangible + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (53)$$

Where  $ethical_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $profit + tangible + intangible + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Phil_{it} = B_1 + Tangible + Intangible + Economic + Ethical + Ethical + Environmental + a_i + U_{it} \dots \dots \dots (54)$$

Where  $Philanthropic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Economic + Ethical + Profit + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Environment_{it} = B_1 + Tangible + Intangible + Economic + Ethical + Ethical + Philanthropic + a_i + U_{it} \dots \dots \dots (55)$$

Where  $Enviroment_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Economic + Ethical + Profit + Philanthropic$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

**4.13.1 Path analysis: Equations in finance and technology (firm level)**

$$Profit_{it} = B_1 + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (56)$$

Where  $Profit_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable  $Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Tangible = B_1 + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (57)$$

Where  $tangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable  $Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Intangible = B_1 + Economic + Ethical + Philanthropic + Environmental + a_i + U_{it} \dots \dots \dots (58)$$

Where  $tangible_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable  $Economic + Ethical + Philanthropic + Environmental$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

**4.13.2 Path analysis in finance and technology industry (CSR strategy)**

$$Phil_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (59)$$

Where  $Philanthropic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Ethical_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (60)$$

Where  $Ethical_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i(i = 1 \dots n)$  is the unknown intercept of each entity.

$$Economic_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (61)$$

Where  $Economic_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

$$Environment_{it} = B_1 + Tangible + Intangible + Profit + a_i + U_{it} \dots \dots \dots (62)$$

Where  $Environment_{it}$  represents one dependent variable,  $B_1$  is the coefficient of the variable,  $Tangible + Intangible + Profit$  independent variables,  $U_{it}$  is the error term and  $a_i (i = 1 \dots n)$  is the unknown intercept of each entity.

Therefore, the SEM equation repeats all study variables as both dependent and explanatory variables. For instance, in the series of all baseline equations, firm level resources, CSR and firm level growth are treated as dependent and explanatory variables in multivariable regression analysis.

#### 4.14 RELIABILITY

Creswell and Creswell (2017:34) postulated that, “Reliability shows the degree of solidity and consistency of measuring tool, over a number of repeat measurements”. Reliability refers to the extent to which obtained scores may be generalised to different measuring situations. The desired outcome is to have questions that yield the same results when probed numerous times. The pilot study will work as a springboard for evaluating the “test-retest reliability” of the measuring instrument. The results of the pilot study in turn may be used as inputs on any adjustments to the study.

#### 4.15 VALIDITY

Validity aims to show the degree to which the measurement process is free of both random and systematic errors. Validity refers to how the data measure what it is supposed to measure (Creswell & Creswell 2017). Validity refers not to the test itself but the results of the test. To ensure that the study attains high validity, the research objectives must be practical and clearly defined. To improve the reliability of the questionnaire, a pilot study will be conducted among five randomly selected SMEs in the retail trade sector within the KZN province. An expert in the field of social

responsibility, an academic and a statistician will be used to evaluate the questionnaire to improve face validity.

#### **4.16 DELIMITATION**

Delimitations are simply the constraints of the study (Thomas, Nelson & Silverman 2014). The scope or parameter of the research will be restricted to the influence of social responsibility on the growth of SMEs.

#### **4.17 LIMITATIONS**

Generally, research if not all research, habitually has limitations. A limitation is defined as an uncontrollable threat to the validity of research and this research study will meet a fair share of its limitations; some of which are common disadvantages of mixed research methodology (Berger 2017). However, the following is one of the major limitations:

- **Respondent's bias**

Respondents bias refers to a gamut of viewpoint bias that diverts the response of participants away from providing an accurate response (Vithal & Jansen, 2019). This limitation is common in studies that involve participant self-administered reporting such as questionnaires. The questionnaires will be directed to SME business owners and as such, the risk of “ego” related responses bias is inexorable and will question misinterpretation or ignorance.

#### **4.18 ETHICAL CONSIDERATIONS**

This study will be confined to the regulations, principles of the DUT's research ethics policy and guidelines. All participants and stakeholders in this research shall be provided with information and a letter of consent before they participate in the research, (see attached copies). The following scientific research protocols were observed in the research process.

- The letter of information which contains a detailed account of the rights of the participant was attached to the research instrument and participants will be given a chance to read the letter prior to answering the research questions.

- Efforts were made to protect the anonymity and confidentiality of the respondents through codifying and anonymising all research respondents.
- Information used in the research will be kept for a period of 5 years. Information will be saved in an excel file and will be encrypted by a password.
- An ethical clearance letter from DUT will be obtained and attached to the research instrument and made available to the research participants.
- Furthermore, gatekeeper's letters will be sourced to PCB, DCCI, and the ZCB. These letters will be sent to selected SMEs asking to use their participants as research respondents.
- In view of the POPI Act, the researcher will get email addresses from official websites and will send a letter of request to the participants to allow the researcher to collect data from their employees.
- This research presents no potential harm to study participants. Nevertheless, if a participant at any given stage of the data collection process feels uncomfortable, he or she may withdraw without further delay.

#### **4.20 CHAPTER CONCLUSION**

In this chapter, the research methodology and procedure were explained in the context of the present study. For instance, this chapter explained how the collection of data was implemented by means of a cross-sectional survey analysis, which explained the population of the study, the sample selection process, and the motivation of study variables. In the next chapter, a detail of the study results is explained by means of analysis, interpretation, and discussion of data.

## **CHAPTER FIVE: DATA ANALYSIS, RESULTS INTERPRETATION AND DISCUSSION**

### **5.1 INTRODUCTION**

In this chapter, the data analysis is presented in the context of a series of econometric estimations as discussed in detail in Chapter Four. In particular, this chapter presents evidence of an econometrics analysis that informs readers regarding the CSR strategy and firm level growth. Consistent with this objective, the analysis in this chapter into four economic segments that attempt to capture a different CSR strategy is presented in different economic segments, as explained in Chapters One and Four. Therefore, for ease of reference, this chapter is arranged as follows; Section 5.2 presents the sample description of four economic segments. Section 5.3 presents data screening. Section 5.4 presents an analysis of the retail and consumer sector. Section 5.5 presents an analysis of the mining economic sectors. Section 5.6 presents an analysis of the manufacturing sector. Section 5.7 presents analysis of the finance and technology sector. And section 5.7 presents the conclusion of the chapter.

### **5.2 SAMPLE DESCRIPTION**

In this section, the sample description of the present study was adopted to illuminate various traits of the sample statistic that enhance the scientific knowledge development process. Following the discussion in Chapter Three, the discussion is aligned with the context economic segment discussed in Chapters One and Three. The alignment of the sample description in the manufacturing, retail, mining, finance, and technology economic sector was covered in a depth analysis about growth imperatives and the CSR strategy. Therefore, the population and the sample size of the manufacturing sector was analysed to provide in-depth knowledge on the SMEs growth imperatives and on the implementation of the CSR strategy.

#### **5.2.1 Response rate**

In the manufacturing economic sector, a questionnaire, based on the research instrument (See Appendix A) was distributed to the sample of 240 participants. The participants provided a total of 207 valid responses, thus yielding a response rate of

87 %, which, according to Story and Tait (2019), is a satisfactory rate that is reliable enough to produce valid econometric estimations.

In the retail and consumer economic sector, a research instrument was distributed to 250 participants. The participants provided a total of 212 valid responses, thus yielding a response rate of 85 %, which is considered reliable in the scientific research process. For the mining economic sector, a research instrument was distributed to 268 participants. The participants provided a total of 202 valid responses, thus yielding a response rate of 75 %, which is considered reliable in the scientific research process. In the finance and technological economic sector, a research instrument was distributed to 240 participants. The participants provided a total of 206 valid responses, thus yielding a response rate of 85%, which is considered reliable in the scientific research process.

The high response rate can be attributed to several key factors, firstly, the relevance of the topic likely played a significant role. In the finance and technological economic sectors, professionals are often keenly interested in current trends, innovations, and issues that directly impact their work. When participants perceive the survey topic as highly relevant and beneficial to their field, they are more motivated to respond. Secondly, the targeted sampling approach used in both studies ensured that the surveys were distributed to individuals who had a vested interest or expertise in the subject matter. This focused distribution increases the likelihood of responses because participants feel their input is particularly valuable and pertinent to the research. Additionally, effective communication and follow-up strategies would have contributed to the high response rates. Clear, concise, and compelling invitations to participate, coupled with regular reminders, can significantly enhance response rates. Table 5.1 illustrates the response rate in the study.

**Table 5.1: Response Rate**

<b>Economic Sector</b>	<b>Sample</b>	<b>Response</b>	<b>Proportion (%)</b>
Manufacturing	240	207	87
Retail	250	212	85
Mining	268	202	75
Finance and Technology	240	206	85

As shown in Table 5.1 above, the response rate in all economic segments is more than 60 %; hence they are considered reliable enough to produce econometric estimations that are true representatives of the sample size.

### 5.2.2 Age distribution of participants

Table 5.2 below provides a description of the age distribution of the participants in different economic segments of the present study.

**Table 5.2: Age of Respondents**

<b>Economic Sector</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
Manufacturing	25	65	43	12.16
Retail	23	62	40	12.02
Mining	21	63	41	11.90
Finance & Technology	25	62	44	12.10
<b>Notes: Min=minimum age; Max=maximum age; Mean=average age; SD=standard deviation</b>				

In Table 5.2 above, it can be seen that in the manufacturing industry the youngest participant was 25 years old, while the oldest was 65 years old. And as illustrated in the above table, the average age of the participants was 43 (SD=12.16). In the retail industry the youngest participant was 23 years old, while the oldest was 62 years old and as illustrated in the above table, the average age of the participants is 40 (SD=12.02).

Furthermore, in mining economic sector, the youngest participant was 21 years old, while the oldest was 63 years old; and as illustrated in the above table, the average age of the participants was 41 (SD=12.02). In the finance and technology industry the youngest participant was 25 years old, while the oldest was 62 years old; and as shown in the above table, the average age of the participants was 44 (SD=12.10).

For instance, the high range between the youngest and oldest participants reflects age diversity within the companies under study, as well as the range of experience that is critical in the knowledge development process. This provides diverse perceptions which enhance a rich analysis of the competitive advantage that arises within CSR strategy and assists the growth imperatives in SMEs enabled by the CSR strategy. Table 5.3 below, illustrates a breakdown of gender based on participation in each economic sector. This table depicts the gender distribution of economic segments in the present study.

**Table 5.3: Gender of Participants**

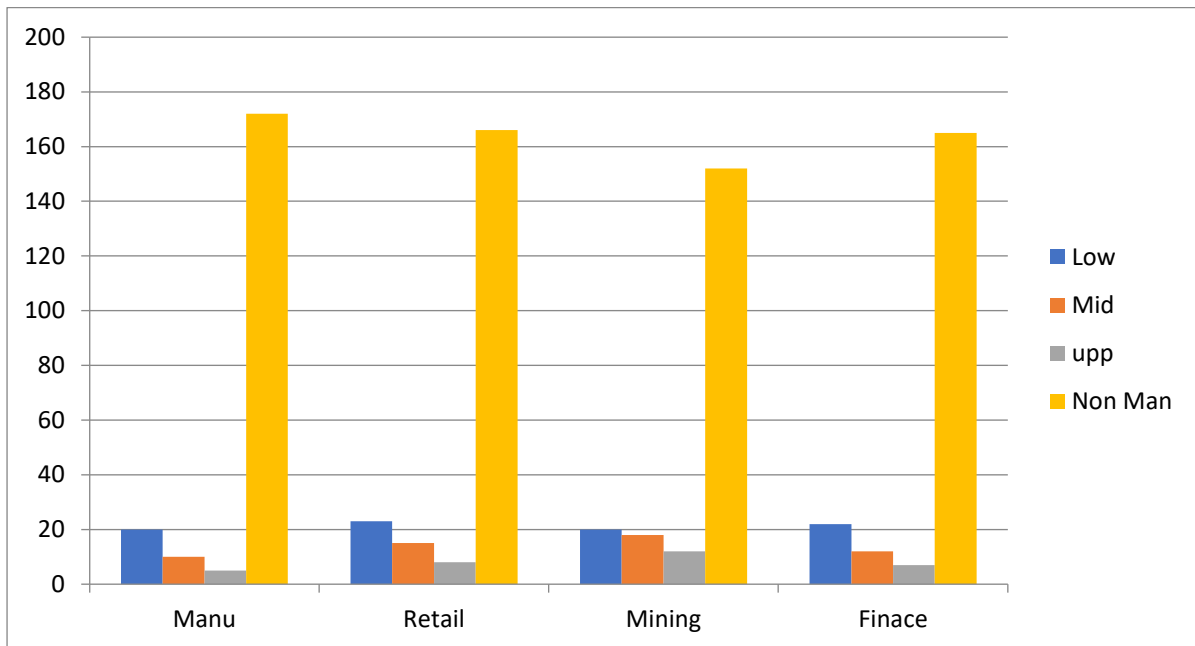
<b>Economic Sector</b>	<b>Female</b>	<b>Male</b>	<b>Total</b>
Manufacturing	94	113	207
Retail	97	115	212
Mining	96	106	202
Finance & Technology	98	108	206

In Table 5.3 above, the retail sector had the highest number of study participants being 212, of which 115 are males and 97 are females. In the second position, the manufacturing sector, recorded 207 participants of which 94 are females while 113 are males. In the third position, the finance and technology sector recorded 208 participants of which 98 are females while 106 are males. Lastly, the mining sector, recorded the least number of participants (202), in which 96 are females and 106 are males.

### **5.2.3 Roles and functional areas of participants**

Figure 5.1 below illustrates the functions and roles of study participants as deduced from a cross-sectional survey analysis. As noted, the sample utilised to evaluate the firm level growth imperatives and the implementation of CSR strategy was made up of individuals in managerial roles. These were the preferred participants due to their capacity to identify whether their particular organisations were enabling growth imperatives through CSR implementation strategy.

**Figure 5.1: Analysis of Economic sectors**



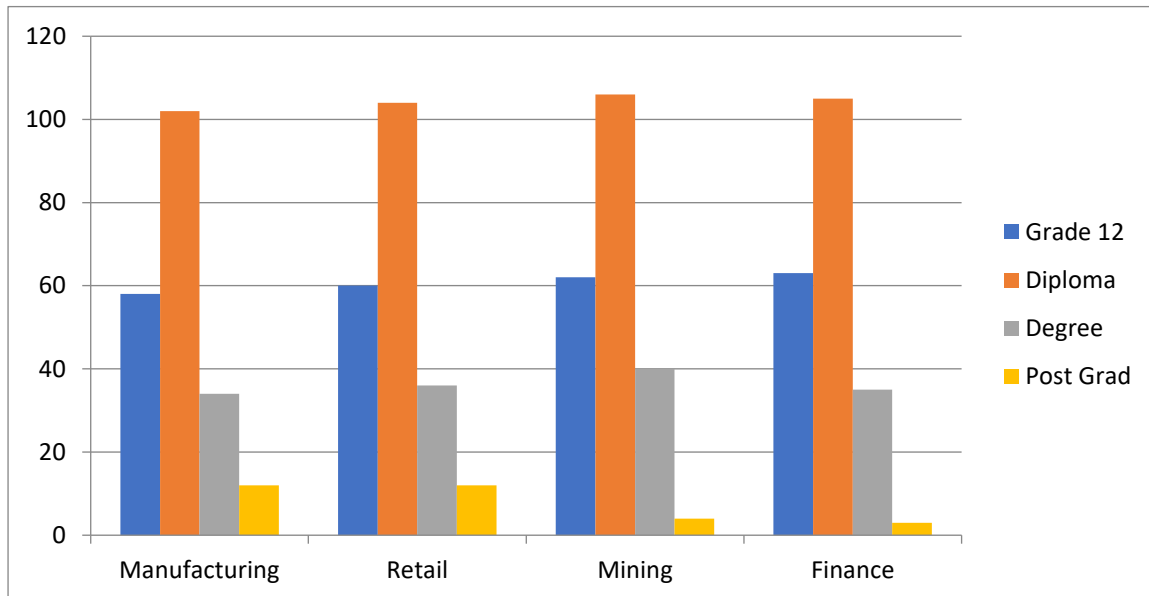
In Figure 5.1 above, data from the cross-sectional survey indicates that in the manufacturing sector, 20 study participants are in lower management, 10 employees are in middle management, 5 participants are in upper management and 172 occupy non-managerial roles. In the retail sector, 23 study participants are in low management, 15 participants are in middle management, 8 are in upper management and 166 participants are in non-managerial positions. In the mining sector, 20 participants are in lower management, 18 are in middle management, 12 are in upper management and 152 participants are in non-managerial positions. Lastly, in the finance sector, 22 participants are in lower management, 12 study participants are in middle management, 7 participants are in upper management and 165 participants are in non-managerial positions.

#### **5.2.4 Educational background of participants**

The educational background of participants is presented in Figure 5.2 below. In Figure 5.2 below, educational qualifications are presented in economic sectors that inform the research process. In the manufacturing sector, 58 participants achieved a Grade 12 qualification, 102 participants achieved a diploma, 34 participants and 12 participants achieved a post graduate qualification. In retail economic sector, 60 study participants has a Grade 12 qualification, 104 study participants have a diploma, 36

study participants have a degree and 12 study participants have a post graduate qualification.

**Figure 5.2 Educational background**



In the mining economic sector, 62 study participants achieved a Grade 12 qualification, 106 study participants achieved a diploma, 40 study participants achieved a degree and 12 study participants achieved a post graduate qualification. In finance, 63 participants achieved a Grade 12 qualification, 102 study participants achieved a diploma, 34 study participants achieved a degree and 12 study participants achieved a post graduate qualification.

### **5.3 DATA SCREENING AND MISSING DATA**

In this section, the study explains the process of data screening and how missing data was accounted for before data analysis took place. For reliability purposes, the data cleaning process includes eliminating research instruments that are incomplete and not reliable for econometric estimations. Therefore, in this study, returned surveys were screened and all the instruments recorded more than 75% responses, which makes them reliable enough to produce valid econometric results. Furthermore, to augment the data screening two econometric estimations the Factor Analysis and Principal Component Analysis are explained in detail in the following sections.

### **5.3.1 Missing data**

In the study, as evidenced, a number of survey instruments were returned with incomplete information and missing data. O'Loughlin *et al.*, (2018) stated that checking and handling of missing data in cross section survey data enhances the reliability of data and enables the validity of econometric analysis.

In this study, to check for missing data, all entries were confirmed case by case and the missing data was completed using a ratio moving average method. Furthermore, to improve on data entry and missing data, a frequency distribution was also conducted to check on data entry mistakes and rectify them. In this analysis, evidence from the frequency distribution statistics pointed to seven mistakes in the data entry that were greater than the data range. Therefore, these mistakes were traced back to the original data sources and rectified, as advised in O'Loughlin *et al.* (2018).

In this exercise, it was observed that 10 (manufacturing) 8 (retail), 6 (mining) and 12 (technology) questionnaires were incomplete and had missing data and all the questionnaires had less than 15 percent of the questions unanswered. As advised by O'Loughlin *et al.* (2018), returned instruments with less than 15 % can be considered for econometric estimations.

## **5.4 ANALYSIS IN THE MANUFACTURING INDUSTRY**

In this section, the discussion covers econometric analysis deduced from the manufacturing economic sector. Therefore, this section is informed by item analysis, descriptive analysis, factor analysis, principal component analysis and SEM and PA.

### **5.4.1 Item analysis**

In this study, the Cronbach Alpha Test was conducted to test the consistency of study participants' responses. In addition, pre-diagnostic estimations were adopted as recommended by a series of studies. For instance, Li (2022) suggested that the motive behind conducting item analysis is to understand the significance of variables to goodness of fit and standard error of the regression analysis.

To understand the item analysis, a Cronbach Alpha Test was conducted. Table 5.4 below shows the results of the Cronbach Alpha Test.

**Table 5.4: Results of the Cronbach Alpha Test**

Item	Obs	Sign	corr.	Corr.	Cov.	Alpha	Label		
tangible	207	+	0.7518	0.6295	30.72315	0.8569	Tangible		
intangible	207	+	0.8399	0.7509	28.19049	0.8382	Intangible		
economic	207	+	0.8181	0.7160	28.52491	0.8443	Economic		
ethical	207	+	0.8778	0.8014	26.52032	0.8304	Ethical		
environ	207	+	0.7372	0.6679	35.12765	0.8562	Environ		
phil	207	+	0.6682	0.5867	36.29237	0.8637	Phil		
profit	207	+	0.5991	0.5124	37.68097	0.8707	Profit		
<b>Test scale</b>					<b>31.86569</b>	<b>0.8712</b>	<b>mean items</b>	<b>(unstandardised)</b>	

Table 5.4 above shows the results of the Cronbach Alpha test, in the context of study variables. Evidence in this series indicates that the overall test scale of the Cronbach Alpha, as measured in unstandardised items indicates that the series has a consistency measurement of 87 % and a covariance of 51.87. These results indicate that on overall analysis the consistent coefficient is above the threshold of 70 % and therefore, it is considered reliable enough to produce valid econometric results.

Under tangible, the observed consistent coefficient is 86%, the correlation coefficient is 0.76 % and the covariance coefficient is 30.72. Evidence in this series indicates that the pre-estimation diagnosis is reliable for econometrics estimations. In the intangible resource's variable, the observed consistent coefficient is 84 %, the correlation coefficient is 83 %and the covariance coefficient is 28.19. Evidence in this series indicates that the pre-estimation diagnosis is reliable for econometrics estimations.

In the economic social responsibility strategy variable, the observed consistent coefficient is 84% the correlation coefficient is 81% and the covariance coefficient is 25.52. Thus, the evidence in this series indicates that the pre-estimation diagnosis is reliable for econometrics estimations. In the ethical social responsibility strategy variable, the observed consistent coefficient is 83%, the correlation coefficient is 87% and the covariance coefficient is 25.52. Evidence in this series indicates that the pre-estimation diagnosis is reliable for econometrics estimations.

Furthermore, in the environmental social responsibility strategy variable, the observed consistent coefficient is 85%, the correlation coefficient is 72% and the covariance coefficient is 35.12. Evidence in this series indicates that the pre-estimation diagnosis is reliable for econometrics estimations. In the philanthropic social responsibility

strategy variable, the observed consistent coefficient is 86% the correlation coefficient is 66% and the covariance coefficient is 36.29. Thus, the evidence in this series indicates that the pre-estimation diagnosis is reliable for econometrics estimations. Furthermore, in the profit variable, the observed consistent coefficient is 87%, the correlation coefficient is 59% and the covariance coefficient is 37.68. The evidence in this series indicates that the pre-estimation diagnosis is reliable for econometrics estimations.

#### 5.4.2 Descriptive analysis

In this section, a summary of descriptive statistics is presented in the context of study variables, as explained in Chapter Four. Descriptive statistics was adopted to provide an overview of the standard error of the mean, and of standard deviation. These tests are important for understanding the sample variance and the normality of study variables. Table 5.5 below illustrates the results of the descriptive statistics.

**Table 5.5: Descriptive Statistics**

Stats	Tangible	intangible	economic	ethical	environ	phil	profit
Mean	42.79394	43.04242	41.83333	37.76364	14.86061	16.1697	16.29091
CV	.2152438	.2190154	.2310103	.2644489	.3729832	.3381929	.3155501
Skewness	-.01207	-.222969	-.992608	-.282525	-.79716	-0.2441	-1.533
p50	44	45	43	40	16	18	17
SD	9.211132	9.426956	9.663932	9.986551	5.542757	5.468477	5.140599

In Table 5.5 above, the descriptive statistics indicate that the data collected in this series is normally distributed. This is evidenced by the skewness coefficient in all study variables. For instance, in tangible resources the skewness coefficient is -.012 which indicates that the data distribution is almost normal as it is close to zero. In intangible resources, the skewness coefficient is -.022 which indicates that the data distribution is almost normal as it is close to zero. In economic CSR variable, the skewness coefficient is -.099 which indicates that the data distribution is almost normal as it is close to zero. In ethical social responsibility strategy, the skewness coefficient is -.028 which indicates that the data distribution is almost normal as it is close to zero. In environment corporate responsibility strategy, the skewness coefficient is -.079 which indicates that the data distribution is almost normal as it is close to zero. In philanthropic CSR, the skewness coefficient is -.24 which indicates that the data distribution is almost normal as it is close to zero. In profit variable, the skewness

coefficient is -.012 which indicates that the data distribution is almost normal as it is close to zero.

### 5.4.3 Factor analysis

Hair *et al.* (2015) stated that, a factor analysis is an econometric procedure that targets uncovering underlying factors that are responsible for correlation in research study variables. Consistent with Hair *et al.* (2015), a factor analysis was conducted to investigate the relationship among variables and to indicate the covariance coefficient between study variables.

Two types of factor analysis were used to answer the initial research questions and test the study hypothesis. First, the principal component analysis test was adapted to explain the total variance in study variables and to confirm the theory in the context of the study hypothesis. Secondly, using factor analysis, the original variables were defined as linear combinations of factors.

### 5.4.4 Principal components analysis

In this series, factors were extracted using the maximum principal component developed by Hotelling (1933). Therefore, the extraction of factors was used to determine how well the factors explained the variations among study variables. In the econometrics literature, factor extraction was reported as being used to identify the linear combination of variables that account for the greatest amount of common variance (Byrne, 2001). Thus, factor analysis explores the linear relationships to determine the best fitting variables in the study.

**Table 5.6: Principal Components Analysis**

<b>Component</b>	<b>Eigenvalue</b>	<b>Difference</b>	<b>Proportion</b>	<b>Cumulative</b>
<b>Comp1</b>	4.08542	3.19667	0.5836	0.5836
<b>Comp2</b>	.888749	.306445	0.1270	0.7106
<b>Comp3</b>	.582304	.127821	0.0832	0.7938
<b>Comp4</b>	.454483	.0180444	0.0649	0.8587
<b>Comp5</b>	.436439	.1094	0.0623	0.9211
<b>Comp6</b>	.327039	.101476	0.0467	0.9678
<b>Comp7</b>	.225563	.	0.0322	1.0000

In Table 5.6 above, the principal component analysis is presented from econometric evidence deduced from the study. Empirical evidence in the above study suggests

that only component 1 has a more statistically significant coefficient (4.085) which is higher than 1. Components 2, 3, 4, 5, 6 and 7 are all below the statistically significant threshold of  $p >$  or equal to 1.

**Table 5.7: Principal Components Analysis Eigenvectors**

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Comp7
tangible	0.3546	-0.4262	0.5579	0.3109	0.2626	0.4540	0.0981
intangible	0.4070	-0.2380	0.2577	-0.1020	0.0994	-0.8267	-0.0872
economic	0.3922	-0.3071	-0.2076	-0.4127	-0.5396	0.1530	0.4731
ethical	0.4316	-0.1089	-0.3251	0.0339	-0.1625	0.2023	-0.7923
environ	0.3813	0.1107	-0.5934	0.4576	0.3838	-0.0771	0.3572
phil	0.3507	0.4937	0.1187	-0.6105	0.4556	0.1970	0.0052
profit	0.3165	0.6321	0.3275	0.3732	-0.4987	-0.0364	0.0601

In Table 5.7 above, the Eigenvectors Principal Analysis is presented, and the discussion is contextualised in the study variables. From the analysis, the results from component 1, show evidence that suggests that all variables are statistically significant; meaning that they are above 0.30 and below -0.30. For instance, in tangible resources, the evidence suggests that there is a positive linear relationship of 35 %, which is statistically significant. Similar results are observed for intangible resources. The empirical evidence suggests a 40% linear relationship, which shows a statistical significance. Under economic variables, the evidence suggests a statistically significant linear correlation coefficient of 39%. In the ethical variable, the evidence suggests that there is a positive linear correlation of 43% which is statistically significant. Furthermore, in the philanthropic variable, the evidence suggests that there is a positive linear relationship of 35% which is statistically significant. In the profit variable, the empirical evidence suggests that there a positive linear relationship of 32% and therefore it is statistically significant.

In component 2, the evidence suggests that 4 study variables are statistically significant meaning that they are above 0.30 and below -0.30. In the tangible resource's variable, the empirical evidence suggests that there is positive linear relationship at 43%, which is statistically significant as it is below -.30. In the economic variable, the evidence suggests that there is a positive linear relationship of -31, which is statistically significant since the correlation coefficient is slightly below -.30. Similar results are observed in the philanthropic variable, where the empirical evidence shows 35 % of the linear relationship which is statistically significant as it is more than 0.30.

In the profit variable, a positive linear relationship exists which is statistically significant at 63 %.

In component 3, the evidence suggests that 4 variables are statistically significant, meaning that they are above 0.30 and below -0.30. The empirical evidence seems to suggest that under tangible resources there is a positive linear relationship of 55%. Under the ethical responsibility variable, the empirical evidence suggests that an inverse 33% linear relationship exists that is statistically significant since it is below -0.30. Similar results are observed under environment variable, evidence suggest a statistically significant negative correlation coefficient of -0.53.

In component 4, evidence suggests that 5 variables are statistically significant in the present study. For instance, in tangible resources, evidence suggest that there is a negative linear relationship of 31% which statistically significant. Similar results are observed under the environmental and profit variables as the evidence shows a positive relationship at 45% and 37%, respectively.

Under component 4, the econometrics evidence reveals some inversely linear related components in the series. For example, under the economic variable, the evidence shows that there is a negative linear relationship of 41%; and, under the philanthropic variable, the evidence shows that there is a negative linear relationship of 61%, which is statistically significant as it is below -0.30.

In component 5, empirical evidence in this series suggests that 4 variables are statistically significant meaning that they are above 0.30 and below -0.30. In economic variable evidence indicates that there is an inverse linear relationship of 53%. In addition, in the profit variable, evidence suggests a negative and linear relationship of 60%. Nonetheless, a positive and statistically significant relationship is observed in the environmental and philanthropic variables as 35% is reflected for the environmental variable and 46% in the philanthropic variable which shows a linear relationship with component 5.

In component 6, 2 study variables are shown as statistically significant. Tangible resources have an inverse relationship and intangible resources have a positive relationship with the component. Tangible resources at 45% shows a positive linear relationship to component 6; and intangible resources show a negative correlation

coefficient of 82% which is inversely related to component 6. In component 7, 2 study variables are shown as statistically significant. In the economic variable, 43% is shown as positive and is linearly related to component 7. In the environment variable, 35% is positively correlated to component 7.

#### 5.4.5 Factor analysis

In this section, a factor analysis is presented and analysed. Table 5.8 below illustrates the results of the factor analysis as deduced from the cross-section survey data analysis.

**Table 5.8: Results of Factor analysis**

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.61912	3.29538	1.0109	1.0109
Factor2	0.32375	0.22049	0.0904	1.1014
Factor3	0.10326	0.13251	0.0288	1.1302
Factor4	-0.02925	0.07950	-0.0082	1.1220
Factor5	-0.10875	0.04933	-0.0304	1.0917
Factor6	-0.15808	0.01200	-0.0442	1.0475
Factor7	-0.17008	.	-0.0475	1.0000

In Table 5.8 above, the factor analysis is presented. In this series, only one factor is above the value of 1. Thus it should be returned for loading. The rest of the factors, namely, factor 2, factor 3, factor 4, factor 5, factor 6, factor 7 are not statistically significant as they are below the value of 1 and thus, they were not returned for loading. Table 5.9 below shows the results shows the factor analysis eigenvectors.

**Table 5.9: Factor Analysis Eigenvectors**

Variable	Factor1	Factor2	Factor3	Uniqueness
Intangible	0.7845	-0.1494	0.1409	0.3424
Tangible	0.6603	-0.2268	0.1421	0.4923
Economic	0.7557		-0.2000-0.0733	0.3836
Ethical	0.8565		-0.0526-0.1624	0.2372
Environ	0.7209	0.1200	-0.1413	0.4460
Phil	0.6458	0.2980	0.0733	0.4888
Profit	0.5713	0.3225	0.0781	0.5636

In Table 5.9 above the factor analysis is presented and the discussion is contextualised in the study variables. In factor 1, all the study variables load very high and hence are statistically significant. Tangible assets, loads at 78%, intangible resources at 66%, economic resources at 0.75, ethical resources at 0.85, environmental resources at 0.72, philanthropic resources at 64% and profit resources loads at 0.57. In factors 2 and 3, statistically significant factor loadings are shown.

#### 5.4.6 Results of the structural equation model

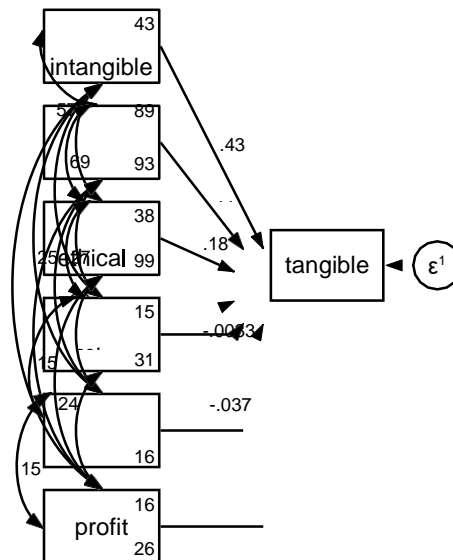
In this section, the results of the SEM are shown. As noted in the research methodology chapter, the SEM is a series of linear equations in which all variables are treated as being both dependent and explanatory.

##### 5.4.6.1 Dependent variable tangible resources

In this series, tangible resources are treated as a dependent variable that depends on changes in the explanatory variables– intangible resources, economic, ethical, environmental, philanthropic and profit resources.

**Table 5.10: Dependent Variable Tangible Resources**

	Coefficient	std. err.	Z	P> z	[95percent conf. interval]	
<b>Structural</b>						
<b>Tangible</b>						
intangible	.342647	.0453331	7.56	0.000	.2537958	.4314982
economic	.2330373	.0514023	4.53	0.000	.1322906	.3337841
Ethical	.1271331	.059862	2.12	0.034	.0098057	.2444605
Environ	.1514934	.0860621	1.76	0.078	-.0171851	.320172
Phil	.2196147	.0801836	2.74	0.006	.0624577	.3767718
Profit	.093187	.0813067	1.15	0.252	-.0661711	.2525452
_cons	6.508982	1.824261	3.57	0.000	2.933496	10.08447
mean(tangible)	42.79394	.5062873	84.53	0.000	41.80163	43.78624
mean(economic)	41.83333	.5311753	78.76	0.000	40.79225	42.87442
mean(ethical)	37.76364	.548908	68.80	0.000	36.6878	38.83948
mean(environ)	14.86061	.3046561	48.78	0.000	14.26349	15.45772
mean(phil)	16.1697	.3005733	53.80	0.000	15.58058	16.75881
mean(profit)	16.29091	.2825516	57.66	0.000	15.73712	16.8447
var(e.intangible)	37.11264	2.889215			31.86074	43.23025
var(tangible)	84.58784	6.585155			72.61762	98.53123
var(economic)	93.10859	7.248494			79.93257	108.4565
var(ethical)	99.42898	7.740536			85.35855	115.8188
var(environ)	30.62905	2.384469			26.29466	35.67792
var(phil)	29.81363	2.320988			25.59463	34.72808
var(profit)	26.34567	2.051008			22.61744	30.68847



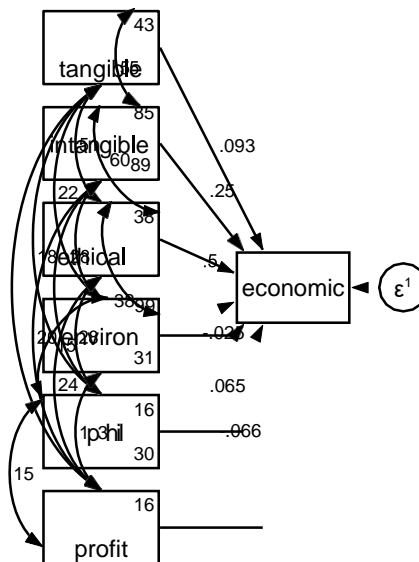
In this series, 5 explanatory variables have a positive and statistically significant relationship with the dependent variable, being tangible resources. The relationship between tangible and intangible resources, shows that 34% of changes in intangible resources positively influence tangible resources at the 100% confidence interval. In the relationship between the tangible and economic variables it can be seen that 23% of changes in economic social responsibility strategy positively influenced tangible resources at the 100% confidence level. Furthermore, in the relationship between the tangible and environment social responsibility strategies, 13% of changes in the environmental social responsibility strategy positively influence tangible resources at the 97% confidence interval. In the relationship between tangible and philanthropic CSR strategy, 21 % of changes in philanthropic are shown as positively influencing tangible resources at the 100% confidence level.

#### 5.4.6.2 Dependent variable economic social responsibility strategy

In this series, the economic social responsibility strategy is treated as a dependent variable that in turn, depends on changes in the explanatory variables of tangible resources, economic, ethical, environment, philanthropic and profit. Table 5.11 below shows the results of the dependent variable economic strategy.

**Table 5.11: Results Dependent Variable Economic**

		OIM				
	Coefficient	std. err.	Z	P> z	[95percent conf. interval]	
<b>Structural</b>						
<b>Economic</b>						
Tangible	.093206	.0507597	1.84	0.066	-.0062812	.1926932
Intangible	.2515971	.0554962	4.53	0.000	.1428266	.3603676
Ethical	.5006078	.0562345	8.90	0.000	.3903902	.6108254
Environ	-.0247845	.089832	-0.28	0.783	-.200852	.151283
Phil	.0647131	.0841818	0.77	0.442	-.1002803	.2297064
Profit	-.0663652	.0845715	-0.78	0.433	-.2321223	.0993919
_cons	8.513632	1.874017	4.54	0.000	4.840625	12.18664
mean(tangible)	42.79394	.5062873	84.53	0.000	41.80163	43.78624
mean(intangible)	43.04242	.51815	83.07	0.000	42.02687	44.05798
mean(ethical)	37.76364	.548908	68.80	0.000	36.6878	38.83948
mean(environ)	14.86061	.3046561	48.78	0.000	14.26349	15.45772
mean(phil)	16.1697	.3005733	53.80	0.000	15.58058	16.75881
mean(profit)	16.29091	.2825516	57.66	0.000	15.73712	16.8447
var(economic)	40.06839	3.11932			34.39822	46.67323
var(tangible)	84.58784	6.585155			72.61762	98.53123
var(intangible)	88.5982	6.897361			76.06046	103.2027
var(ethical)	99.42898	7.740536			85.35855	115.8188
var(environ)	30.62905	2.384469			26.29466	35.67792
var(phil)	29.81363	2.320988			25.59463	34.72808
var(profit)	26.34567	2.051008			22.61744	30.68847



Evidence in this series suggests that three study variables have a positive and statistically significant relationship with the dependent variable, being economic social responsibility strategy, for instance, in the relationship between the economic social responsibility variable and the tangible resources variable, 9% of changes in tangible

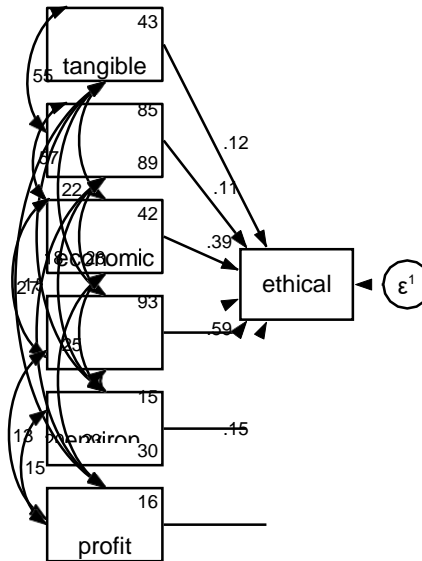
resources positively influenced changes in the economic social responsibility variables at the 94% confidence interval. In the relationship between the economic social responsibility's variable and the intangible resources variable 25% of the changes in the intangible resources variable positively influenced changes in the economic social responsibility variable at the 100% confidence level. Furthermore, Table 5.11 indicates that 50% of the changes in the CSR strategy influences changes in the economic social responsibility strategy at the 100% confidence interval.

#### 5.4.6.3 The dependent variable– ethical social responsibility strategy

In this series, the ethical social responsibility strategy is treated as a dependent variable that depends on changes in the explanatory variables– tangible resources, intangible, ethical, environment, philanthropic and profit. Table 5.12 below shows the results of dependent variable ethical.

**Table 5.12: Results of dependent variable ethical**

	Coefficient	std. err.	Z	P> z	[95percent conf. interval]	
<b>Structural</b>						
<b>ethical</b>						
<b>tangible</b>	.1216035	.0443443	2.74	0.006	.0346904	.2085167
<b>intangible</b>	.1060587	.0499389	2.12	0.034	.0081803	.2039372
<b>economic</b>	.3868166	.0434521	8.90	0.000	.3016521	.4719811
<b>environ</b>	.5907358	.0719683	8.21	0.000	.4496805	.731791
<b>phil</b>	.1144695	.073796	1.55	0.121	-.0301681	.259107
<b>profit</b>	.1494404	.0739541	2.02	0.043	.0044931	.2943878
<b>_cons</b>	-1.251259	1.696652	-0.74	0.461	-4.576635	2.074117
<b>mean(tangible)</b>	42.79394	.5062873	84.53	0.000	41.80163	43.78624
<b>mean(intangible)</b>	43.04242	.51815	83.07	0.000	42.02687	44.05798
<b>mean(economic)</b>	41.83333	.5311753	78.76	0.000	40.79225	42.87442
<b>mean(environ)</b>	14.86061	.3046561	48.78	0.000	14.26349	15.45772
<b>mean(phil)</b>	16.1697	.3005733	53.80	0.000	15.58058	16.75881
<b>mean(profit)</b>	16.29091	.2825516	57.66	0.000	15.73712	16.8447
<b>var(ethical)</b>	30.9606	2.41028			26.57929	36.06412
<b>var(tangible)</b>	84.58784	6.585155			72.61762	98.53123
<b>var(intangible)</b>	88.5982	6.897361			76.06046	103.2027
<b>var(economic)</b>	93.10859	7.248494			79.93257	108.4565
<b>var(environ)</b>	30.62905	2.384469			26.29466	35.67792
<b>var(phil)</b>	29.81363	2.320988			25.59463	34.72808
<b>var(profit)</b>	26.34567	2.051008			22.61744	30.68847



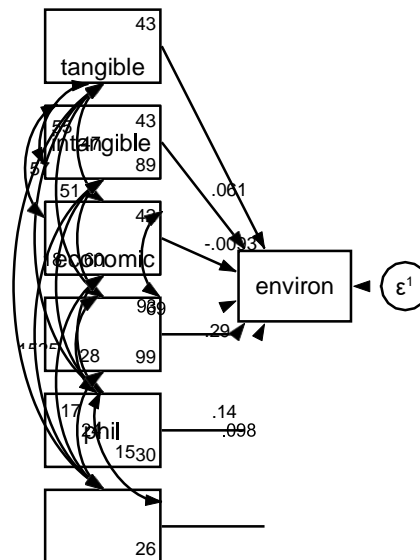
In this series, 4 of the variables have a positive and statistically significant relationship with the dependent variable ethical corporate responsibility strategy. For instance, the 12 %changes in intangible resources influenced the dependent variable at the 96 %confidence interval. In the relationship between tangible resources and the dependent variable ethical social responsibility 11 %changes in tangible resources influenced the dependent variable at the 94 %confidence interval. The relationship between the dependent variable ethical responsibility and the economic variable, 39 %changes in economic variable are shown as positively influencing changes in the dependent variable. The relationship between the dependent variable ethical and the explanatory variable shows 59% influence on the dependent variable. In the relationship between the ethical variable (the dependent variable) and profit (the explanatory variable) 14 %changes in the explanatory variable positively influences changes in the dependent variable– ethical.

#### 5.4.6.4 Dependent variable environment social responsibility strategy

In this series, the environmental social responsibility strategy is treated as a dependent variable that depends on changes in the explanatory variables–being tangible resources, intangible resources, ethical resources, philanthropic and profit resources. Table 5.13 below shows the results of the dependent variable environment.

**Table 5.13: Results of Dependent Variable Environment**

	Coefficient	std. err.	Z	P> z	[95percent conf. interval]	
<b>Structural</b>						
<b>Environ</b>						
tangible	-.0010667	.0312599	-0.03	0.973	-.062335	.0602016
intangible	.0614041	.0348831	1.76	0.078	-.0069656	.1297738
economic	-.0093047	.0337252	-0.28	0.783	-.075405	.0567955
ethical	.2870182	.0349669	8.21	0.000	.2184843	.3555521
phil	.1389712	.0510561	2.72	0.006	.0389032	.2390393
profit	.0976354	.0515877	1.89	0.058	-.0034747	.1987455
_cons	-2.024021	1.178353	-1.72	0.086	-4.333551	.2855093
mean(tangible)	42.79394	.5062873	84.53	0.000	41.80163	43.78624
mean(intangible)	43.04242	.51815	83.07	0.000	42.02687	44.05798
mean(economic)	41.83333	.5311753	78.76	0.000	40.79225	42.87442
mean(ethical)	37.76364	.548908	68.80	0.000	36.6878	38.83948
mean(phil)	16.1697	.3005733	53.80	0.000	15.58058	16.75881
mean(profit)	16.29091	.2825516	57.66	0.000	15.73712	16.8447
var(e.environ)	15.04269	1.171072			12.91396	17.52232
var(tangible)	84.58784	6.585155			72.61762	98.53123
var(intangible)	88.5982	6.897361			76.06046	103.2027
var(economic)	93.10859	7.248494			79.93257	108.4565
var(ethical)	99.42898	7.740536			85.35855	115.8188
var(phil)	29.81363	2.320988			25.59463	34.72808
var(profit)	26.34567	2.051008			22.61744	30.68847



In the table above, empirical evidence suggests that 4 variables have a positive and statistically significant relationship with the dependent variable environment CSR strategy. For instance, in the relationship between environment and ethical variable,

empirical evidence indicates that 29% changes in the ethical variable positively influence changes in the environment variable at the 0.00 probability value.

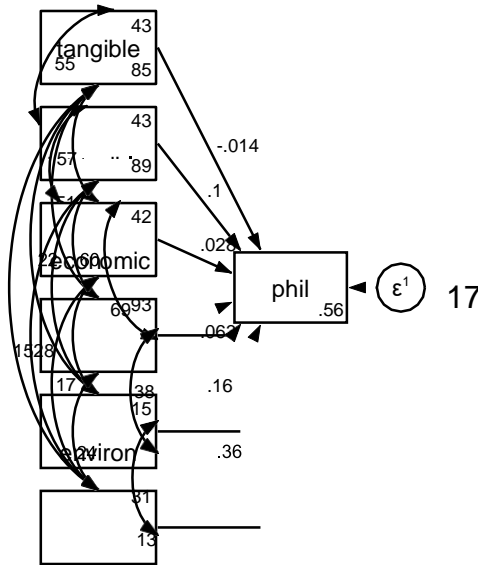
In the relationship between the environment the dependent variable and the explanatory variable it was found that 14% changes in the philanthropic variable positively changed the environmental variable at the 0.00 probability value. Similar results were recorded in the relationship between the environmental dependent variable and profit (the explanatory variable), and it was found that 97% in profit positively explained changes in the dependent variable at the 95% confidence level. Lastly, in this series, the econometric evidence shows that a 6% change in intangible resources influences changes in the dependent variable at the 93% confidence level.

#### 5.4.6.5 The dependent variable –philanthropic social responsibility strategy

In this series, philanthropic social responsibility strategy is treated as a dependent variable that reacts to changes in the explanatory variables– tangible resources, and intangible, environmental, ethical, economic and profit resources. Table 5.14 below shows the results in respect of the dependent variable philanthropy.

**Table 5.14: Results of Dependent Variable Philanthropic.**

	Coefficient	std. err.	Z	P> z	[95percent conf. interval]	
<b>Structural</b>						
<b>Phil</b>						
tangible	-.0135393	.0333238	-0.41	0.685	-.0788527	.0517741
intangible	.1012078	.036952	2.74	0.006	.0287831	.1736325
economic	.0276226	.0359328	0.77	0.442	-.0428044	.0980495
ethical	.0632346	.040766	1.55	0.121	-.0166653	.1431345
environ	.1580061	.0580492	2.72	0.006	.0442317	.2717804
profit	.3646264	.0515341	7.08	0.000	.2636213	.4656314
_cons	.561195	1.26169	0.44	0.656	-1.911672	3.034062
mean(tangible)	42.79394	.5062873	84.53	0.000	41.80163	43.78624
mean(intangible)	43.04242	.51815	83.07	0.000	42.02687	44.05798
mean(economic)	41.83333	.5311753	78.76	0.000	40.79225	42.87442
mean(ethical)	37.76364	.548908	68.80	0.000	36.6878	38.83948
mean(environ)	14.86061	.3046561	48.78	0.000	14.26349	15.45772
mean(profit)	16.29091	.2825516	57.66	0.000	15.73712	16.8447
var(phil)	17.10308	1.331473			14.68279	19.92234
var(tangible)	84.58784	6.585155			72.61762	98.53123
var(intangible)	88.5982	6.897361			76.06046	103.2027
var(economic)	93.10859	7.248494			79.93257	108.4565
var(ethical)	99.42898	7.740536			85.35855	115.8188
var(environ)	30.62905	2.384469			26.29466	35.67792
var(profit)	26.34567	2.051008			22.61744	30.68847



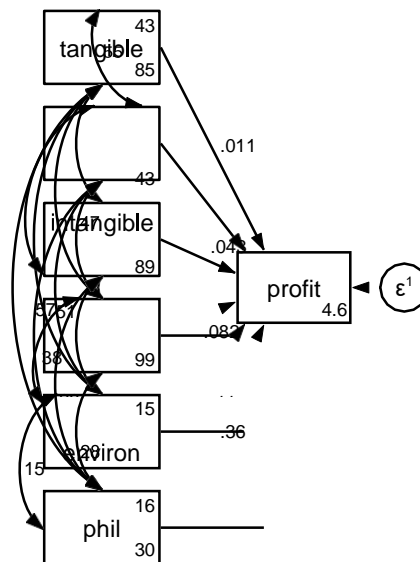
The above table above, suggests that 3 variables have a positive and statistically significant relationship with the dependent variable philanthropic CSR strategy. For instance, in the relationship between the philanthropic and the intangible resources variables, a 10% change in intangible resources variable positively influence changes in the environment variable at 0.00 probability. In the relationship between philanthropic dependent variable and the explanatory variable the environment, a 10% change in environment positively effects changes in the environmental variable at a 0.00 probability rate. Furthermore, identical results were recorded in the relationship between the philanthropic dependent variable and the environmental variable (explanatory variable). It is evident that a 16% change in environment positively changes the dependent variable at a 100% confidence level. The econometric evidence also shows that a 36% change in the profit variable causes changes in the dependent variable at a 100% confidence level.

#### 5.4.6.6 Dependent variable –profit

In this series, profit is the dependent variable that reacts to changes in the variables tangible, intangible, environment, ethical, economic, and philanthropic resources. Table 5.15 below shows the results of the dependent variable–profit.

**Table 5.15: Results of the Dependent Variable Profit**

		Coefficient	std. err.	Z	P> z	[95percent conf. interval]	
<b>Structural profit</b>							
	tangible	.0111389	.0331716	0.34	0.737	-.0538762	.0761541
	intangible	.0425465	.0371223	1.15	0.252	-.0302118	.1153048
	economic	-.0280652	.0357645	-0.78	0.433	-.0981624	.0420319
	ethical	.0817879	.0404746	2.02	0.043	.002459	.1611167
	environ	.1099796	.05811	1.89	0.058	-.003914	.2238731
	phil	.3612467	.0510565	7.08	0.000	.2611778	.4613155
	_cons	4.592769	1.230501	3.73	0.000	2.181031	7.004506
	mean(tangible)	42.79394	.5062873	84.53	0.000	41.80163	43.78624
	mean(intangible)	43.04242	.51815	83.07	0.000	42.02687	44.05798
	mean(economic)	41.83333	.5311753	78.76	0.000	40.79225	42.87442
	mean(ethical)	37.76364	.548908	68.80	0.000	36.6878	38.83948
	mean(environ)	14.86061	.3046561	48.78	0.000	14.26349	15.45772
	mean(phil)	16.1697	.3005733	53.80	0.000	15.58058	16.75881
	var(profit)	16.94456	1.319132			14.54669	19.73768
	var(tangible)	84.58784	6.585155			72.61762	98.53123
	var(intangible)	88.5982	6.897361			76.06046	103.2027
	var(economic)	93.10859	7.248494			79.93257	108.4565
	var(ethical)	99.42898	7.740536			85.35855	115.8188
	var(environ)	30.62905	2.384469			26.29466	35.67792
	var(phil)	29.81363	2.320988			25.59463	34.72808



Empirical evidence in the table above, suggests that 3 variables have a positive and statistically significant relationship with the dependent variable– profit. Regarding the relationship between profit and the ethical corporate responsibility strategy variable,

the results indicated that 8% changes in the ethical variable positively influenced changes in the economic variable at a 0.04 probability level.

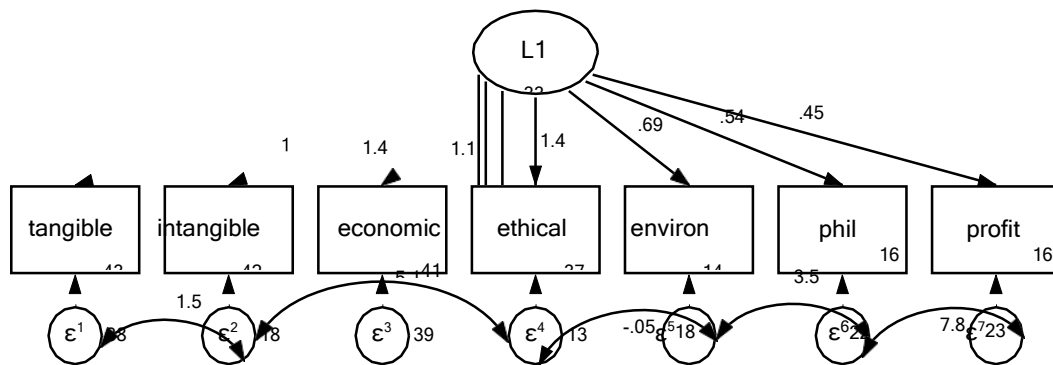
In the relationship between the economic dependent variable and the explanatory variable, the results showed that an 11 % change in the environment positively affected changes in the economic variable at a 0.04 probability level. Furthermore, identical results were recorded in the relationship between the economically dependent variable and the philanthropic (explanatory variable). The results showed that a 36 % change in philanthropy positively affected changes in the dependent variable at a 100% confidence interval.

#### **5.4.7 Results of latent variable**

In this section, the results of the latent variable as an explanatory variable were analysed and interpreted. In econometrics literature, a latent variable is described as an unobserved variable the effects of which can only be inferred indirectly through using a mathematical model to discern its effects on other observable variables that can be directly observed or measured (Gujarati, 2022). Table 5.16 below shows the results of observing the effects that the dependent latent variable produces.

**Table 5.16: Results of the Dependent Latent Variable**

	Coefficient	std. err.	Z	P> z	[95percent interval]	conf.
<b>Measurement</b>						
<b>Tangible</b>						
L1	1	(constrained)				
_cons	42.79394	.5062872	84.53	0.000	41.80163 43.78624	
<b>Intangible</b>						
L1	1.194817	.0886556	13.48	0.000	1.021055 1.368579	
_cons	43.04242	.51815	83.07	0.000	42.02687 44.05798	
<b>Economic</b>						
L1	1.076283	.0964029	11.16	0.000	.887337 1.265229	
_cons	41.83333	.5314972	78.71	0.000	40.79162 42.87505	
<b>Ethical</b>						
L1	1.223996	.0995538	12.29	0.000	1.028874 1.419118	
_cons	37.76364	.547792	68.94	0.000	36.68998 38.83729	
<b>Environ</b>						
L1	.5620438	.0547617	10.26	0.000	.4547128 .6693747	
_cons	14.86061	.3042916	48.84	0.000	14.26421 15.45701	
<b>Phil</b>						
L1	.4972209	.0526733	9.44	0.000	.3939831 .6004587	
_cons	16.1697	.2997024	53.95	0.000	15.58229 16.7571	
<b>Profit</b>						
L1	.407734	.0495107	8.24	0.000	.3106948 .5047731	
_cons	16.29091	.2825515	57.66	0.000	15.73712 16.8447	
var(e.tangible)	41.87997	4.034586			34.67403 50.58345	
var(e.intangible)	27.62899	3.840447			21.04009 36.28128	
var(e.economic)	43.74929	5.629255			33.99745 56.29837	
var(e.ethical)	35.04168	4.214428			27.68291 44.35658	
var(e.environ)	17.06469	1.595154			14.20793 20.49586	
var(e.phil)	19.0825	1.638488			16.1268 22.57992	
var(e.profit)	19.2456	1.626979			16.30696 22.71382	
var(L1)	42.70786	6.195348			32.13879 56.75263	



The above series shows that; a latent variable is observed in the context of its explanatory influence on decision making to invest in SMEs growth imperative and CSR strategies. The table above shows that, the dependent variable, intangible, ethical, profit, philanthropic, economic and the environment are explained by observing the latent variable's effects on decision making in investing in CSR strategy.

For instance, in intangible resources, there were 101% changes in the effects produced by the latent variable regarding investment in intangible resources; and this was confirmed at the 100 % confidence level. Regarding the economic variable, 107% changes in decision making occurred, which were brought on by the influence of the latent variable – investment; and this result was confirmed in economic CSR at the 100% confidence interval. Regarding the ethical variable, 122 % changes in decision making resulted from the influence of the ethical CSR, which was confirmed at the 100% confidence level.

Regarding the environmental variable, 56% changes in decision making resulted from environmental CSR. In philanthropic variable, 50% changes in decision making influence changes in philanthropic CSR. And, in respect of the profit variable, 50% change in decision making influenced growth imperatives through the use of CSR in SMEs.

#### **5.4.8 Results of the path analysis**

In the methodology chapter, the detail of the procedures indicated that over and above the SEM, a PA was adopted to determine the causal inference of study variables. For instance, the approach in this series is twofold. First, the econometrics model treated CSR strategies variables as dependent variables that are explained by firm growth imperatives.

Second, the econometrics model treated firm level growth studies as dependent variables and CSR variables as explanatory variables. Table 5.17 below illustrates the results of the PA when CSR variables are treated as dependent variables.

**Table 5.17: Results of the Path Analysis**

	Coefficient	std. err.	Z	P> z	[95percent conf. interval]	
<b>Economic</b>						
<b>tangible</b>	.218083	.0565182	3.86	0.000	.1073094	.3288566
<b>intangible</b>	.4728536	.0574651	8.23	0.000	.360224	.5854832
<b>profit</b>	.171847	.0857648	2.00	0.045	.003751	.339943
<b>_cons</b>	9.348393	2.137994	4.37	0.000	5.158002	13.53878
<b>Ethical</b>						
<b>tangible</b>	.2504549	.0551966	4.54	0.000	.1422716	.3586382
<b>intangible</b>	.4296388	.0561214	7.66	0.000	.3196429	.5396348
<b>profit</b>	.4327488	.0837593	5.17	0.000	.2685835	.5969141
<b>_cons</b>	1.503117	2.088	0.72	0.472	-2.589288	5.595522
<b>Environ</b>						
<b>tangible</b>	.0715161	.0347019	2.06	0.039	.0035016	.1395305
<b>intangible</b>	.2044639	.0352833	5.79	0.000	.1353099	.2736179
<b>profit</b>	.2815609	.0526592	5.35	0.000	.1783508	.384771
<b>_cons</b>	-1.587354	1.312718	-1.21	0.227	-4.160234	.9855257
<b>Phil</b>						
<b>tangible</b>	.0196221	.033271	0.59	0.555	-.0455879	.084832
<b>intangible</b>	.1737438	.0338285	5.14	0.000	.1074413	.2400464
<b>profit</b>	.4412263	.0504879	8.74	0.000	.3422719	.5401806
<b>_cons</b>	.6636592	1.25859	0.53	0.598	-1.803131	3.13045
<b>mean(tangible)</b>	42.79394	.5062873	84.53	0.000	41.80163	43.78624
<b>mean(intangible)</b>	43.04242	.51815	83.07	0.000	42.02687	44.05798
<b>mean(profit)</b>	16.29091	.2825516	57.66	0.000	15.73712	16.8447
<b>var(e.economic)</b>	52.79406	4.110012			45.32305	61.49659
<b>var(e.ethical)</b>	50.3539	3.920045			43.2282	58.65419
<b>var(e.environ)</b>	19.90283	1.549433			17.08634	23.1836
<b>var(e.phil)</b>	18.29534	1.42429			15.70632	21.31113
<b>var(tangible)</b>	84.58784	6.585155			72.61762	98.53123
<b>var(intangible)</b>	88.5982	6.897361			76.06046	103.2027
<b>var(profit)</b>	26.34567	2.051008			22.61744	30.68847

In the first series, the economic variable was treated as a dependent variable and profit, tangible and intangible variables were treated as explanatory. The results, in this series indicated that 22 %of changes in tangible resources have a causal impact on the economic variable, as confirmed at a 100 %confidence level. Furthermore, in the relationship between the dependent variable the economic variable and the explanatory variable and intangible resources, the results indicated that 47% of changes in intangible resources have a causal impact on economic variable at the 100%confidence level. Furthermore, in the relationship between the dependent variable the economic variable, the explanatory variable and the profit variable, the results indicated that empirical evidence in this series indicated that 17% of changes

in intangible resources have a causal impact on the economic variable at a 0.95% confidence level.

In the second series, the environmental variable was treated as a dependent variable while the profit, tangible and intangible variables were treated as explanatory. The results indicated that 8 % of changes in tangible resources have a causal impact on the economic variable at a 96% confidence level. Furthermore, in the relationship between the environmental dependent variable environmental the explanatory variable intangible resources, and the empirical evidence in this series the results indicated that 43%of changes in intangible resources have a causal impact on the economic variable at a 100 % confidence interval. The relationship between the dependent variable the environment and the explanatory variable being profit; the results in this series indicated that 28% of changes in intangible resources have a causal impact on the economic variable at a 100% confidence interval. Lastly, in the third series, the philanthropic variable is treated as a dependent variable and profit, tangible and intangible variables are treated as explanatory variables. The results indicated that 17% of changes in intangible resources had a causal impact on the economic variable which was confirmed at the 100% confidence interval. In addition, in the relationship between dependent variable economic and explanatory variable philanthropic, the empirical evidence in this series indicated that 44% of changes in intangible resources have a causal impact on the economic variable at a 100% confidence interval.

As noted, the PA was performed to uncover the path dependency of firm level growth imperatives and CSR strategies. In particular, in this series, the firm level growth imperatives such as tangible, intangible resources and profit are treated as dependent variables while the CSR variables are treated as explanatory variables. Table 5.18 below shows the PA when firm level growth imperatives are treated as dependent variables.

**Table 5.18: Results the Path Analysis**

	Coefficient	std. err.	Z	P> z	[95percent conf. interval]	
<b>Tangible</b>						
<b>Economic</b>	.2440484	.0609973	4.00	0.000	.124496	.3636009
<b>Ethical</b>	.2870588	.0705034	4.07	0.000	.1488746	.4252429
<b>Environ</b>	.0825462	.1038787	0.79	0.427	.1210523	.2861446
<b>Phil</b>	.0987524	.090105	1.10	0.273	.0778502	.2753551
<b>_cons</b>	18.92071	1.8972	9.97	0.000	15.20227	22.63916
<b>Intangible</b>						
<b>Economic</b>	.3155489	.0545058	5.79	0.000	.2087196	.4223782
<b>Ethical</b>	.2343416	.0630002	3.72	0.000	.1108634	.3578198
<b>Environ</b>	.1908687	.0928236	2.06	0.040	.0089379	.3727996
<b>Phil</b>	.2883612	.0805158	3.58	0.000	.1305532	.4461693
<b>_cons</b>	13.49323	1.695294	7.96	0.000	10.17052	16.81595
<b>Profit</b>						
<b>Economic</b>	-.0119213	.0340094	-0.35	0.726	.0785785	.054736
<b>Ethical</b>	.0949558	.0393096	2.42	0.016	.0179103	.1720013
<b>Environ</b>	.1190198	.0579182	2.05	0.040	.0055022	.2325375
<b>Phil</b>	.3746154	.0502387	7.46	0.000	.2761494	.4730814
<b>_cons</b>	5.377615	1.057796	5.08	0.000	3.304372	7.450857
<b>mean(economic)</b>	41.83333	.5311753	78.76	0.000	40.79225	42.87442
<b>mean(ethical)</b>	37.76364	.548908	68.80	0.000	36.6878	38.83948
<b>mean(environ)</b>	14.86061	.3046561	48.78	0.000	14.26349	15.45772
<b>mean(phil)</b>	16.1697	.3005733	53.80	0.000	15.58058	16.75881

As shown in Table 5.18 above, the first, in this series, the tangible variable is treated as a dependent variable and the philanthropic, ethical, environment and economic variables are treated as explanatory. The results indicate that 24% of changes in the economic variable have a causal impact on the economic variable at a 100% confidence interval. Furthermore, in the relationship between the dependent variable tangible resources and the explanatory variable ethical CSR, the results show that 29% of changes in the ethical variable have a causal impact on the tangible resource variable at a 100% confidence level.

Secondly, the intangible variable is treated as a dependent variable while philanthropic, ethical, environment and economic variables are treated as explanatory.

Empirical evidence in this series indicates that 32% of changes in the economic variables have a causal impact on the intangible variable at a 100% confidence interval. Furthermore, in the relationship between the dependent variable intangible resources and explanatory ethical CSR, the results show that 23 %of changes in the ethical variable have a causal impact on the intangible resources variable, which is rated at a 100% confidence level. In the environmental CSR strategy, the results show 19% of the changes in environment CSR have a positive impact on intangible resources at a 0.040 probability level. Lastly, in the relationship between philanthropic CSR and intangible resources the results show that a 29% change in philanthropy causes changes in intangible resources at a 100% confidence level.

Thirdly, in this series, profit variables are treated as a dependent variable while philanthropic, ethical, environmental and economic variables are treated as explanatory variables. In this series, the results show that 9% of changes in ethical CSR have a causal impact on the economic variable at the 98% confidence interval. In addition, regarding the relationship between the dependent variable –profit and the explanatory variable–the results show that 12% of changes to the environment have a causal impact on the profit variable at a 100% confidence level. And that 37% change in philanthropic influence changes affects profit generation at a 100% confidence interval.

## **5.5 ANALYSIS IN THE RETAIL INDUSTRY**

The discussion in the present section presents an econometric analysis deduced from the retail economic sector. Thus, the section is informed by item analysis, descriptive analysis, factor analysis, principal component analysis, and SEM and PA.

### **5.5.1 Item analysis**

In this study, the Cronbach Alpha Test was conducted to test the consistency of study participants. Similar to manufacturing sector analysis, this section assesses the consistency of study participants and provides a reliability measure that validates a series of econometric estimations in the retail industry. Table 5.19 below shows the results of the Cronbach Alpha Test.

**Table 5.19: Results of the Cronbach Alpha Test**

Item	Obs	Sign	Item-test corr.	Item-rest corr.	Interitem cov.	Alpha	Label
tangible	212	+	0.7598	0.6466	28.50874	0.8564	Tangible
intangible	212	+	0.8801	0.8071	24.67617	0.8323	Intangible
economic	212	+	0.7662	0.6465	27.88289	0.8577	Economic
Ethical	212	+	0.8728	0.8023	25.51317	0.8329	Ethical
Phil	212	+	0.6642	0.5733	33.04137	0.8661	Phil
Environ	212	+	0.7512	0.6779	31.62613	0.8559	Environ
Profit	212	+	0.5797	0.4789	34.55377	0.8751	Profit
Testscale					29.40032	0.8732	mean (unstandardised items)

Table 5.19 above shows the results of the Cronbach Alpha test in the context of the study variables in the Retail Industry. Evidence in this study indicates that the overall test scale of the Cronbach Alpha as measured in unstandardised items, indicates that the series has a consistency measurement of 87% and a covariance of 29.40. On overall analysis, these results suggest that the study respondents in the series are reliable enough to produce valid econometrics results that were implemented in the later stages of the section.

Under tangible resources, the observed consistent coefficient is 86% the correlation coefficient is 65% and the covariance coefficient is 30.72. Evidence in this series indicates that the pre-estimation diagnosis is reliable for econometrics estimations. Under the intangible resource's variable, the observed consistent coefficient is 81%, the correlation coefficient is 83 %and the covariance coefficient is 24.67. Therefore, this suggests that the responses from the study participants were consistent and reliable.

From Table 5.19 above, which shows the economic social responsibility strategy variable, the observed consistent coefficient is 86 %, the correlation coefficient is 65% and the covariance coefficient is 27.88. Under the ethical social responsibility strategy variable, the observed consistent coefficient is 83% the correlation coefficient is 87% and the covariance coefficient is 25.51. Thus, it is concluded that the pre-estimation diagnosis is reliable for econometrics estimations.

In addition, regarding the environment social responsibility strategy variable, the observed consistent coefficient is 87% the correlation coefficient is 80% and the

covariance coefficient is 25.51. Under the philanthropic social responsibility strategy variable, the observed consistent coefficient is 87%, the correlation coefficient is 66% and the covariance coefficient is 36.29. Furthermore, under the profit variable, the observed consistent coefficient is 88%, the correlation coefficient is 68% and the covariance coefficient is 34.55. Thus, these results indicate that the pre-estimation diagnosis is reliable enough for econometrics estimations.

### 5.5.2 Descriptive analysis

In this section, a summary of descriptive statistics is presented in the context of study variables, as explained in Chapter Four. Descriptive statistics was adopted to provide an overview of the standard error of the mean, and the mean and standard deviation in the retail economic sector. In particular, these tests are important for understanding the sample variance and the normality of study variables. Table 5.20 below illustrates the results of descriptive statistics.

**Table 5.20: Results of Descriptive Statistics**

Stats	Tangible	intang~ e	economic	ethical	environ	phil	Profit	
Mean	43.0101	42.2222 2	41.0101	36.92929	14.12121	15.79798	15.90909	
se(mean )	.852137 3	.942432 4	.9050461	.8854457	.5813129	.5760956	.5516212	
SD	8.47865 9	9.37708 4	9.005095	8.810074	5.78399	5.732079	5.488561	
Skewnes s p50		-.4253853	-.650119	-.5634161	-.5953015	-.3188825	-0.040955	-0.232402
		44	43	42	39	16	17	17

In Table 5.20 above, descriptive statistics was implemented to indicate whether the data collected and analysed in this series was normally distributed. This is evidenced by the skewness coefficient in all study variables. For instance, in tangible resources the skewness coefficient is -.43, which indicates that the data distribution is almost normal as it is close to zero. In intangible resources, the skewness coefficient is -.007 which indicates that the data distribution is almost normal as it is close to zero. In economic CSR variable, the skewness coefficient is -.006 which indicates that the data distribution is almost normal as it is close to zero. In ethical social responsibility strategy, the skewness coefficient is -.059 which indicates that the data distribution is

almost normal as it is close to zero. In environment corporate responsibility strategy, the skewness coefficient is -.032 which indicates that the data distribution is almost normal as it is close to zero. In philanthropic CSR, the skewness coefficient is -.040 which indicates that the data distribution is almost normal as it is close to zero. In the profit variable, the skewness coefficient is -.23 which indicates that the data distribution is almost normal as it is close to zero.

### 5.5.3 Factor analysis

Following Hair *et al.* (2015), a factor analysis is an econometric procedure that targets uncovering the underlying factors that are responsible for correlation in research study variables. Consistent with Hair *et al.* (2015), in this series, a factor analysis was conducted to investigate the relationships among variables and to indicate the covariance coefficient between study variables.

### 5.5.4 Principal components analysis

In this series, factors were extracted using the maximum principal component developed by Hotelling (1933). Thus, factor analysis explores the linear relationships to determine the best fitting variables in the study. Table 5.21 below illustrates the principal components analysis.

**Table 5.21: Principal Components Analysis**

<b>Component</b>	<b>Eigenvalue</b>	<b>Difference</b>	<b>Proportion</b>	<b>Cumulative</b>
Comp1	<b>4.05768</b>	<b>3.05668</b>	<b>0.5797</b>	<b>0.5797</b>
Comp2	<b>1.001</b>	<b>.498788</b>	<b>0.1430</b>	<b>0.7227</b>
Comp3	<b>.502211</b>	<b>.0295562</b>	<b>0.0717</b>	<b>0.7944</b>
Comp4	<b>.472655</b>	<b>.0213791</b>	<b>0.0675</b>	<b>0.8619</b>
Comp5	<b>.451275</b>	<b>.144827</b>	<b>0.0645</b>	<b>0.9264</b>
Comp6	<b>.306448</b>	<b>.0977152</b>	<b>0.0438</b>	<b>0.9702</b>
Comp7	<b>.208733</b>	<b>.</b>	<b>0.0298</b>	<b>1.0000</b>

In Table 5.21 above, the principal component analysis is presented from econometric evidence deduced in the present study. Empirical evidence in the study suggests that two components 1, and 2 record a statistically significant coefficient 1.00, and 4.085

respectively, which is more than 1. Conversely, components 3, 4, 5, 6 and 7 are below the statistically significant threshold of  $p > \text{or equal to } 1$ . Table 5.22 below illustrates the according to the principal components analysis eigenvectors.

**Table 5.242: Principal Components Analysis Eigenvectors**

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Comp7	Unexplained
tangible	<b>0.3667</b>	<b>-0.3215</b>	<b>-0.5279</b>	<b>-0.3396</b>	<b>0.5500</b>	<b>0.2549</b>	<b>-0.0273</b>	<b>0</b>
intangible	<b>0.4336</b>	<b>-0.1269</b>	<b>-0.1407</b>	<b>0.0987</b>	<b>-0.0982</b>	<b>-0.6725</b>	<b>0.5517</b>	<b>0</b>
economic	<b>0.3648</b>	<b>-0.4285</b>	<b>0.4594</b>	<b>0.4319</b>	<b>0.0040</b>	<b>0.4784</b>	<b>0.2385</b>	<b>0</b>
ethical	<b>0.4282</b>	<b>-0.2224</b>	<b>0.3146</b>	<b>-0.1275</b>	<b>-0.0655</b>	<b>-0.3511</b>	<b>-0.7242</b>	<b>0</b>
environ	<b>0.3883</b>	<b>0.1881</b>	<b>-0.1352</b>	<b>-0.4234</b>	<b>-0.6981</b>	<b>0.3497</b>	<b>0.0814</b>	<b>0</b>
phil	<b>0.3447</b>	<b>0.4714</b>	<b>-0.3951</b>	<b>0.6495</b>	<b>0.0136</b>	<b>0.0873</b>	<b>-0.2706</b>	<b>0</b>
profit	<b>0.3026</b>	<b>0.6244</b>	<b>0.4660</b>	<b>-0.2666</b>	<b>0.4427</b>	<b>0.0266</b>	<b>0.1836</b>	<b>0</b>

In Table 5.22 above, the Eigenvectors Principal Analysis is presented, and the discussion is contextualised in the study variables. Evidence from component 1 indicates that all the variables are statistically significant. This means that they are above 0.30 or below -0.30. For instance, in tangible resources, the evidence suggests that there is a positive linear relationship of 37% which is statistically significant. Similar results are observed with intangible resources. The empirical evidence shows that there is a 43% linear relationship, which is statistically significant. In the economic variable, the evidence shows that there is a statistically significant linear correlation coefficient of 36%. In the ethical variable, the evidence shows that there is a positive linear correlation of 43%, which is statistically significant. In the environment variable, the evidence shows that there is a positive and a statistically significant linear association at 39%. In the philanthropic variable, the evidence shows that there is a positive linear relationship of 34% which is statistically significant. In the profit variable, the evidence suggests that there a positive linear relationship of 30% which is thus statistically significant.

In component 2, the evidence shows that 4 study variables are statistically significant, meaning that they are above 0.30 or below -0.30. In the tangible resources variable, the evidence suggests that there is a negative linear relationship at -32% which is statistically significant as it is below -.30. In the economic variable, the evidence shows that there is a positive linear relationship of -43%, which is statistically significant since the correlation coefficient is slightly below -.30. Similar results are observed in the philanthropic variable, where the evidence shows that there is a 47 % positive linear relationship, which is statistically significant as it is more than 0.30. In the profit

variable, a positive linear relationship which is statistically significant at 62 % is observed.

In component 3, the evidence shows that 6 variables are statistically significant, meaning that they are above 0.30 or below -0.30. The evidence shows that in tangible resources there is a positive linear relationship of 53%. In the economic variable, the evidence shows that there is a positive linear relationship of 46%, which is statistically significant since the correlation coefficient is slightly below -0.30. In the ethical responsibility variable, the evidence shows an inverse 31 % linear relationship that is statistically significant because it is below -0.30. Similar results are observed in the philanthropic variable, where the evidence shows a statistically significant negative correlation coefficient of -0.40; and in the profit variable, the evidence shows that there is a 47% linear relationship, which is statistically significant.

In component 4, the evidence shows that 4 variables are statistically significant in the present study. For instance, in tangible resources, the evidence shows that there is a negative linear relationship of -34% which is statistically significant. Similar results are observed in the environment variable as the evidence shows that -42% in the environment is linear related to component 4.

Nevertheless, still under component 4, the econometrics evidence also reveals some positive linear related components in the series. For instance, in the economic variable, the evidence shows that there is a negative positive relationship of 43%. And, in the philanthropic variable, the evidence shows that there is a positive linear relationship of 65% which is statistically significant as it is more than 30%.

In component 5, the evidence in this series shows that 3 variables are statistically significant meaning that they are above 0.30 or below -0.30. In the tangible resources variable, the evidence shows that there is a positive linear relationship of 55 %. In addition, in the environment variable, the evidence suggests a negative and linear relationship of -70%. Nonetheless, a positive, and statistically significant relationship is observed in the profit variable, which shows that 44% is linear related to component 5.

In component 6, the evidence suggests that 4 study variables are statistically significant. For instance, in intangible resources, -67% of loadings are linear related to

component 6. Similar results are observed in economic variable as -35% inversely loads in component 6. Nonetheless, the evidence shows that economic variable positively load at 48% in component 6.

In component 7, the evidence shows that 2 study variables are statistically significant. In the intangible resources variable, the evidence indicates that 55% is positive and linear related to component 7. Nonetheless, in ethical and variables, the evidence indicates that 73% negatively load in component 7.

### 5.5.5 Factor analysis

In this section, a factor analysis is presented and analysed. Table 5.23 below shows the results of the factor analysis, as deduced from the cross-section survey data analysis in the retail industry.

**Table 5.235: Results of the Factor Analysis**

<b>Factor</b>	<b>Eigenvalue</b>	<b>Difference</b>	<b>Proportion</b>	<b>Cumulative</b>
Factor1	<b>3.60722</b>	<b>3.15035</b>	<b>0.9866</b>	<b>0.9866</b>
Factor2	<b>0.45687</b>	<b>0.44554</b>	<b>0.1250</b>	<b>1.1115</b>
Factor3	<b>0.01134</b>	<b>0.04771</b>	<b>0.0031</b>	<b>1.1146</b>
Factor4	<b>-0.03637</b>	<b>0.04586</b>	<b>-0.0099</b>	<b>1.1047</b>
Factor5	<b>-0.08223</b>	<b>0.02131</b>	<b>-0.0225</b>	<b>1.0822</b>
Factor6	<b>-0.10354</b>	<b>0.09345</b>	<b>-0.0283</b>	<b>1.0539</b>
Factor7	<b>-0.19699</b>	.	<b>-0.0539</b>	<b>1.0000</b>

In Table 5.23 above, the factor analysis is presented in the context of the results obtained in the present study for the retail economic sector. In this series, the evidence shows that only one factor is above the value of 1 and it should be returned in the loading estimation. Conversely, the rest of the factors 2, factor 3, factor 4, factor 5, factor 6, and factor 7 are not statistically significant as they are below the value of 1 and they will not be returned for loading. Table 5.24 below illustrates the results from the factor analysis eigenvectors in the retail industry.

**Table 5.64: Factor Analysis Eigenvectors**

<b>Variable</b>	<b>Factor1</b>	<b>Factor2</b>	<b>Factor3</b>	<b>Uniqueness</b>
tangible	<b>0.6795</b>	<b>-0.1816</b>	<b>-0.0479</b>	<b>0.5031</b>
intangible	<b>0.8526</b>	<b>-0.0775</b>	<b>-0.0490</b>	<b>0.2647</b>
economic	<b>0.6887</b>	<b>-0.2957</b>	<b>0.0236</b>	<b>0.4377</b>
ethical	<b>0.8464</b>	<b>-0.1876</b>	<b>0.0598</b>	<b>0.2448</b>
environ	<b>0.7268</b>	<b>0.1698</b>	<b>0.0074</b>	<b>0.4429</b>
phil	<b>0.6349</b>	<b>0.3478</b>	<b>-0.0302</b>	<b>0.4750</b>
profit	<b>0.5445</b>	<b>0.3814</b>	<b>0.0392</b>	<b>0.5565</b>

In Table 5.24 above the factor analysis is presented and the discussion is contextualised in the study variables. In factor 1, then evidence shows that all study variables load very high hence they are statistically significant. For instance, in tangible assets load at 67%, intangible resources load at 83 %, economic at 69%, ethical at 0.85, environment at 0.73, philanthropic 63% and profit loads at 0.54. Nonetheless, in factors 2 and 3, the evidence shows that there are statistically significant factor loadings.

### **5.5.6 Results of the structural equation model**

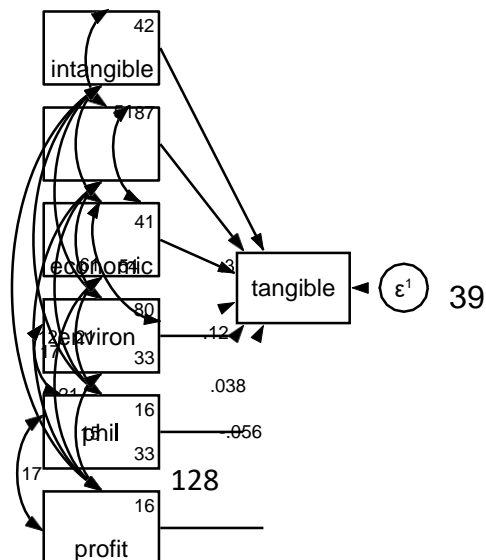
In this section, the study presents the results of the SEM. As was described in the research methodology chapter, the SEM is a series of linear equations in which all variables are treated as both dependent and explanatory variables.

#### **5.5.6.1 Dependent variable tangible resources**

In this series, tangible resources are treated as dependent variables that depend on changes from, explanatory variables, intangible resources, economic, ethical, environment, philanthropic and profit sources.

**Table 5.25: Dependent Variable Tangible Resources**

		Coefficient	OIM std.err.	Z	P> z	[95percentc onf.	interval]
<b>Structura</b>							
tangible							
	intangible	.2951368	.1143585	2.58	0.010	.0709984	.5192753
	economic	.1297491	.0995539	1.30	0.192	-.065373	.3248713
	ethical	.2145346	.1274031	1.68	0.092	-.0351709	.46424
	environ	.1204682	.1538724	0.78	0.434	-.1811162	.4220527
	phil	.0380798	.1489956	0.26	0.798	-.2539463	.3301058
	profit	-.0561273	.1450889	-0.39	0.699	-.3404962	.2282417
	_cons	15.89533	3.401276	4.67	0.000	9.228948	22.5617
	mean(intangibl e)	42.22222	.9376606	45.03	0.000	40.38444	44.06
	mean(economic)	41.0101	.9004635	45.54	0.000	39.24522	42.77498
	mean(ethical)	36.92929	.8809624	41.92	0.000	35.20264	38.65595
	mean(environ)	14.12121	.5783695	24.42	0.000	12.98763	15.2548
	mean(phil)	15.79798	.5731787	27.56	0.000	14.67457	16.92139
	mean(profit)	15.90909	.5488281	28.99	0.000	14.83341	16.98477
	var(e.tangible)	39.0741	5.55375			29.57362	51.62659
	var(intangible)	87.04153	12.37154			65.87824	115.0035
	var(economic)	80.27263	11.40945			60.75513	106.0601
	var(ethical)	76.83338	10.92062			58.15211	101.516
	var(environ)	33.11662	4.706992			25.06464	43.75529
	var(phil)	32.52484	4.62288			24.61675	42.9734
	var(profit)	29.82002	4.238433			22.56958	39.39966
	cov(intangible,economic)	51.20988	9.852192	5.20	0.000	31.89993	70.51982
	cov(intangible,ethical)	60.94501	10.25039	5.95	0.000	40.8546	81.03541
	cov(intangible,environ)	33.14478	6.341381	5.23	0.000	20.7159	45.57366
	cov(intangible,phil)	29.52974	6.115899	4.83	0.000	17.5428	41.51668
	cov(intangible,profit)	20.56566	5.52179	3.72	0.000	9.743147	31.38817
	cov(economic,ethical)	54.04112	9.581158	5.64	0.000	35.26239	72.81984
	cov(economic,environ)	22.2008	5.641865	3.94	0.000	11.14294	33.25865
	cov(economic,phil)	17.82022	5.438745	3.28	0.001	7.160478	28.47997
	cov(economic,profit)	12.08173	5.064931	2.39	0.017	2.154644	22.00881
	cov(ethical,environ)	30.65504	5.932442	5.17	0.000	19.02766	42.28241
	cov(ethical,phil)	21.16753	5.45603	3.88	0.000	10.47391	31.86116
	cov(ethical,profit)	20.71074	5.24174	3.95	0.000	10.43712	30.98437
	cov(environ,phil)	17.36792	3.731869	4.65	0.000	10.05359	24.68225
	cov(environ,profit)	15.16253	3.506762	4.32	0.000	8.289407	22.03566
	cov(phil,profit)	16.70891	3.552036	4.70	0.000	9.747045	23.67077



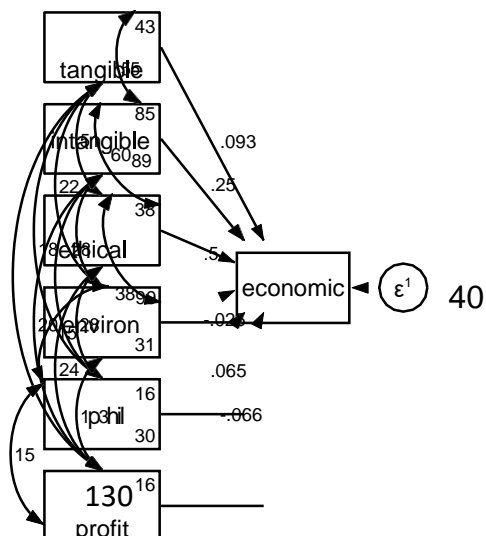
In this series the evidence shows that 2 explanatory variables have a positive and statistically significant relationship with dependent variable tangible resources. In this instance, in the relationship between tangible and intangible resources, the evidence shows that 29% of changes in intangible resources positively influence tangible resources at the 99% confidence interval. In the relationship between tangible and ethical variable, the evidence shows that 2% of changes in the economic social responsibility strategy positively influence tangible resources at the 91% confidence level.

#### **5.5.6.2 Dependent variable economic social responsibility strategy**

In this section, the results of the SEM in the retail industry are presented analysed and discussed. Economic social responsibility strategy involves dependent variables that depend on changes from explanatory variables, tangible resources, economic, ethical, environmental, philanthropic and profit. Table 5.26 below shows the results pertaining to the dependent variable economic strategy.

**Table 5.26: Results Dependent Variable Economic**

		Coefficient	OIM std.err.	Z	P> z	[95percentc onf.	interval]
<b>Structura</b>							
<b>I</b>							
economic							
	Tangible	.1300062	.0997512	1.30	0.192	-.0655026	.3255149
	Intangible	.1712318	.1170009	1.46	0.143	-.0580857	.4005493
	Ethical	.5339939	.1176828	4.54	0.000	.30334	.7646479
	Environ	-.0580881	.1543905	-0.38	0.707	-.360688	.2445118
	Phil	.0854202	.1489451	0.57	0.566	-.2065069	.3773473
	Profit	-.1582434	.1444695	-1.10	0.273	-.4413984	.1249116
	_cons	10.45703	3.611683	2.90	0.004	3.378267	17.5358
	mean(tangible)	43.0101	.8478226	50.73	0.000	41.3484	44.6718
	mean(intangible)	42.22222	.9376606	45.03	0.000	40.38444	44.06
	mean(ethical)	36.92929	.8809624	41.92	0.000	35.20264	38.65595
	mean(environ)	14.12121	.5783695	24.42	0.000	12.98763	15.2548
	mean(phil)	15.79798	.5731787	27.56	0.000	14.67457	16.92139
	mean(profit)	15.90909	.5488281	28.99	0.000	14.83341	16.98477
	var(e.economic)	39.15152	5.564754			29.63221	51.72888
	var(tangible)	71.16151	10.11446			53.85929	94.02205
	var(intangible)	87.04153	12.37154			65.87824	115.0035
	var(ethical)	76.83338	10.92062			58.15211	101.516
	var(environ)	33.11662	4.706992			25.06464	43.75529
	var(phil)	32.52484	4.62288			24.61675	42.9734
	var(profit)	29.82002	4.238433			22.56958	39.39966
	cov(tangible, intangible)	49.37149	9.337419	5.29	0.000	31.07049	67.6725
	cov(tangible, ethical)	44.8189	8.690128	5.16	0.000	27.78656	61.85123
	cov(tangible, environ)	23.03918	5.400554	4.27	0.000	12.45429	33.62407
	cov(tangible, phil)	17.96164	5.161177	3.48	0.001	7.845915	28.07736
	cov(tangible, profit)	12.86961	4.807049	2.68	0.007	3.447962	22.29125
	cov(intangible,ethical)	60.94501	10.25039	5.95	0.000	40.8546	81.03541
	cov(intangible,environ)	33.14478	6.341381	5.23	0.000	20.7159	45.57366
	cov(intangible,phil)	29.52974	6.115899	4.83	0.000	17.5428	41.51668
	cov(intangible,profit)	20.56566	5.52179	3.72	0.000	9.743147	31.38817
	cov(ethical,environ)	30.65504	5.932442	5.17	0.000	19.02766	42.28241
	cov(ethical, phil)	21.16753	5.45603	3.88	0.000	10.47391	31.86116
	cov(ethical, profit)	20.71074	5.24174	3.95	0.000	10.43712	30.98437
	cov(environ, phil)	17.36792	3.731869	4.65	0.000	10.05359	24.68225
	cov(environ, profit)	15.16253	3.506762	4.32	0.000	8.289407	22.03566
	cov(phil, profit)	16.70891	3.552036	4.70	0.000	9.747045	23.67077



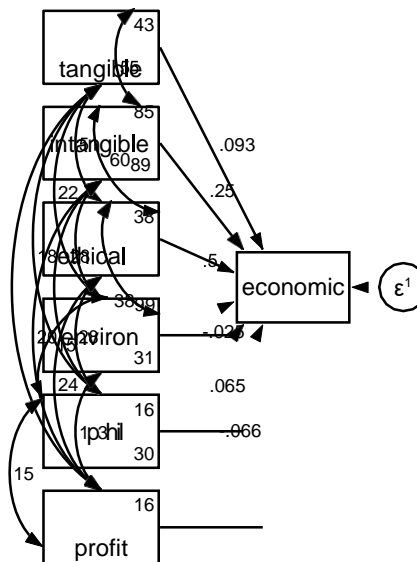
Evidence in this series suggests that 1 study variable records a positive and statistically significant relationship with the dependent variable being economic social responsibility strategy, for instance, in the relationship between the economic social responsibility strategy variable and ethical CSR; the variable evidence suggests that 53% of changes in ethical strategy positively influence changes in economic social responsibility variables at the 100% confidence interval.

#### **5.5.6.3 Dependent variable ethical social responsibility strategy**

In this series, the ethical social responsibility strategy is treated as a dependent variable that depends on changes in explanatory variables tangible resources, intangible, ethical, environment, philanthropic and profit. Table 5.27 below shows the results of the dependent variable ethical strategy.

**Table 5.27: Results of Dependent Variable Ethical**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structur al</b>							
ethical							
	tangible	.1297891	.0770763	1.68	0.092	-.0212777	.2808558
	intangible	.3382864	.0853709	3.96	0.000	.1709624	.5056103
	economic	.3224166	.0710549	4.54	0.000	.1831516	.4616816
	environ	.259015	.1171962	2.21	0.027	.0293146	.4887154
	phil	-.1633957	.1147586	-1.42	0.154	-.3883185	.0615271
	profit	.2344337	.1104509	2.12	0.034	.017954	.4509135
	_cons	-.9644006	2.9212	-0.33	0.741	-6.689848	4.761046
mean(tangible)		43.0101	.8478226	50.73	0.000	41.3484	44.6718
mean(intangible)		42.22222	.9376606	45.03	0.000	40.38444	44.06
mean(economic)		41.0101	.9004635	45.54	0.000	39.24522	42.77498
mean(envIRON)		14.12121	.5783695	24.42	0.000	12.98763	15.2548
mean(phil)		15.79798	.5731787	27.56	0.000	14.67457	16.92139
mean(profit)		15.90909	.5488281	28.99	0.000	14.83341	16.98477
var(e.ethical)		23.63903	3.359906			17.89144	31.23304
var(tangible)		71.16151	10.11446			53.85929	94.02205
var(intangible)		87.04153	12.37154			65.87824	115.0035
var(economic)		80.27263	11.40945			60.75513	106.0601
var(envIRON)		33.11662	4.706992			25.06464	43.75529
var(phil)		32.52484	4.62288			24.61675	42.9734
var(profit)		29.82002	4.238433			22.56958	39.39966
cov(tangible,intangible)		49.37149	9.337419	5.29	0.000	31.07049	67.6725
cov(tangible,economic)		39.79788	8.584807	4.64	0.000	22.97196	56.62379
cov(tangible,envIRON)		23.03918	5.400554	4.27	0.000	12.45429	33.62407
cov(tangible,phil)		17.96164	5.161177	3.48	0.001	7.845915	28.07736
cov(tangible,profit)		12.86961	4.807049	2.68	0.007	3.447962	22.29125
cov(intangible,economic)		51.20988	9.852192	5.20	0.000	31.89993	70.51982
cov(intangible,envIRON)		33.14478	6.341381	5.23	0.000	20.7159	45.57366
cov(intangible,phil)		29.52974	6.115899	4.83	0.000	17.5428	41.51668
cov(intangible,profit)		20.56566	5.52179	3.72	0.000	9.743147	31.38817
cov(economic,envIRON)		22.2008	5.641865	3.94	0.000	11.14294	33.25865
cov(economic,phil)		17.82022	5.438745	3.28	0.001	7.160478	28.47997
cov(economic,profit)		12.08173	5.064931	2.39	0.017	2.154644	22.00881
cov(envIRON,phil)		17.36792	3.731869	4.65	0.000	10.05359	24.68225
cov(envIRON,profit)		15.16253	3.506762	4.32	0.000	8.289407	22.03566
cov(phil,profit)		16.70891	3.552036	4.70	0.000	9.747045	23.67077



In this series, the evidence indicates that 5 study variables have a positive and statistically significant relationship with the dependent variable, being ethical corporate responsibility strategy. Thus, 13% changes intangible resources influence the dependent variable at a 92% confidence interval. In the relationship between intangible resources and dependent variable ethical social responsibility the evidence shows that 34% changes in tangible resources influence the dependent variable at a 100% confidence level.

As we proceed, in the relationship between dependent variable ethical responsibility and economic variable, the evidence suggests that 32% of changes in the economic variable positively influence changes in the dependent variable at a 100% confidence interval. Similar evidence is observed in the relationship between the dependent variable ethical and explanatory variable explanatory environment and 30% changes in the environment influence the dependent variable at a confidence level of 93%. In the relationship between an ethical variable (dependent variable) and a profit (explanatory variable) variable, the evidence suggests that 23% changes in an explanatory variable positively influence changes in the dependent variable at a 93% confidence level.

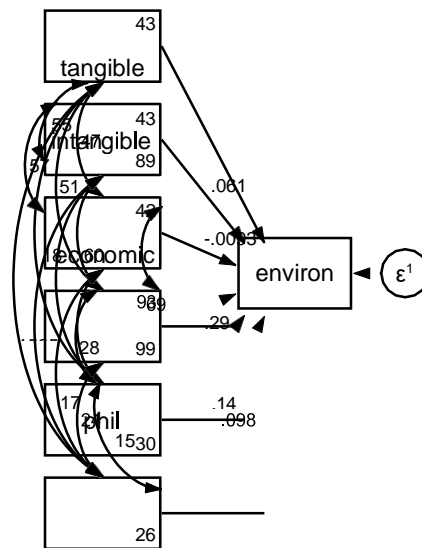
#### 5.5.6.4 Dependent variable environment social responsibility strategy

In this series, an environmental social responsibility strategy is treated as a dependent variable that varies according to changes in the explanatory variables, tangible

resources, intangible, ethical, ethical, philanthropic and profit variables. Table 5.28 below shows the results of the dependent variable environment.

**Table 5.28: Results of Dependent Variable environment**

		Coefficient	OIM std.err.	Z	P> z	[95percen tconf.	interval]
<b>Structural</b>							
Environ							
	tangible	.0510781	.0652414	0.78	0.434	-.0767927	.1789489
	intangible	.1337243	.0757456	1.77	0.077	-.0147343	.282183
	economic	-.0245805	.0653316	-0.38	0.707	-.1526281	.1034672
	ethical	.1815293	.0821364	2.21	0.027	.020545	.3425136
	phil	.192151	.0951097	2.02	0.043	.0057393	.3785626
	profit	.1704153	.0929818	1.83	0.067	-.0118256	.3526562
	_cons	-5.16425	2.39119	-2.16	0.031	-9.850896	-.4776035
	mean(tangible)	43.0101	.8478226	50.73	0.000	41.3484	44.6718
	mean(intangible)	42.22222	.9376606	45.03	0.000	40.38444	44.06
	mean(economic)	41.0101	.9004635	45.54	0.000	39.24522	42.77498
	mean(ethical)	36.92929	.8809624	41.92	0.000	35.20264	38.65595
	mean(phil)	15.79798	.5731787	27.56	0.000	14.67457	16.92139
	mean(profit)	15.90909	.5488281	28.99	0.000	14.83341	16.98477
	var(e.environ)	16.56729	2.354772			12.53912	21.88951
	var(tangible)	71.16151	10.11446			53.85929	94.02205
	var(intangible)	87.04153	12.37154			65.87824	115.0035
	var(economic)	80.27263	11.40945			60.75513	106.0601
	var(ethical)	76.83338	10.92062			58.15211	101.516
	var(phil)	32.52484	4.62288			24.61675	42.9734
	var(profit)	29.82002	4.238433			22.56958	39.39966
	cov(tangible,intangible)	49.37149	9.337419	5.29	0.000	31.07049	67.6725
	cov(tangible,economic)	39.79788	8.584807	4.64	0.000	22.97196	56.62379
	cov(tangible,ethical)	44.8189	8.690128	5.16	0.000	27.78656	61.85123
	cov(tangible,phil)	17.96164	5.161177	3.48	0.001	7.845915	28.07736
	cov(tangible,profit)	12.86961	4.807049	2.68	0.007	3.447962	22.29125
	cov(intangible,economic)	51.20988	9.852192	5.20	0.000	31.89993	70.51982
	cov(intangible,ethical)	60.94501	10.25039	5.95	0.000	40.8546	81.03541
	cov(intangible,phil)	29.52974	6.115899	4.83	0.000	17.5428	41.51668
	cov(intangible,profit)	20.56566	5.52179	3.72	0.000	9.743147	31.38817
	cov(economic,ethical)	54.04112	9.581158	5.64	0.000	35.26239	72.81984
	cov(economic,phil)	17.82022	5.438745	3.28	0.001	7.160478	28.47997
	cov(economic,profit)	12.08173	5.064931	2.39	0.017	2.154644	22.00881
	cov(ethical,phil)	21.16753	5.45603	3.88	0.000	10.47391	31.86116
	cov(ethical,profit)	20.71074	5.24174	3.95	0.000	10.43712	30.98437
	cov(phil,profit)	16.70891	3.552036	4.70	0.000	9.747045	23.67077



In the table above, the evidence shows that 4 variables have a positive and statistically significant relationship with the dependent variable, the environment CSR strategy. For instance, in the relationship between the environmental and the ethical variable, the evidence shows that 18% changes in the ethical variable positively influenced changes in the environmental variable at a 0.03 probability value.

In the relationship between the environment dependent variable and the explanatory variable, the philanthropic empirical evidence indicated that 2 %changes in the philanthropic variable positively explain changes in the environmental variable at a 0.04 probability. Similar results are recorded in the relationship between environmentally dependent variables and profit (explanatory variable) where the evidence shows that 17% changes in profit positively explain changes in the dependent variable at a 93% confidence level.

Lastly, in this series, the econometric evidence indicates that 13% changes in intangible resources influence changes on dependent variables at the 93% confidence level.

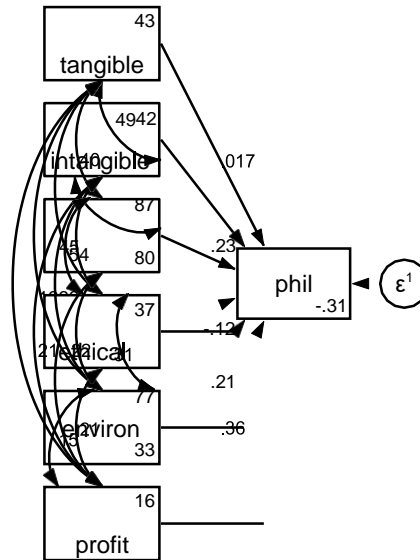
### 5.5.6.5 Dependent variable philanthropic social responsibility strategy

In this series, philanthropic social responsibility strategy is treated as a dependent variable that depends on changes in explanatory variables, tangible resources, intangible resources, the environment, ethical, economic and profit variables.

Table 5.29 below shows the results of the dependent variable philanthropic variable.

**Table 5.29: Results of Dependent Variable Philanthropic Variable**

		Coefficient	OIM std.err.	Z	P> z	[95percentc onf.	interval]
<b>Structural</b>							
Phil							
	Tangible	.0173151	.0677493	0.26	0.798	-.1154711	.1501013
	Intangible	.2291878	.0762633	3.01	0.003	.0797145	.3786611
	Economic	.0387643	.0675924	0.57	0.566	-.0937144	.171243
	Ethical	-.1228093	.0862534	-1.42	0.154	-.2918628	.0462442
	Environ	.2060684	.1019985	2.02	0.043	.006155	.4059818
	Profit	.3596001	.0909957	3.95	0.000	.1812519	.5379484
	_cons	-.3088812	2.533745	-0.12	0.903	-5.274931	4.657168
	mean(tangible)	43.0101	.8478226	50.73	0.000	41.3484	44.6718
	mean(intangible)	42.22222	.9376606	45.03	0.000	40.38444	44.06
	mean(economic)	41.0101	.9004635	45.54	0.000	39.24522	42.77498
	mean(ethical)	36.92929	.8809624	41.92	0.000	35.20264	38.65595
	mean(environ)	14.12121	.5783695	24.42	0.000	12.98763	15.2548
	mean(profit)	15.90909	.5488281	28.99	0.000	14.83341	16.98477
	var(e.phil)	17.76725	2.525328			13.44732	23.47496
	var(tangible)	71.16151	10.11446			53.85929	94.02205
	var(intangible)	87.04153	12.37154			65.87824	115.0035
	var(economic)	80.27263	11.40945			60.75513	106.0601
	var(ethical)	76.83338	10.92062			58.15211	101.516
	var(environ)	33.11662	4.706992			25.06464	43.75529
	var(profit)	29.82002	4.238433			22.56958	39.39966
	cov(tangible,intangible )	49.37149	9.337419	5.29	0.000	31.07049	67.6725
	cov(tangible,economic)	39.79788	8.584807	4.64	0.000	22.97196	56.62379
	cov(tangible,ethical)	44.8189	8.690128	5.16	0.000	27.78656	61.85123
	cov(tangible,environ)	23.03918	5.400554	4.27	0.000	12.45429	33.62407
	cov(tangible,profit)	12.86961	4.807049	2.68	0.007	3.447962	22.29125
	cov(intangible,economi c)	51.20988	9.852192	5.20	0.000	31.89993	70.51982
	cov(intangible,ethical)	60.94501	10.25039	5.95	0.000	40.8546	81.03541
	cov(intangible,environ)	33.14478	6.341381	5.23	0.000	20.7159	45.57366
	cov(intangible,profit)	20.56566	5.52179	3.72	0.000	9.743147	31.38817
	cov(economic,ethical)	54.04112	9.581158	5.64	0.000	35.26239	72.81984
	cov(economic,environ)	22.2008	5.641865	3.94	0.000	11.14294	33.25865
	cov(economic,profit)	12.08173	5.064931	2.39	0.017	2.154644	22.00881
	cov(ethical,environ)	30.65504	5.932442	5.17	0.000	19.02766	42.28241
	cov(ethical,profit)	20.71074	5.24174	3.95	0.000	10.43712	30.98437
	cov(environ,profit)	15.16253	3.506762	4.32	0.000	8.289407	22.03566



The evidence shown in the table above shows that 2 explanatory variables have a positive and statistically significant relationship with dependent variable philanthropic CSR strategy. For instance, in the relationship between the philanthropic and intangible resources variable, the evidence indicates that 23% changes in the intangible resources variable positively influence changes in the environmental variable at a 0.00 probability value. In the relationship between philanthropic dependent variables and explanatory environmental variables the evidence shows that 21% changes in the environment positively explain changes in the environment variable at a 0.04 probability value. Additionally, in this series, econometric evidence indicates that 36% changes in the profit variable influence changes to the dependent variable at a 100% confidence level.

### 5.5.6.6 Dependent variable profit

In this series, profit is treated as a dependent variable that depends on changes in explanatory variables tangible resources, intangible, environmental, ethical, economic, and philanthropic variables. Table 5.30 below shows the results of the dependent variable profit variable.

**Table 5.30 : Results of the Dependent Variable Profit**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structural</b>							
profit							
	tangible	-.0268915	.0695144	-0.39	0.699	-.1631372	.1093542
	intangible	-.0358273	.081697	-0.44	0.661	-.1959504	.1242959
	economic	-.075667	.0690808	-1.10	0.273	-.2110628	.0597288
	ethical	.1856607	.087472	2.12	0.034	.0142187	.3571027
	environ	.1925691	.1050693	1.83	0.067	-.0133629	.3985012
	phil	.3789039	.0958805	3.95	0.000	.1909817	.5668262
	_cons	6.119972	2.527288	2.42	0.015	1.166579	11.07336
mean(tangible)		43.0101	.8478226	50.73	0.000	41.3484	44.6718
mean(intangible)		42.22222	.9376606	45.03	0.000	40.38444	44.06
mean(economic)		41.0101	.9004635	45.54	0.000	39.24522	42.77498
mean(ethical)		36.92929	.8809624	41.92	0.000	35.20264	38.65595
mean(environ)		14.12121	.5783695	24.42	0.000	12.98763	15.2548
mean(phil)		15.79798	.5731787	27.56	0.000	14.67457	16.92139
var(e.profit)		18.72102	2.66089			14.16919	24.73512
var(tangible)		71.16151	10.11446			53.85929	94.02205
var(intangible)		87.04153	12.37154			65.87824	115.0035
var(economic)		80.27263	11.40945			60.75513	106.0601
var(ethical)		76.83338	10.92062			58.15211	101.516
var(environ)		33.11662	4.706992			25.06464	43.75529
var(phil)		32.52484	4.62288			24.61675	42.9734
cov(tangible,intangible)		49.37149	9.337419	5.29	0.000	31.07049	67.6725
cov(tangible,economic)		39.79788	8.584807	4.64	0.000	22.97196	56.62379
cov(tangible,ethical)		44.8189	8.690128	5.16	0.000	27.78656	61.85123
cov(tangible,environ)		23.03918	5.400554	4.27	0.000	12.45429	33.62407
cov(tangible,phil)		17.96164	5.161177	3.48	0.001	7.845915	28.07736
cov(intangible,economic)		51.20988	9.852192	5.20	0.000	31.89993	70.51982
cov(intangible,ethical)		60.94501	10.25039	5.95	0.000	40.8546	81.03541
cov(intangible,environ)		33.14478	6.341381	5.23	0.000	20.7159	45.57366
cov(intangible,phil)		29.52974	6.115899	4.83	0.000	17.5428	41.51668
cov(economic,ethical)		54.04112	9.581158	5.64	0.000	35.26239	72.81984
cov(economic,environ)		22.2008	5.641865	3.94	0.000	11.14294	33.25865
cov(economic,phil)		17.82022	5.438745	3.28	0.001	7.160478	28.47997
cov(ethical,environ)		30.65504	5.932442	5.17	0.000	19.02766	42.28241
cov(ethical,phil)		21.16753	5.45603	3.88	0.000	10.47391	31.86116
cov(environ,phil)		17.36792	3.731869	4.65	0.000	10.05359	24.68225

The table above shows that 3 study variables have a positive and statistically significant relationship with the dependent variable profit. The relationship between the profit variable and the ethical corporate responsibility strategy variable shows that 19% changes in the ethical variable positively influence changes in the economic variable at a 0.03 probability level. In the relationship between the economically dependent variable and the environmental explanatory variable the evidence shows that 19% changes in the environment positively explain changes in the environment variable at a 0.03 probability value. Furthermore, identical results are recorded in the relationship between the economic dependent variable and the philanthropic (explanatory variable) show that 38% changes in the philanthropic variable positively explain changes in the dependent variable at a 100% confidence level.

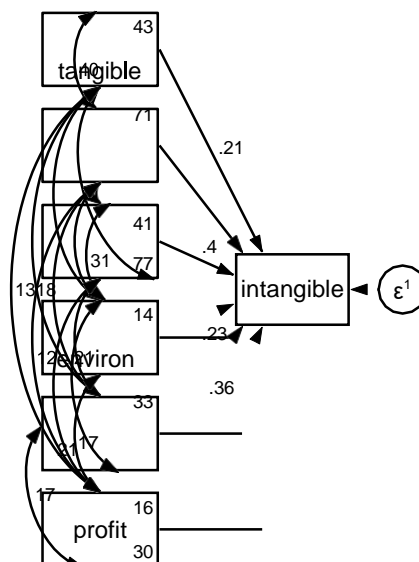
### 5.5.6.7 Dependent variable intangible

In this series intangible resources are treated as a dependent variable that depends on changes from the explanatory variables, the tangible resources variable, profit, and environmental, ethical, economic, and philanthropic variables. Table 5.31 below shows the results of the dependent variable profit variable.

**Table 5.31: Results of the Dependent Profit Variable**

		Coefficient	OIM std.err.	Z	P> z	[95percent conf. interval]	
<b>Structural</b>							
Intangible							
	tangible	.2135866	.0827597	2.58	0.010	.0513806	.3757926
	Economic	.1236731	.0845045	1.46	0.143	-.0419527	.289299
	ethical	.4046638	.1021221	3.96	0.000	.2045081	.6048194
	environ	.2282435	.1292842	1.77	0.077	-.0251489	.4816359
	phil	.364763	.1213765	3.01	0.003	.1268694	.6026566
	profit	-.0541157	.1234002	-0.44	0.661	-.2959757	.1877443
	_cons	4.895385	3.158635	1.55	0.121	-1.295426	11.0862
mean(tangible)		43.0101	.8478226	50.73	0.000	41.3484	44.6718
mean(economic)		41.0101	.9004635	45.54	0.000	39.24522	42.77498
mean(ethical)		36.92929	.8809624	41.92	0.000	35.20264	38.65595
mean(envIRON)		14.12121	.5783695	24.42	0.000	12.98763	15.2548
mean(phil)		15.79798	.5731787	27.56	0.000	14.67457	16.92139
mean(profit)		15.90909	.5488281	28.99	0.000	14.83341	16.98477
var(e.intangible)		28.2774	4.019175			21.40203	37.36148
var(tangible)		71.16151	10.11446			53.85929	94.02205
var(economic)		80.27263	11.40945			60.75513	106.0601
var(ethical)		76.83338	10.92062			58.15211	101.516
var(envIRON)		33.11662	4.706992			25.06464	43.75529
var(phil)		32.52484	4.62288			24.61675	42.9734
var(profit)		29.82002	4.238433			22.56958	39.39966
cov(tangible,economic)		39.79788	8.584807	4.64	0.000	22.97196	56.62379
cov(tangible,ethical)		44.8189	8.690128	5.16	0.000	27.78656	61.85123
cov(tangible,envIRON)		23.0391	5.400554	4.27	0.000	12.45429	33.62407

	<b>8</b>					
cov(tangible,phil)	<b>17.9616</b> 4	<b>5.161177</b>	<b>3.48</b>	<b>0.001</b>	<b>7.845915</b>	<b>28.07736</b>
cov(tangible,profit)	<b>12.8696</b> 1	<b>4.807049</b>	<b>2.68</b>	<b>0.007</b>	<b>3.447962</b>	<b>22.29125</b>
cov(economic,ethical)	<b>54.0411</b> 2	<b>9.581158</b>	<b>5.64</b>	<b>0.000</b>	<b>35.26239</b>	<b>72.81984</b>
cov(economic,environ)	<b>22.200</b> 8	<b>5.641865</b>	<b>3.94</b>	<b>0.000</b>	<b>11.14294</b>	<b>33.25865</b>
cov(economic,phil)	<b>17.8202</b> 2	<b>5.438745</b>	<b>3.28</b>	<b>0.001</b>	<b>7.160478</b>	<b>28.47997</b>
cov(economic,profit)	<b>12.0817</b> 3	<b>5.064931</b>	<b>2.39</b>	<b>0.017</b>	<b>2.154644</b>	<b>22.00881</b>
cov(ethical,environ)	<b>30.6550</b> 4	<b>5.932442</b>	<b>5.17</b>	<b>0.000</b>	<b>19.02766</b>	<b>42.28241</b>
cov(ethical,phil)	<b>21.1675</b> 3	<b>5.45603</b>	<b>3.88</b>	<b>0.000</b>	<b>10.47391</b>	<b>31.86116</b>
cov(ethical,profit)	<b>20.7107</b> 4	<b>5.24174</b>	<b>3.95</b>	<b>0.000</b>	<b>10.43712</b>	<b>30.98437</b>
cov(envIRON,phil)	<b>17.3679</b> 2	<b>3.731869</b>	<b>4.65</b>	<b>0.000</b>	<b>10.05359</b>	<b>24.68225</b>
cov(envIRON,profit)	<b>15.1625</b> 3	<b>3.506762</b>	<b>4.32</b>	<b>0.000</b>	<b>8.289407</b>	<b>22.03566</b>
cov(phil,profit)	<b>16.7089</b> 1	<b>3.552036</b>	<b>4.70</b>	<b>0.000</b>	<b>9.747045</b>	<b>23.67077</b>



In this series, intangible resources are treated as dependent variables while tangible resources, ethical, profit, environment, economic and philanthropic variables are treated as dependent variables. The evidence in this study suggests that 4 explanatory variables have a positive and statistically significant probability value. The evidence suggests that 21% changes in tangible resources influence changes in intangible resources at the 99% confidence interval. In the series where an ethical variable is treated as an explanatory variable, the evidence shows that 40% changes in the ethical variable influence dependent variable intangible resources at the 100% confidence level.

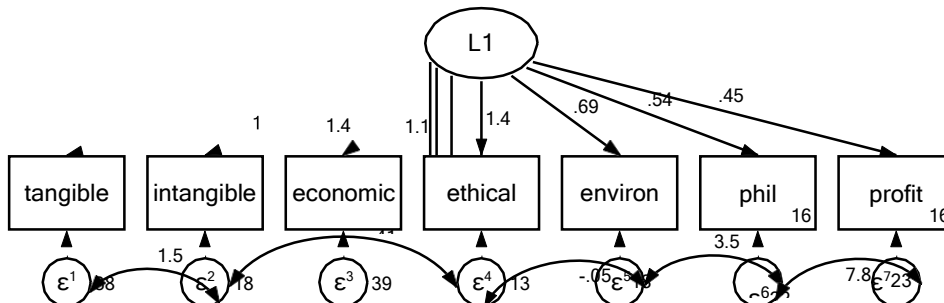
Furthermore, empirical evidence observed in the relationship between intangible (dependent) and environment (explanatory) shows that 23% of changes in explanatory variable influence dependent variable intangible resources. What's more; is that in the relationship between intangible (dependent) and philanthropic (explanatory), the evidence shows that 4% of changes in philanthropic influence dependent variable intangible resources are at the 100% confidence level.

### **5.5.7 Results of latent variable**

In this section, the results of the latent variable as an explanatory variable are analysed and interpreted in the context an analysis of the retail industry. Table 5.32 below shows the results of the dependent latent variable in the retail industry.

**Table 5.32: Results of the Dependent Latent Variable**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
Measurement Tangible	L1	<b>1</b>	(constrained)				
	_cons	<b>43.0101</b>	<b>.8478226</b>	<b>50.73</b>	<b>0.000</b>	<b>41.3484</b>	<b>44.6718</b>
Intangible	L1	<b>1.449182</b>	<b>.1967189</b>	<b>7.37</b>	<b>0.000</b>	<b>1.06362</b>	<b>1.834744</b>
	_cons	<b>42.22222</b>	<b>.9375349</b>	<b>45.04</b>	<b>0.000</b>	<b>40.38469</b>	<b>44.05976</b>
Economic	L1	<b>1.123956</b>	<b>.1762551</b>	<b>6.38</b>	<b>0.000</b>	<b>.7785024</b>	<b>1.46941</b>
	_cons	<b>41.0101</b>	<b>.9004635</b>	<b>45.54</b>	<b>0.000</b>	<b>39.24522</b>	<b>42.77498</b>
Ethical	L1	<b>1.389258</b>	<b>.2052154</b>	<b>6.77</b>	<b>0.000</b>	<b>.9870429</b>	<b>1.791472</b>
	_cons	<b>36.92929</b>	<b>.8809643</b>	<b>41.92</b>	<b>0.000</b>	<b>35.20263</b>	<b>38.65595</b>
Environ	L1	<b>.6856757</b>	<b>.1189972</b>	<b>5.76</b>	<b>0.000</b>	<b>.4524455</b>	<b>.9189059</b>
	_cons	<b>14.12121</b>	<b>.5783382</b>	<b>24.42</b>	<b>0.000</b>	<b>12.98769</b>	<b>15.25473</b>
Phil	L1	<b>.5385561</b>	<b>.1064712</b>	<b>5.06</b>	<b>0.000</b>	<b>.3298763</b>	<b>.7472358</b>
	_cons	<b>15.79798</b>	<b>.5671357</b>	<b>27.86</b>	<b>0.000</b>	<b>14.68641</b>	<b>16.90955</b>
Profit	L1	<b>.4469046</b>	<b>.1047956</b>	<b>4.26</b>	<b>0.000</b>	<b>.2415091</b>	<b>.6523002</b>
	_cons	<b>15.90909</b>	<b>.5488277</b>	<b>28.99</b>	<b>0.000</b>	<b>14.83341</b>	<b>16.98477</b>
var(e.tangible)		<b>38.3375</b>	<b>6.477663</b>			<b>27.52969</b>	<b>53.38833</b>
var(e.intangible)		<b>18.0835</b>	<b>7.17793</b>			<b>8.306405</b>	<b>39.36879</b>
var(e.economic)		<b>38.80678</b>	<b>6.184022</b>			<b>28.39652</b>	<b>53.03348</b>
var(e.ethical)		<b>13.48215</b>	<b>5.991006</b>			<b>5.643055</b>	<b>32.21098</b>
var(e.environ)		<b>17.68078</b>	<b>3.125479</b>			<b>12.50352</b>	<b>25.00177</b>
var(e.phil)		<b>22.32228</b>	<b>3.242343</b>			<b>16.79192</b>	<b>29.67405</b>
var(e.profit)		<b>23.26423</b>	<b>3.401659</b>			<b>17.46737</b>	<b>30.9849</b>
var(L1)		<b>32.82401</b>	<b>9.212914</b>			<b>18.93563</b>	<b>56.89886</b>
cov(e.tangible,e.intangible)		<b>1.50763</b>	<b>4.822931</b>	<b>0.31</b>	<b>0.755</b>	<b>-7.94514</b>	<b>10.9604</b>
cov(e.intangible,e.ethical)		<b>-5.109149</b>	<b>4.749696</b>	<b>-1.08</b>	<b>0.282</b>	<b>-14.41838</b>	<b>4.200084</b>
cov(e.ethical,e.environ)		<b>-.0502791</b>	<b>3.052981</b>	<b>-0.02</b>	<b>0.987</b>	<b>-6.034012</b>	<b>5.933454</b>
cov(e.environ,e.phil)		<b>3.527861</b>	<b>2.236965</b>	<b>1.58</b>	<b>0.115</b>	<b>-.8565099</b>	<b>7.912232</b>
cov(e.phil,e.profit)		<b>7.790138</b>	<b>2.508799</b>	<b>3.11</b>	<b>0.002</b>	<b>2.872982</b>	<b>12.70729</b>



In Table 5.32 above, the evidence suggests that the dependent, intangible, ethical, profit, philanthropic, economic, and environmental variables are explained by the

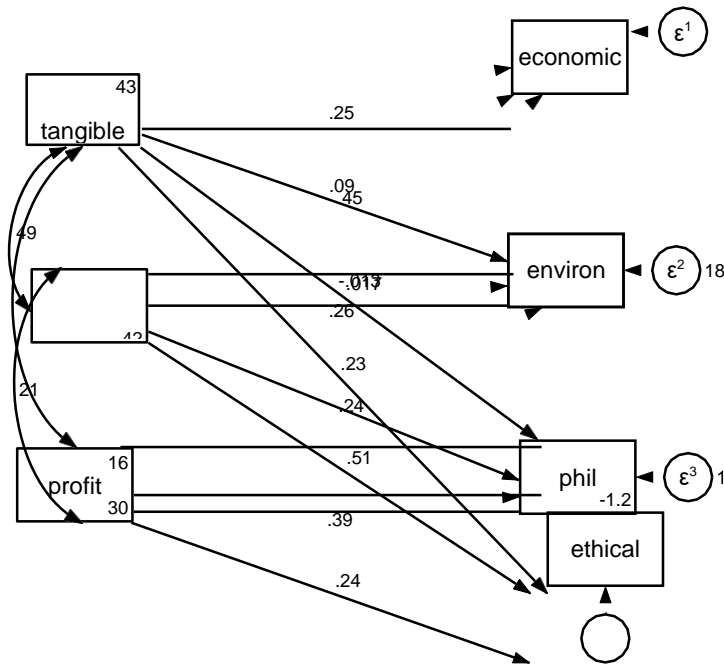
latent variable that measures decision making when one is investing in CSR strategy. In the retail industry analysis, in intangible resources, 145% changes in the latent variable explain investment in intangible resources at the 100% confidence interval. In the economic variable, 124% changes in decision making influence investment in economic CSR at the 100 % confidence interval. Regarding the ethical variable, 139 % changes in decision making influence changes in ethical CSR at a 100% confidence interval. In respect of the environmental variable, the evidence shows that 69% changes in decision making influences changes in environment CSR. Regarding the philanthropic variable, 53% changes in decision making influence changes in philanthropic CSR; and, in the profit variable, empirical evidence shows that 45% changes in decision making influence growth imperatives through CSR in SMEs.

#### **5.5.8 Results of path analysis**

In the methodology chapter, the detail of the procedures indicated that over and above the SEM, a PA was adopted to determine the causal inferences derived from study variables. For instance, the approach in this series is twofold. Firstly, the econometrics model treated CSR strategy variables as dependent variables that are explained by firm growth imperatives. Secondly, the econometrics model treated firm level growth studies as dependent variables and CSR variables as explanatory variables. Table 5.33 below shows the results of the PA when CSR variables are treated as dependent variables.

**Table 5.33: Results of the Path Analysis**

		Coefficient	OIM std.err.	Z	P> z	[95percen tconf.	interval]
<b>Structural</b>							
Economic							
	tangible	.2494626	.105468	2.37	0.018	.0427491	.456176
	intangible	.4498518	.1000823	4.49	0.000	.253694	.6460095
	profit	-.0127517	.138681	-0.09	0.927	-.2845614	.259058
	_cons	11.48982	3.859446	2.98	0.003	3.925442	19.05419
Environ							
	tangible	.0901442	.0649361	1.39	0.165	-.0371282	.2174167
	intangible	.2612928	.0616202	4.24	0.000	.1405194	.3820662
	profit	.2893612	.0853852	3.39	0.001	.1220092	.4567131
	_cons	-5.391736	2.376242	-2.27	0.023	-10.04909	-.7343865
Phil							
	tangible	.0172225	.0662009	0.26	0.795	-.112529	.1469739
	intangible	.2375689	.0628204	3.78	0.000	.1144431	.3606947
	profit	.3890508	.0870483	4.47	0.000	.2184392	.5596624
	_cons	-1.16289	2.422527	-0.48	0.631	-5.910955	3.585174
Ethical							
	tangible	.2307546	.0842279	2.74	0.006	.0656709	.3958382
	intangible	.5121871	.0799269	6.41	0.000	.3555333	.6688409
	profit	.2417021	.1107522	2.18	0.029	.0246318	.4587723
	_cons	1.533578	3.082197	0.50	0.619	-4.507416	7.574572
mean(tangible)		43.0101	.8478226	50.73	0.000	41.3484	44.6718
mean(intangible)		42.22222	.9376606	45.03	0.000	40.38444	44.06
mean(profit)		15.90909	.5488281	28.99	0.000	14.83341	16.98477
var(e.economic)		47.46175	6.74592			35.9219	62.70877
var(e.environ)		17.99183	2.557247			13.61729	23.77168
var(e.phil)		18.69954	2.657837			14.15293	24.70674
var(e.ethical)		30.27014	4.302411			22.91026	39.99438
var(tangible)		71.16151	10.11446			53.85929	94.02205
var(intangible)		87.04153	12.37154			65.87824	115.0035
var(profit)		29.82002	4.238433			22.56958	39.39966
cov(tangible,intangible)		49.37149	9.337419	5.29	0.000	31.07049	67.6725
cov(tangible,profit)		12.86961	4.807049	2.68	0.007	3.447962	22.29125
cov(intangible,profit)		20.56566	5.52179	3.72	0.000	9.743147	31.38817



In the first series, economic variables are treated as dependent variables and profit, tangible and intangible variables are treated as explanatory. Thus, the evidence shows that 25% of changes in tangible resources have a causal impact on economic variables at a 92% confidence level. Furthermore, in the relationship between dependent variables, economic and explanatory variables intangible resources, the result in this series shows that 45% of changes in intangible resources have a causal impact on economic variables at a 100 % confidence level.

In the second series, environmental variables are treated as dependent variables while profit, tangible and intangible variables are treated as explanatory. The relationship between dependent variable environmental and explanatory variables and intangible resources, the results in this series show that 26% of changes in intangible resources have a causal impact on economic variables at the 100% confidence level. In addition, in the relationship between dependent variables, environment variables explanatory variables and profit variables, the evidence in this series indicates that 29% of changes in intangible resources have a causal impact on economic variables at the 100% confidence level.

In the third series, philanthropic variable is treated as a dependent variable and profit, tangible and intangible variables are treated as explanatory. Empirical evidence in this series indicates that 24% of changes in intangible resources have a causal impact on

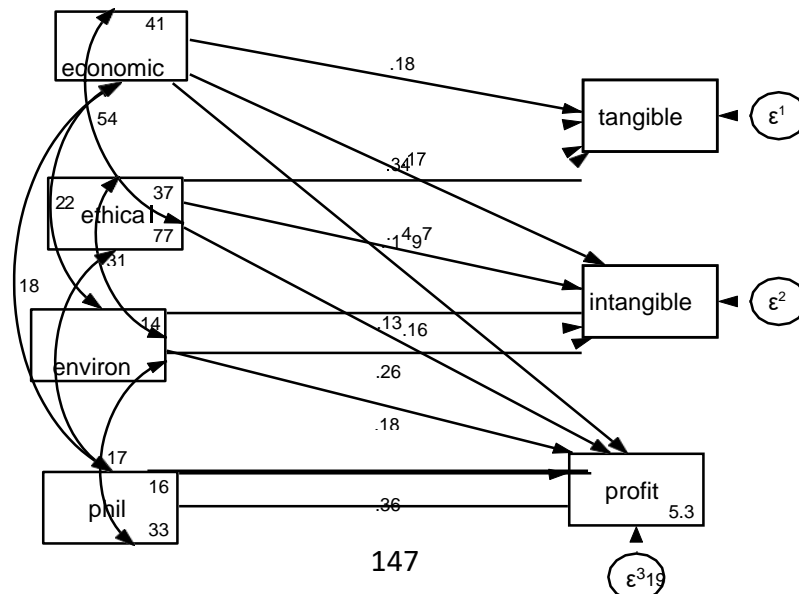
the philanthropic variable at a 100% confidence interval. Additionally, in the relationship between the dependent variable philanthropy and the explanatory variable being profit, the results indicated that 39% of changes in profit have a causal impact on the economic variable at a 100% confidence level.

In the fourth series, ethical variables are treated as dependent variables and profit, tangible and intangible variables are treated as explanatory. The results showed that 51% of changes in intangible resources had a causal impact on the economic variable at the 100% confidence level. In addition, in the relationship between dependent variables, economic and explanatory variables, ethical evidence in this series shows that 24% of changes in profit have a causal impact on ethical variables at a 100% confidence level. Similar evidence was shown in PA between the dependent variable, ethical and explanatory variables and tangible resources variables, the results showed that 23% changes in tangible resources affected the dependent variable ethical CSR at a confidence level of 100%.

As noted, the PA was performed to uncover the path dependency of firm level growth imperatives and CSR strategies. In particular, in this series, the firm level growth imperatives such as tangible resources, intangible resources and profit are treated as dependent variables, while the CSR variables are treated as explanatory variables. Table 5.34 below illustrates the PA when firm level growth imperatives are treated as dependent variables.

**Table 5.34: Results of Path Analysis**

		Coefficient	OIM std.err.	Z	P> z	[95percen tconf.	interval]
<b>Structura l</b> tangible	economi	.1841004	.1003602	1.83	0.067	-.012602	.3808028
	cethical	.3441545	.1164595	2.96	0.003	.1158982	.5724109
	environ	.1867492	.1536068	1.22	0.224	-.1143145	.4878129
	phil	.127674	.136363	0.94	0.349	-.1395925	.3949406
	_cons	18.09663	3.262876	5.55	0.000	11.70151	24.49174
intangible	economi	.1676823	.0853946	1.96	0.050	.000312	.3350526
	cethical	.4695346	.0990931	4.74	0.000	.2753157	.6637535
	environ.	.2584825	.130701	1.98	0.048	.0023132	.5146519
	phil	.3724357	.1160286	3.21	0.001	.1450237	.5998476
	_cons	8.472156	2.776318	3.05	0.002	3.030672	13.91364
profit	economi	-.0866254	.0673076	-1.29	0.198	-.2185459	.0452952
	cethical	.1595837	.0781048	2.04	0.041	.0065012	.3126663
	environ.	.1782864	.103018	1.73	0.084	-.0236252	.3801981
	phil	.3621272	.0914533	3.96	0.000	.182882	.5413724
	_cons	5.329792	2.188283	2.44	0.015	1.040837	9.618748
mean(economi		41.0101	.9004635	45.54	0.000	39.24522	42.77498
c)mean(ethica		36.92929	.8809624	41.92	0.000	35.20264	38.65595
l)mean(enviro		14.12121	.5783695	24.42	0.000	12.98763	15.2548
n)mean(phil)		15.79798	.5731787	27.56	0.000	14.67457	16.92139
var(e.tangible)v		41.8143	5.943226			31.64757	55.24708
ar(e.intangible)var		30.27347	4.302884			22.91278	39.99878
(e.profit)var(econ		18.80748	2.673179			14.23463	24.84936
omic)var(ethical)		80.27263	11.40945			60.75513	106.0601
var(envIRON)var(p		76.83338	10.92062			58.15211	101.516
hil)		33.11662	4.706992			25.06464	43.75529
		32.52484	4.62288			24.61675	42.9734
cov(economic,ethical)		54.04112	9.581158	5.64	0.000	35.26239	72.81984
cov(economic,envIRON)		22.2008	5.641865	3.94	0.000	11.14294	33.25865
cov(economic,phil)c		17.82022	5.438745	3.28	0.001	7.160478	28.47997
ov(ethical,envIRON)co		30.65504	5.932442	5.17	0.000	19.02766	42.28241
v(ethical,phil)cov(env		21.16753	5.45603	3.88	0.000	10.47391	31.86116
IRON,phil)		17.36792	3.731869	4.65	0.000	10.05359	24.68225



In Table 5.34, first, in this series, tangible variables are treated as dependent variables and philanthropic, ethical, environment and economic variables are treated as explanatory. Empirical evidence in this series indicated that 18% of changes in economic variables have a causal impact on tangible resources variables at a 93% confidence level. Furthermore, in the relationship between dependent variables tangible resources and explanatory ethical CSR, the evidence indicated that 34% of changes in ethical variables have a causal impact on tangible resources variables at a 100% confidence level.

Secondly, intangible variable is treated as dependent variables while philanthropic, ethical, environment and economic variables are treated as explanatory. The results in this series indicated that 17% of changes in economic variables have a causal impact on intangible variables at a 95% confidence level. Furthermore, in the relationship between the dependent variable intangible resources and explanatory ethical CSR, the results showed that 47% of changes in ethical variables have a causal impact on intangible resources variables at a 100% confidence level. Regarding the environmental CSR strategy, the evidence suggests that 26% of changes in the environment CSR variable had a positive impact on intangible resources at the 0.05 probability level. Lastly, in the relationship between philanthropic CSR and intangible resources, the evidence suggests that 37% of changes in philanthropic resources causes changes in intangible resources at a 100% confidence interval.

Thirdly, in this series, profit variables are treated as dependent variables while philanthropic, ethical, environment and economic variables are treated as explanatory variables. Empirical evidence showed that 16% of changes in ethical CSR have a causal impact on profit variables at a 96% confidence level. In addition, in the relationship between the dependent variable of profit and the explanatory variable being the environment, empirical evidence showed that 18% of changes to the environment have a causal impact on profit variable at the 92% confidence level; and evidence suggests that 36% changes in philanthropic influence improves profit; at a 100% confidence level.

## 5.6 ANALYSIS IN THE MINING INDUSTRY

The discussion in the present section entails econometric analysis deduced from the mining economic sector. Thus, this section is informed by item analysis, descriptive analysis, factor analysis, principal component analysis, SEM and PA.

### 5.6.1 Item analysis

In this section, the Cronbach Alpha Test was conducted to test the consistency of study participants. Similar to what occurred in the manufacturing and retail sectors analysis; the mining industry analysis showed significant consistency of study participants and provided a reliability measure that validated a series of econometric estimations in the mining industry. Table 5.35 below shows the results of the Cronbach Alpha Test.

**Table 5.35: Results of the Cronbach Alpha Test**

Item	Obs	Sig n	Item-test corr.	Item-rest corr.	Interitem cov.	Alpha	Label
tangible	202	+	0.7502	0.5836	24.53387	0.8096	Tangible
intangible	202	+	0.8199	0.7170	23.94955	0.7767	Intangible
economic	202	+	0.7927	0.6773	24.61432	0.7845	Economic
ethical	202	+	0.8337	0.7276	22.93242	0.7744	Ethical
environ	202	+	0.5170	0.3917	32.76995	0.8284	Environ
phil	202	+	0.6751	0.6008	31.52496	0.8100	Phil
profit	202	+	0.5548	0.4827	34.02867	0.8249	Profit
Testscale					27.76482	0.8268	mean(unstandardise ditems)

Table 5.35 above shows the results of the Cronbach Alpha test in the context of the study variables in the Mining industry. Evidence indicates that the overall test scale of the Cronbach Alpha as measured in unstandardised items indicates that the series shows a consistency measurement of 83% and a covariance of 27.76. On overall analysis, these results suggest that the respondents in the present series are reliable enough to produce valid econometrics results that were implemented in the later stages of this section.

The analysis, of tangible resources, gave an observed consistent coefficient of 81 %. The correlation coefficient was 65% and the covariance coefficient was 30.72. The evidence showed that the pre-estimation diagnosis was reliable for econometrics estimations. For the intangible resources variable, the consistent coefficient was 58%;

the correlation coefficient was at 83 % and the covariance coefficient was 25.54. This evidence showed that the responses from the study participants were consistent and reliable.

From Table 5.35 above, regarding the economic social responsibility strategy variable, the consistent coefficient was 78%, the correlation coefficient was 68% and the covariance coefficient was 24.61. In the ethical social responsibility strategy variable, the consistent coefficient was 77%, the correlation coefficient was 73% and the covariance coefficient was 22.93. These results indicated that the pre-estimation diagnosis was reliable for econometrics estimations.

In addition, regarding the environment social responsibility strategy variable, the consistent coefficient was 83% the correlation coefficient was 39% and the covariance coefficient was 32.77 In philanthropic social responsibility strategy variable, the observed consistent coefficient is 81 % the correlation coefficient is 60% and the covariance coefficient is 31.52. Furthermore, in profit variable, the observed consistent coefficient is 82% the correlation coefficient was 48% and the covariance coefficient was 34.02%. Thus, the evidence overall indicates that the pre-estimation diagnosis is reliable for econometrics estimations.

### 5.6.2 Descriptive analysis

In this section, a summary of descriptive statistics is presented in the context of the study variables as explained in Chapter Four. Descriptive statistics was adopted to provide an overview of the standard error of the mean, and the mean and standard deviation in the retail economic sector. In particular, these tests are important for understanding the sample variance and the normality of study variables. Table 5.36 below illustrates the results of the descriptive statistics.

**Table 5.36: Results of Descriptive Statistics**

Stats	Tangible	intang~e	Economi c	ethical	environ	Phil	profit
Mean	41.1	43.33636	41.29091	37.33636	15.24545	16.43636	17.1
SD	11.15689	9.36936	9.394851	10.06336	6.191421	4.899967	3.904714
CV	.2714571	.2162009	.2275283	.2695323	.4061159	.2981174	.2283458
se(mean)	1.063768	.8933334	.8957639	.9595034	.5903288	.4671935	.3722998
Skewnes s p50	-.114089 43.5	-.33125 45	-.30485 42.5	-.273264 39.5	.02596 16	-.2501 18	-.76316 17.5

In Table 5.36 above, descriptive statistics were implemented to indicate whether the data collected and analysed in this series was normally distributed. This is evidenced by the skewness coefficient in all study variables. For instance, in respect of tangible resources the skewness coefficient was  $-.11$ , which indicates that the data distribution is almost normal as it is close to zero. For intangible resources, the skewness coefficient was  $-.033$ , which indicated that the data distribution was almost normal as it is close to zero. For the economic CSR variable, the skewness coefficient was  $-.003$ , which indicated that the data distribution was almost normal as it was close to zero. For the ethical social responsibility strategy variable, the skewness coefficient was  $-.27$  which indicates that the data distribution is almost normal as it is close to zero. For the environmental corporate responsibility strategy, the skewness coefficient was  $-.026$  which indicates that the data distribution is almost normal, as it is close to zero. In philanthropic CSR, the skewness coefficient is  $-.25$  which indicates that the data distribution is almost normal as it is close to zero. In the profit variable, the skewness coefficient was  $-.76$  which indicates that the data distribution was almost normal as it is close to zero.

### **5.6.3 Factor analysis**

Consistent with Hair *et al.* (2015) a factor analysis is an econometric procedure that targets uncovering underlying factors that are responsible for correlation in research study variables. In this series, a factor analysis was conducted to investigate the relationship among variables and to indicate the covariance coefficient between the study variables.

### **5.6.4 Principal components analysis**

In this section, factors were extracted using the maximum principal component developed by Hotelling (1933). Factor analysis explores the linear relationships to determine the best fitting variables in the study. Tables 5.37 below show the principal components analysis.

**Table 5.37: Principal Components Analysis**

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	<b>3.62939</b>	<b>2.56137</b>	<b>0.5185</b>	<b>0.5185</b>
Comp2	<b>1.06801</b>	<b>.338777</b>	<b>0.1526</b>	<b>0.6711</b>
Comp3	<b>.729237</b>	<b>.169277</b>	<b>0.1042</b>	<b>0.7752</b>
Comp4	<b>.55996</b>	<b>.0806227</b>	<b>0.0800</b>	<b>0.8552</b>
Comp5	<b>.479337</b>	<b>.177976</b>	<b>0.0685</b>	<b>0.9237</b>
Comp6	<b>.301361</b>	<b>.0686572</b>	<b>0.0431</b>	<b>0.9668</b>
Comp7	<b>.232704</b>	<b>.</b>	<b>0.0332</b>	<b>1.0000</b>

In Table 5.37 above, the principal component analysis is presented from econometric evidence deduced in the present study. Empirical evidence for the study suggested that only components 1, and 2 recorded a statistically significant coefficient 1.00, and 4.085 respectively, which is more than 1. Components 3, 4, 5, 6 and 7 are below the statistically significant threshold of  $p >$  or equal to 1. Table 5.38 illustrates the results the principal components analysis eigenvectors.

**Table 5.38: Principal Components Analysis Eigenvectors**

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Comp7	Unexplained
tangible	<b>0.3643</b>	<b>-0.5206</b>	<b>0.1281</b>	<b>0.3022</b>	<b>0.3793</b>	<b>-0.4911</b>	<b>0.3215</b>	<b>0</b>
intangible	<b>0.4227</b>	<b>-0.3435</b>	<b>0.0925</b>	<b>-0.0956</b>	<b>0.3374</b>	<b>0.6224</b>	<b>-0.4295</b>	<b>0</b>
economic	<b>0.4051</b>	<b>-0.1843</b>	<b>-0.4284</b>	<b>0.1277</b>	<b>-0.5636</b>	<b>0.3110</b>	<b>0.4333</b>	<b>0</b>
ethical	<b>0.4376</b>	<b>0.1978</b>	<b>-0.3264</b>	<b>0.1534</b>	<b>-0.1997</b>	<b>-0.4449</b>	<b>-0.6336</b>	<b>0</b>
environ	<b>0.2851</b>	<b>0.6860</b>	<b>-0.1217</b>	<b>0.3283</b>	<b>0.4629</b>	<b>0.1911</b>	<b>0.2732</b>	<b>0</b>
phil	<b>0.3845</b>	<b>0.1602</b>	<b>0.0039</b>	<b>-0.8550</b>	<b>0.0860</b>	<b>-0.1996</b>	<b>0.2196</b>	<b>0</b>
profit	<b>0.3223</b>	<b>0.2039</b>	<b>0.8186</b>	<b>0.1444</b>	<b>-0.4037</b>	<b>0.0212</b>	<b>0.0118</b>	<b>0</b>

Table 5.38 above shows the Eigenvectors Principal Analysis, and the discussion is contextualised in the study variables. From the analysis, in component 1, the evidence shows that all variables are statistically significant; meaning that they are above 0.30 or below -0.30. For instance, regarding tangible resources, the evidence suggested that there is a positive linear relationship of 36% which is statistically significant. Similar results were observed in intangible resources. Empirical evidence showed a 42% linear relationship, which is statistically significant. The economic variable showed a statistically significant linear correlation coefficient of 41%. The ethical variable showed evidence that there was a positive linear correlation of 44% which is statistically significant. The philanthropic variable showed positive linear relationship

of 38 %which is statistically significant. The profit variable showed a positive linear relationship of 32%, which is statistically significant.

In component 2 the evidence showed that 3 study variables were statistically significant; meaning that they were above 0.30 or below -0.30. The tangible resources variable showed a negative linear relationship at -52%, which is statistically significant as it is below -.30. The economic variable showed a positive linear relationship of -34 %, which is statistically significant since the correlation coefficient is slightly below -.30. Similar results were observed in the environmental variable, where a 68% positive linear relationship was shown, which is statistically significant as it is more than 0.30.

In component 3, the evidence showed that 3 study variables were statistically significant, meaning that they were above 0.30 or below -0.30. The economic variable showed a negative linear relationship of -43%, which is statistically significant since the correlation coefficient is slightly below -.30. Regarding the ethical responsibility variable, the evidence showed an inverse -33% linear relationship that is statistically significant evidence of an 82% linear relationship, which is statistically significant.

In component 4, the evidence showed that 3 study variables were statistically significant. Tangible resources, showed a positive linear relationship of 30% which is statistically significant. Similar results were observed for the environmental variable, where the evidence showed that as evidence showed that 33% of the environment was linear related to component 4. Furthermore, the philanthropic variable, showed an inverse linear relationship at -86 loading in component 4.

In component 5.3 variables were shown to be statistically significant meaning that they were above 0.30 or below -0.30. The tangible resources variable indicated a positive linear relationship of 38%. The intangible resources variable showed a positive linear relationship of 34%. The economic variable showed a negative linear relationship of -56%. The environment variable showed a positive linear relationship of 46% loading; and the profit variable showed a negative linear relationship of a -40 loading.

In component 6, the evidence showed that 4 of the study variables are statistically significant. For instance, in tangible resources, -49% of loadings were linear related. In intangible resources, 62% of the loadings were linear related. In the economic variable, 31% of the loadings were linear related to component 6.

In component 7, the evidence suggested that 4 study variables were statistically significant. In the tangible resources variable, 32% were positive and linear and related to component 7. In the economic variable, the evidence indicated that 43% were positive and linear related to component 7. However, in intangible resources, the evidence suggested that there was an inverse linear relationship loading at -43% in component 7. The evidence on the ethical variable, showed an inverse linear relationship at 63% loading in component 7.

### 5.6.5 Factor analysis

In this section, a factor analysis was presented and analysed. Table 5.39 below illustrates the results of the factor analysis as deduced from the cross-section survey data analysis in the mining industry.

**Table 5.39: Factor Analysis**

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	<b>3.13688</b>	<b>2.61278</b>	<b>0.9435</b>	<b>0.9435</b>
Factor2	<b>0.52410</b>	<b>0.37616</b>	<b>0.1576</b>	<b>1.1011</b>
Factor3	<b>0.14794</b>	<b>0.15997</b>	<b>0.0445</b>	<b>1.1456</b>
Factor4	<b>-0.01203</b>	<b>0.09350</b>	<b>-0.0036</b>	<b>1.1420</b>
Factor5	<b>-0.10553</b>	<b>0.04593</b>	<b>-0.0317</b>	<b>1.1103</b>
Factor6	<b>-0.15146</b>	<b>0.06372</b>	<b>-0.0456</b>	<b>1.0647</b>
Factor7	<b>-0.21517</b>	.	<b>-0.0647</b>	<b>1.0000</b>

In Table 5.39 above, the factor analysis is presented in the context of the results obtained for the mining economic sector. In this series, the evidence suggests that only one factor is above the value of 1 and it should be returned in the loading estimation. In contrast, the rest of the factors 2, 3, 4, 5, 6, and 7 are not statistically significant as they are below the value of 1 and they will not be returned for loading. Table 5.40 below illustrates the results of the factor analysis eigenvectors in the mining industry.

**Table 5.40: Factor Analysis Eigenvectors**

Variable	Factor1	Factor2	Factor3	Uniqueness
tangible	<b>0.6795</b>	<b>-0.1816</b>	<b>-0.0479</b>	<b>0.5031</b>
intangible	<b>0.8526</b>	<b>-0.0775</b>	<b>-0.0490</b>	<b>0.2647</b>
economic	<b>0.6887</b>	<b>-0.2957</b>	<b>0.0236</b>	<b>0.4377</b>
ethical	<b>0.8464</b>	<b>-0.1876</b>	<b>0.0598</b>	<b>0.2448</b>
environ	<b>0.7268</b>	<b>0.1698</b>	<b>0.0074</b>	<b>0.4429</b>
phil	<b>0.6349</b>	<b>0.3478</b>	<b>-0.0302</b>	<b>0.4750</b>
profit	<b>0.5445</b>	<b>0.3814</b>	<b>0.0392</b>	<b>0.5565</b>

In Table 5.40 above the factor analysis is presented and the discussion is contextualised in the study variables. For factor 1, the evidence suggests that all study variables load very high and hence are statistically significant. For instance, tangible assets load at 68 %, intangible resources loads at 85%, economic at 69 %, ethical at 0.85, environment at 0.73, philanthropic 63% and profit is loading at 0.54. Nonetheless, in factors 2 and 3, evidence suggests that there are statistically significant factor loadings.

### **5.6.6 Results of the structural equation model**

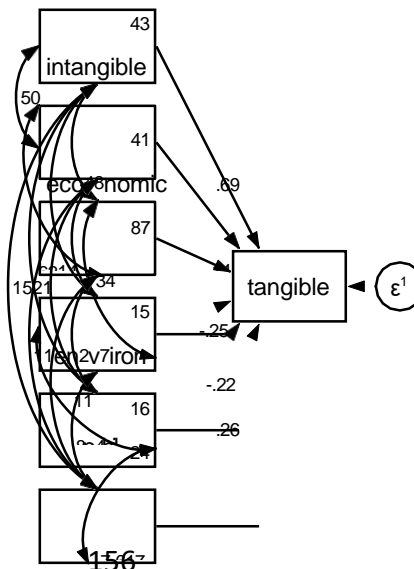
In this section, the study presents results of the SEM. As described in the research methodology chapter, the SEM is a series of linear equations in which all variables are treated as both dependent and explanatory variables.

#### **5.6.6.1 Dependent variable tangible resources**

In this series, tangible resources are treated as a dependent variable that depends on changes from explanatory variables intangible resources, economic, ethical, environment, philanthropic and profit.

**Table 5.41: Dependent Variable Tangible Resources**

	Coefficient	OIM std.err.	Z	P> z	[95percentc onf.	interval]
<b>Structural</b>						
Tangible						
intangible	.6871722	.1080526	6.36	0.000	.4753929	.8989514
economic	.1351911	.1160259	1.17	0.244	-.0922155	.3625978
ethical	.1840924	.1218883	1.51	0.131	-.0548043	.4229892
environ	-.2519841	.1492723	-1.69	0.091	-.5445525	.0405842
Phil	-.2214045	.1994745	-1.11	0.267	-.6123672	.1695583
profit	.2587823	.2226094	1.16	0.245	-.1775241	.6950887
_cons	1.92047	4.341682	0.44	0.658	-6.589071	10.43001
mean(intangible)	43.33636	.8892635	48.73	0.000	41.59344	45.07929
mean(economic)	41.29091	.8916829	46.31	0.000	39.54324	43.03858
mean(ethical)	37.33636	.9551321	39.09	0.000	35.46434	39.20839
mean(envIRON)	15.24545	.5876394	25.94	0.000	14.0937	16.39721
mean(phil)	16.43636	.465065	35.34	0.000	15.52485	17.34787
mean(profit)	17.1	.3706037	46.14	0.000	16.37363	17.82637
var(e.tangible)	61.03634	8.230139			46.8611	79.49952
var(intangible)	86.98686	11.72931			66.7848	113.2999
var(economic)	87.46083	11.79322			67.1487	113.9173
var(ethical)	100.3505	13.53126			77.04484	130.706
var(envIRON)	37.98521	5.121924			29.16342	49.47553
var(phil)	23.7914	3.208032			18.26603	30.98818
var(profit)	15.10818	2.037187			11.59942	19.67833
cov(intangible,economic)	50.3476	9.602473	5.24	0.000	31.5271	69.1681
cov(intangible,ethical)	48.22322	10.02481	4.81	0.000	28.57495	67.87149
cov(intangible,envIRON)	13.99017	5.640711	2.48	0.013	2.934574	25.04576
cov(intangible,phil)	24.1805	4.91217	4.92	0.000	14.55282	33.80817
cov(intangible,profit)	14.66636	3.728655	3.93	0.000	7.358334	21.97439
cov(economic,ethical)	62.38397	10.73164	5.81	0.000	41.35033	83.4176
cov(economic,envIRON)	15.33769	5.686877	2.70	0.007	4.191613	26.48376
cov(economic,phil)	20.60033	4.772258	4.32	0.000	11.24688	29.95379
cov(economic,profit)	10.92545	3.619065	3.02	0.003	3.832217	18.01869
cov(ethical,envIRON)	33.63562	6.703587	5.02	0.000	20.49683	46.77441
cov(ethical,phil)	27.1805	5.331091	5.10	0.000	16.73175	37.62924
cov(ethical,profit)	15.83	4.007609	3.95	0.000	7.97523	23.68477
cov(envIRON,phil)	11.40198	3.065537	3.72	0.000	5.393642	17.41032
cov(envIRON,profit)	8.366364	2.419398	3.46	0.001	3.624431	13.1083
cov(phil,profit)	7.592727	1.947246	3.90	0.000	3.776195	11.40926



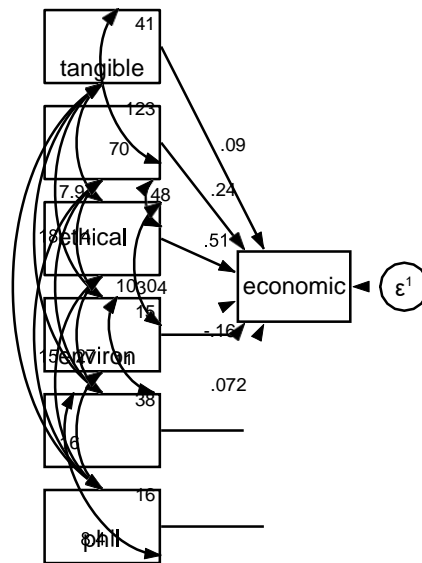
In this series the evidence suggests that 1 explanatory variable can have a positive and statistically significant relationship with dependent variable tangible resources. In this instance, in respect of the relationship between tangible and intangible resources, the evidence suggests that 69% of changes in intangible resources positively influence tangible resources at a 100% confidence interval.

#### **5.5.6.2 Dependent variable economic social responsibility strategy**

In this section, the results of the SEM in the mining industry are presented analysed and discussed. The economic social responsibility strategy deals with variables that are treated as dependent variables that depend on changes in the explanatory variables such as tangible resources, economic, ethical, environment, philanthropic and profit. Table 5.42 below illustrates the results from the dependent economic variable.

**Table 5.42: Results Dependent Variable Economic Variable**

		Coefficient	OIM std.err.	Z	P> z	[95percen tconf.	interval]
<b>Structural</b>							
Economic							
	tangible	.0901817	.0773971	1.17	0.244	-.061514	.2418773
	intangible	.2445148	.1005401	2.43	0.015	.0474598	.4415698
	ethical	.5051792	.0882946	5.72	0.000	.332125	.6782334
	environ	-.1563406	.1225831	-1.28	0.202	-.396599	.0839178
	phil	.0715821	.1636868	0.44	0.662	-.249238	.3924023
	profit	-.080018	.1827687	-0.44	0.662	-.4382381	.2782021
	_cons	10.70175	3.399349	3.15	0.002	4.039148	17.36435
mean(tangible)		41.1	1.058921	38.81	0.000	39.02455	43.17545
mean(intangible)		43.33636	.8892635	48.73	0.000	41.59344	45.07929
mean(ethical)		37.33636	.9551321	39.09	0.000	35.46434	39.20839
mean(environ)		15.24545	.5876394	25.94	0.000	14.0937	16.39721
mean(phil)		16.43636	.465065	35.34	0.000	15.52485	17.34787
mean(profit)		17.1	.3706037	46.14	0.000	16.37363	17.82637
var(e.economic)		40.71538	5.49006			31.25953	53.03157
var(tangible)		123.3445	16.63178			94.69869	160.6556
var(intangible)		86.98686	11.72931			66.7848	113.2999
var(ethical)		100.3505	13.53126			77.04484	130.706
var(environ)		37.98521	5.121924			29.16342	49.47553
var(phil)		23.7914	3.208032			18.26603	30.98818
var(profit)		15.10818	2.037187			11.59942	19.67833
cov(tangible,intangible)		70.37545	11.94002	5.89	0.000	46.97344	93.77747
cov(tangible,ethical)		49.64818	11.61607	4.27	0.000	26.88111	72.41525
cov(tangible,environ)		7.948182	6.570209	1.21	0.226	-4.929192	20.82556
cov(tangible,phil)		18.22909	5.449637	3.35	0.001	7.547999	28.91018
cov(tangible,profit)		14.59	4.344673	3.36	0.001	6.074598	23.1054
cov(intangible,ethical)		48.22322	10.02481	4.81	0.000	28.57495	67.87149
cov(intangible,environ)		13.99017	5.640711	2.48	0.013	2.934574	25.04576
cov(intangible,phil)		24.1805	4.91217	4.92	0.000	14.55 282	33.80817
cov(intangible,profit)		14.66636	3.728655	3.93	0.000	7.358 334	21.97439
cov(ethical,environ)		33.63562	6.703587	5.02	0.000	20.49 683	46.77441
cov(ethical,phil)		27.1805	5.331091	5.10	0.000	16.73 175	37.62924
cov(ethical,profit)		15.83	4.007609	3.95	0.000	7.975 23	23.68477
cov(environ,phil)		11.40198	3.065537	3.72	0.000	5.393 642	17.41032
cov(environ,profit)		8.366364	2.419398	3.46	0.001	3.624 431	13.1083
cov(phil,profit)		7.592727	1.947246	3.90	0.000	3.776 195	11.40926



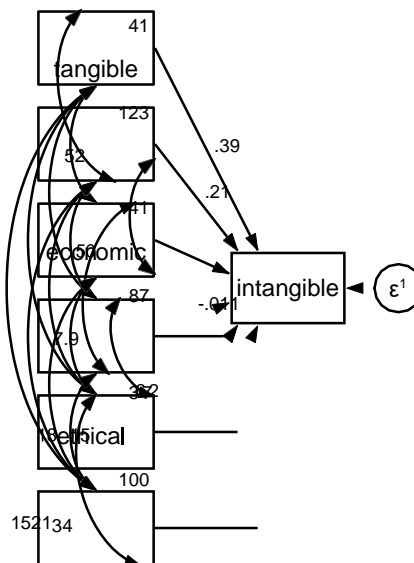
Evidence in this series suggests that 2 study variables record a positive and statistically significant relationship with the dependent variable economic social responsibility strategy, for instance, in the relationship between economic social responsibility strategy variable and the ethical CSR variable. The evidence suggests that 51% of changes in ethical strategy positively influence changes in economic social responsibility variables at a 100% confidence level. Furthermore, evidence suggests that 24% changes in intangible resources influence changes in dependent variable at 92% confidence level.

### 5.5.6.3 Dependent variable intangible resources

In this series, intangible resources are treated as a dependent variable that reacts to changes from the explanatory variables, tangible resources, intangible, ethical, environment, philanthropic and profit. Table 5.43 below shows the results of the dependent variable intangible resources investigation.

**Table 5.43: Results of Dependent Variable Intangible Resources**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structural</b>							
intangible							
	tangible	.3912176	.061516	6.36	0.000	.2706484	.5117867
	econom ic	.2086834	.0858069	2.43	0.015	.040505	.3768619
	ethical	-.0110425	.0929111	-0.12	0.905	-.1931449	.17106
	environ	.025851	.1140533	0.23	0.821	-.1976894	.2493915
	phil	.4715693	.1445171	3.26	0.001	.188321	.7548175
	profit	.2023118	.1678895	1.21	0.228	-.1267456	.5313692
	_cons	7.448351	3.201008	2.33	0.020	1.17449	13.72221
mean(tangible)		41.1	1.058921	38.81	0.000	39.02455	43.17545
mean(economic)		41.29091	.8916829	46.31	0.000	39.54324	43.03858
mean(ethical)		37.33636	.9551321	39.09	0.000	35.46434	39.20839
mean(environ)		15.24545	.5876394	25.94	0.000	14.0937	16.39721
mean(phil)		16.43636	.465065	35.34	0.000	15.52485	17.34787
mean(profit)		17.1	.3706037	46.14	0.000	16.37363	17.82637
var(e.intangible)		34.74892	4.685543			26.67874	45.26029
var(tangible)		123.3445	16.63178			94.69869	160.6556
var(economic)		87.46083	11.79322			67.1487	113.9173
var(ethical)		100.3505	13.53126			77.04484	130.706
var(environ)		37.98521	5.121924			29.16342	49.47553
var(phil)		23.7914	3.208032			18.26603	30.98818
var(profit)		15.10818	2.037187			11.59942	19.67833



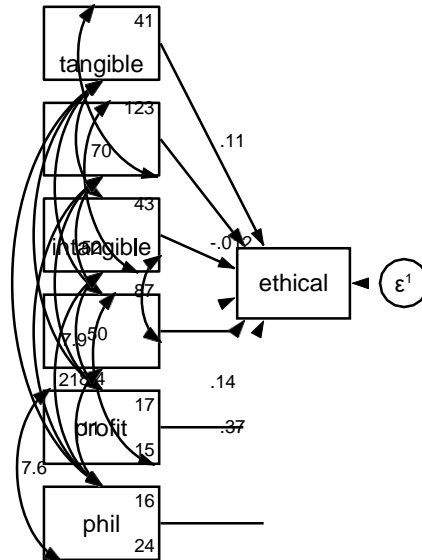
In this series, the evidence shows that 39% changes in tangible resources influence changes in intangible at a confidence interval of 100%. In the economic variable, 21% changes in economic variables produced changes in the dependent variable intangible resources at the 98% confidence interval. In the philanthropic variable, results show that 47% changes in philanthropic variable produced changes in intangible resources at the 100% confidence interval.

#### **5.5.6.4 The ethical social responsibility strategy dependent variable**

The ethical social responsibility strategy variable is treated as a dependent variable that reacts to changes in the explanatory variable's tangible, intangible, ethical, environment, philanthropic and profit sources. Table 5.44 below shows results of the ethical dependent variable.

**Table 5.44: Results of Dependent Variable Ethical**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structural</b>							
ethical							
	tangible	.1103583	.0730686	1.51	0.131	-.0328537	.2535702
	intangible	-.0116274	.0978326	-0.12	0.905	-.2033759	.1801211
	economic	.453988	.0793475	5.72	0.000	.2984698	.6095062
	environ	.5410887	.1050809	5.15	0.000	.3351339	.7470435
	profit	.1367747	.172921	0.79	0.429	-.2021443	.4756938
	phil	.3736492	.1511653	2.47	0.013	.0773706	.6699278
	_cons	-2.170476	3.35819	-0.65	0.518	-8.752408	4.411457
	mean(tangible)	41.1	1.058921	38.81	0.000	39.02455	43.17545
	mean(intangible)	43.33636	.8892635	48.73	0.000	41.59344	45.07929
	mean(economic)	41.29091	.8916829	46.31	0.000	39.54324	43.03858
	mean(environ)	15.24545	.5876394	25.94	0.000	14.0937	16.39721
	mean(profit)	17.1	.3706037	46.14	0.000	16.37363	17.82637
	mean(phil)	16.43636	.465065	35.34	0.000	15.52485	17.34787
	var(e.ethical)	36.58958	4.933738			28.09192	47.65773
	var(tangible)	123.3445	16.63178			94.69869	160.6556
	var(intangible)	86.98686	11.72931			66.7848	113.2999
	var(economic)	87.46083	11.79322			67.1487	113.9173
	var(environ)	37.98521	5.121924			29.16342	49.47553
	var(profit)	15.10818	2.037187			11.59942	19.67833
	var(phil)	23.7914	3.208032			18.26603	30.98818
	cov(tangible,intangible)	70.37545	11.94002	5.89	0.000	46.97344	93.77747
	cov(tangible,economic)	52.30727	11.08802	4.72	0.000	30.57515	74.0394
	cov(tangible,environ)	7.948182	6.570209	1.21	0.226	-4.929192	20.82556
	cov(tangible,profit)	14.59	4.344673	3.36	0.001	6.074598	23.1054
	cov(tangible,phil)	18.22909	5.449637	3.35	0.001	7.547999	28.91018
	cov(intangible,economic)	50.3476	9.602473	5.24	0.000	31.5271	69.1681
	cov(intangible,environ)	13.99017	5.640711	2.48	0.013	2.934574	25.04576
	cov(intangible,profit)	14.66636	3.728655	3.93	0.000	7.358334	21.97439
	cov(intangible,phil)	24.1805	4.91217	4.92	0.000	14.55282	33.80817
	cov(economic,environ)	15.33769	5.686877	2.70	0.007	4.191613	26.48376
	cov(economic,profit)	10.92545	3.619065	3.02	0.003	3.832217	18.01869
	cov(economic,phil)	20.60033	4.772258	4.32	0.000	11.24688	29.95379
	cov(environ,profit)	8.366364	2.419398	3.46	0.001	3.624431	13.1083



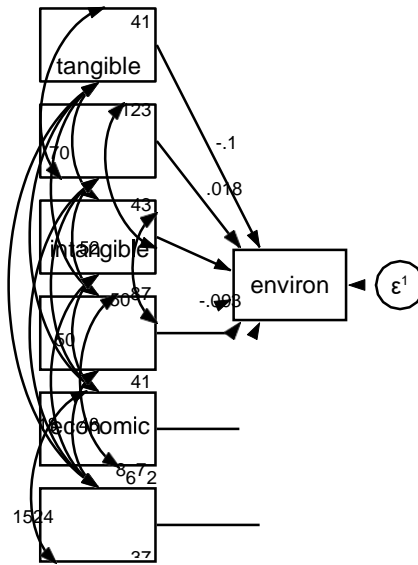
The results show that 3 study variables have a positive and statistically significant relationship with the dependent variable ethical corporate responsibility strategy. 45% changes in the economic variable positively influences the dependent variable at the 100% confidence interval. The results show that the 45% change in the relationship between the environmental variable and the dependent variable ethical social responsibility shows that 54% changes in the environmental influence the dependent variable at 100% confidence interval. As we proceed, in the relationship between dependent variable ethical responsibility and philanthropic variable, the evidence suggests that 37% changes in the philanthropic variable positively influenced changes in the dependent variable at the 100% confidence level.

### 5.5.6.5 Dependent variable environment social responsibility strategy

In this series, the environmental social responsibility variable is treated as a dependent variable that reacts to changes in the tangible resources, intangible, ethical, philanthropic and profit variables. Table 5.45 below shows results of dependent variable environment.

**Table 5.45: Results of Dependent Variable Environment**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structur al</b>							
environ							
	tangible	<b>.0510781</b>	<b>.0652414</b>	<b>0.78</b>	<b>0.434</b>	<b>-.0767927</b>	<b>.1789489</b>
	intangible	<b>.1337243</b>	<b>.0757456</b>	<b>1.77</b>	<b>0.077</b>	<b>-.0147343</b>	<b>.282183</b>
	economic	<b>-.0245805</b>	<b>.0653316</b>	<b>-0.38</b>	<b>0.707</b>	<b>-.1526281</b>	<b>.1034672</b>
	ethical	<b>.1815293</b>	<b>.0821364</b>	<b>2.21</b>	<b>0.027</b>	<b>.020545</b>	<b>.3425136</b>
	phil	<b>.192151</b>	<b>.0951097</b>	<b>2.02</b>	<b>0.043</b>	<b>.0057393</b>	<b>.3785626</b>
	profit	<b>.1704153</b>	<b>.0929818</b>	<b>1.83</b>	<b>0.067</b>	<b>-.0118256</b>	<b>.3526562</b>
	_cons	<b>-5.16425</b>	<b>2.39119</b>	<b>-2.16</b>	<b>0.031</b>	<b>-9.850896</b>	<b>-.4776035</b>
	mean(tangibl e)	<b>43.0101</b>	<b>.8478226</b>	<b>50.73</b>	<b>0.000</b>	<b>41.3484</b>	<b>44.6718</b>
	mean(intangibl e)	<b>42.22222</b>	<b>.9376606</b>	<b>45.03</b>	<b>0.000</b>	<b>40.38444</b>	<b>44.06</b>
	mean(econo mic)	<b>41.0101</b>	<b>.9004635</b>	<b>45.54</b>	<b>0.000</b>	<b>39.24522</b>	<b>42.77498</b>
	mean(ethical )	<b>36.92929</b>	<b>.8809624</b>	<b>41.92</b>	<b>0.000</b>	<b>35.20264</b>	<b>38.65595</b>
	mean(phil )	<b>15.79798</b>	<b>.5731787</b>	<b>27.56</b>	<b>0.000</b>	<b>14.67457</b>	<b>16.92139</b>
	mean(profit )	<b>15.90909</b>	<b>.5488281</b>	<b>28.99</b>	<b>0.000</b>	<b>14.83341</b>	<b>16.98477</b>
	var(e.environ)	<b>16.56729</b>	<b>2.354772</b>			<b>12.53912</b>	<b>21.88951</b>
	var(tangible)	<b>71.16151</b>	<b>10.11446</b>			<b>53.85929</b>	<b>94.02205</b>
	var(intangible)	<b>87.04153</b>	<b>12.37154</b>			<b>65.87824</b>	<b>115.0035</b>
	var(economi c)	<b>80.27263</b>	<b>11.40945</b>			<b>60.75513</b>	<b>106.0601</b>
	var(ethical)	<b>76.83338</b>	<b>10.92062</b>			<b>58.15211</b>	<b>101.516</b>
	var(phil)	<b>32.52484</b>	<b>4.62288</b>			<b>24.61675</b>	<b>42.9734</b>
	var(profit)	<b>29.82002</b>	<b>4.238433</b>			<b>22.56958</b>	<b>39.39966</b>
	cov(tangible,intangible)	<b>49.37149</b>	<b>9.337419</b>	<b>5.29</b>	<b>0.000</b>	<b>31.07049</b>	<b>67.6725</b>
	cov(tangible,economic)	<b>39.79788</b>	<b>8.584807</b>	<b>4.64</b>	<b>0.000</b>	<b>22.97196</b>	<b>56.62379</b>
	cov(tangible,ethical)	<b>44.8189</b>	<b>8.690128</b>	<b>5.16</b>	<b>0.000</b>	<b>27.78656</b>	<b>61.85123</b>
	cov(tangible,phil)	<b>17.96164</b>	<b>5.161177</b>	<b>3.48</b>	<b>0.001</b>	<b>7.845915</b>	<b>28.07736</b>
	cov(tangible,profit)	<b>12.86961</b>	<b>4.807049</b>	<b>2.68</b>	<b>0.007</b>	<b>3.447962</b>	<b>22.29125</b>
	cov(intangible,economi c)	<b>51.20988</b>	<b>9.852192</b>	<b>5.20</b>	<b>0.000</b>	<b>31.89993</b>	<b>70.51982</b>
	cov(intangible,ethical)	<b>60.94501</b>	<b>10.25039</b>	<b>5.95</b>	<b>0.000</b>	<b>40.8546</b>	<b>81.03541</b>
	cov(intangible,phil)	<b>29.52974</b>	<b>6.115899</b>	<b>4.83</b>	<b>0.000</b>	<b>17.5428</b>	<b>41.51668</b>
	cov(intangible,profit)	<b>20.56566</b>	<b>5.52179</b>	<b>3.72</b>	<b>0.000</b>	<b>9.743147</b>	<b>31.38817</b>
	cov(economic,ethical)	<b>54.04112</b>	<b>9.581158</b>	<b>5.64</b>	<b>0.000</b>	<b>35.26239</b>	<b>72.81984</b>
	cov(economic,phil)	<b>17.82022</b>	<b>5.438745</b>	<b>3.28</b>	<b>0.001</b>	<b>7.160478</b>	<b>28.47997</b>
	cov(economic,profit)	<b>12.08173</b>	<b>5.064931</b>	<b>2.39</b>	<b>0.017</b>	<b>2.154644</b>	<b>22.00881</b>
	cov(ethical,phil)	<b>21.16753</b>	<b>5.45603</b>	<b>3.88</b>	<b>0.000</b>	<b>10.47391</b>	<b>31.86116</b>
	cov(ethical,profit)	<b>20.71074</b>	<b>5.24174</b>	<b>3.95</b>	<b>0.000</b>	<b>10.43712</b>	<b>30.98437</b>
	cov(phil,profit)	<b>16.70891</b>	<b>3.552036</b>	<b>4.70</b>	<b>0.000</b>	<b>9.747045</b>	<b>23.67077</b>



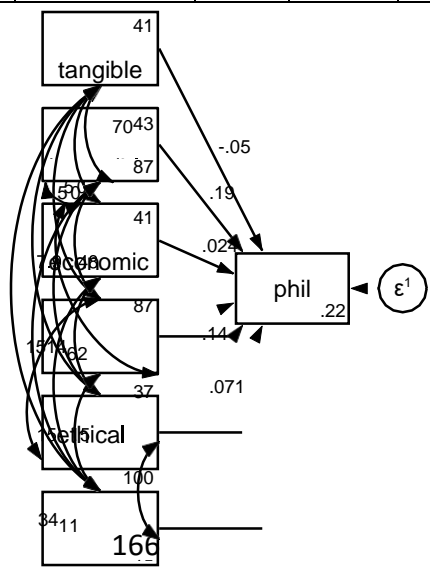
The table above shows that 2 variables have a positive and statistically significant relationship with the dependent variable environment CSR strategy. For instance, in the relationship between the environmental and the ethical variable, the table shows that a 36% change in the ethical variable positively affects the environmental variable at the 0.00 probability level. Similar results are recorded in the relationship between the environmental dependent variable and the profit variable(explanatory variable) where the evidence shows that a 26% change in the profit variable causes changes in the dependent variable at the 96% confidence interval.

#### 5.5.6.6 Dependent variable philanthropic social responsibility strategy

In this series, the philanthropic social responsibility strategy variable is treated as a dependent variable that reacts to changes in the explanatory variables tangible resources, intangible, environment, ethical, economic and profit. Table 5.46 below shows the results of the dependent variable philanthropy.

**Table 5.46: Results of Dependent Variable Philanthropic**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structural</b>							
Phil							
	tangible	<b>-.0500244</b>	<b>.0450695</b>	<b>-1.11</b>	<b>0.267</b>	<b>-.1383591</b>	<b>.0383102</b>
	intangible	<b>.1871494</b>	<b>.0573538</b>	<b>3.26</b>	<b>0.001</b>	<b>.0747381</b>	<b>.2995608</b>
	economic	<b>.0242455</b>	<b>.0554421</b>	<b>0.44</b>	<b>0.662</b>	<b>-.084419</b>	<b>.1329099</b>
	ethical	<b>.1408286</b>	<b>.0569743</b>	<b>2.47</b>	<b>0.013</b>	<b>.029161</b>	<b>.2524962</b>
	environ	<b>.0709109</b>	<b>.0715485</b>	<b>0.99</b>	<b>0.322</b>	<b>-.0693215</b>	<b>.2111434</b>
	profit	<b>.1648316</b>	<b>.1052952</b>	<b>1.57</b>	<b>0.117</b>	<b>-.0415431</b>	<b>.3712063</b>
	_cons	<b>.2231563</b>	<b>2.06547</b>	<b>0.11</b>	<b>0.914</b>	<b>-3.82509</b>	<b>4.271402</b>
	mean(tangible)	<b>41.1</b>	<b>1.058921</b>	<b>38.81</b>	<b>0.000</b>	<b>39.02455</b>	<b>43.17545</b>
	mean(intangible)	<b>43.33636</b>	<b>.8892635</b>	<b>48.73</b>	<b>0.000</b>	<b>41.59344</b>	<b>45.07929</b>
	mean(economic)	<b>41.29091</b>	<b>.8916829</b>	<b>46.31</b>	<b>0.000</b>	<b>39.54324</b>	<b>43.03858</b>
	mean(ethical)	<b>37.33636</b>	<b>.9551321</b>	<b>39.09</b>	<b>0.000</b>	<b>35.46434</b>	<b>39.20839</b>
	mean(environ)	<b>15.24545</b>	<b>.5876394</b>	<b>25.94</b>	<b>0.000</b>	<b>14.0937</b>	<b>16.39721</b>
	mean(profit)	<b>17.1</b>	<b>.3706037</b>	<b>46.14</b>	<b>0.000</b>	<b>16.37363</b>	<b>17.82637</b>
	var(e.phil)	<b>13.79064</b>	<b>1.859529</b>			<b>10.58786</b>	<b>17.96223</b>
	var(tangible)	<b>123.3445</b>	<b>16.63178</b>			<b>94.69869</b>	<b>160.6556</b>
	var(intangible)	<b>86.98686</b>	<b>11.72931</b>			<b>66.7848</b>	<b>113.2999</b>
	var(economic)	<b>87.46083</b>	<b>11.79322</b>			<b>67.1487</b>	<b>113.9173</b>
	var(ethical)	<b>100.3505</b>	<b>13.53126</b>			<b>77.04484</b>	<b>130.706</b>
	var(environ)	<b>37.98521</b>	<b>5.121924</b>			<b>29.16342</b>	<b>49.47553</b>
	var(profit)	<b>15.10818</b>	<b>2.037187</b>			<b>11.59942</b>	<b>19.67833</b>
	cov(tangible,intangible)	<b>70.37545</b>	<b>11.94002</b>	<b>5.89</b>	<b>0.000</b>	<b>46.97344</b>	<b>93.77747</b>
	cov(tangible,economic)	<b>52.30727</b>	<b>11.08802</b>	<b>4.72</b>	<b>0.000</b>	<b>30.57515</b>	<b>74.0394</b>
	cov(tangible,ethical)	<b>49.64818</b>	<b>11.61607</b>	<b>4.27</b>	<b>0.000</b>	<b>26.88111</b>	<b>72.41525</b>
	cov(tangible,environ)	<b>7.948182</b>	<b>6.570209</b>	<b>1.21</b>	<b>0.226</b>	<b>-4.929192</b>	<b>20.82556</b>
	cov(tangible,profit)	<b>14.59</b>	<b>4.344673</b>	<b>3.36</b>	<b>0.001</b>	<b>6.074598</b>	<b>23.1054</b>
	cov(intangible,economic)	<b>50.3476</b>	<b>9.602473</b>	<b>5.24</b>	<b>0.000</b>	<b>31.5271</b>	<b>69.1681</b>
	cov(intangible,ethical)	<b>48.22322</b>	<b>10.02481</b>	<b>4.81</b>	<b>0.000</b>	<b>28.57495</b>	<b>67.87149</b>
	cov(intangible,environ)	<b>13.99017</b>	<b>5.640711</b>	<b>2.48</b>	<b>0.013</b>	<b>2.934574</b>	<b>25.04576</b>
	cov(intangible,profit)	<b>14.66636</b>	<b>3.728655</b>	<b>3.93</b>	<b>0.000</b>	<b>7.358334</b>	<b>21.97439</b>
	cov(economic,ethical)	<b>62.38397</b>	<b>10.73164</b>	<b>5.81</b>	<b>0.000</b>	<b>41.35033</b>	<b>83.4176</b>
	cov(economic,environ)	<b>15.33769</b>	<b>5.686877</b>	<b>2.70</b>	<b>0.007</b>	<b>4.191613</b>	<b>26.48376</b>
	cov(economic,profit)	<b>10.92545</b>	<b>3.619065</b>	<b>3.02</b>	<b>0.003</b>	<b>3.832217</b>	<b>18.01869</b>
	cov(ethical,environ)	<b>33.63562</b>	<b>6.703587</b>	<b>5.02</b>	<b>0.000</b>	<b>20.49683</b>	<b>46.77441</b>
	cov(ethical,profit)	<b>15.83</b>	<b>4.007609</b>	<b>3.95</b>	<b>0.000</b>	<b>7.97523</b>	<b>23.68477</b>
	cov(environ,profit)	<b>8.366364</b>	<b>2.419398</b>	<b>3.46</b>	<b>0.001</b>	<b>3.624431</b>	<b>13.1083</b>



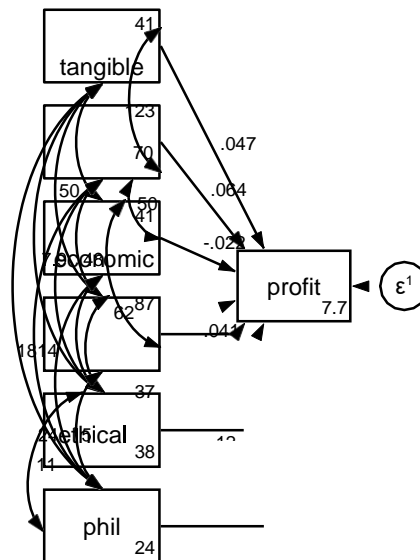
The table above, shows that 2 explanatory variables have a positive and statistically significant relationship with the dependent variable philanthropic CSR strategy. In the relationship between the philanthropic variable and the intangible resources variable, the results show that a 19% change in the intangible resources variable positively causes changes in the environment variable at a 0.00 probability value. The relationship between the philanthropic dependent variable and the ethical explanatory variable the results show that a 14% change in the ethical variable positively changes the philanthropic variable at a 0.01% probability level. In this series, the econometric evidence shows that a 3% change in the economic variable changes the dependent variable at a 100% confidence level.

#### **5.5.6.7 Dependent variable profit**

In this series, profit is treated as a dependent variable that reacts to changes in the explanatory variables tangible, intangible, environment, ethical, economic, and philanthropic variables. Table 5.47 below shows the results of the profit dependent variable.

**Table 5.47: Results of the Dependent Variable Profit**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structural</b>							
profit							
	tangible	.0468977	.0403423	1.16	0.245	-.0321718	.1259672
	intangible	.0644	.0534427	1.21	0.228	-.0403457	.1691457
	economic	-.0217388	.0496534	-0.44	0.662	-.1190577	.0755802
	ethical	.041348	.0522753	0.79	0.429	-.0611097	.1438057
	environ	.1192005	.0633524	1.88	0.060	-.004968	.2433689
	phil	.1322093	.0844559	1.57	0.117	-.0333212	.2977398
	_cons	7.745165	1.69613	4.57	0.000	4.420811	11.06952
	mean(tangible)	41.1	1.058921	38.81	0.000	39.02455	43.17545
	mean(intangible)	43.33636	.8892635	48.73	0.000	41.59344	45.07929
	mean(economic)	41.29091	.8916829	46.31	0.000	39.54324	43.03858
	mean(ethical)	37.33636	.9551321	39.09	0.000	35.46434	39.20839
	mean(environ)	15.24545	.5876394	25.94	0.000	14.0937	16.39721
	mean(phil)	16.43636	.465065	35.34	0.000	15.52485	17.34787
	var(e.profit)	11.06129	1.491505			8.49239	14.40728
	var(tangible)	123.3445	16.63178			94.69869	160.6556
	var(intangible)	86.98686	11.72931			66.7848	113.2999
	var(economic)	87.46083	11.79322			67.1487	113.9173
	var(ethical)	100.3505	13.53126			77.04484	130.706
	var(environ)	37.98521	5.121924			29.16342	49.47553
	var(phil)	23.7914	3.208032			18.26603	30.98818
	cov(tangible,intangible)	70.37545	11.94002	5.89	0.000	46.97344	93.77747
	cov(tangible,economic)	52.30727	11.08802	4.72	0.000	30.57515	74.0394
	cov(tangible,ethical)	49.64818	11.61607	4.27	0.000	26.88111	72.41525
	cov(tangible,environ)	7.948182	6.570209	1.21	0.226	-4.929192	20.82556
	cov(tangible,phil)	18.22909	5.449637	3.35	0.001	7.547999	28.91018
	cov(intangible,economic)	50.3476	9.602473	5.24	0.000	31.5271	69.1681
	cov(intangible,ethical)	48.22322	10.02481	4.81	0.000	28.57495	67.87149
	cov(intangible,environ)	13.99017	5.640711	2.48	0.013	2.934574	25.04576
	cov(intangible,phil)	24.1805	4.91217	4.92	0.000	14.55282	33.80817
	cov(economic,ethical)	62.38397	10.73164	5.81	0.000	41.35033	83.4176
	cov(economic,environ)	15.33769	5.686877	2.70	0.007	4.191613	26.48376
	cov(economic,phil)	20.60033	4.772258	4.32	0.000	11.24688	29.95379
	cov(ethical,environ)	33.63562	6.703587	5.02	0.000	20.49683	46.77441
	cov(ethical,phil)	27.1805	5.331091	5.10	0.000	16.73175	37.62924
	cov(environ,phil)	11.40198	3.065537	3.72	0.000	5.393642	17.41032



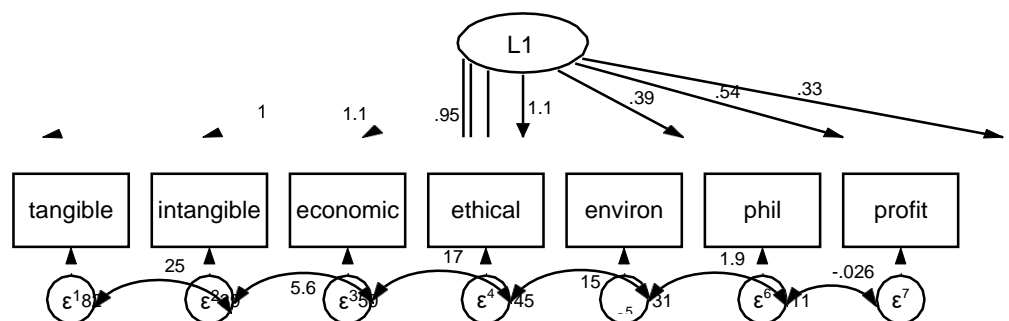
The table above shows that the study variable has a positive and statistically significant relationship with the profit dependent variable. The relationship between the environmental and the ethical corporate responsibility strategy variable shows that a 12% change in the ethical variable positively causes changes in the profit variable at a 0.06 probability level.

### 5.6.7 Results of latent variable

In this section, the results of the latent variable as an explanatory variable are analysed and interpreted in the context of evidence gathered in the mining industry. Table 5.48 below shows the results of the dependent latent variable in the mining industry.

**Table 5.48: Results of the Latent Variable**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Measur ement tangibl e</b>	L1 _con s	<b>1</b>	(constrained)				
		<b>41.1</b>	<b>1.058921</b>	<b>38.81</b>	<b>0.000</b>	<b>39.02455</b>	<b>43.17545</b>
intangible	L1 _con s	<b>1.060747</b>	<b>.1563061</b>	<b>6.79</b>	<b>0.000</b>	<b>.7543923</b>	<b>1.367101</b>
		<b>43.33636</b>	<b>.8851089</b>	<b>48.96</b>	<b>0.000</b>	<b>41.60158</b>	<b>45.07115</b>
economic	L1 _con s	<b>.9513265</b>	<b>.1902346</b>	<b>5.00</b>	<b>0.000</b>	<b>.5784736</b>	<b>1.324179</b>
		<b>41.29091</b>	<b>.8938706</b>	<b>46.19</b>	<b>0.000</b>	<b>39.53895</b>	<b>43.04286</b>
ethical	L1 _con s	<b>1.148744</b>	<b>.2267206</b>	<b>5.07</b>	<b>0.000</b>	<b>.7043794</b>	<b>1.593108</b>
		<b>37.33636</b>	<b>.954973</b>	<b>39.10</b>	<b>0.000</b>	<b>35.46465</b>	<b>39.20808</b>
environ	L1 _con s	<b>.3919253</b>	<b>.1289817</b>	<b>3.04</b>	<b>0.002</b>	<b>.1391258</b>	<b>.6447248</b>
		<b>15.24545</b>	<b>.586125</b>	<b>26.01</b>	<b>0.000</b>	<b>14.09667</b>	<b>16.39424</b>
phil	L1 _con s	<b>.542456</b>	<b>.1225276</b>	<b>4.43</b>	<b>0.000</b>	<b>.3023064</b>	<b>.7826056</b>
		<b>16.43636</b>	<b>.4650747</b>	<b>35.34</b>	<b>0.000</b>	<b>15.52483</b>	<b>17.34789</b>
profit	L1 _con s	<b>.3269303</b>	<b>.0852093</b>	<b>3.84</b>	<b>0.000</b>	<b>.1599231</b>	<b>.4939374</b>
		<b>17.1</b>	<b>.3706037</b>	<b>46.14</b>	<b>0.000</b>	<b>16.37363</b>	<b>17.82637</b>
var(e.tangible)		<b>81.51773</b>	<b>13.8199</b>			<b>58.47171</b>	<b>113.6471</b>
var(e.intangible)		<b>39.11312</b>	<b>7.644055</b>			<b>26.66664</b>	<b>57.36891</b>
var(e.economic)		<b>50.03632</b>	<b>10.03084</b>			<b>33.77878</b>	<b>74.11853</b>
var(e.ethical)		<b>45.12193</b>	<b>8.758785</b>			<b>30.84308</b>	<b>66.01119</b>
var(e.environ)		<b>31.36485</b>	<b>4.530599</b>			<b>23.63136</b>	<b>41.62918</b>
var(e.phil)		<b>11.4845</b>	<b>2.395568</b>			<b>7.630603</b>	<b>17.28485</b>
var(e.profit)		<b>10.63759</b>	<b>1.728401</b>			<b>7.736411</b>	<b>14.62672</b>
var(L1)		<b>41.82681</b>	<b>15.0321</b>			<b>20.6796</b>	<b>84.59942</b>
cov(e.tangible,e.intangible)		<b>24.66794</b>	<b>8.310368</b>	<b>2.97</b>	<b>0.003</b>	<b>8.379915</b>	<b>40.95596</b>
cov(e.intangible,e.economi c)		<b>5.572177</b>	<b>4.782987</b>	<b>1.16</b>	<b>0.244</b>	<b>-3.802306</b>	<b>14.94666</b>
cov(e.economic,e.ethical)		<b>17.19504</b>	<b>7.105644</b>	<b>2.42</b>	<b>0.016</b>	<b>3.268235</b>	<b>31.12185</b>



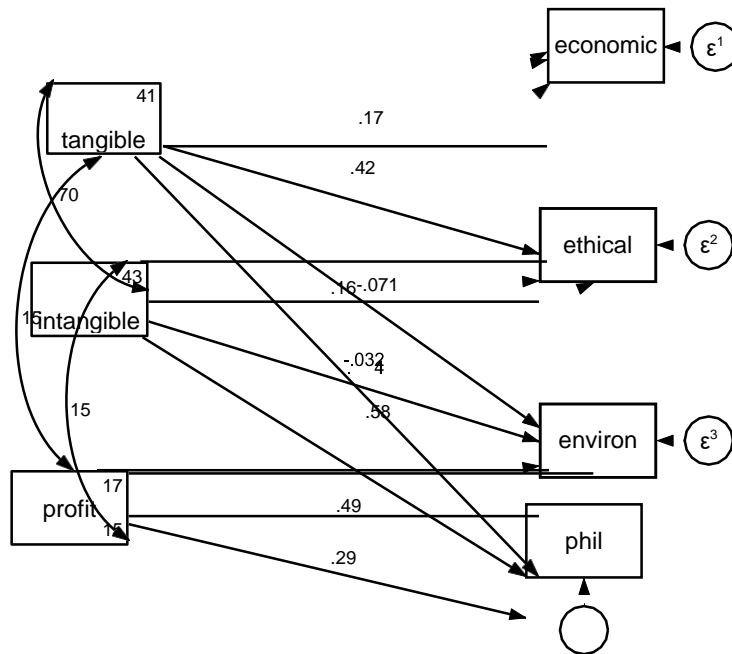
In Table 5.48 above shows that the dependent variables, intangible, ethical, profit, philanthropic, economic and environment are affected by the latent variable that measures decision making in investing in the CSR strategy. In the mining industry analysis, if intangible resources, a 106% change in the latent variable affects investment in intangible resources at the 100% confidence interval. The economic variable causes a 95% change in decision making investment in economic CSR at a 100% confidence level. The ethical variable causes a 115% change in decision making in ethical CSR at the 100% confidence level. The environmental variable causes a 39% change in decision making in environmental CSR. The philanthropic variable causes a 54% change in decision making in CSR. The profit variable causes a 33% change in decision making through its influence on growth imperatives in CSR in SMEs.

#### **5.6.8 Results of the path analysis.**

In this section, the results of the PA in mining industry are presented in the context of empirical evidence. Consistent with the manufacturing and retail analysis, the PA was conducted to uncover econometrics evidence when the CSR strategy variables are treated as dependent variables and when firm level growth variables are treated as explanatory variables. In contrast, the second series treats firm level growth variables as dependent variables, while CSR strategy variables are treated as explanatory variables. Table 5.49 below presents the PA of when CSR strategies are treated as dependent variables.

**Table 5.49: Results of the Path Analysis**

		Coefficient	OIM std.err.	Z	P> z	[95percentconf .	interval]
<b>Structural</b>							
Economic							
	tangible	<b>.1678631</b>	<b>.0879422</b>	<b>1.91</b>	<b>0.056</b>	<b>-.0045005</b>	<b>.3402267</b>
	intangible	<b>.4165768</b>	<b>.1077714</b>	<b>3.87</b>	<b>0.000</b>	<b>.2053488</b>	<b>.6278048</b>
	profit	<b>.1566479</b>	<b>.2016112</b>	<b>0.78</b>	<b>0.437</b>	<b>-.2385028</b>	<b>.5517987</b>
	_cons	<b>13.66013</b>	<b>3.934793</b>	<b>3.47</b>	<b>0.001</b>	<b>5.94808</b>	<b>21.37219</b>
Ethical							
	tangible	<b>.1363363</b>	<b>.096699</b>	<b>1.41</b>	<b>0.159</b>	<b>-.0531901</b>	<b>.3258628</b>
	intangible	<b>.3462901</b>	<b>.1185025</b>	<b>2.92</b>	<b>0.003</b>	<b>.1140294</b>	<b>.5785508</b>
	profit	<b>.5799531</b>	<b>.2216864</b>	<b>2.62</b>	<b>0.009</b>	<b>.1454557</b>	<b>1.01445</b>
	_cons	<b>6.808789</b>	<b>4.326595</b>	<b>1.57</b>	<b>0.116</b>	<b>-1.671181</b>	<b>15.28876</b>
Environ							
	tangible	<b>-.0708846</b>	<b>.0670478</b>	<b>-1.06</b>	<b>0.290</b>	<b>-.2022959</b>	<b>.0605267</b>
	intangible	<b>.1354381</b>	<b>.0821657</b>	<b>1.65</b>	<b>0.099</b>	<b>-.0256037</b>	<b>.2964799</b>
	profit	<b>.4907398</b>	<b>.1537099</b>	<b>3.19</b>	<b>0.001</b>	<b>.1894739</b>	<b>.7920057</b>
	_cons	<b>3.897767</b>	<b>2.999916</b>	<b>1.30</b>	<b>0.194</b>	<b>-1.981959</b>	<b>9.777494</b>
Phil							
	tangible	<b>-.0317809</b>	<b>.0470458</b>	<b>-0.68</b>	<b>0.499</b>	<b>-.123989</b>	<b>.0604271</b>
	intangible	<b>.2556211</b>	<b>.0576536</b>	<b>4.43</b>	<b>0.000</b>	<b>.1426221</b>	<b>.3686201</b>
	profit	<b>.2851024</b>	<b>.1078544</b>	<b>2.64</b>	<b>0.008</b>	<b>.0737116</b>	<b>.4964932</b>
	_cons	<b>1.789619</b>	<b>2.104966</b>	<b>0.85</b>	<b>0.395</b>	<b>-2.336039</b>	<b>5.915277</b>
mean(tangible)		<b>41.1</b>	<b>1.058921</b>	<b>38.81</b>	<b>0.000</b>	<b>39.02455</b>	<b>43.17545</b>
mean(intangible)		<b>43.33636</b>	<b>.8892635</b>	<b>48.73</b>	<b>0.000</b>	<b>41.59344</b>	<b>45.07929</b>
mean(profit)		<b>17.1</b>	<b>.3706037</b>	<b>46.14</b>	<b>0.000</b>	<b>16.37363</b>	<b>17.82637</b>
var(e.economic)		<b>55.99527</b>	<b>7.550401</b>			<b>42.99078</b>	<b>72.93355</b>
var(e.ethical)		<b>67.70176</b>	<b>9.128904</b>			<b>51.97853</b>	<b>88.18119</b>
var(e.environ)		<b>32.5481</b>	<b>4.388785</b>			<b>24.98905</b>	<b>42.39373</b>
var(e.phil)		<b>16.02499</b>	<b>2.16081</b>			<b>12.30331</b>	<b>20.87247</b>
var(tangible)		<b>123.3445</b>	<b>16.63178</b>			<b>94.69869</b>	<b>160.6556</b>
var(intangible)		<b>86.98686</b>	<b>11.72931</b>			<b>66.7848</b>	<b>113.2999</b>
var(profit)		<b>15.10818</b>	<b>2.037187</b>			<b>11.59942</b>	<b>19.67833</b>
cov(tangible,intangible)		<b>70.37545</b>	<b>11.94002</b>	<b>5.89</b>	<b>0.000</b>	<b>46.97344</b>	<b>93.77747</b>
cov(tangible,profit)		<b>14.59</b>	<b>4.344673</b>	<b>3.36</b>	<b>0.001</b>	<b>6.074598</b>	<b>23.1054</b>
cov(intangible,profit)		<b>14.66636</b>	<b>3.728655</b>	<b>3.93</b>	<b>0.000</b>	<b>7.358334</b>	<b>21.97439</b>



In the first series, the economic variable is treated as a dependent variable and profit, tangible and intangible variables are treated as explanatory variables. The evidence indicates that 15% of changes in tangible resources have a causal impact on the economic variable at a 94% confidence level. Furthermore, in the relationship between the economic and the explanatory, intangible, and empirical resources, the evidence showed that 42% of changes in the intangible resources had a causal impact on the economic variable at a 100% confidence level.

In the second series, the environmental variable is treated as a dependent variable while profit, tangible and intangible variables are treated as explanatory. In the relationship between the dependent environmental variable and the explanatory variable intangible resources, the results showed that 14% of changes in intangible resources had a causal impact on the economic variable at a 91% confidence interval. In addition, in the relationship between the dependent environmental variable and the profit explanatory variable, the results showed that 49% of changes in intangible resources had a causal impact on economic variable at the 100% confidence level.

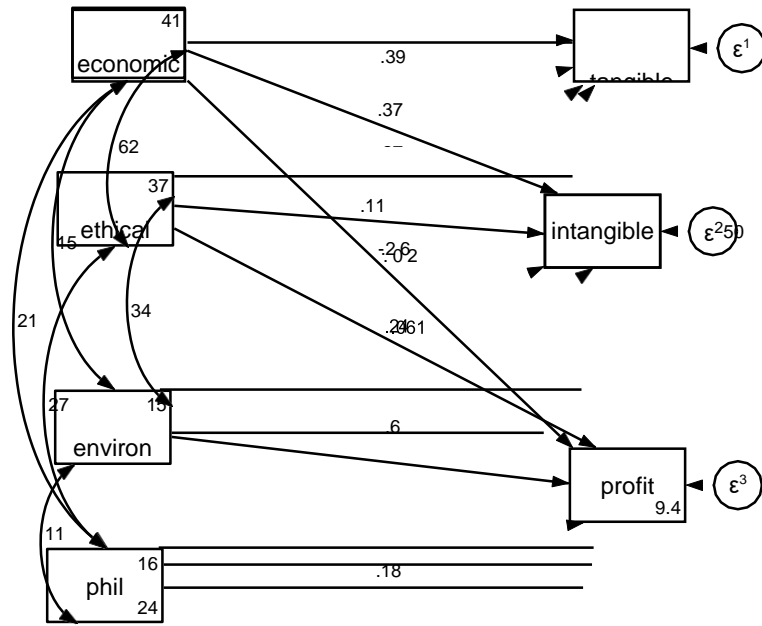
In the third series, the philanthropic variable is treated as a dependent variable and the profit, tangible and intangible variables are treated as explanatory variables. The evidence in this series indicated that 26% of changes in intangible resources had a causal impact on the philanthropic variable at a 100% confidence level. In addition, in

the relationship between the dependent philanthropic and the profit explanatory variable, the results showed that 29% of changes in the profit variable had a causal impact on the economic variable at the 100% confidence level.

In the fourth series, the ethical variable is treated as a dependent variable and profit, tangible and intangible variables were treated as explanatory. The evidence indicated that 35% of changes in intangible resources had a causal impact on the ethical variable at a 100% confidence level. In addition, in the relationship between the dependent ethical variable and the explanatory profit variable, the evidence indicated that 24% of changes in the profit variable had a causal impact on the ethical variable at the 100% confidence level. The PA was performed to show the path dependency of firm's growth imperatives levels and CSR strategies. The firm level growth imperatives such as tangible, intangible and profit variables were treated as dependent variables while the CSR variables were treated as explanatory variables. Table 5.50 below illustrates the PA when firm level growth imperatives are treated as dependent variables.

**Table 5.50: Results of Path Analysis**

		Coefficient	OIM std.err.	Z	P> z	[95percent conf.	interval]
<b>Structural tangible</b>	Economic	.3920295	.1304521	3.01	0.003	.136348	.6477109
	ethical	.2747199	.1441895	1.91	0.057	-.0078862	.5573261
	environ	-.2642104	.1756444	-1.50	0.133	-.6084671	.0800463
	phil	.2395257	.2231914	1.07	0.283	-.1979213	.6769727
	_cons	14.74678	4.331276	3.40	0.001	6.257635	23.23592
intangible	economic	.3661442	.0984745	3.72	0.000	.1731378	.5591507
	ethical	.1088224	.1088444	1.00	0.317	-.1045088	.3221535
	environ	-.0566419	.1325889	-0.43	0.669	-.3165113	.2032275
	phil	.6021413	.1684807	3.57	0.000	.2719252	.9323573
	_cons	15.12142	3.269554	4.62	0.000	8.713213	21.52963
profit	economic	.0202262	.0477986	0.42	0.672	-.0734574	.1139098
	ethical	.0612399	.0528321	1.16	0.246	-.0423092	.1647889
	environ	.1031618	.0643575	1.60	0.109	-.0229765	.2293001
	phil	.1822204	.081779	2.23	0.026	.0219365	.3425044
	_cons	9.410576	1.587013	5.93	0.000	6.300088	12.52106
mean(economic)		41.29091	.8916829	46.31	0.000	39.54324	43.03858
mean(ethical)		37.33636	.9551321	39.09	0.000	35.46434	39.20839
mean(enviro n)		15.24545	.5876394	25.94	0.000	14.0937	16.39721
mean(phil)		16.43636	.465065	35.34	0.000	15.52485	17.34787
var(e.tangible)		86.93286	11.72203			66.74335	113.2296
var(e.intangible)		49.53696	6.679563			38.03237	64.52164
var(e.profit)		11.67113	1.573735			8.960599	15.20159
var(economic)		87.46083	11.79322			67.1487	113.9173
var(ethical)		100.3505	13.53126			77.04484	130.706
var(enviro n)		37.98521	5.121924			29.16342	49.47553
var(phil)		23.7914	3.208032			18.26603	30.98818
cov(economic,ethical )		62.38397	10.73164	5.81	0.000	41.35033	83.4176
cov(economic,enviro n)		15.33769	5.686877	2.70	0.007	4.191613	26.48376
cov(economic,phil)		20.60033	4.772258	4.32	0.000	11.24688	29.95379
cov(ethical,enviro n)		33.63562	6.703587	5.02	0.000	20.49683	46.77441
cov(ethical,phil)		27.1805	5.331091	5.10	0.000	16.73175	37.62924
cov(enviro n,phil)		11.40198	3.065537	3.72	0.000	5.393642	17.41032



Firstly, in Table 5.50, the tangible variable is treated as the dependent variable and the philanthropic, ethical, environmental, and economic variables are treated as explanatory. The evidence in this series indicated that 39% of changes in the economic variable had a causal impact on the tangible resources variable at a 100% confidence interval. Furthermore, in the relationship between the dependent variable tangible resources and the explanatory ethical CSR, empirical evidence indicated that 27% of changes in the ethical variable had a causal impact on the tangible resources variable at the 96% confidence level.

Secondly, the intangible variable is treated as a dependent variable while the philanthropic, ethical, environment and economic variables are treated as explanatory. The evidence showed that 37% of changes in the economic variable have a causal impact on the intangible variable at a 100% confidence level. Furthermore, in the relationship between the dependent variable intangible resources and explanatory philanthropic CSR, evidence in this series indicated that 60% of changes in the philanthropic variable had a causal impact on the intangible resources variable at a 100% confidence level.

Thirdly, the profit variable is treated as a dependent variable while the philanthropic, ethical, environment and economic variables are treated as explanatory variables. The evidence indicated that 18% of changes in philanthropic CSR had a causal impact on the profit variable at the 97% confidence level.

## 5.7 ANALYSIS IN THE FINANCE AND TECHNOLOGY INDUSTRY

The discussion in this section entails econometric analysis deduced from the finance and technology economic sector. Thus, this section is informed by item analysis, descriptive analysis, factor analysis, principal component analysis, SEM and PA.

### 5.7.1 Item analysis

The Cronbach Alpha Test was conducted the test the consistency of the study participants. Similar to in the manufacturing and retail sectors analysis, in the finance and technology industry analysis, this section describes the consistency of study participants and provides a reliability measure that validates a series of econometric estimations in the mining industry. Table 5.51 below illustrates the results of the Cronbach Alpha Test.

**Table 5.51: Results of the Cronbach Alpha Test**

Item	Obs	Sign	Item-test corr.	Item-rest corr.	Interitem cov.	Alpha	Label
Tangible	221	+	0.7572	0.6351	32.23405	0.8562	Tangible
intangible	221	+	0.8256	0.7315	30.33248	0.8411	Intangible
economic	221	+	0.8347	0.7394	29.60736	0.8404	Economic
Ethical	221	+	0.8805	0.8023	27.57212	0.8307	Ethical
environ	221	+	0.7355	0.6698	37.56892	0.8572	Environ
Phil	221	+	0.6655	0.5870	38.67443	0.8642	Phil
Profit	221	+	0.6151	0.5350	39.8666	0.8695	Profit
Testscale					33.69371	0.8711	mean(unstandardiseditems)

Table 5.51 above, illustrates the results of the Cronbach Alpha Test in the context of study variables in the finance and technology industry. Evidence indicates that the overall test scale of the Cronbach Alpha as measured in unstandardised items indicates that the series has a consistency measurement of 87% and a covariance of 33.69. On overall analysis, these results suggests that the study respondents in the series are reliable enough to produce valid econometrics results that will be shown in the later stages of this section.

The analysis showed, that in tangible resources, the observed consistent coefficient was 86% the correlation coefficient was 64% and the covariance coefficient was 32.23. The evidence indicated that the pre-estimation diagnosis is reliable for econometrics estimations. Regarding the intangible resources variable, the observed consistent coefficient was 84% the correlation coefficient was 73% and the covariance coefficient was 30.33. Therefore, the evidence showed that the responses from the study participants were consistent and reliable.

Table 5.51 above shows that in the economic social responsibility strategy variable, the consistent coefficient was 84% the correlation coefficient was 73% and the covariance coefficient was 29.60. The ethical social responsibility strategy variable showed that the observed consistent coefficient was 83%, the correlation coefficient was 80% and the covariance coefficient was 27.57. Thus, the results showed that the pre-estimation diagnosis was reliable for econometrics estimation.

In addition, the environment social responsibility strategy variable showed that the observed consistent coefficient was 85%, the correlation coefficient was 67% and the covariance coefficient was 37.57. In the philanthropic social responsibility strategy variable, the observed consistent coefficient was 86% the correlation coefficient was 59% and the covariance coefficient was 38.67. Furthermore, in the profit variable, the observed consistent coefficient was 87% the correlation coefficient was 54% and the covariance coefficient was 39.86. Thus, the evidence in this series indicated that the pre-estimation diagnosis was reliable for econometrics estimations.

### **5.7.2 Descriptive analysis**

In this section, a summary of the descriptive statistics is presented in the context of the study variables, as explained in Chapter Four. Descriptive statistics was adopted to provide an overview of the standard error of the mean, the mean and standard deviation in the retail economic sector. In particular, these tests are important for understanding the sample variance and the normality of study variables. Table 5.52 below illustrates the results of the descriptive statistics.

**Table 5.52: Results of Descriptive Statistics**

Stats	Tangible	intang~e	Economic	ethical	Environ	phil	profit
Mean	42.9095	43.41629	42.14027	38.15385	15.22172	16.30769	16.38914
SD	9.582226	9.583058	10.00515	10.60034	5.413844	5.4092	5.040984
CV	.2233124	.2207249	.2374248	.2778314	.3556657	.3316962	.3075807
se(mean)	.6445702	.6446263	.673019	.7130558	.3641746	.3638621	.3390933
Skewness	-.237884	-.469404	-.147335	-.48275	-.077872	-.33902	-.675212
ss	44	46	44	40	17	18	17
p50							

In Table 5.52 above, descriptive statistics was implemented to indicate whether the data collected and analysed in this series was normally distributed. This was evidenced by the skewness coefficient in all study variables. For instance, in tangible resources the skewness coefficient was -.23 which indicated that the data distribution was almost normal as it was close to zero. In intangible resources, the skewness coefficient was -.47 which indicated that the data distribution was almost normal as it was close to zero. In the economic CSR variable, the skewness coefficient was -.15 which indicated that the data distribution was almost normal as it was close to zero. In the ethical social responsibility strategy, the skewness coefficient was -.48 which indicated that the data distribution was almost normal as it was close to zero.

In the environmental corporate responsibility strategy, the skewness coefficient was -.078 which indicated that the data distribution was almost normal as it was close to zero. In philanthropic CSR, the skewness coefficient was -.34 which indicated that the data distribution was almost normal as it was close to zero. In the profit variable, the skewness coefficient was -.66 which indicates that the data distribution was almost normal as it was close to zero.

### 5.7.3 Factor analysis

A factor analysis is an econometric procedure that targets uncovering underlying factors that are responsible for correlation in research study variables. In this series, a factor analysis was conducted to investigate the relationship among variables and to indicate the covariance coefficient between study variables in the Technology and Financial economic sectors in the KZN province of South Africa.

### 5.7.4 Principal components analysis

In this section, factors were extracted using the maximum principal component developed by Hotelling (1933). Factor analysis explores the linear relationships to determine the best fitting variables in the study. Tables 5.53 below shows the principal components analysis.

**Table 5.53: Principal components analysis**

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	<b>4.11891</b>	<b>3.26912</b>	<b>0.5884</b>	<b>0.5884</b>
Comp2	<b>.849788</b>	<b>.202428</b>	<b>0.1214</b>	<b>0.7098</b>
Comp3	<b>.64736</b>	<b>.200341</b>	<b>0.0925</b>	<b>0.8023</b>
Comp4	<b>.447019</b>	<b>.0390195</b>	<b>0.0639</b>	<b>0.8662</b>
Comp5	<b>.407999</b>	<b>.0789789</b>	<b>0.0583</b>	<b>0.9244</b>
Comp6	<b>.329021</b>	<b>.129118</b>	<b>0.0470</b>	<b>0.9714</b>
Comp7	<b>.199903</b>	.	<b>0.0286</b>	<b>1.0000</b>

In Table 5.53 above, the principal component analysis is presented from econometric evidence deduced from this study. Empirical evidence in the study suggests that only component 1, has a significantly high component coefficient which is more than 1. Conversely, components 2, 3, 4, 5, c 6 and 7 are below the statistically significant threshold of  $p >$  or equal to 1. Table 5.54 below shows the results of the principal components analysis eigenvectors.

**Table 5.54: Principal Components Analysis Eigenvectors**

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Comp7	Unexplained
tangible	<b>0.3546</b>	<b>-0.4574</b>	<b>0.4548</b>	<b>0.2066</b>	<b>0.4517</b>	<b>0.4468</b>	<b>0.1087</b>	<b>0</b>
intangible	<b>0.3958</b>	<b>-0.3033</b>	<b>0.3010</b>	<b>-0.1360</b>	<b>-0.0472</b>	<b>-0.7906</b>	<b>-0.1226</b>	<b>0</b>
economic	<b>0.3999</b>	<b>-0.2642</b>	<b>-0.1609</b>	<b>-0.2755</b>	<b>-0.6528</b>	<b>0.2620</b>	<b>0.4167</b>	<b>0</b>
ethical	<b>0.4332</b>	<b>-0.0406</b>	<b>-0.3536</b>	<b>0.0427</b>	<b>-0.0689</b>	<b>0.2178</b>	<b>-0.7948</b>	<b>0</b>
environ	<b>0.3785</b>	<b>0.0847</b>	<b>-0.6115</b>	<b>0.3676</b>	<b>0.3600</b>	<b>-0.2228</b>	<b>0.4015</b>	<b>0</b>
phil	<b>0.3489</b>	<b>0.5251</b>	<b>0.1038</b>	<b>-0.6747</b>	<b>0.3483</b>	<b>0.0961</b>	<b>0.0771</b>	<b>0</b>
profit	<b>0.3240</b>	<b>0.5869</b>	<b>0.4085</b>	<b>0.5203</b>	<b>-0.3345</b>	<b>0.0189</b>	<b>0.0270</b>	<b>0</b>

In Table 5.54 above, the Eigenvectors Principal Analysis is presented, and the discussion is contextualised in the study variables. In component 1, the evidence suggests that all variables are statistically significant; meaning that they are above 0.30 or below -0.30. For instance, in tangible resources, the evidence suggests that there is a positive linear relationship of 35% which is statistically significant. Similar results are observed in intangible resources. The evidence shows a 40% linear relationship which is statistically significant. The results from the economic variable,

shows a statistically significant linear correlation coefficient of 40%. For the ethical variable, the evidence suggests that there is a positive linear correlation of 43% which is statistically significant. For the philanthropic variable, the evidence suggests that there is a positive linear relationship of 34%, which is statistically significant. For the profit variable, the empirical evidence suggests that there is a positive linear relationship of 32% which is statistically significant.

In component 2, the evidence suggests that 4 study variables are statistically significant; meaning that they are above 0.30 or below -0.30. Regarding the tangible resources variable, the evidence suggests that a linear relationship at -46%, which is statistically significant as it is below -.30. For the intangible variable, the evidence suggests that there is a positive linear relationship of 30%, which is statistically significant because the correlation coefficient is above 30. Furthermore, the philanthropic variable shows a 52% a positive linear relationship which is statistically significant, as it is more than 0.30. The profit variable evidence shows a positive linear relationship as it loads at 59%, which is statistically significant.

In component 3, the evidence suggests that 5 study variables are statistically significant, meaning that they are above 0.30 or below -0.30. For the tangible variable, the evidence suggests that there is a positive linear relationship of 45%, which is statistically significant since the correlation coefficient is above 30. For the intangible variable, the evidence shows that there is a positive linear relationship of 30%, which is statistically significant since the correlation coefficient is above.30. For the ethical responsibility variable, the evidence shows an inverse -35% linear relationships which are statistically significant as it is below -0.30. For the environmental variable, the evidence shows that there is a negative linear relationship of 61%, which is statistically significant since the correlation coefficient is above 30, and for the profit variable, the evidence shows that there is a 41% linear relationship, which is statistically significant.

In component 4, the evidence suggests that 3 study variables are statistically significant in the study. For instance, under environmental variables, the evidence suggests that there is a positive linear relationship of 36% which is statistically significant. Similar results are observed with the profit variable as the evidence shows that 59% in profit is linear related to component 4. Furthermore, with philanthropic

variable, the evidence suggests an inverse linear relationship at -67 loading in component 4.

With component 5, the empirical evidence in this series suggests that 3 variables are statistically significant; meaning that they are above 0.30 or below -0.30. In the tangible resources variable, the evidence shows that there is a positive linear relationship of 45%. For the economic variable, the evidence shows that there is a negative linear relationship of -28%. The environmental variable evidence indicates that there is a positive linear relationship of a 36% loading. Regarding the profit variable, the evidence indicates that there is a positive linear relationship of 52%. In the philanthropic variable the evidence shows an inverse linear relationship loading at 67%, which is statistically significant.

For component 6, the evidence suggests that 2 study variables are statistically significant. For instance, in tangible resources, 45% of the loadings are linear related. In intangible resources, -79% of loadings are inversely linear related to the loading.

For component 7, the evidence shows that 3 study variables are statistically significant. With the economic variable, the evidence shows that 42% is positive and linear related; and with the ethical variable, the evidence shows that an inverse linear relationship at -79% loading.

### 5.7.5 Factor analysis

In this section, a factor analysis is presented and analysed. Table 5.55 below illustrates the results of the factor analysis as deduced from the cross-section survey data analysis in the technology and finance industry.

**Table 5.55: Results of the Factor Analysis**

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	<b>3.66713</b>	<b>3.36744</b>	<b>0.9976</b>	<b>0.9976</b>
Factor2	<b>0.29969</b>	<b>0.12408</b>	<b>0.0815</b>	<b>1.0791</b>
Factor3	<b>0.17561</b>	<b>0.20355</b>	<b>0.0478</b>	<b>1.1269</b>
Factor 4	<b>-0.02794</b>	<b>0.08362</b>	<b>-0.0076</b>	<b>1.1193</b>
Factor5	<b>-0.11156</b>	<b>0.04275</b>	<b>-0.0304</b>	<b>1.0890</b>
Factor6	<b>-0.15431</b>	<b>0.01837</b>	<b>-0.0420</b>	<b>1.0470</b>
Factor7	<b>-0.17268</b>	.	<b>-0.0470</b>	<b>1.0000</b>

In Table 5.55 above, the factor analysis is presented in the context of the results obtained in the study for the technology and finance economic sector. In this series, the evidence suggests that only one factor is above the value of 1 and therefore it

should be returned in the loading estimation. Conversely, the rest of the factors 2, 3, 4, 5, 6, and 7 are not statistically significant as they are below the value of 1 and thus, they were not returned for loading. Table 5.56 below illustrates the results of factor analysis eigenvectors in the technology and finance industry.

**Table 5.56: Factor Analysis Eigenvectors**

Variable	Factor1	Factor2	Factor3	Uniqueness
tangible	<b>0.6640</b>	<b>-0.2649</b>	<b>0.1164</b>	<b>0.4754</b>
intangible	<b>0.7616</b>	<b>-0.2189</b>	<b>0.1358</b>	<b>0.3537</b>
economic	<b>0.7768</b>	<b>-0.1563</b>	<b>-0.0850</b>	<b>0.3649</b>
ethical	<b>0.8689</b>	<b>0.0458</b>	<b>-0.1960</b>	<b>0.2046</b>
environ	<b>0.7256</b>	<b>0.1438</b>	<b>-0.2038</b>	<b>0.4112</b>
phil	<b>0.6448</b>	<b>0.2704</b>	<b>0.1419</b>	<b>0.4910</b>
profit	<b>0.5879</b>	<b>0.2475</b>	<b>0.1906</b>	<b>0.5568</b>

In Table 5.56 above the factor analysis is presented and the discussion is contextualised in the study variables. In factor 1, the evidence shows that all study variables load very high, hence they are statistically significant. For instance, tangible assets load at 66%, intangible resources loads at 76%, and the economic variable at 77%. The ethical variable is at 0.86, the environmental variable is at 0.72, philanthropic at 64% and profit loads at 0.59. However, in factors 2 and 3, the evidence suggests that they are statistically significant factor loadings.

### **5.7.6 Results of the structural equation model**

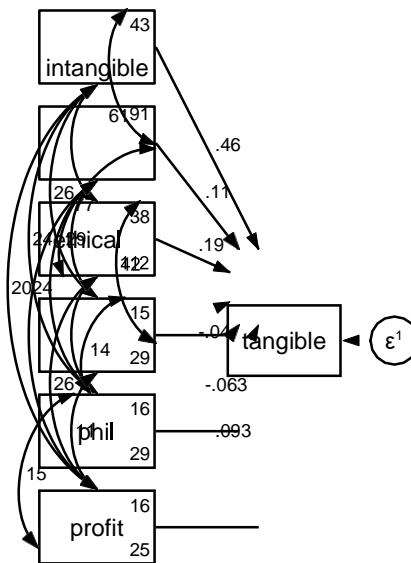
The study presents the results of the SEM. As noted in the research methodology chapter, the SEM is a series of linear equations in which all variables are treated as both dependent and explanatory variables.

#### **5.7.6.1 Dependent variable tangible resources**

In this series, tangible resources are treated as dependent variables that are affected by changes from the explanatory variables, meaning the intangible, economic, ethical, environment, philanthropic and profit resources.

**Table 5.57: Dependent Variable Tangible Resources**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structural</b>							
tangible							
	intangible	<b>.4556467</b>	<b>.0684146</b>	<b>6.66</b>	<b>0.000</b>	<b>.3215566</b>	<b>.5897368</b>
	economic	<b>.1052364</b>	<b>.0736817</b>	<b>1.43</b>	<b>0.153</b>	<b>-.0391772</b>	<b>.2496499</b>
	ethical	<b>.1859787</b>	<b>.0832425</b>	<b>2.23</b>	<b>0.025</b>	<b>.0228263</b>	<b>.349131</b>
	environ	<b>-.0396992</b>	<b>.1294841</b>	<b>-0.31</b>	<b>0.759</b>	<b>-.2934833</b>	<b>.2140849</b>
	phil	<b>-.0634118</b>	<b>.1153832</b>	<b>-0.55</b>	<b>0.583</b>	<b>-.2895587</b>	<b>.1627351</b>
	profit	<b>.0926539</b>	<b>.1175006</b>	<b>0.79</b>	<b>0.430</b>	<b>-.1376429</b>	<b>.3229508</b>
	_cons	<b>11.7164</b>	<b>2.410043</b>	<b>4.86</b>	<b>0.000</b>	<b>6.992799</b>	<b>16.43999</b>
	mean(intangible)	<b>43.41629</b>	<b>.6431662</b>	<b>67.50</b>	<b>0.000</b>	<b>42.15571</b>	<b>44.67687</b>
	mean(economic)	<b>42.14027</b>	<b>.6714946</b>	<b>62.76</b>	<b>0.000</b>	<b>40.82417</b>	<b>43.45638</b>
	mean(ethical)	<b>38.15385</b>	<b>.7114407</b>	<b>53.63</b>	<b>0.000</b>	<b>36.75945</b>	<b>39.54824</b>
	mean(environ)	<b>15.22172</b>	<b>.3633497</b>	<b>41.89</b>	<b>0.000</b>	<b>14.50957</b>	<b>15.93387</b>
	mean(phil)	<b>16.30769</b>	<b>.363038</b>	<b>44.92</b>	<b>0.000</b>	<b>15.59615</b>	<b>17.01923</b>
	mean(profit)	<b>16.38914</b>	<b>.3383252</b>	<b>48.44</b>	<b>0.000</b>	<b>15.72604</b>	<b>17.05225</b>
	var(e.tangible)	<b>49.20035</b>	<b>4.680444</b>			<b>40.8313</b>	<b>59.28479</b>
	var(intangible)	<b>91.41946</b>	<b>8.696761</b>			<b>75.86887</b>	<b>110.1574</b>
	var(economic)	<b>99.65001</b>	<b>9.479735</b>			<b>82.69938</b>	<b>120.0749</b>
	var(ethical)	<b>111.8587</b>	<b>10.64115</b>			<b>92.83135</b>	<b>134.786</b>
	var(environ)	<b>29.17708</b>	<b>2.775625</b>			<b>24.21402</b>	<b>35.15742</b>
	var(phil)	<b>29.12704</b>	<b>2.770864</b>			<b>24.17249</b>	<b>35.09712</b>
	var(profit)	<b>25.29653</b>	<b>2.406467</b>			<b>20.99355</b>	<b>30.48148</b>
	cov(intangible,economic)	<b>61.05925</b>	<b>7.621766</b>	<b>8.01</b>	<b>0.000</b>	<b>46.12087</b>	<b>75.99764</b>
	cov(intangible,ethical)	<b>61.62826</b>	<b>7.966021</b>	<b>7.74</b>	<b>0.000</b>	<b>46.01515</b>	<b>77.24138</b>
	cov(intangible,environ)	<b>25.55928</b>	<b>3.876271</b>	<b>6.59</b>	<b>0.000</b>	<b>17.96193</b>	<b>33.15664</b>
	cov(intangible,phil)	<b>23.79951</b>	<b>3.822531</b>	<b>6.23</b>	<b>0.000</b>	<b>16.30749</b>	<b>31.29154</b>
	cov(intangible,profit)	<b>20.47601</b>	<b>3.515874</b>	<b>5.82</b>	<b>0.000</b>	<b>13.58503</b>	<b>27.367</b>
	cov(economic,ethical)	<b>76.57118</b>	<b>8.773124</b>	<b>8.73</b>	<b>0.000</b>	<b>59.37617</b>	<b>93.76619</b>
	cov(economic,environ)	<b>29.18157</b>	<b>4.124236</b>	<b>7.08</b>	<b>0.000</b>	<b>21.09821</b>	<b>37.26492</b>
	cov(economic,phil)	<b>24.30526</b>	<b>3.97575</b>	<b>6.11</b>	<b>0.000</b>	<b>16.51293</b>	<b>32.09758</b>
	cov(economic,profit)	<b>19.49293</b>	<b>3.622937</b>	<b>5.38</b>	<b>0.000</b>	<b>12.3921</b>	<b>26.59375</b>
	cov(ethical,environ)	<b>41.6763</b>	<b>4.756812</b>	<b>8.76</b>	<b>0.000</b>	<b>32.35312</b>	<b>50.99948</b>
	cov(ethical,phil)	<b>31.54995</b>	<b>4.387102</b>	<b>7.19</b>	<b>0.000</b>	<b>22.95139</b>	<b>40.14851</b>
	cov(ethical,profit)	<b>25.57362</b>	<b>3.970278</b>	<b>6.44</b>	<b>0.000</b>	<b>17.79201</b>	<b>33.35522</b>
	cov(environ,phil)	<b>13.99513</b>	<b>2.175247</b>	<b>6.43</b>	<b>0.000</b>	<b>9.731721</b>	<b>18.25853</b>
	cov(environ,profit)	<b>11.48386</b>	<b>1.984052</b>	<b>5.79</b>	<b>0.000</b>	<b>7.595186</b>	<b>15.37253</b>
	cov(phil,profit)	<b>14.97076</b>	<b>2.085217</b>	<b>7.18</b>	<b>0.000</b>	<b>10.88381</b>	<b>19.05771</b>



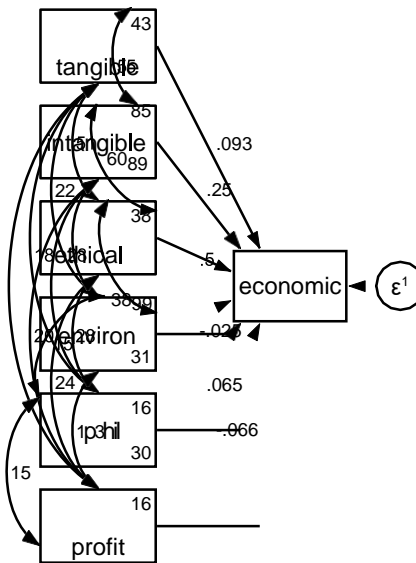
In this series, the evidence suggests that 2 explanatory variables have positive and statistically significant relationships with the dependent variable tangible resources. In the relationship between tangible and intangible resources, the evidence suggests that 46% of changes in intangible resources positively influence tangible resources at the 100% confidence level. Furthermore, in the relationship between the dependent variable tangible resources and the explanatory variable ethical CSR, the evidence suggests that 19% positive changes influence the dependent variable at a 0.024 probability level.

### 5.7.6.2 The economic social responsibility strategy dependent variable

In this section, the results of the SEM in the technology and finance industry are presented, analysed, and discussed. The economic social responsibility strategy is treated as a group of dependent variables that are affected by changes in the explanatory variables; being tangible resources, economic, ethical, environment, philanthropic and profit. Table 5.58 below illustrates the results of the dependent variable economic strategy.

**Table 5.58: Results Dependent Variable Economic**

		Coefficient	OIM std.err.	Z	P> z	[95percentconf interval]	
<b>Structural</b>							
Economic							
	tangible	<b>.0869088</b>	<b>.0608496</b>	<b>1.43</b>	<b>0.153</b>	<b>-.0323542</b>	<b>.2061717</b>
	intangible	<b>.28436</b>	<b>.0653861</b>	<b>4.35</b>	<b>0.000</b>	<b>.1562056</b>	<b>.4125144</b>
	ethical	<b>.4836199</b>	<b>.0692349</b>	<b>6.99</b>	<b>0.000</b>	<b>.347922</b>	<b>.6193177</b>
	environ	<b>-.0145364</b>	<b>.1176908</b>	<b>-0.12</b>	<b>0.902</b>	<b>-.2452061</b>	<b>.2161334</b>
	phil	<b>.0446592</b>	<b>.1048842</b>	<b>0.43</b>	<b>0.670</b>	<b>-.16091</b>	<b>.2502284</b>
	profit	<b>-.0270093</b>	<b>.1069144</b>	<b>-0.25</b>	<b>0.801</b>	<b>-.2365576</b>	<b>.1825391</b>
	_cons	<b>7.548883</b>	<b>2.247636</b>	<b>3.36</b>	<b>0.001</b>	<b>3.143596</b>	<b>11.95417</b>
	mean(tangible)	<b>42.9095</b>	<b>.6431103</b>	<b>66.72</b>	<b>0.000</b>	<b>41.64903</b>	<b>44.16998</b>
	mean(intangible)	<b>43.41629</b>	<b>.6431662</b>	<b>67.50</b>	<b>0.000</b>	<b>42.15571</b>	<b>44.67687</b>
	mean(ethical)	<b>38.15385</b>	<b>.7114407</b>	<b>53.63</b>	<b>0.000</b>	<b>36.75945</b>	<b>39.54824</b>
	mean(environ)	<b>15.22172</b>	<b>.3633497</b>	<b>41.89</b>	<b>0.000</b>	<b>14.50957</b>	<b>15.93387</b>
	mean(phil)	<b>16.30769</b>	<b>.363038</b>	<b>44.92</b>	<b>0.000</b>	<b>15.59615</b>	<b>17.01923</b>
	mean(profit)	<b>16.38914</b>	<b>.3383252</b>	<b>48.44</b>	<b>0.000</b>	<b>15.72604</b>	<b>17.05225</b>
	var(economic)	<b>40.63179</b>	<b>3.865314</b>			<b>33.72026</b>	<b>48.95996</b>
	var(tangible)	<b>91.40357</b>	<b>8.695249</b>			<b>75.85568</b>	<b>110.1383</b>
	var(intangible)	<b>91.41946</b>	<b>8.696761</b>			<b>75.86887</b>	<b>110.1574</b>
	var(ethical)	<b>111.8587</b>	<b>10.64115</b>			<b>92.83135</b>	<b>134.786</b>
	var(environ)	<b>29.17708</b>	<b>2.775625</b>			<b>24.21402</b>	<b>35.15742</b>
	var(phil)	<b>29.12704</b>	<b>2.770864</b>			<b>24.17249</b>	<b>35.09712</b>
	var(profit)	<b>25.29653</b>	<b>2.406467</b>			<b>20.99355</b>	<b>30.48148</b>
	cov(tangible,intangible)	<b>58.9155</b>	<b>7.315483</b>	<b>8.05</b>	<b>0.000</b>	<b>44.57742</b>	<b>73.25359</b>
	cov(tangible,ethical)	<b>55.65646</b>	<b>7.764033</b>	<b>7.17</b>	<b>0.000</b>	<b>40.43923</b>	<b>70.87368</b>
	cov(tangible,environ)	<b>21.48613</b>	<b>3.762487</b>	<b>5.71</b>	<b>0.000</b>	<b>14.11179</b>	<b>28.86047</b>
	cov(tangible,phil)	<b>18.25409</b>	<b>3.681633</b>	<b>4.96</b>	<b>0.000</b>	<b>11.03822</b>	<b>25.46996</b>
	cov(tangible,profit)	<b>17.07594</b>	<b>3.432465</b>	<b>4.97</b>	<b>0.000</b>	<b>10.34843</b>	<b>23.80345</b>
	cov(intangible,ethical)	<b>61.62826</b>	<b>7.966021</b>	<b>7.74</b>	<b>0.000</b>	<b>46.01515</b>	<b>77.24138</b>
	cov(intangible,environ)	<b>25.55928</b>	<b>3.876271</b>	<b>6.59</b>	<b>0.000</b>	<b>17.96193</b>	<b>33.15664</b>
	cov(intangible,phil)	<b>23.79951</b>	<b>3.822531</b>	<b>6.23</b>	<b>0.000</b>	<b>16.30749</b>	<b>31.29154</b>
	cov(intangible,profit)	<b>20.47601</b>	<b>3.515874</b>	<b>5.82</b>	<b>0.000</b>	<b>13.58503</b>	<b>27.367</b>
	cov(ethical,environ)	<b>41.6763</b>	<b>4.756812</b>	<b>8.76</b>	<b>0.000</b>	<b>32.35312</b>	<b>50.99948</b>
	cov(ethical,phil)	<b>31.54995</b>	<b>4.387102</b>	<b>7.19</b>	<b>0.000</b>	<b>22.95139</b>	<b>40.14851</b>
	cov(ethical,profit)	<b>25.57362</b>	<b>3.970278</b>	<b>6.44</b>	<b>0.000</b>	<b>17.79201</b>	<b>33.35522</b>
	cov(environ,phil)	<b>13.99513</b>	<b>2.175247</b>	<b>6.43</b>	<b>0.000</b>	<b>9.731721</b>	<b>18.25853</b>
	cov(environ,profit)	<b>11.48386</b>	<b>1.984052</b>	<b>5.79</b>	<b>0.000</b>	<b>7.595186</b>	<b>15.37253</b>
	cov(phil,profit)	<b>14.97076</b>	<b>2.085217</b>	<b>7.18</b>	<b>0.000</b>	<b>10.88381</b>	<b>19.05771</b>



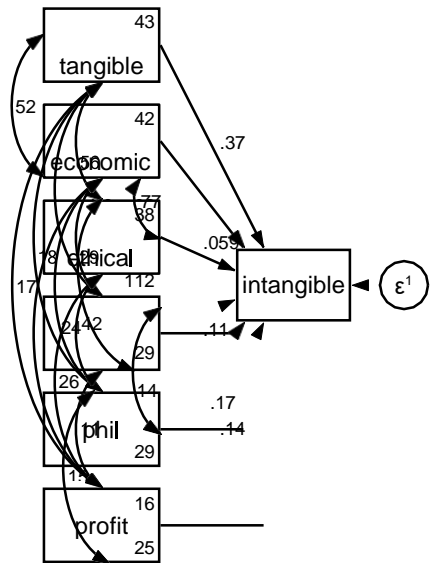
The evidence in this series suggests that 2 variables recorded a positive and statistically significant relationship with the dependent variable –economic social responsibility strategy. Concerning the relationship between the economic social responsibility, strategy and ethical CSR variables, the evidence showed that 1 % of the changes in ethical strategy positively influence changes in the economic social responsibility variables at the 100 % confidence level. Furthermore, the evidence suggests that 48%of the changes in intangible resources influence changes in the dependent variable at the 100 % confidence interval.

### 5.7.6.3 Dependent variable intangible resources

In this series, intangible resources are treated as a dependent variable that depends on changes from explanatory variables tangible resources, intangible, ethical, environment, philanthropic and profit. Table 5.59 below shows the results of dependent variable intangible resources.

**Table 5.59: Results of Dependent Variable Intangible Resources**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structural</b>							
intangible							
	tangible	.3668604	.0550835	6.66	0.000	.2588988	.4748221
	econom ic	.2772321	.0637471	4.35	0.000	.1522901	.4021741
	ethical	.0585374	.0754294	0.78	0.438	-.0893015	.2063763
	environ	.1092974	.1159776	0.94	0.346	-.1180145	.3366093
	phil	.1679829	.1029857	1.63	0.103	-.0338653	.3698312
	profit	.1399584	.1051606	1.33	0.183	-.0661526	.3460693
	_cons	7.061523	2.225082	3.17	0.002	2.700441	11.4226
	mean(tangible)	42.9095	.6431103	66.7 2	0.000	41.64903	44.16998
	mean(econo mic)	42.14027	.6714946	62.7 6	0.000	40.82417	43.45638
	mean(ethical )	38.15385	.7114407	53.6 3	0.000	36.75945	39.54824
	mean(enviro n)	15.22172	.3633497	41.8 9	0.000	14.50957	15.93387
	mean(phil )	16.30769	.363038	44.9 2	0.000	15.59615	17.01923
	mean(profit )	16.38914	.3383252	48.4 4	0.000	15.72604	17.05225
	var(e.intangible)	39.61329	3.768424			32.87501	47.7327
	var(tangible)	91.40357	8.695249			75.85568	110.1383
	var(economi c)	99.65001	9.479735			82.69938	120.0749
	var(ethical)	111.8587	10.64115			92.83135	134.786
	var(environ)	29.17708	2.775625			24.21402	35.15742
	var(phil)	29.12704	2.770864			24.17249	35.09712
	var(profit)	25.29653	2.406467			20.99355	30.48148
	cov(tangible,economi c)	51.65523	7.299857	7.08	0.000	37.34777	65.96269
	cov(tangible,ethical)	55.65646	7.764033	7.17	0.000	40.43923	70.87368
	cov(tangible,environ)	21.48613	3.762487	5.71	0.000	14.11179	28.86047
	cov(tangible,phil)	18.25409	3.681633	4.96	0.000	11.03822	25.46996
	cov(tangible,profit)	17.07594	3.432465	4.97	0.000	10.34843	23.80345
	cov(economic,ethical )	76.57118	8.773124	8.73	0.000	59.37617	93.76619
	cov(economic,enviro n)	29.18157	4.124236	7.08	0.000	21.09821	37.26492
	cov(economic,phi l)	24.30526	3.97575	6.11	0.000	16.51293	32.09758
	cov(economic,profit )	19.49293	3.622937	5.38	0.000	12.3921	26.59375
	cov(ethical,environ)	41.6763	4.756812	8.76	0.000	32.35312	50.99948
	cov(ethical,phil)	31.54995	4.387102	7.19	0.000	22.95139	40.14851
	cov(ethical,profit)	25.57362	3.970278	6.44	0.000	17.79201	33.35522
	cov(environ,phil)	13.99513	2.175247	6.43	0.000	9.731721	18.25853
	cov(environ,profit)	11.48386	1.984052	5.79	0.000	7.595186	15.37253
	cov(phil,profit)	14.97076	2.085217	7.18	0.000	10.88381	19.05771



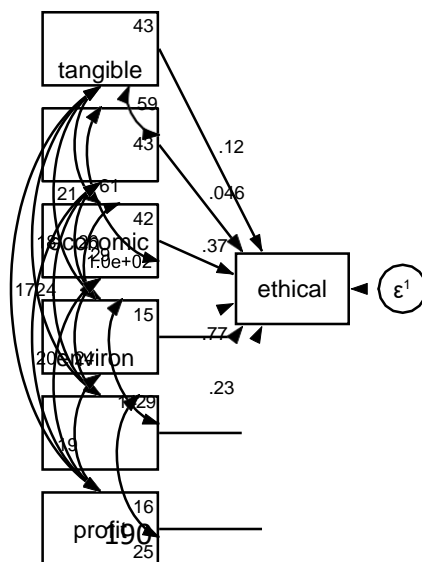
The above table shows that 3 explanatory variables recorded a positive and statistically significant relationship with the dependent variable intangible resources in SMEs. The table shows that a 37% change in tangible resources causes changes in the intangible variable at a confidence level of 100%. A 28% change in the economic variable causes a change in the dependent variable intangible resources at a 100% confidence level. The philanthropic variable causes a 17% change in the philanthropic variable and causes changes in intangible resources at the 90% confidence level.

**5.7.6.4The ethical social responsibility strategy dependent variable**

In this series, the ethical social responsibility strategy is treated as a dependent variable that is affected by changes in the explanatory variables; being tangible, intangible, ethical, environmental, philanthropic and profit resources. Table 5.60 below shows the results.

**Table 5.60: Results of the Ethical Dependent Variable**

	Coefficient	OIM std.err.	Z	P> z	[95percentc onf.	interval]
<b>Structural</b>						
ethical						
tangible	.1187628	.0531572	2.23	0.025	.0145765	.222949
intangible	.0464278	.0598253	0.78	0.438	-.0708277	.1636833
economic	.3739586	.0535358	6.99	0.000	.2690304	.4788868
environ	.7697962	.0896087	8.59	0.000	.5941663	.9454261
phil	.2263932	.0910018	2.49	0.013	.0480329	.4047535
profit	.1215945	.0936719	1.30	0.194	-.061999	.305188
_cons	-2.119046	2.021242	-1.05	0.294	-6.080608	1.842516
mean(tangible)	42.9095	.6431103	66.72	0.000	41.64903	44.16998
mean(intangible)	43.41629	.6431662	67.50	0.000	42.15571	44.67687
mean(economic)	42.14027	.6714946	62.76	0.000	40.82417	43.45638
mean(environ)	15.22172	.3633497	41.89	0.000	14.50957	15.93387
mean(phil)	16.30769	.363038	44.92	0.000	15.59615	17.01923
mean(profit)	16.38914	.3383252	48.44	0.000	15.72604	17.05225
var(e.ethical)	31.41849	2.988851			26.07416	37.85824
var(tangible)	91.40357	8.695249			75.85568	110.1383
var(intangible)	91.41946	8.696761			75.86887	110.1574
var(economic)	99.65001	9.479735			82.69938	120.0749
var(environ)	29.17708	2.775625			24.21402	35.15742
var(phil)	29.12704	2.770864			24.17249	35.09712
var(profit)	25.29653	2.406467			20.99355	30.48148
cov(tangible,intangible)	58.9155	7.315483	8.05	0.000	44.57742	73.25359
cov(tangible,economic)	51.65523	7.299857	7.08	0.000	37.34777	65.96269
cov(tangible,environ)	21.48613	3.762487	5.71	0.000	14.11179	28.86047
cov(tangible,phil)	18.25409	3.681633	4.96	0.000	11.03822	25.46996
cov(tangible,profit)	17.07594	3.432465	4.97	0.000	10.34843	23.80345
cov(intangible,economic)	61.05925	7.621766	8.01	0.000	46.12087	75.99764
cov(intangible,environ)	25.55928	3.876271	6.59	0.000	17.96193	33.15664
cov(intangible,phil)	23.79951	3.822531	6.23	0.000	16.30749	31.29154
cov(intangible,profit)	20.47601	3.515874	5.82	0.000	13.58503	27.367
cov(economic,environ)	29.18157	4.124236	7.08	0.000	21.09821	37.26492
cov(economic,phil)	24.30526	3.97575	6.11	0.000	16.51293	32.09758
cov(economic,profit)	19.49293	3.622937	5.38	0.000	12.3921	26.59375
cov(environ,phil)	13.99513	2.175247	6.43	0.000	9.731721	18.25853
cov(environ,profit)	11.48386	1.984052	5.79	0.000	7.595186	15.37253
cov(phil,profit)	14.97076	2.085217	7.18	0.000	10.88381	19.05771



In this series, the evidence shows that 4 explanatory variables have a positive and statistically significant relationship with the dependent variable ethical corporate responsibility strategy. Thus, 12% changes tangible resources influenced the dependent variable at the 97% confidence level.

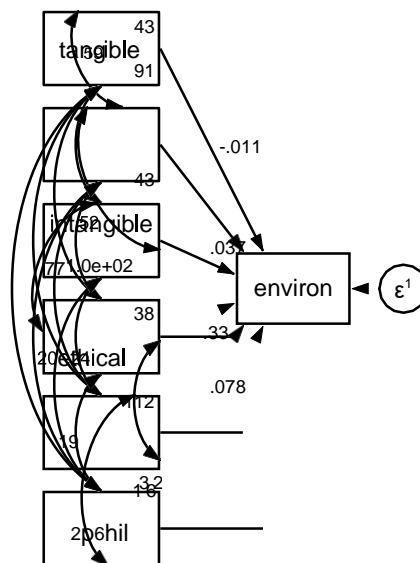
As we proceed, in the relationship between dependent variable ethical responsibility and the economic variable, the results show that 37% changes in economic variable positively affect the changes in the dependent variable at the 100% confidence interval. Similar evidence is observed in the relationship between the ethical dependent variable and the environmental explanatory environmental variable. The 77% changes in the environment variable influence the dependent variable at a confidence level of 100%. The relationship between the ethical variable (dependent variable) and the philanthropic (explanatory variable) shows that a 23% change in the explanatory variable positively influenced changes in the dependent variable at the 99% confidence level.

#### **5.7.6.5 Dependent variable environment social responsibility strategy**

In this series, the environmental social responsibility strategy is the dependent variable that reacts to changes in the explanatory variables; being tangible, intangible, ethical, ethical, philanthropic and profit resources. Table 5.61 below shows the resultant effects on the environmental dependent variable.

**Table 5.61: Results of Dependent Variable Environment**

		Coefficient	OIM std.err.	Z	P> z	[95percentconf interval]
<b>Structural</b>						
environ						
	tangible	<b>-.0107096</b>	<b>.0349307</b>	<b>-0.31</b>	<b>0.759</b>	<b>-.0791724</b> <b>.0577532</b>
	intangible	<b>.0366208</b>	<b>.038859</b>	<b>0.94</b>	<b>0.346</b>	<b>-.0395415</b> <b>.1127831</b>
	economic	<b>-.0047484</b>	<b>.0384446</b>	<b>-0.12</b>	<b>0.902</b>	<b>-.0800984</b> <b>.0706016</b>
	ethical	<b>.3251989</b>	<b>.037855</b>	<b>8.59</b>	<b>0.000</b>	<b>.2510044</b> <b>.3993934</b>
	phil	<b>.0779961</b>	<b>.0597401</b>	<b>1.31</b>	<b>0.192</b>	<b>-.0390924</b> <b>.1950845</b>
	profit	<b>.0602957</b>	<b>.0609799</b>	<b>0.99</b>	<b>0.323</b>	<b>-.0592227</b> <b>.1798141</b>
	_cons	<b>-.3762959</b>	<b>1.316746</b>	<b>-0.29</b>	<b>0.775</b>	<b>-2.957071</b> <b>2.204479</b>
mean(tangible)		<b>42.9095</b>	<b>.6431103</b>	<b>66.72</b>	<b>0.000</b>	<b>41.64903</b> <b>44.16998</b>
mean(intangible)		<b>43.41629</b>	<b>.6431662</b>	<b>67.50</b>	<b>0.000</b>	<b>42.15571</b> <b>44.67687</b>
mean(economic)		<b>42.14027</b>	<b>.6714946</b>	<b>62.76</b>	<b>0.000</b>	<b>40.82417</b> <b>43.45638</b>
mean(ethical)		<b>38.15385</b>	<b>.7114407</b>	<b>53.63</b>	<b>0.000</b>	<b>36.75945</b> <b>39.54824</b>
mean(phil)		<b>16.30769</b>	<b>.363038</b>	<b>44.92</b>	<b>0.000</b>	<b>15.59615</b> <b>17.01923</b>
mean(profit)		<b>16.38914</b>	<b>.3383252</b>	<b>48.44</b>	<b>0.000</b>	<b>15.72604</b> <b>17.05225</b>
var(e.environ)		<b>13.27268</b>	<b>1.262634</b>			<b>11.01498</b> <b>15.99314</b>
var(tangible)		<b>91.40357</b>	<b>8.695249</b>			<b>75.85568</b> <b>110.1383</b>
var(intangible)		<b>91.41946</b>	<b>8.696761</b>			<b>75.86887</b> <b>110.1574</b>
var(economic)		<b>99.65001</b>	<b>9.479735</b>			<b>82.69938</b> <b>120.0749</b>
var(ethical)		<b>111.8587</b>	<b>10.64115</b>			<b>92.83135</b> <b>134.786</b>
var(phil)		<b>29.12704</b>	<b>2.770864</b>			<b>24.17249</b> <b>35.09712</b>
var(profit)		<b>25.29653</b>	<b>2.406467</b>			<b>20.99355</b> <b>30.48148</b>
cov(tangible,intangible)		<b>58.9155</b>	<b>7.315483</b>	<b>8.05</b>	<b>0.000</b>	<b>44.57742</b> <b>73.25359</b>
cov(tangible,economic)		<b>51.65523</b>	<b>7.299857</b>	<b>7.08</b>	<b>0.000</b>	<b>37.34777</b> <b>65.96269</b>
cov(tangible,ethical)		<b>55.65646</b>	<b>7.764033</b>	<b>7.17</b>	<b>0.000</b>	<b>40.43923</b> <b>70.87368</b>
cov(tangible,phil)		<b>18.25409</b>	<b>3.681633</b>	<b>4.96</b>	<b>0.000</b>	<b>11.03822</b> <b>25.46996</b>
cov(tangible,profit)		<b>17.07594</b>	<b>3.432465</b>	<b>4.97</b>	<b>0.000</b>	<b>10.34843</b> <b>23.80345</b>
cov(intangible,economic)		<b>61.05925</b>	<b>7.621766</b>	<b>8.01</b>	<b>0.000</b>	<b>46.12087</b> <b>75.99764</b>
cov(intangible,ethical)		<b>61.62826</b>	<b>7.966021</b>	<b>7.74</b>	<b>0.000</b>	<b>46.01515</b> <b>77.24138</b>
cov(intangible,phil)		<b>23.79951</b>	<b>3.822531</b>	<b>6.23</b>	<b>0.000</b>	<b>16.30749</b> <b>31.29154</b>
cov(intangible,profit)		<b>20.47601</b>	<b>3.515874</b>	<b>5.82</b>	<b>0.000</b>	<b>13.58503</b> <b>27.367</b>
cov(economic,ethical)		<b>76.57118</b>	<b>8.773124</b>	<b>8.73</b>	<b>0.000</b>	<b>59.37617</b> <b>93.76619</b>
cov(economic,phil)		<b>24.30526</b>	<b>3.97575</b>	<b>6.11</b>	<b>0.000</b>	<b>16.51293</b> <b>32.09758</b>
cov(economic,profit)		<b>19.49293</b>	<b>3.622937</b>	<b>5.38</b>	<b>0.000</b>	<b>12.3921</b> <b>26.59375</b>
cov(ethical,phil)		<b>31.54995</b>	<b>4.387102</b>	<b>7.19</b>	<b>0.000</b>	<b>22.95139</b> <b>40.14851</b>
cov(ethical,profit)		<b>25.57362</b>	<b>3.970278</b>	<b>6.44</b>	<b>0.000</b>	<b>17.79201</b> <b>33.35522</b>
cov(phil,profit)		<b>14.97076</b>	<b>2.085217</b>	<b>7.18</b>	<b>0.000</b>	<b>10.88381</b> <b>19.05771</b>



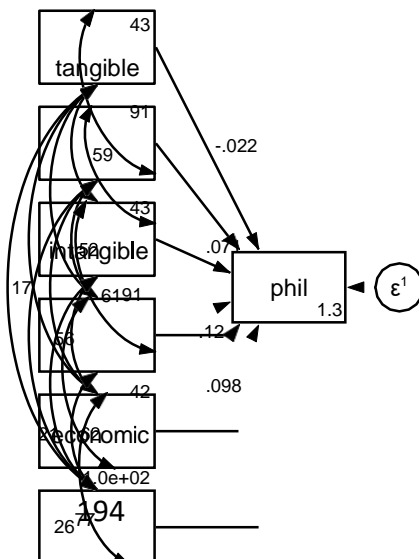
In the table above, empirical evidence suggests that 1 explanatory variable has a positive and statistically significant relationship with the dependent variable—environment CSR strategy. In the relationship between the environmental and the ethical variable, the evidence indicates that 32% of changes in the ethical variable positively influence changes in environment variable at a 0.00 probability value.

#### 5.7.6.6 Dependent variable philanthropic social responsibility strategy

In this series, philanthropic social responsibility strategy is treated as a dependent variable that effects changes on to the explanatory variables—intangible, environment, ethical, economic and profit. Table 5.62 below shows the effects on dependent philanthropic variables.

**Table 5.62: Results of Dependent Variable Philanthropic**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structura l</b>							
phil							
	tangible	-.0215228	.0391626	-0.55	0.583	-.0982802	.0552345
	intangible	.0708144	.0434144	1.63	0.103	-.0142762	.1559051
	economic	.0183545	.0431064	0.43	0.670	-.0661325	.1028415
	ethical	.1203305	.0483685	2.49	0.013	.02553	.215131
	environ	.0981322	.0751631	1.31	0.192	-.0491848	.2454493
	profit	.3686783	.0639079	5.77	0.000	.2434211	.4939355
	_cons	1.25613	1.474824	0.85	0.394	-1.634472	4.146731
	mean(tangible)	42.9095	.6431103	66.72	0.000	41.64903	44.16998
	mean(intangible)	43.41629	.6431662	67.50	0.000	42.15571	44.67687
	mean(economic)	42.14027	.6714946	62.76	0.000	40.82417	43.45638
	mean(ethical)	38.15385	.7114407	53.63	0.000	36.75945	39.54824
	mean(environ)	15.22172	.3633497	41.89	0.000	14.50957	15.93387
	mean(profit)	16.38914	.3383252	48.44	0.000	15.72604	17.05225
	var(e.phil)	16.69928	1.588607			13.8587	20.12207
	var(tangible)	91.40357	8.695249			75.85568	110.1383
	var(intangible)	91.41946	8.696761			75.86887	110.1574
	var(economic)	99.65001	9.479735			82.69938	120.0749
	var(ethical)	111.8587	10.64115			92.83135	134.786
	var(environ)	29.17708	2.775625			24.21402	35.15742
	var(profit)	25.29653	2.406467			20.99355	30.48148
	cov(tangible,intangible)	58.9155	7.315483	8.05	0.000	44.57742	73.25359
	cov(tangible,economic)	51.65523	7.299857	7.08	0.000	37.34777	65.96269
	cov(tangible,ethical)	55.65646	7.764033	7.17	0.000	40.43923	70.87368
	cov(tangible,environ)	21.48613	3.762487	5.71	0.000	14.11179	28.86047
	cov(tangible,profit)	17.07594	3.432465	4.97	0.000	10.34843	23.80345
	cov(intangible,economi c)	61.05925	7.621766	8.01	0.000	46.12087	75.99764
	cov(intangible,ethical)	61.62826	7.966021	7.74	0.000	46.01515	77.24138
	cov(intangible,environ)	25.55928	3.876271	6.59	0.000	17.96193	33.15664
	cov(intangible,profit)	20.47601	3.515874	5.82	0.000	13.58503	27.367
	cov(economic,ethical)	76.57118	8.773124	8.73	0.000	59.37617	93.76619
	cov(economic,environ)	29.18157	4.124236	7.08	0.000	21.09821	37.26492
	cov(economic,profit)	19.49293	3.622937	5.38	0.000	12.3921	26.59375
	cov(ethical,environ)	41.6763	4.756812	8.76	0.000	32.35312	50.99948
	cov(ethical,profit)	25.57362	3.970278	6.44	0.000	17.79201	33.35522
	cov(environ,profit)	11.48386	1.984052	5.79	0.000	7.595186	15.37253



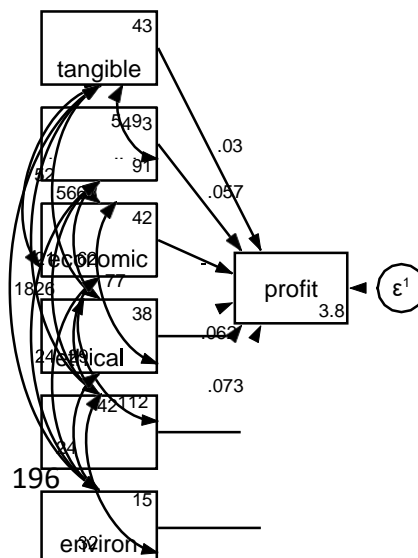
Empirical evidence in the table above, suggested that 2 explanatory variables have a positive and statistically significant relationship with the dependent variable philanthropic CSR strategy. The relationship between the philanthropic and intangible resources variable, shows that 7% changes in the intangible resources variable positively influence changes in the environmental variable at the 0.09 probability level. In addition, the econometric evidence indicates that a 37% change in the profit variable effects changes in the dependent variable at a 100% confidence level.

#### **5.7.6.7The Profit Dependent variable**

In this series, profit is treated as a dependent variable that is affected by changes in the explanatory variables being tangible, intangible, environment, ethical, economic, and philanthropic variables. Table 5.63 below shows the results of the profit dependent variable.

**Table 5.63: Results of the Profit Dependent Variable**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structural</b>							
Profit							
	tangible	.0302811	.0384014	0.79	0.430	-.0449844	.1055466
	intangible	.0568112	.0426862	1.33	0.183	-.0268523	.1404747
	economic	-.0106886	.0423103	-0.25	0.801	-.0936153	.072238
	ethical	.0622307	.0479402	1.30	0.194	-.0317304	.1561917
	environ	.0730472	.0738761	0.99	0.323	-.0717473	.2178417
	phil	.3549979	.0615365	5.77	0.000	.2343886	.4756073
	_cons	3.798244	1.426881	2.66	0.008	1.001608	6.594881
mean(tangible)		42.9095	.6431103	66.72	0.000	41.64903	44.16998
mean(intangible)		43.41629	.6431662	67.50	0.000	42.15571	44.67687
mean(economic)		42.14027	.6714946	62.76	0.000	40.82417	43.45638
mean(ethical)		38.15385	.7114407	53.63	0.000	36.75945	39.54824
mean(environ)		15.22172	.3633497	41.89	0.000	14.50957	15.93387
mean(phil)		16.30769	.363038	44.92	0.000	15.59615	17.01923
var(e.profit)		16.07963	1.52966			13.34446	19.37541
var(tangible)		91.40357	8.695249			75.85568	110.1383
var(intangible)		91.41946	8.696761			75.86887	110.1574
var(economic)		99.65001	9.479735			82.69938	120.0749
var(ethical)		111.8587	10.64115			92.83135	134.786
var(environ)		29.17708	2.775625			24.21402	35.15742
var(phil)		29.12704	2.770864			24.17249	35.09712
cov(tangible,intangible)		58.9155	7.315483	8.05	0.000	44.57742	73.25359
cov(tangible,economic)		51.65523	7.299857	7.08	0.000	37.34777	65.96269
cov(tangible,ethical)		55.65646	7.764033	7.17	0.000	40.43923	70.87368
cov(tangible,environ)		21.48613	3.762487	5.71	0.000	14.11179	28.86047
cov(tangible,phil)		18.25409	3.681633	4.96	0.000	11.03822	25.46996
cov(intangible,economic)		61.05925	7.621766	8.01	0.000	46.12087	75.99764
cov(intangible,ethical)		61.62826	7.966021	7.74	0.000	46.01515	77.24138
cov(intangible,environ)		25.55928	3.876271	6.59	0.000	17.96193	33.15664
cov(intangible,phil)		23.79951	3.822531	6.23	0.000	16.30749	31.29154
cov(economic,ethical)		76.57118	8.773124	8.73	0.000	59.37617	93.76619
cov(economic,environ)		29.18157	4.124236	7.08	0.000	21.09821	37.26492
cov(economic,phil)		24.30526	3.97575	6.11	0.000	16.51293	32.09758
cov(ethical,environ)		41.6763	4.756812	8.76	0.000	32.35312	50.99948
cov(ethical,phil)		31.54995	4.387102	7.19	0.000	22.95139	40.14851
cov(environ,phil)		13.99513	2.175247	6.43	0.000	9.731721	18.25853



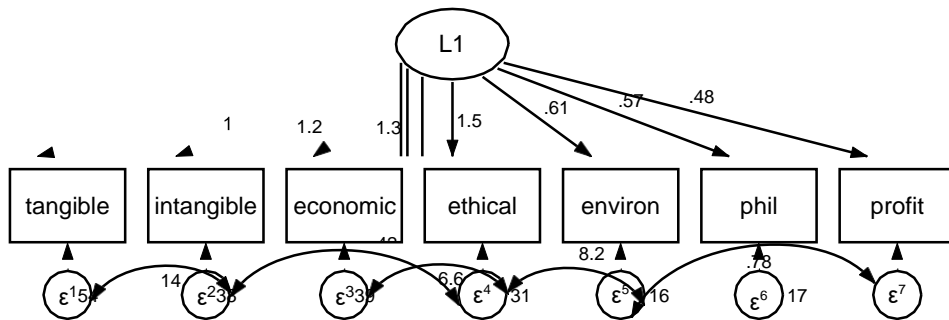
The evidence in the table above, suggests that 1 study variable has a positive and statistically significant relationship with the dependent variable profit variable. In the relationship between the profit variable and the philanthropic corporate responsibility strategy variable, the evidence shows that 35% changes in the ethical variable positively influenced changes in the economic variable at a 0.00 probability level.

### **5.7.7 Results of latent variable**

In this section, the results of the latent variable as an explanatory variable are analysed and interpreted in the context of technology and finance analysis. Table 5.64 shows the results of the dependent latent variable in the technology and finance industry.

**Table 5.64: Results of Latent Variable**

		Coefficient	OIM std.err.	Z	P> z	[95% conf. interval]
Measurement Tangible	L1	<b>1</b>	(constrained)			
	_cons	<b>42.9095</b>	<b>.6431104</b>	<b>66.72</b>	<b>0.000</b>	<b>41.64903</b> <b>44.16998</b>
Intangible	L1	<b>1.20131</b>	<b>.1111884</b>	<b>10.80</b>	<b>0.000</b>	<b>.9833845</b> <b>1.419235</b>
	_cons	<b>43.41629</b>	<b>.6433383</b>	<b>67.49</b>	<b>0.000</b>	<b>42.15537</b> <b>44.67721</b>
Economic	L1	<b>1.274788</b>	<b>.1400514</b>	<b>9.10</b>	<b>0.000</b>	<b>1.000292</b> <b>1.549284</b>
	_cons	<b>42.14027</b>	<b>.6714942</b>	<b>62.76</b>	<b>0.000</b>	<b>40.82417</b> <b>43.45638</b>
Ethical	L1	<b>1.478538</b>	<b>.1588566</b>	<b>9.31</b>	<b>0.000</b>	<b>1.167184</b> <b>1.789891</b>
	_cons	<b>38.15385</b>	<b>.7109793</b>	<b>53.66</b>	<b>0.000</b>	<b>36.76035</b> <b>39.54734</b>
Environ	L1	<b>.6053074</b>	<b>.0759593</b>	<b>7.97</b>	<b>0.000</b>	<b>.45643</b> <b>.7541849</b>
	_cons	<b>15.22172</b>	<b>.3634132</b>	<b>41.89</b>	<b>0.000</b>	<b>14.50944</b> <b>15.934</b>
Phil	L1	<b>.5719881</b>	<b>.0743969</b>	<b>7.69</b>	<b>0.000</b>	<b>.4261728</b> <b>.7178033</b>
	_cons	<b>16.30769</b>	<b>.363038</b>	<b>44.92</b>	<b>0.000</b>	<b>15.59615</b> <b>17.01923</b>
Profit	L1	<b>.4807821</b>	<b>.0675271</b>	<b>7.12</b>	<b>0.000</b>	<b>.3484315</b> <b>.6131328</b>
	_cons	<b>16.38914</b>	<b>.3383252</b>	<b>48.44</b>	<b>0.000</b>	<b>15.72604</b> <b>17.05225</b>
var(e.tangible)		<b>54.25772</b>	<b>5.93499</b>			<b>43.78776</b> <b>67.23113</b>
var(e.intangible)		<b>37.86149</b>	<b>5.14811</b>			<b>29.00401</b> <b>49.42395</b>
var(e.economic)		<b>39.28468</b>	<b>5.568329</b>			<b>29.75578</b> <b>51.86508</b>
var(e.ethical)		<b>30.51001</b>	<b>6.249381</b>			<b>20.42162</b> <b>45.5821</b>
var(e.environ)		<b>15.57714</b>	<b>1.84642</b>			<b>12.34785</b> <b>19.65097</b>
var(e.phil)		<b>16.97401</b>	<b>1.904382</b>			<b>13.62338</b> <b>21.14873</b>
var(e.profit)		<b>16.71021</b>	<b>1.79472</b>			<b>13.53819</b> <b>20.62544</b>
var(L1)		<b>37.14588</b>	<b>7.586039</b>			<b>24.89292</b> <b>55.43008</b>
cov(e.tangible,e.intangible)		<b>14.38409</b>	<b>4.30274</b>	<b>3.34</b>	<b>0.001</b>	<b>5.950871</b> <b>22.8173</b>
cov(e.intangible,e.ethical)		<b>-4.445996</b>	<b>2.918277</b>	<b>-1.52</b>	<b>0.128</b>	<b>-10.16571</b> <b>1.273722</b>
cov(e.economic,e.ethical)		<b>6.598965</b>	<b>4.308355</b>	<b>1.53</b>	<b>0.126</b>	<b>-1.845256</b> <b>15.04319</b>
cov(e.ethical,e.environ)		<b>8.207657</b>	<b>2.345361</b>	<b>3.50</b>	<b>0.000</b>	<b>3.610834</b> <b>12.80448</b>
cov(e.environ,e.profit)		<b>.7825338</b>	<b>1.19506</b>	<b>0.65</b>	<b>0.513</b>	<b>-1.559742</b> <b>3.124809</b>



In Table 5.64 above, the evidence shows that the dependent variables, intangible, ethical, profit, philanthropic, economic and environment variables are explained by the latent variable that measures decision making in investing in a CSR strategy.

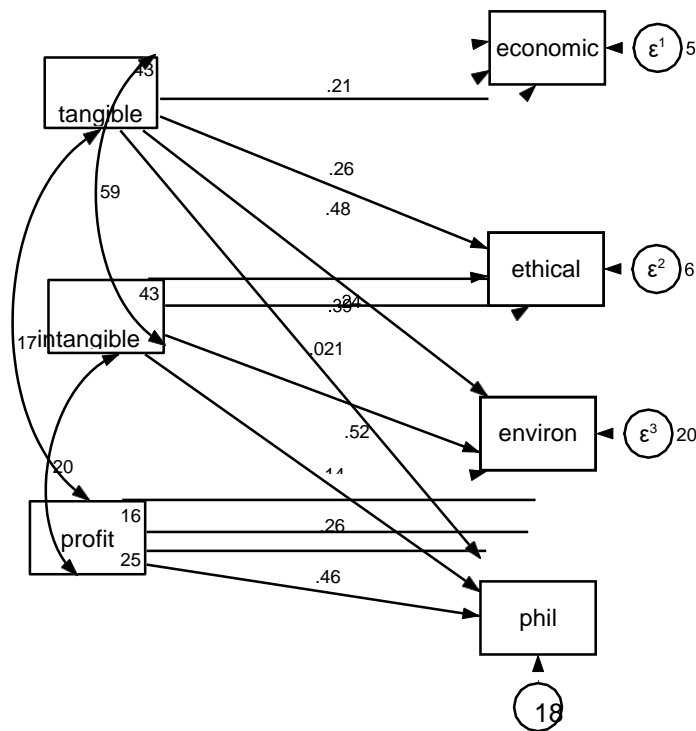
In the technology and finance industry analysis, in intangible resources, 120% changes in the latent variable explain investment in intangible resources, at the 100% confidence level. In the economic variable, 127% changes in decision making influence investment in economic CSR at the 100% confidence interval. In the ethical variable, 147% changes in decision making influence changes in ethical CSR at the 100 % confidence interval. In the environment variable, the evidence shows that 60% changes in decision making influence changes in environment CSR. Regarding the philanthropic variable, 57% changes in decision making influence changes in philanthropic CSR. In the profit variable, the evidence shows that 48% changes in decision making influence growth imperatives through CSR in SMEs.

#### **5.7.8 Results of path analysis**

In the methodology chapter, the detail of the procedures indicated that over and above the SEM, a PA was adopted to determine the causal inference of study variables. The approach in this series is twofold. Firstly, the econometrics model treated CSR strategy variables as dependent variables that are explained by firm growth imperatives. Secondly, the econometrics model treated firm level growth imperatives as dependent variables and CSR variables as explanatory variables. Table 5.65 illustrates the results of the PA when CSR variables are treated as dependent variables.

**Table 5.65: Results of Path Analysis**

		Coefficient	OIM std.err.	Z	P> z	[95percentconf interval]	
<b>Structural</b>							
economic							
	tangible	.2127863	.068619	3.10	0.002	.0782955	.3472771
	intangible	.4767912	.070888	6.73	0.000	.3378534	.6157291
	profit	.241006	.1102212	2.19	0.029	.0249763	.4570356
	_cons	8.359329	2.603658	3.21	0.001	3.256253	13.46241
ethical							
	tangible	.2605809	.0717964	3.63	0.000	.1198625	.4012994
	intangible	.3898364	.0741704	5.26	0.000	.244465	.5352077
	profit	.5195043	.115325	4.50	0.000	.2934714	.7455372
	_cons	1.532972	2.724221	0.56	0.574	-3.806403	6.872346
environ							
	tangible	.0746637	.0415766	1.80	0.073	-.0068249	.1561523
	intangible	.1723146	.0429513	4.01	0.000	.0881315	.2564976
	profit	.264091	.0667835	3.95	0.000	.1331977	.3949844
	_cons	.2084543	1.577568	0.13	0.895	-2.883523	3.300431
phil							
	tangible	.0210655	.0397663	0.53	0.596	-.0568751	.0990061
	intangible	.1433845	.0410812	3.49	0.000	.0628668	.2239023
	profit	.4615299	.0638758	7.23	0.000	.3363356	.5867241
	_cons	1.61448	1.508881	1.07	0.285	-1.342872	4.571833
mean(tangible)		42.9095	.6431103	66.72	0.000	41.64903	44.16998
mean(intangible)		43.41629	.6431662	67.50	0.000	42.15571	44.67687
mean(profit)		16.38914	.3383252	48.44	0.000	15.72604	17.05225
var(e.economic)		54.84805	5.217712			45.51831	66.09008
var(e.ethical)		60.04513	5.712111			49.83136	72.35239
var(e.environ)		20.13583	1.915528			16.71069	24.26301
var(e.phil)		18.42058	1.752355			15.28721	22.19618
var(tangible)		91.40357	8.695249			75.85568	110.1383
var(intangible)		91.41946	8.696761			75.86887	110.1574
var(profit)		25.29653	2.406467			20.99355	30.48148
cov(tangible,intangible)		58.9155	7.315483	8.05	0.000	44.57742	73.25359
cov(tangible,profit)		17.07594	3.432465	4.97	0.000	10.34843	23.80345
cov(intangible,profit)		20.47601	3.515874	5.82	0.000	13.58503	27.367



In the first series, the economic variable is treated as a dependent variable and the profit, tangible and intangible variables are treated as explanatory. Thus, empirical evidence in this series indicates that 21% of changes in tangible resources has a causal impact on economic variable at 100% confidence level.

Furthermore, in the relationship between the dependent economic variable and the explanatory variable, being intangible resources, the evidence shows that 48% of changes in intangible resources have a causal impact on the economic variable at the 100% confidence interval. In addition, in the relationship between the dependent variable and the explanatory economic and profit variable, the evidence suggests that 2 % changes in profit have a causative effect on economic CSR at the 97% confidence interval.

In the second series, the environmental variable is treated as a dependent variable while profit, tangible and intangible variables are treated as explanatory. In the relationship between the dependent environmental variable and the explanatory variable intangible resources, the evidence indicates that 17% of changes in intangible resources have a causal impact on the economic variable at a 93% confidence interval.

In addition, in the relationship between the dependent environment and explanatory variable and the profit variable, the evidence indicates that 26 % of changes in intangible resources have a causal impact on the economic variable at the 100% confidence interval. Lastly, in the relationship between the dependent environmental variable and the explanatory intangible resources variable, the evidence suggests that 17% changes in intangible resources have a causal effect on the dependent variable at the 100% confidence level.

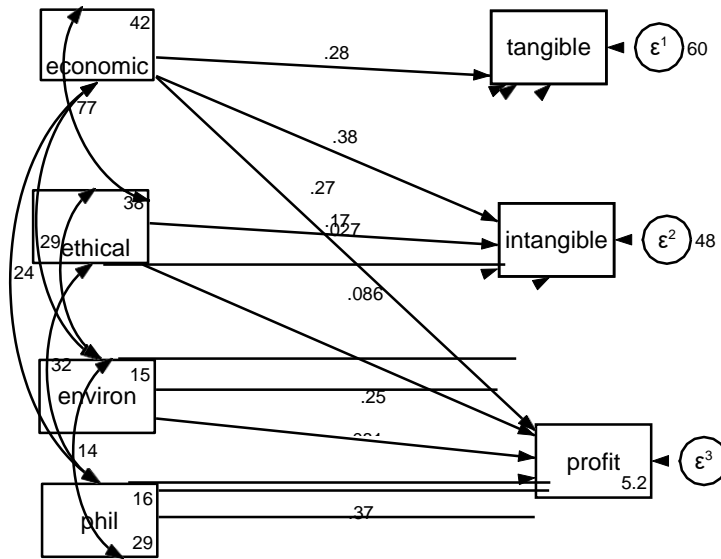
In the third series, the philanthropic variable is treated as a dependent variable and profit, tangible and intangible variables are treated as explanatory. Empirical evidence indicates that 14% of changes in intangible resources have a causal impact on the philanthropic variable at the 100% confidence interval. In addition, in the relationship between the dependent variable philanthropic and explanatory profit variable, the evidence indicates that 46% of changes in profit have a causal impact on economic variable at the 100% confidence interval.

In the fourth series, the ethical variable is treated as a dependent variable and the profit, tangible and intangible variables are treated as explanatory. The evidence indicates that 39% of changes in intangible resources have a causal impact on the ethical variable at the 100% confidence level. In addition, in the relationship between the ethical dependent variable and the explanatory profit variable, the evidence shows that 52% of changes in profit had a causal impact on the ethical variable at the 100% confidence level.

The PA was performed to uncover the path dependency of firm level growth imperatives and CSR strategies. In particular, the firm level growth imperatives such as tangible, intangible resources and profit variables are treated as dependent variables while the CSR variables are treated as explanatory variables. Table 5.66 below illustrates the PA when firm level growth imperatives are treated as dependent variables.

**Table 5.66: Results of Path Analysis**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structural tangible</b>	Economic	<b>.2817166</b>	<b>.0758938</b>	<b>3.71</b>	<b>0.000</b>	<b>.1329675</b>	<b>.4304657</b>
	Ethical	<b>.2703604</b>	<b>.0903568</b>	<b>2.99</b>	<b>0.003</b>	<b>.0932643</b>	<b>.4474565</b>
	environ	<b>.0273999</b>	<b>.141935</b>	<b>0.19</b>	<b>0.847</b>	<b>-.2507876</b>	<b>.3055874</b>
	phil _cons	<b>.0856103</b>	<b>.1170025</b>	<b>0.73</b>	<b>0.464</b>	<b>-.1437104</b>	<b>.3149309</b>
		<b>18.90942</b>	<b>2.353556</b>	<b>8.03</b>	<b>0.000</b>	<b>14.29653</b>	<b>23.5223</b>
intangible		<b>.3833287</b>					
economic		<b>.1689206</b>	<b>.0682757</b>	<b>5.61</b>	<b>0.000</b>	<b>.2495108</b>	<b>.5171465</b>
ethical		<b>.1307285</b>	<b>.0812869</b>	<b>2.08</b>	<b>0.038</b>	<b>.0096011</b>	<b>.32824</b>
environ		<b>.2514369</b>	<b>.1276878</b>	<b>1.02</b>	<b>0.306</b>	<b>-.1195349</b>	<b>.3809919</b>
phil_cons		<b>14.72748</b>	<b>.1052579</b>	<b>2.39</b>	<b>0.017</b>	<b>.0451352</b>	<b>.4577386</b>
			<b>2.117309</b>	<b>6.96</b>	<b>0.000</b>	<b>10.57763</b>	<b>18.87733</b>
profit	Economic	<b>.0196194</b>	<b>.0397534</b>	<b>0.49</b>	<b>0.622</b>	<b>-.0582959</b>	<b>.0975347</b>
	Ethical	<b>.0800141</b>	<b>.0473292</b>	<b>1.69</b>	<b>0.091</b>	<b>-.0127495</b>	<b>.1727776</b>
	environ	<b>.0813038</b>	<b>.0743461</b>	<b>1.09</b>	<b>0.274</b>	<b>-.0644118</b>	<b>.2270194</b>
	phil_con s	<b>.3718747</b>	<b>.0612863</b>	<b>6.07</b>	<b>0.000</b>	<b>.2517557</b>	<b>.4919937</b>
		<b>5.207528</b>	<b>1.232801</b>	<b>4.22</b>	<b>0.000</b>	<b>2.791282</b>	<b>7.623773</b>
mean(economic)		<b>42.14027</b>	<b>.6714946</b>	<b>62.76</b>	<b>0.000</b>	<b>40.82417</b>	<b>43.45638</b>
mean(ethical)		<b>38.15385</b>	<b>.7114407</b>	<b>53.63</b>	<b>0.000</b>	<b>36.75945</b>	<b>39.54824</b>
mean(enviro n)		<b>15.22172</b>	<b>.3633497</b>	<b>41.89</b>	<b>0.000</b>	<b>14.50957</b>	<b>15.93387</b>
mean(phil)		<b>16.30769</b>	<b>.363038</b>	<b>44.92</b>	<b>0.000</b>	<b>15.59615</b>	<b>17.01923</b>
var(e.tangible)		<b>59.65268</b>	<b>5.674777</b>			<b>49.50567</b>	<b>71.8795</b>
var(e.intangible)		<b>48.27802</b>	<b>4.592702</b>			<b>40.06585</b>	<b>58.1734</b>
var(e.profit)		<b>16.36692</b>	<b>1.55699</b>			<b>13.58288</b>	<b>19.72159</b>
var(economic)		<b>99.65001</b>	<b>9.479735</b>			<b>82.69938</b>	<b>120.0749</b>
var(ethical)		<b>111.8587</b>	<b>10.64115</b>			<b>92.83135</b>	<b>134.786</b>
var(enviro n)		<b>29.17708</b>	<b>2.775625</b>			<b>24.21402</b>	<b>35.15742</b>
var(phil)		<b>29.12704</b>	<b>2.770864</b>			<b>24.17249</b>	<b>35.09712</b>
cov(economic,ethical )		<b>76.57118</b>	<b>8.773124</b>	<b>8.73</b>	<b>0.000</b>	<b>59.37617</b>	<b>93.76619</b>
cov(economic,enviro n)		<b>29.18157</b>	<b>4.124236</b>	<b>7.08</b>	<b>0.000</b>	<b>21.09821</b>	<b>37.26492</b>
cov(economic,phil)		<b>24.30526</b>	<b>3.97575</b>	<b>6.11</b>	<b>0.000</b>	<b>16.51293</b>	<b>32.09758</b>
cov(ethical,enviro n)		<b>41.6763</b>	<b>4.756812</b>	<b>8.76</b>	<b>0.000</b>	<b>32.35312</b>	<b>50.99948</b>
cov(ethical,phil)		<b>31.54995</b>	<b>4.387102</b>	<b>7.19</b>	<b>0.000</b>	<b>22.95139</b>	<b>40.14851</b>
cov(enviro n,phil)		<b>13.99513</b>	<b>2.175247</b>	<b>6.43</b>	<b>0.000</b>	<b>9.731721</b>	<b>18.25853</b>



In Table 5.66 above, first, the tangible variable is treated as a dependent variable and the philanthropic, ethical, environment and economic variables are treated as explanatory. The evidence in this series indicates that 28% of changes in the economic variables have a causal impact on the tangible resources variable at a 100% confidence interval. Furthermore, in the relationship between the dependent variable tangible resources and the explanatory ethical CSR variable the evidence indicates that 27% of changes in the ethical variable have a causal impact on the tangible resources variable at a 100% confidence level.

Secondly, the intangible variable is treated as a dependent variable while the philanthropic, ethical, environment and economic variables are treated as explanatory. Empirical evidence in this series indicates that 28% of changes in the economic variable have a causal impact on the intangible variable at the 95% confidence level. Furthermore, in the relationship between the dependent variable intangible resources and explanatory ethical CSR, the evidence indicates that 17% of the changes in the ethical variable have a causal impact on the intangible resources variable at a 100% confidence level.

Thirdly, the profit variable is treated as a dependent variable while the philanthropic, ethical, environment and economic variables are treated as explanatory variables. The evidence shows that 8% of changes in ethical CSR have a causal impact on the profit variable at the 91% confidence level. In addition, in the relationship between the

dependent profit variable and the explanatory philanthropic variable, the evidence indicates that 37% of changes in the philanthropic variable have a causal impact on profit variable at the 92 % confidence interval.

## **5.8 DISCUSSION OF RESULTS**

In this section, a discussion on the empirical evidence deduced from the series on the econometric investigation is presented in the context of the conceptual model developed in the closing stages of Chapter Three. In particular, the conceptual model illuminated the hypothesis that this study is attempting to prove using the robustness of econometric analysis. For ease of reference, to make it consistent with the rest of the study, the discussion is framed in economic sectors such as manufacturing, retail, mining and finance and technology.

### **5.8.1 Discussion on the manufacturing sector**

In this section, the researcher presents a discussion on the manufacturing sector. This, in particular, is an analysis based on the hypotheses developed in the conceptual framework. Table 5.67 below illustrates the analysis of hypothesis 1.

- **Hypothesis 1:** there is a positive relationship flowing from firm level resource and CSR strategy selection.

**Table 5.67: Evidence on Hypothesis One**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Ethical	Tangible	<b>.1216035***</b>	<b>0.006</b>
	Intangible	<b>.1060587**</b>	<b>0.034</b>
	Profit	<b>.1494404**</b>	<b>0.043</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Economic	Tangible	<b>.093206*</b>	<b>0.066</b>
	Intangible	<b>.2515971***</b>	<b>0.000</b>
	Profit	<b>-.0663652</b>	<b>0.433</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Philanthropic	Tangible	<b>-.0135393</b>	<b>0.685</b>
	Intangible	<b>.1012078***</b>	<b>0.006</b>
	Profit	<b>.3646264***</b>	<b>0.000</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Environment	Tangible	<b>-.0010667</b>	<b>0.973</b>
	Intangible	<b>.0614041*</b>	<b>0.078</b>
	Profit	<b>.0976354*</b>	<b>0.058</b>

*The results are computed separately for each equation using the appropriate residuals  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

In this hypothesis, the CSR strategies are treated as dependent variables while the firm level growth variables are treated as explanatory variables. For example, in the relationship between economic social responsibilities variable and tangible resources the evidence suggests the conclusion that 9% of the changes in the tangible resources variable positively influences changes in the economic social responsibility variables at a 94% confidence level. As we proceed, to examine the relationship between the economic social responsibilities' variable and the intangible resources variable, the evidence shows that 25% of changes in the intangible resources variable positively influences changes in the economic social responsibility variables at a 100% confidence level. Furthermore, the data shows that 50% changes in CSR strategy influences changes in economic social responsibility strategy at the 100% confidence level.

Secondly, in a series where ethical corporate responsibility strategy is treated as dependent variable and firm level growth variables are treated as explanatory variables, the results showed that 12% changes in the intangible resources variable affected the dependent variable at the 96% confidence interval. In the relationship

between tangible resources and the dependent variable ethical social responsibility, the results showed that 11% changes in the tangible resources variable affected the dependent variable at the 94% confidence interval; and in the relationship between ethical variable (Dependent variable) and profit (explanatory variable) evidence, the results showed that 14% changes in explanatory variable positively influenced changes in the dependent variable.

Thirdly, the results from the series showing the relationship between the dependent variable environment CSR strategies, which was regressed with firm level growth imperatives revealed that a 97% change in the profit variable caused positive changes in the dependent variable at the 95% confidence interval. Lastly, the econometric evidence indicated that 6% changes in the intangible resources variable caused changes in the dependent variable at the 93% confidence level.

Fourthly, the table above shows that two firm level growth variables had a positive and statistically significant relationship with the philanthropic CSR strategy dependant variable. In the relationship between the philanthropic and intangible resources variable, the evidence indicated that 10% changes in intangible resources variable positively influenced changes in the environmental variable at the 0.00% probability level. In addition, the econometric evidence indicated that 36% changes in the profit variable caused changes in the dependent variable at the 100% confidence level.

Following the results from a series of econometric analysis, the results concurred with the literature analysis that showed that benefits that accrue from the CSR engagement ranging from improved community relations to job satisfaction, employee loyalty and business growth and profitability. Despite the advantages SMEs initially faced several challenges in their adoption and implementation of CRS programmes as they were constrained by many challenges including limited resources, and a lack of training and support services. These challenges can effectively be ameliorated through an expanded resources base, up-skilling programmes and development of formal SMEs-tailored instruments to guide the implementation of intervention strategies that are aimed at creating incentives and support services for SMEs' adoption of CSR (Abrahamson & Piazza, 2019) Furthermore, evidence agreed with the literature by showing that SMEs initially faced several challenges in their adoption and implementation of CRS programmes as they were constrained by a number of

challenges including limited resources, and a lack of training and support services. These challenges could be overcome effectively, through an expanded resources base, up-skilling programmes, and the development of formal SME-tailored instruments to guide the implementation of intervention strategies aimed at creating incentives and support services for SMEs' adoption of CSR (Andrei *et al.*, 2018).

- **Hypothesis 2:** there is a positive relationship flowing from CSR strategy selection to firm level resources.

**Table 5.68: Evidence on Hypothesis 2 Manufacturing Sector**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Tangible	Ethical	.1832195*	0.066
	Environmental	-.003308	0.973
	Philanthropic	-.0369282	0.685
	Economic	.1085118*	0.066
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Intangible	Ethical	.1271331**	0.034
	Environmental	.1514934*	0.078
	Philanthropic	.2196147***	0.006
	Economic	.2330373***	0.000
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Profit	Ethical	.0817879	0.043**
	Environmental	.1099796	0.058*
	Philanthropic	.3612467	0.043**
	Economic	-.0280652	0.433

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

The results showed a positive relationship between firm level resources and CSR strategy selection. The evidence showed that in the relationship between tangible and economic variables, 23% of changes in economic social responsibility strategy positively influenced tangible resources at a 100% confidence level.

Furthermore, in the relationship between tangible and environment social responsibility strategy, the results showed that 13% of changes in environmental social responsibility strategy positively influenced tangible resources at the 97% confidence interval. Furthermore, in the relationship between tangible compared with philanthropic CSR strategy, the results showed that 21% of the changes in the

philanthropic variable positively influenced tangible resources at the 100% confidence level.

In the relationship between the profit variable and the ethical corporate responsibility strategy variable, the results showed that 8% changes in the ethical variable positively influenced changes in the economic variable at the 0.04 probability level. In the relationship between the economic dependent variable and the explanatory variable, the results showed that 11% changes in environment positively affected changes in the environmental variable at the 0.04 probability level.

Furthermore, similar results were recorded in the relationship between economic dependent variable and the philanthropic (explanatory variable), where the evidence suggests that 36% changes in philanthropy variable positively explained changes in the dependent variable at the 100% confidence level. These results show that the implementation of CSR strategies influences firm level growth imperatives in SMEs in the manufacturing industry in KZN. Abdulaziz-Alhumaidan and Ahmad (2019) stated that by placing social responsibility at the core of everyday business decisions, CSR becomes less of an 'add-on' and more about 'it's just the way we do things'. There is also a need for government intervention, despite the fact that CSR is essentially a voluntary gesture. This would help the SMEs as the government could provide a level playing field. In this regard the enactment of an appropriate legal framework by government might help to encourage CSR through tax policy incentives for CSR practices.

The creation of necessary institutional infrastructure would also help to provide visibility for CSR initiatives, whereby government could create incentives for companies to adopt CSR practices and hence build their capacity to effectively implement the programmes. Furthermore, the results show that CSR strategies have a positive impact on the profitability of SMEs in the manufacturing industry, this is also consistent with the literature that showed that the expectations of society are that business organisations should undertake CSR beyond their legal obligations and profit realisation motives to include social and economic development as well as environmental sustainability in their planning. While big businesses have managed to attract a large body of literature, SMEs have hardly generated any literary interest to

enhance researchers' understanding of environmental engagement in the industry (Maier, Pollach & Ravazzani, 2019)

- **Hypothesis 3:** there is a positive causal relationship flowing from firm level resources to CSR strategy.

In hypothesis 3, the empirical evidence is informed by the results of the PA. In particular, the PA was conducted to test for unidirectional and bidirectional causality among the study variables. Table 5.69 illustrates the causal direction flowing from firm level resources to CSR strategies for SMEs in the manufacturing industry.

**Table 5.69: Evidence on Hypothesis 3 Manufacturing Sector**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Ethical	Tangible	.218083***	0.000
	Intangible	.4728536***	0.000
	Profit	.171847**	0.045
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Economic	Tangible	.2504549***	0.000
	Intangible	.4296388***	0.000
	Profit	.4327488***	0.000
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Philanthropic	Tangible	.0196221	0.555
	Intangible	.1737438***	0.000
	Profit	.4412263***	0.000
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Environment	Tangible	.0715161**	0.039
	Intangible	.2044639***	0.000
	Profit	.2815609***	0.000

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

As noted, in the above table, in this analysis the empirical evidence indicates that there is a causal flow from firm level growth imperatives to CSR strategies. From this series, empirical the results concurred with the literature analysis and synthesis reviewed in Chapters Two and Three. Pushpakumari (2016) stated that the growth of SMEs may be measured using accounting measures such as sales growth, market share, and profitability. However, Preuss and Perschke (2019) added that in assessing the performance of SMEs both financial and non-financial measures should be adopted.

Non-financial measures of performance are linked to customer satisfaction, brand loyalty, and the reputation of the company.

Therefore, it has become imperative to give high priority to SR since it's no longer seen as a fruitless cost or a drain on resources. It has simply become a means to enrich a company's reputation and credibility among stakeholders; something on which success, survival, and growth may depend (Vancheswaran & Gautam, 2016). Delchet-Cochet and Vo (2017) stated; "Over the past fifteen years, discussion about CSR and its implementation in practice has increased in both variety and volume".

- **Hypothesis 4:** there is a positive causal relationship flowing from CSR strategy to firm level growth imperatives.

In this series, the causality of study variables was regressed with CSR strategies as explanatory variables explained the changes in firm level growth imperatives. Therefore, results in the series are informed by the results of the PA. Table 5.70 below illustrates the results of hypothesis 4.

**Table 5.70: Evidence on Hypothesis 4 Manufacturing Sector**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>	
Tangible	Ethical	<b>.2870588***</b>	<b>0.000</b>	
	Environmental	<b>.0825462</b>	<b>0.427</b>	
	Philanthropic	<b>.0987524</b>	<b>0.273</b>	
	Economic	<b>.2440484***</b>	<b>0.000</b>	
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>	
	Intangible	Ethical	<b>.2343416***</b>	<b>0.000</b>
		Environmental	<b>.1514934**</b>	<b>0.040</b>
		Philanthropic	<b>.2883612***</b>	<b>0.000</b>
	Economic	<b>.3155489***</b>	<b>0.000</b>	
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>	
	Profit	Ethical	<b>.0949558**</b>	<b>0.016</b>
		Environmental	<b>.1190198*</b>	<b>0.040</b>
		Philanthropic	<b>.3612467**</b>	<b>0.043</b>
	Economic	<b>-.0119213</b>	<b>0.726</b>	

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

The causal analysis shows that the evidence suggests that there is causality. There is a causal relationship flowing from CSR strategies to firms' level growth variables. The

evidence confirms the presence of a bidirectional causal relationship between firm level growth variables and CSR strategies in SMEs in the manufacturing industry of KZN. Empirical evidence in this series concurs with the literature analysis on that flow, and Wood (1991) referred to it as a significant advance in CSR research. A researcher using the model would first consider the principles that motivate a firm's SR actions at three levels of analysis: namely, institutional, organisational and individual. Thus, the motivation for a firm's SR actions may emanate from the principle of legitimacy (institutional level), i.e., arising from a wish to maintain credibility and legitimacy as a responsible societal actor in a shared environment. Alternatively, the motivation could come from an organisational sense of public responsibility; especially for outcomes related to the firm's primary and secondary areas of involvement. Finally, the motivation could stem from the choices of individual managers and their personal responsibility preferences and inclinations. There is also room for interactivity among two or more of these principles in motivating CSP.

### 5.8.2 Discussion on the retail sector

In this section, the researcher presents a discussion on the retail sector. The researcher presents an analysis developed from the hypotheses developed in light of the literature review in Chapter One; as well as from the results of the conclusions that were drawn regarding the data recorded and analysed and on the relationship between CSR and SMEs in the retail sector. Table 5.71 below illustrates the analysis of hypothesis 1.

- **Hypothesis 1:** there is a positive relationship flowing from firm level resource and CSR strategy selection.

**Table 5.71: Evidence on Hypothesis 1 Retail Sector**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Ethical	tangible	<b>.1297891*</b>	<b>0.092</b>
	Intangible	<b>.3382864***</b>	<b>0.000</b>
	Profit	<b>.2344337**</b>	<b>0.034</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Economic	tangible	<b>1300062</b>	<b>0.192</b>
	Intangible	<b>.1712318</b>	<b>0.143</b>
	Profit	<b>-.1582434</b>	<b>0.273</b>

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Philanthropic	tangible	<b>.0173151</b>	<b>0.798</b>
	Intangible	<b>.2291878***</b>	<b>0.003</b>
	Profit	<b>.3596001***</b>	<b>0.000</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Environment	tangible	<b>.0510781</b>	<b>0.434</b>
	Intangible	<b>.1337243*</b>	<b>0.077</b>
	Profit	<b>.1704153*</b>	<b>0.067</b>

*The results are computed separately for each equation using the appropriate residuals*

*\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

In this hypothesis, the CSR strategies are treated as dependent variables while the firm level growth variables are treated as explanatory variables. Evidence regarding the nature of the economic dependent variable suggests that there is a positive and statistically significant relationship between the dependent variable and the explanatory variables.

In the evidence strand, evidence on the dependent variable ethical CSR showed that a 12% change in intangible resources influenced the dependent variable at the 96% confidence level. In the relationship between tangible resources and dependent variable ethical SR evidence suggests that 11% changes tangible resources influence the dependent variable at a 94% confidence level. In the relationship between the ethical variable (dependent variable) and the profit (explanatory variable) variable, the results show 14% changes in the explanatory variable positively influence changes in the dependent variable. In a nutshell, all the explanatory variables in this series influenced the dependent variable.

The evidence in respect of the ethical dependent variable shows that the relationship between the environmental dependent variable and profit (explanatory variable) evidence shows that 97% changes in the profit variable caused positive change in the dependent variable at the 95% confidence level. Lastly, in this series, the econometric evidence indicates that 6% changes in intangible resources influence changes to the dependent variable at the 93% confidence level.

In the last section, regarding the philanthropic dependent variable; the results show that 10% changes in the intangible resources variable positively influence changes in the environmental variable at the 0.00 probability level; and it can be seen that a 36%

change in the profit variable induced changes in the dependent variable at the 100% confidence level.

In this series the evidence concurs with the literature review that SMEs select relevant strategies that are likely to give a return on investment in CSR strategies and are cost and resources effective in the implementation of CSR strategies. For example, the constraints cited above place a considerable burden on most SMEs in ways that sometimes offset the benefits (Lee *et al.*, 2020).

In order to overcome these constraints, SMEs require modest resources to provide comprehensive information about the nature of CSR activities and the appropriate strategies and tools one needs to employ to be able to achieve desired results. There is need to develop tools that are specific and formalised to deal with SME peculiarities that go beyond the informal networks (Abdulaziz-Alhumaidan & Ahmad, 2019).

- **Hypothesis 2:** there is a positive relationship flowing from CSR strategy selection to firm level resources.

**Table 5.72: Evidence on Hypothesis 2 Retail Sector**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Tangible	Ethical	<b>.2145346*</b>	<b>0.092</b>
	Environmental	<b>.1204682</b>	<b>0.434</b>
	Philanthropic	<b>.0380798</b>	<b>0.798</b>
	Economic	<b>.1297491</b>	<b>0.192</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Intangible	Ethical	<b>.4046638***</b>	<b>0.000</b>
	Environmental	<b>.2282435*</b>	<b>0.077</b>
	Philanthropic	<b>.364763***</b>	<b>0.003</b>
	Economic	<b>.1236731</b>	<b>0.143</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Profit	Ethical	<b>.1856607**</b>	<b>0.034</b>
	Environmental	<b>.1925691*</b>	<b>0.067</b>
	Philanthropic	<b>.3789039***</b>	<b>0.000</b>
	Economic	<b>-.075667</b>	<b>0.273</b>

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis is placed on \*\*\* p<0.01, \*\* p<0.05}*

In this series, it can be seen that a positive relationship flows from firm level resources to CSR strategy selection. The evidence in this section shows that there is a positive link and flow from CSR strategies to firm level growth imperatives in the retail industry.

In the relationship between the tangible and the ethical variable, 21% of changes in the economic SR strategy positively influence tangible resources at the 91% confidence level.

In the second strand, the evidence suggests that in the series when the ethical variable is treated as an explanatory variable, 40% changes in ethical variable affect the dependent variable intangible resources at the 100% confidence interval. Furthermore, empirical evidence observed in the relationship between intangible (dependent) and environmental (explanatory) indicates that 23% of changes in the explanatory variable influence dependent variable intangible resources; and, in the relationship between the intangible (dependent) and the philanthropic (explanatory) variable, the results show that 4% changes in the philanthropic dependent variable affects the intangible resources variable at the 100% confidence level.

In the third strand, the evidence showed that in the relationship between the profit and ethical corporate responsibility strategy variables, 19% changes in the ethical variable positively influenced changes in the economic variable at the 0.03 probability level. In the relationship between the economic dependent variable and the environmental explanatory variable, the results showed that 19% changes in the environment positively affects changes in the economic variable at the 0.03 probability value. Furthermore, identical results were recorded in the relationship between the economic dependent variable and the philanthropic (explanatory variable), so the evidence suggests that 38% changes in the philanthropic variable affects the dependent variable at the 100% confidence level.

In this connection, evidence in the retail industry suggests that the implementation of CSR strategies enhance goodwill of SMEs in their respective communities. For instance, the comparatively localised character of SMEs makes it easy for employees and owners to be well known in the community. This assists SMEs to strongly identify with the community which is a good thing for their growth. The community-related activities they engage in include sports, health, and education as well as other philanthropic work.

- **Hypothesis 3:** there is a positive causal relationship flowing from firm level resource to CSR strategy.

In hypothesis 3, the empirical evidence is informed by the results if the PA. In particular, the PA was conducted to test for unidirectional and bidirectional causality of the study variable in the retail sector. Table 5.73 below illustrates the causal direction flowing from firm level resources to CSR strategies.

**Table 5.73: Evidence on Hypothesis 3 Retail Sector**

Dependent Variable	Explanatory Variable	Coefficient	Probability Value
Economic	tangible	.2494626**	0.018
	intangible	.4498518***	0.000
	profit	-.0127517	0.927
	_cons	11.48982	0.003
environ	tangible	.0901442	0.165
	intangible	.2612928***	0.000
	profit	.2893612***	0.001
	_cons	-5.391736	0.023
phil	tangible	.0172225	0.795
	intangible	.2375689***	0.000
	profit	.3890508***	0.000
	_cons	-1.16289	0.631
ethical	tangible	.2307546**	0.006
	intangible	.5121871***	0.000
	profit	.2417021**	0.029
	_cons	1.533578	0.619

The results are computed separately for each equation using the appropriate residuals  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis are placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }

The results shown in the above table indicate that there is a causal direction flowing from firm level growth imperatives to CSR strategies. In this connection, the empirical evidence concurs with the literature review expressed by Solovjova and Sivolapova (2021) who stated that the SMEs consider CSR not as an extra activity but an integral part of the entire operational culture. Rozsa *et al.* (2021) averred that while CSR remains informal and unstructured, it is embedded in the daily management systems of SMEs. The following section describes the major differences between SMEs and larger corporate businesses (Spence, 2007):

- **Hypothesis 4:** there is a positive causal relationship flowing from the CSR strategy to firm level growth imperatives.

In this series, the causality of the variables was regressed with CSR strategies as explanatory variables explain the changes in firm level growth imperatives. Therefore, the results in the series are informed by the results of the PA.

**Table 5.74: Evidence on Hypothesis 4 Retail Sector**

		Coefficient	P> z
<b>Structural Tangible</b>	economicethical	<b>.1841004*</b>	<b>0.067</b>
	environ	<b>.3441545**</b>	<b>0.003</b>
	phil	<b>.1867492</b>	<b>0.224</b>
	_cons	<b>.127674</b>	<b>0.349</b>
		<b>18.09663</b>	<b>0.000</b>
intangible	economicethical	<b>.1676823*</b>	<b>0.050</b>
	environ	<b>.4695346***</b>	<b>0.000</b>
	phil	<b>.2584825**</b>	<b>0.048</b>
	_cons	<b>.3724357</b>	<b>0.001</b>
		<b>8.472156</b>	<b>0.002</b>
profit	economicethical	<b>-.0866254</b>	<b>0.198</b>
	environ	<b>.1595837**</b>	<b>0.041</b>
	phil	<b>.1782864*</b>	<b>0.084</b>
	_cons	<b>.3621272***</b>	<b>0.000</b>
		<b>5.329792</b>	<b>0.015</b>

*The results are computed separately for each equation using the appropriate residuals  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

Evidence in the above table, indicates that there is a causal direction flowing from CSR strategies to firm level growth imperative variables. Accordingly, the evidence drawn from this series concurs with the literature review in saying that SMEs and society enjoy a symbiotic relationship as all businesses are a product of society, as they survive due to society's patronage (Moon & Parc, 2019). Consequently, society exercises a degree of regulation on businesses in terms of the way they execute their services. CRS therefore adopts programmes that a business enterprise is expected to run in order to meet the objectives of multiple stakeholders and maintain cordial relationships with the community from which the business is derived. Corporate entities are often regarded as progressive partners in the communities in which they operate. They contribute to the creation of wealth, provide job opportunities but also assist with the development of products and services that are relevant to those communities.

### 5.8.3 Discussion in the mining sector

In this section the researcher presents a discussion on the mining sector. This, in particular, analyses the hypotheses developed in the conceptual framework in the context of empirical evidence on the mining sector. Table 5.75 below illustrates the analysis of hypothesis 1.

- **Hypothesis 1:** there is a positive relationship flowing from firm level resource to CSR strategy selection.

**Table 5.75: Evidence on Hypothesis 1 Mining Sector**

Dependent Variable	Explanatory Variable	Coefficient	Probability Value
Ethical	tangible	.1103583	0.131
	Intangible	-.0116274	0.905
	Profit	.1367747	0.429
Dependent Variable	Explanatory Variable	Coefficient	Probability Value
Economic	Tangible	.0901817	0.244
	Intangible	.2445148**	0.015
	Profit	-.080018	0.662
Dependent Variable	Explanatory Variable	Coefficient	Probability Value
Philanthropic	Tangible	-.0500244	0.267
	Intangible	.1871494*	0.001
	Profit	.1648316	0.117
Dependent Variable	Explanatory Variable	Coefficient	Probability Value
Environment	Tangible	-.1002108	0.091
	Intangible	.0180579	0.821
	Profit	.2615784*	0.067

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

In the first section, it is revealed that when ethical CSR is treated as a dependent variable, the evidence showed that none of firm level growth imperatives were statistically significant. In the second section, the evidence shows that 24% changes in intangible resources influence changes in the dependent variable (economic) at the 92% confidence level. In the third section, philanthropy is treated as a dependent variable. In the relationship between philanthropic and intangible resources variables, the evidence indicates that 19% changes in the intangible resources variable positively influenced changes in the environmental variable at the 0.00 probability level; and, in the fourth section, there is no econometrics and statistical evidence that suggest that a positive relationship flows from firm level variables to CSR strategies.

Overall, in the mining sector there is scanty evidence that indicates that firm level variables influence changes in the implementation of CSR strategies. For instance, the evidence from this study is consistent with certain literature analyses that show that, because of cost imperatives some SMEs find it difficult to implement CSR strategies. For example, the cost of implementing CSR projects is often seen as too steep within the context of the financial base of most SMEs which lack the necessary resources to embark on such activities when survival is usually the greatest economic desire. In addition, there are time constraints which affect commitment to CSR initiatives since small business operators are preoccupied with the day-to-day management of their businesses and with bigger issues.

- **Hypothesis 2:** there is a positive relationship flowing from CSR strategy selection to firm level resources.

**Table 5.76: Evidence on Hypothesis 2 Mining Sector**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Tangible	Ethical	<b>.1840924</b>	<b>0.131</b>
	Environmental	<b>-.2519841</b>	<b>0.091</b>
	Philanthropic	<b>-.2214045</b>	<b>0.267</b>
	Economic	<b>.2086834**</b>	<b>0.015</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Intangible	Ethical	<b>-.0110425</b>	<b>0.905</b>
	Environmental	<b>.025851</b>	<b>0.821</b>
	Philanthropic	<b>.4715693**</b>	<b>0.001</b>
	Economic	<b>.1236731</b>	<b>0.143</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Profit	Ethical	<b>.041348</b>	<b>0.429</b>
	Environmental	<b>.1192005*</b>	<b>0.060</b>
	Philanthropic	<b>.1322093</b>	<b>0.117</b>
	Economic	<b>-.0217388</b>	<b>0.662</b>

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis is placed on \*\*\* p<0.01, \*\* p<0.05}*

Evidence in this study, indicates there is little evidence that suggests that there is a relationship flowing from CSR strategy variables to firm level growth imperatives. This evidence contradicts the literature evidence discussed in Chapter Two and Three to some degree. In particular, this evidence contradicts Penrose (1959)'s theory of the growth of the firm and the RBVs (Barney, 2015). For instance, these seminal theories indicated that from a firm level perspective, the theorists proposed that dynamic

capabilities had a causative effect on organisational performance (Barney & Mackey, 2016:370). The theories suggested that a firm's dynamic capabilities and resources are inherent in its competencies and capacities that enable the firm to create new products and processes, as well as adapt to the volatile business environment. They anchor the firm's competitive advantages. In this view, firm level dynamic capabilities influence organisational processes such as managerial capacities, knowledge, positions, technology, endowment, intellectual property, and options available for strategic positions.

- **Hypothesis 3:** there is a positive causal relationship flowing from firm level resource to CSR strategy.

In hypothesis 3, the empirical evidence is informed by the results of the PA. In particular, the PA was conducted to test for unidirectional and bidirectional causality among study variables in the mining sector. Table 5.77 below illustrates the causal direction flowing from firm level resources to CRS strategies.

**Table 5.77: Evidence on Hypothesis 3 Mining Sector**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structura I</b>							
economy	tangible	.1678631 *	.0879422	1.91	0.056	-.0045005	.3402267
	intangible	.4165768***	.1077714	3.87	0.000	.2053488	.6278048
	profit	.1566479	.2016112	0.78	0.437	-.2385028	.5517987
	_cons	13.66013	3.934793	3.47	0.001	5.94808	21.37219
ethical	tangible	.1363363	.096699	1.41	0.159	-.0531901	.3258628
	intangible	.3462901***	.1185025	2.92	0.003	.1140294	.5785508
	profit	.5799531***	.2216864	2.62	0.009	.1454557	1.01445
	_cons	6.808789	4.326595	1.57	0.116	-1.671181	15.28876
environ	tangible	-.0708846	.0670478	-1.06	0.290	-.2022959	.0605267
	intangible	.1354381 *	.0821657	1.65	0.099	-.0256037	.2964799
	profit	.4907398***	.1537099	3.19	0.001	.1894739	.7920057
	_cons	3.897767	2.999916	1.30	0.194	-1.981959	9.777494
phil	tangible	-.0317809	.0470458	-0.68	0.499	-.123989	.0604271
	intangible	.2556211***	.0576536	4.43	0.000	.1426221	.3686201
	profit	.2851024***	.1078544	2.64	0.008	.0737116	.4964932
	_cons	1.789619	2.104966	0.85	0.395	-2.336039	5.915277

The results are computed separately for each equation using the appropriate residuals  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}

In the series the evidence suggests that SMEs in the Mining Industry invest in CSRs strategies and initiatives. Evidence in this study concurs with the literature analysis which indicates that SME investment in CSR strategies is focused on four main aspects; namely, (1) to meet objectives that produce long-term profits, (2) to use business power in a responsible way, (3) to integrate social demands and (4) to contribute to a good society by doing what is ethically correct. This is what leads to the classification of the most relevant theories on CSR and related CSR concepts into four categories termed instrumental, political, integrative and value theories (Jahn & Brühl,2018).

- **Hypothesis 4:** there is a positive causal relationship flowing from CSR strategy to firm level growth imperatives.

In this series, the causality of study variables was regressed with CSR strategies as explanatory variables explaining the changes in firm level growth imperatives. Therefore, results in the series are informed by the results of the PA.

**Table 5.78: Evidence of Hypothesis 4 Mining Sector**

		Coefficient	OIM std.err.	Z	P> z	[95% conf. interval]	
<b>Structura</b>   tangible	econom	<b>.3920295***</b>	<b>.1304521</b>	<b>3.01</b>	<b>0.003</b>	<b>.136348</b>	<b>.6477109</b>
	icethic	<b>.2747199</b>	<b>.1441895</b>	<b>1.91</b>	<b>0.057</b>	<b>-.0078862</b>	<b>.5573261</b>
	alenvir	<b>*</b>	<b>.1756444</b>	<b>-1.50</b>	<b>0.133</b>	<b>-.6084671</b>	<b>.0800463</b>
	on	<b>-.2642104</b>	<b>.2231914</b>	<b>1.07</b>	<b>0.283</b>	<b>-.1979213</b>	<b>.6769727</b>
	phil	<b>.2395257</b>	<b>4.331276</b>	<b>3.40</b>	<b>0.001</b>	<b>6.257635</b>	<b>23.23592</b>
	_cons	<b>14.74678</b>					
intangible	econom	<b>.3661442***</b>	<b>.0984745</b>	<b>3.72</b>	<b>0.000</b>	<b>.1731378</b>	<b>.5591507</b>
	icethic	<b>.1088224</b>	<b>.1088444</b>	<b>1.00</b>	<b>0.317</b>	<b>-.1045088</b>	<b>.3221535</b>
	alenvir	<b>-.0566419</b>	<b>.1325889</b>	<b>-0.43</b>	<b>0.669</b>	<b>-.3165113</b>	<b>.2032275</b>
	on	<b>.6021413***</b>	<b>.1684807</b>	<b>3.57</b>	<b>0.000</b>	<b>.2719252</b>	<b>.9323573</b>
	phil	<b>15.12142</b>	<b>3.269554</b>	<b>4.62</b>	<b>0.000</b>	<b>8.713213</b>	<b>21.52963</b>
	_cons						
profit	econom	<b>.0202262</b>	<b>.0477986</b>	<b>0.42</b>	<b>0.672</b>	<b>-.0734574</b>	<b>.1139098</b>
	icethic	<b>.0612399</b>	<b>.0528321</b>	<b>1.16</b>	<b>0.246</b>	<b>-.0423092</b>	<b>.1647889</b>
	alenvir	<b>.1031618</b>	<b>.0643575</b>	<b>1.60</b>	<b>0.109</b>	<b>-.0229765</b>	<b>.2293001</b>
	on	<b>.1822204**</b>	<b>.081779</b>	<b>2.23</b>	<b>0.026</b>	<b>.0219365</b>	<b>.3425044</b>
	phil	<b>9.410576</b>	<b>1.587013</b>	<b>5.93</b>	<b>0.000</b>	<b>6.300088</b>	<b>12.52106</b>
	_cons						

*The results are computed separately for each equation using the appropriate residuals  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

The evidence in the above table suggests that the causal flow from CSR strategies and firm level growth imperatives in the mining industry is inclusive and cannot reliably

ascertain the path dependency of explanatory and dependent variables. Therefore, the evidence in this section negates the evidence observed in the retail and manufacturing sections. This evidence concurs with literature analysis in Chapters Two and Three. In recent studies of the relationship between CSR and financial performance, researchers have primarily addressed the first question, and the results have been very mixed. The studies indicated no relationship (Cheffi *et al.*, 2021), or a positive relationship (Lee *et al.*, 2020), or a negative relationship.

#### 5.8.4 Discussion on the finance and technology sector

In this section, we present a discussion on the finance and technology sector. This, in particular, presents an analysis on the hypotheses developed in the conceptual framework in the context of empirical evidence on the sector. Table 5.79 below illustrates an analysis of hypothesis 1.

- **Hypothesis 1:** there is a positive relationship flowing from firm level resource and CSR strategy selection.

**Table 5.79 : Evidence on Hypothesis 1 Finance Sector**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Ethical	Tangible	<b>.1187628**</b>	<b>0.153</b>
	Intangible	<b>.0464278</b>	<b>0.438</b>
	Profit	<b>.1215945</b>	<b>0.194</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Economic	Tangible	<b>.0869088</b>	<b>0.244</b>
	Intangible	<b>.28436***</b>	<b>0.000</b>
	Profit	<b>-.0270093</b>	<b>0.801</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Philanthropic	Tangible	<b>-.0215228</b>	<b>0.583</b>
	Intangible	<b>.0708144</b>	<b>0.103</b>
	Profit	<b>.3686783***</b>	<b>0.000</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Environment	Tangible	<b>-.0107096</b>	<b>0.759</b>
	Intangible	<b>.0366208</b>	<b>0.346</b>
	Profit	<b>.0602957</b>	<b>0.323</b>

*The results are computed separately for each equation using the appropriate residuals*

*\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

In this series, the evidence on the hypothesis that there is a positive relationship flowing from firm level growth imperatives to CSR strategy implementation is inconclusive, given the econometrics results in the above table. This evidence concurs with some sections of the literature review that propose that for SMEs, the cost of implementing CSR is often seen as too steep within the context of the financial basis of most SMEs which lack the necessary resources to embark on such activities and when survival is usually the greatest economic target. There are time constraints which affect commitment to CSR initiatives since small business operators are preoccupied with the day-to-day management of their businesses and with bigger issues (Singh & Dhir, 2019; Wymer, 2021; Risks, 2005; Cortes & Lee, 2021).

- **Hypothesis 2:** there is a positive relationship flowing from CSR strategy selection to firm level resources.

**Table 5.80: Evidence on Hypothesis 2 in Technology Sector**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Tangible	Ethical	<b>.1859787**</b>	<b>0.025</b>
	Environmental	<b>-.0396992</b>	<b>0.759</b>
	Philanthropic	<b>-.0634118</b>	<b>0.583</b>
	Economic	<b>.1052364</b>	<b>0.153</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Intangible	Ethical	<b>.0585374</b>	<b>0.438</b>
	Environmental	<b>.1092974</b>	<b>0.346</b>
	Philanthropic	<b>.1679829</b>	<b>0.103</b>
	Economic	<b>.2772321***</b>	<b>0.000</b>
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Profit	Ethical	<b>.0622307</b>	<b>0.194</b>
	Environmental	<b>.0730472</b>	<b>0.323</b>
	Philanthropic	<b>.3549979***</b>	<b>0.000</b>
	Economic	<b>-.0106886</b>	<b>0.662</b>

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

In this this hypothesis, little evidence suggests that there is a positive relationship flowing from CSR strategies to firm level growth imperatives. Thus, in the finance and technology economic sector there is no evidence that firm level resources are informed by changes in CSR strategies. This evidence contrasts with the literature reviewed in Chapters Three and Four. For instance, as noted in the literature analysis, the

expectations of society are that business organisations should undertake CSR beyond the legal obligations and profit realisation to include social and economic development as well as environmental sustainability (WBCSD, 2009)

- **Hypothesis 3:** there is a positive causal relationship flowing from firm level resource to CSR strategy.

In hypothesis 3, the empirical evidence is informed by the results if the PA. In particular, the PA was conducted to test for unidirectional and bidirectional causality in respect of the study variable in the Technology and Financial sector. Table 5.81 below illustrates the causal direction flowing from firm level resources to CRS strategies.

**Table 5.81: Evidence on Hypothesis 3 Finance Sector**

		Coefficient	OIM std.err.	Z	P> z	[95percentconf. interval]	
<b>Structura</b>							
<b>I</b>							
Economic							
	tangible	<b>.2127863***</b>	<b>.068619</b>	<b>3.10</b>	<b>0.002</b>	<b>.0782955</b>	<b>.3472771</b>
	intangible	<b>.4767912***</b>	<b>.070888</b>	<b>6.73</b>	<b>0.000</b>	<b>.3378534</b>	<b>.6157291</b>
	profit	<b>.241006</b>	<b>.1102212</b>	<b>2.19</b>	<b>0.029</b>	<b>.0249763</b>	<b>.4570356</b>
	_cons	<b>8.359329</b>	<b>2.603658</b>	<b>3.21</b>	<b>0.001</b>	<b>3.256253</b>	<b>13.46241</b>
Ethical							
	tangible	<b>.2605809***</b>	<b>.0717964</b>	<b>3.63</b>	<b>0.000</b>	<b>.1198625</b>	<b>.4012994</b>
	intangible	<b>.3898364***</b>	<b>.0741704</b>	<b>5.26</b>	<b>0.000</b>	<b>.244465</b>	<b>.5352077</b>
	profit	<b>.5195043***</b>	<b>.115325</b>	<b>4.50</b>	<b>0.000</b>	<b>.2934714</b>	<b>.7455372</b>
	_cons	<b>1.532972</b>	<b>2.724221</b>	<b>0.56</b>	<b>0.574</b>	<b>-3.806403</b>	<b>6.872346</b>
Environ							
	tangible	<b>.0746637</b>	<b>.0415766</b>	<b>1.80</b>	<b>0.073</b>	<b>-.0068249</b>	<b>.1561523</b>
	intangible	<b>.1723146***</b>	<b>.0429513</b>	<b>4.01</b>	<b>0.000</b>	<b>.0881315</b>	<b>.2564976</b>
	profit	<b>.264091***</b>	<b>.0667835</b>	<b>3.95</b>	<b>0.000</b>	<b>.1331977</b>	<b>.3949844</b>
	_cons	<b>.2084543</b>	<b>1.577568</b>	<b>0.13</b>	<b>0.895</b>	<b>-2.883523</b>	<b>3.300431</b>
Phil							
	tangible	<b>.0210655</b>	<b>.0397663</b>	<b>0.53</b>	<b>0.596</b>	<b>-.0568751</b>	<b>.0990061</b>
	intangible	<b>.1433845***</b>	<b>.0410812</b>	<b>3.49</b>	<b>0.000</b>	<b>.0628668</b>	<b>.2239023</b>
	profit	<b>.4615299***</b>	<b>.0638758</b>	<b>7.23</b>	<b>0.000</b>	<b>.3363356</b>	<b>.5867241</b>
	_cons	<b>1.61448</b>	<b>1.508881</b>	<b>1.07</b>	<b>0.285</b>	<b>-1.342872</b>	<b>4.571833</b>

*The results are computed separately for each equation using the appropriate residuals*

*\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

In this series, the evidence showed that there is a causal flow from firm level growth imperatives to CSR strategy as informed by a series of explanatory variables that are statistically significant. This evidence buttresses the literature analysis's conclusion that in developing economies, studies conducted on SMEs indicate a rising incidence in the promotion of entrepreneurship enterprises, which contributes significantly to

efforts to curb unemployment in the country (Kowo *et al.*, 2019). The SMEs also assist in driving national development as in the cases of developed economies (Esther *et al.*, 2018).

- **Hypothesis 4:** there is a positive causal relationship flowing from CSR strategy to firm level growth imperatives.

In this series, the causality of study variables was regressed with CSR strategies as explanatory variables explaining the changes in firm level growth imperatives. Therefore, the results in the series are informed by the results of the PA.

**Table 5.82 : Evidence on Hypothesis 4 Technology Sector**

		Coefficient	OIM std.err.	Z	P> z	[95percentco nf.	interval]
<b>Structura l</b> tangible	economicet	<b>.2817166***</b>	<b>.0758938</b>	<b>3.71</b>	<b>0.000</b>	<b>.1329675</b>	<b>.4304657</b>
	hicalenvir	<b>.2703604***</b>	<b>.0903568</b>	<b>2.99</b>	<b>0.003</b>	<b>.0932643</b>	<b>.4474565</b>
	on	<b>.027399</b>	<b>.141935</b>	<b>0.19</b>	<b>0.847</b>	<b>-.2507876</b>	<b>.3055874</b>
	phil _cons	<b>9</b> <b>.085610</b>	<b>.1170025</b> <b>2.353556</b>	<b>0.73</b> <b>8.03</b>	<b>0.464</b> <b>0.000</b>	<b>-.1437104</b> <b>14.29653</b>	<b>.3149309</b> <b>23.5223</b>
intangible	economic	<b>.3833287***</b>	<b>.0682757</b>	<b>5.61</b>	<b>0.000</b>	<b>.2495108</b>	<b>.5171465</b>
	ethical	<b>.1689206**</b>	<b>.0812869</b>	<b>2.08</b>	<b>0.038</b>	<b>.0096011</b>	<b>.32824</b>
	environ	<b>.130728</b>	<b>.1276878</b>	<b>1.02</b>	<b>0.306</b>	<b>-.1195349</b>	<b>.3809919</b>
	phil _cons	<b>5</b> <b>.2514369**</b>	<b>.1052579</b> <b>2.117309</b>	<b>2.39</b> <b>6.96</b>	<b>0.017</b> <b>0.000</b>	<b>.0451352</b> <b>10.57763</b>	<b>.4577386</b> <b>18.87733</b>
profit	Economic	<b>.019619</b>	<b>.0397534</b>	<b>0.49</b>	<b>0.622</b>	<b>-.0582959</b>	<b>.0975347</b>
	Ethical	<b>4</b>	<b>.0473292</b>	<b>1.69</b>	<b>0.091</b>	<b>-.0127495</b>	<b>.1727776</b>
	environ	<b>.0800141*</b>	<b>.0743461</b>	<b>1.09</b>	<b>0.274</b>	<b>-.0644118</b>	<b>.2270194</b>
	phil _cons	<b>8</b> <b>.081303</b> <b>.3718747***</b>	<b>.0612863</b> <b>1.232801</b>	<b>6.07</b> <b>4.22</b>	<b>0.000</b> <b>0.000</b>	<b>.2517557</b> <b>2.791282</b>	<b>.4919937</b> <b>7.623773</b>
		<b>5.20752</b> <b>8</b>					

*The results are computed separately for each equation using the appropriate residuals  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

In this section, in the causality test in technology and finance sector, the empirical evidence strongly indicates that there is a causal relationship flowing from CSR strategies to firm level growth imperatives variables. This evidence is consistent with the literature review and analysis, as noted by Maier *et al.* (2019) in proposing that formulating actions is quite different from measuring the results that have been

generated by those actions. It is also necessary to mitigate or reduce both the negative social and environmental impacts generated by business activities, while increasing the company's sustainability efforts. CSP is therefore studied under two dimensions. One dimension is the approach where the principles of social responsibility are devised to meet the interests of the various corporate stakeholders; and the other suggests that CSR strategy has a causative effect on firm level growth imperatives.

## **5.9 CONCLUSION IN THE MANUFACTURING INDUSTRY**

In this section, we present the conclusions arrived at regarding the manufacturing sector. This, in particular, targets an analysis of the hypotheses developed in the conceptual framework.

- **Null Hypothesis:** there is no positive relationship flowing from firm level resource and CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability values.
- **Alternative Hypothesis:** there is a positive relationship flowing from firm level resource and CSR strategy selection; measured at  $p < 0.01$ , 0.5 and 0.10 probability values.

**Table 5.83: Conclusion on Hypothesis 1**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision Rule</b>
Ethical	Tangible	.1216035***	Reject the Null Hypothesis
	Intangible	.1060587**	Reject the Null Hypothesis
	Profit	.1494404**	Reject the Null Hypothesis
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision Rule</b>
Economic	Tangible	.093206*	Reject the Null Hypothesis
	Intangible	.2515971***	Reject the Null Hypothesis
	Profit	-.0663652	The null hypothesis not rejected
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision Rule</b>
Philanthropic	Tangible	-.0135393	The null hypothesis not rejected
	Intangible	.1012078***	The null hypothesis not rejected
	Profit	.3646264***	Reject the Null Hypothesis
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision Rule</b>
Environment	Tangible	-.0010667	The null hypothesis not rejected
	Intangible	.0614041*	Reject the Null Hypothesis
	Profit	.0976354*	Reject the Null Hypothesis

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis are placed on \*\*\* p<0.01, \*\* p<0.05}*

In this hypothesis, the CSR strategies are treated as dependent variables while the firm level growth variables are treated as explanatory variables. For example, in the relationship between the economic social responsibilities variable and the tangible resources variable, the evidence suggests that 9% of changes in tangible resources positively influence changes in economic social responsibility variables at the 94% confidence level. Thus, the null hypothesis of no relationship is rejected at the 6% probability level. As we examine the relationship between the economic social responsibilities variable and the intangible resources variable, the evidence suggests that 25% of changes in intangible resources positively influence changes in the economic social responsibility variables at the 100% confidence level. Thus, the null hypothesis of no relationship is rejected with a 0.0 probability value. Furthermore, the evidence shows that 50% changes in CSR strategy causes changes in economic social responsibility strategy at the 100% confidence level. Thus, the null hypothesis of no relationship is rejected at the 0.0 probability value.

Secondly, in a series where the economic corporate responsibility strategy is treated as a dependent variable and firm level growth variables are treated as explanatory variables the evidence suggests that a 1% change to intangible resources influence the dependent variable at the 90% confidence interval; and the null hypothesis of no positive relationship is rejected at  $p < 0.10$  statistical significance. In the relationship between economic CSR and the dependent variable intangible resources, the evidence suggests that a 25% change in tangible resources influences the dependent variable at a 100% confidence level. Therefore, the null hypothesis is rejected at the 0.00 probability level.

Thirdly, the evidence observed in the series whereby the dependent variable environment CSR strategies was regressed with firm level growth imperatives, the evidence suggests that suggests that 8% changes in profit positively explain changes in the dependent variable at the 95% confidence level. Thus, the null hypothesis is rejected at  $p < 0.0$  probability value. Lastly, in this series, econometric evidence indicates that 6% changes in intangible resources influence changes in the dependent variable at the 93% confidence level. Again, the null hypothesis of this relationship is rejected at the  $p < 0.07$  probability level.

Fourthly, the evidence in the table above showed that two firm level growth variables have a positive and statistically significant relationship with the dependent philanthropic CSR strategy variable and thus, the null hypothesis of no relationship was rejected twice. For example, in the relationship between the philanthropic and the intangible resources variables, the evidence indicated that 10% changes in the intangible resources variable positively influenced changes in the environmental variable at the 0.00 probability level. In addition, the evidence indicated that 36% changes in the profit variable influenced changes in the dependent variable at the 100% confidence level. In both these relationships, the null hypothesis of no relationship was rejected at the  $p < 0.00$  probability level. To conclude, the evidence suggests that there is a positive flow from firm level growth variables in the manufacturing industry in KZN province. This suggests that SMEs in KZN should invest in CSR activities.

- **Null Hypothesis:** there is no positive relationship flowing from CSR strategy selection to firm level resources measured at  $p < 0.01$ , 0.5 and 0.10 probability values.
- **Alternative Hypothesis:** there is a positive relationship flowing from CSR strategy selection to firm level resources measured at  $p < 0.01$ , 0.5 and 0.10 probability values.

**Table 5.84: Conclusion on Hypothesis 2 Manufacturing Sector**

Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Tangible	Ethical	.1832195*	Reject the null hypothesis
	Environmental	-.003308	The null hypothesis not rejected
	Philanthropic	-.0369282	The null hypothesis not rejected
	Economic	.1085118*	Reject the null hypothesis
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Intangible	Ethical	.1271331**	Reject the null hypothesis
	Environmental	.1514934*	Reject the null hypothesis
	Philanthropic	.2196147***	Reject the null hypothesis
	Economic	.2330373***	Reject the null hypothesis
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Profit	Ethical	.0817879**	Reject the null hypothesis
	Environmental	.1099796*	Reject the null hypothesis
	Philanthropic	.3612467***	Reject the null hypothesis
	Economic	-.0280652	Null hypothesis not rejected

*The results are computed separately for each equation using the appropriate residuals*

*\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis is placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

In this series, there is a positive relationship flowing between firm level resources and CSR strategy selection. Furthermore, in the relationship between tangible and ethical social responsibility strategy, the evidence suggests that 18% of changes in ethical social responsibility strategy positively influenced tangible resources at the 97% confidence level. Furthermore, in the relationship between tangible and economic CSR strategy, the evidence suggests that 11% of changes in the economic variable positively influence the tangible resources variable at the 100% confidence level. In both these instances, the null hypothesis is rejected; hence concluding that there is positive relationship flowing from CSR variables to firm level growth variables.

As noted, in the relationship between the profit variable and the ethical corporate responsibility strategy variable, the evidence indicates that 8% changes in the ethical variable positively influences changes in the economic variable at the 0.04 probability level. Thus, the null hypothesis of no relationship is statistically rejected at the 96%

confidence level. Furthermore, identical results are recorded in the relationship between the economically dependent variable and the philanthropic variable (explanatory variable). The evidence suggests that 36% changes in philanthropic positively explain changes in the dependent variable at the 100% confidence level. Thus, the null hypothesis is statistically rejected at the 0.00 probability level. In addition, in the relationship between profit and environment, the evidence showed that 11% changes influence changes in environment influence which, in turn, affects the profitability of SMEs in the manufacturing industry of KZN.

In intangible resources, the null hypothesis was rejected four times. For instance, it was rejected in the relationship between intangible resources and ethical CSR. The null hypothesis was rejected at  $p < 0.02$  probability level as 13% of changes in ethical CSR influence changes in intangible resources. Furthermore, the evidence showed that 15% changes in environmental CSR influence intangible resources at the  $p < 0.10$  probability value, hence the null hypothesis is rejected. Similarly, 22% changes in the philanthropic variable influences changes in intangible resources at the 0.00 probability level hence the null hypothesis is rejected.

- **Null Hypothesis:** there is no positive causal relationship flowing from firm level resource to CSR strategy, measured at  $p < 0.01$ , 0.05 and 0.10 probability level.
- **Alternative Hypothesis:** there is a positive causal relationship flowing from firm level resource to CSR strategy, measured at the  $p < 0.01$ , 0.05 and 0.10 probability values.

In hypothesis 3, the empirical evidence is informed by the results if the PA. In particular, the PA was conducted to test for unidirectional and bidirectional causality with the variable. Table 6.3 illustrates the conclusion based on the rejection of the null hypothesis and the null hypothesis not being rejected for SMEs in the manufacturing industry.

**Table 5.85: Conclusion on Hypothesis 3 Manufacturing Sector**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision Rule</b>
Ethical	tangible	.218083***	Reject the null hypothesis
	Intangible	.4728536***	Reject the null hypothesis
	Profit	.171847**	Reject the null hypothesis
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Economic	tangible	.2504549***	Reject the null hypothesis
	Intangible	.4296388***	Reject the null hypothesis
	Profit	.4327488***	Reject the null hypothesis
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Philanthropic	tangible	.0196221	Null hypothesis not rejected
	Intangible	.1737438***	Reject the null hypothesis
	Profit	.4412263***	Reject the null hypothesis
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Probability Value</b>
Environment	tangible	.0715161**	Reject the null hypothesis
	Intangible	.2044639***	Reject the null hypothesis
	Profit	.2815609***	Reject the null hypothesis

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis is placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

As noted, in the above Table, in this analysis, the empirical evidence indicated that there is a causal direction flowing from firm level growth imperatives to CSR strategies. The evidence concurs with the literature analysis and synthesis reviewed in Chapters Two and Three. In ethical CSR, the null hypothesis was rejected three times, between ethical and tangible resources, between ethical and intangible resources and between ethical and profit. The rejection of the null hypothesis suggests that there is a positive relationship flowing from firm level resources to CSR.

In the second section, in economic CSR, the null hypothesis was rejected three times, between economic and tangible resources, between economic and intangible resources and between the economic and profit variables. The rejection of the null hypothesis suggests that there is a positive relationship flowing from firm level resources to economic CSR.

In the second series, in economic CSR, the null hypothesis is rejected three times, between economic and tangible resources, between economic and intangible and between economic and profit variables. The rejection of the null hypothesis suggests that there is a positive relationship flowing from firm level resources to economic CSR.

In the third section, in philanthropic CSR, the null hypothesis is rejected two times, between philanthropic and intangible and between philanthropic and profit. The rejection of the null hypothesis suggests that there is a positive relationship flowing from firm level resources to economic CSR.

In the fourth strand, in environment CSR, the null hypothesis is rejected three times, between environment and tangible resources, between environment and intangible and between environment and profit. The rejection of the null hypothesis suggests that there is a positive relationship flowing from firm level resources to economic CSR.

- **Null Hypothesis:** there is no positive causal relationship flowing from CSR strategy to firm level growth imperatives, measured at  $p < 0.01$ , 0.05 and 0.10 probability level.
- **Alternative Hypothesis:** there is a positive causal relationship flowing from CSR strategy to firm level growth imperatives measured at  $p < 0.01$ , 0.05 and 0.10 probability levels.

In this series, the causality of the study variables was regressed with CSR strategies, as explanatory variables explaining the changes in firm level growth imperatives and the decision rule on the null hypothesis. Therefore, the results in the series are informed by the results of the PA. Table 5.86 below illustrates the results of hypothesis 4.

**Table 5.86: Conclusion on Hypothesis 4 Manufacturing Sector**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision rule</b>
Tangible	Ethical	.2870588***	Reject the null hypothesis
	Environmental	.0825462	Null hypothesis not rejected
	Philanthropic	.0987524	Null hypothesis not rejected
	Economic	.2440484***	Reject the null hypothesis
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision rule</b>
Intangible	Ethical	.2343416***	Reject the null hypothesis
	Environmental	.1514934**	Reject the null hypothesis
	Philanthropic	.2883612***	Reject the null hypothesis
	Economic	.3155489***	Reject the null hypothesis
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision rule</b>
Profit	Ethical	.0949558**	Reject the null hypothesis
	Environmental	.1190198*	Reject the null hypothesis
	Philanthropic	.3612467**	Reject the null hypothesis
	Economic	-.0119213	Null hypothesis not rejected

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis are placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

In this series, the causal analysis, the evidence suggests that there is causality from the causal relationship flowing from CSR strategies to firm level growth variables. In this series, the conclusion is based on the rejection of the null hypothesis and the non-rejection of the null hypothesis in view of observed evidence.

Firstly, regarding tangible resources the null hypothesis results from the relationship flowing from ethical CSR to the tangible resources at  $p < 0.01$ . Secondly, in intangible resources, the null hypothesis was rejected four times. Namely, in the relationship between intangible and economic, intangible and philanthropic, intangible and environmental and intangible and ethical CSR, the null hypothesis was rejected.

Third, regarding the profit variable, the null hypothesis was rejected three times; namely, In the relationship between profit and ethical CSR, between profit and environmental and between profit and philanthropic the null hypothesis was rejected. To conclude, the evidence suggests that there is causal relationship flowing from CSR strategies to firm level growth imperatives.

### 5.9.1 Conclusion in the retail sector

In this section, we present the discussion and the conclusion in the retail sector. This, in particular, targets an analysis of the hypotheses developed in the conceptual framework in the context of empirical evidence on the retail sector. Table 6.4 illustrates the analysis of hypothesis 1.

- **Null Hypothesis:** there is a positive relationship flowing from firm level resource and CSR strategy selection measured at the  $p < 0.01$ , 0.05, 0.10 probability level.
- **Alternative Hypothesis, Null Hypothesis:** there is no positive relationship flowing from firm level resource variable to the CSR strategy selection variable, measured at  $p < 0.01$ , 0.05, 0.10 probability level.

**Table 5.87: Conclusion on Hypothesis 1 Retail Sector**

Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Ethical	Tangible	.1297891*	Reject the null hypothesis
	Intangible	.3382864***	Reject the null hypothesis
	Profit	.2344337**	Reject the null hypothesis
Dependent Variable	Explanatory Variable	Coefficient	Decision rule
Economic	Tangible	1300062	Null hypothesis not rejected
	Intangible	.1712318	Null hypothesis not rejected
	Profit	-.1582434	Null hypothesis not rejected
Dependent Variable	Explanatory Variable	Coefficient	Decision rule
Philanthropic	tangible	.0173151	Null hypothesis not rejected
	Intangible	.2291878***	Reject the null hypothesis
	Profit	.3596001***	Reject the null hypothesis
Dependent Variable	Explanatory Variable	Coefficient	Decision rule
Environment	tangible	.0510781	Null hypothesis not rejected
	Intangible	.1337243*	Reject the null hypothesis
	Profit	.1704153*	Reject the null hypothesis

*The results are computed separately for each equation using the appropriate residuals.  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis is placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

In this hypothesis, the CSR strategies are treated as dependent variables while the firm level growth variables are treated as explanatory variables. The evidence in the

economic dependent variable suggests that there is a positive and statistically significant relationship between the dependent variable and the explanatory variables.

The evidence on the dependent ethical CSR variable suggested that a 12% change of the intangible resources influences the dependent variable at the 96% confidence level. Thus, the null hypothesis is rejected at  $p < 0.04$ . In the relationship between tangible resources and the dependent variable ethical social responsibility, the evidence suggests that 11% changes in tangible resources influence the dependent variable at the 94% confidence level. In this instance, the null hypothesis was rejected at a  $p < 0.06$  probability level; and, in the relationship between the ethical variable (dependent variable) and profit (explanatory variable) the evidence showed that a 14% change in the explanatory variable positively influenced changes in the dependent variable. Thus, the null hypothesis was rejected at the  $p < 0.05$  probability level.

The evidence on the ethical dependent variable, showed that in the relationship between the environment dependent variable and the profit (explanatory variable) variable showed that 97% changes in profit caused positive changes in the dependent variable at the 95% confidence level, hence the null hypothesis of no relationship is rejected at the  $p < 0.06$  probability value. Lastly, in this series, the evidence indicated that 6% changes in intangible resources caused changes to the dependent variable at the 93% confidence level. Thus, the null hypothesis was rejected at  $p < 0.07$  probability level.

In the last section, on the philanthropic dependent variable, the evidence showed that in the relationship between the philanthropic variable and the intangible resources variable, the evidence showed that 10% changes in intangible resources variable caused changes in the environmental variable at the 0.00 probability level. In the same series, the evidence indicated that 36% changes in profit variable caused changes in the dependent variable at the 100% confidence level. Thus, the null hypothesis was rejected, and the evidence showed that there was a positive relationship flowing from firm level growth variables to CSR strategy variables.

- **Null Hypothesis:** There is no positive relationship flowing from the CSR strategy to firm level resources measured at  $p < 0.01$ , 0.05 and 0.10 probability levels.

- **Hypothesis:** there is a positive relationship flowing from CSR strategy selection to firm level resources measured at  $p < 0.01$ , 0.05 and 0.10 probability levels.

**Table 5.88: Conclusion on Hypothesis 2 Retail Sector**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision Rule</b>
Tangible	Ethical	<b>.2145346*</b>	Reject the null hypothesis
	Environmental	<b>.1204682</b>	The null hypothesis not rejected
	Philanthropic	<b>.0380798</b>	The null hypothesis not rejected
	Economic	<b>.1297491</b>	The null hypothesis not rejected
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision Rule</b>
Intangible	Ethical	<b>.4046638***</b>	Reject the null hypothesis
	Environmental	<b>.2282435*</b>	Reject the null hypothesis
	Philanthropic	<b>.364763***</b>	Reject the null hypothesis
	Economic	<b>.1236731</b>	The null hypothesis not rejected
<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision Rule</b>
Profit	Ethical	<b>.1856607**</b>	Reject the null hypothesis
	Environmental	<b>.1925691*</b>	Reject the null hypothesis
	Philanthropic	<b>.3789039***</b>	Reject the null hypothesis
	Economic	<b>-.075667</b>	The null hypothesis not rejected

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis are placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

In this series, there is a positive relationship flowing from firm level resource and CSR strategy. The evidence showed that there was a positive link and flow from CSR strategies to firm level growth imperatives in the retail industry. In the relationship between the tangible and ethical variables, the evidence showed that 21% of changes in the economic social responsibility strategy positively affectively tangible resources at the 91% confidence level. Thus, the null hypothesis is rejected suggesting that a positive relationship existed between the variables.

In the second section, the evidence suggests that in the series when the ethical variable is treated as an explanatory variable, a 40% change in the ethical variable affected the intangible resources dependant variable at the 100% confidence interval. Therefore, the null hypothesis was rejected at the  $p < 0.01$  probability level. Furthermore, the evidence of the relationship between intangible (dependent) and environment (explanatory) showed that 23% of changes in the explanatory variable affected the intangible resources dependent variable. Thus, the null hypothesis was rejected at the  $p < 0.01$  probability level; and in the relationship between the intangible

(dependent) and philanthropic (explanatory) variables, the evidence showed that 4% of changes in the philanthropic variable influenced the dependent variable intangible resources at the 100% confidence level, so the null hypothesis was rejected at the  $p < 0.01$  probability level.

In the third section, the evidence showed that in the relationship between the profit and ethical corporate responsibility strategy variables, 19% changes in the ethical variable positively affected changes in the economic variable at the 0.03 probability level. Thus, the null hypothesis was rejected at the  $p < 0.05$  probability level. In the relationship between the economic dependent variable and the explanatory environmental variable the evidence indicated that 19% changes in the environmental variable caused positive changes in the environment variable at the 0.03 probability level. In light of these results, the null hypothesis was rejected at the  $p < 0.05$  critical value.

Furthermore, identical results were recorded in the relationship between the economic dependent variable and the philanthropic variable (explanatory variable). The evidence suggests that 38% changes in the philanthropic variable cause positive changes in the dependent variable at the 100% confidence level. Therefore, the null hypothesis was rejected at the  $p < 0.01$  probability level. Hence, the evidence concludes that in the retail industry, the implementation of CSR strategies enhances goodwill of SMEs in their respective communities.

- **Null Hypothesis:** there is no positive causal relationship flowing from firm level resource to CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability level.
- **Alternative Hypothesis:** there is a positive causal relationship flowing from firm level resource and CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability level.

In hypothesis 3, the empirical evidence was informed by the results of the PA. In particular, the PA was conducted to test for unidirectional and bidirectional causality among study variable in the retail sector. Table 5.89 below shows the causal direction flowing from firm level resources to CRS strategies.

**Table 5.89: Conclusion on Hypothesis 3 Retail Industry**

<b>Dependent Variable</b>	<b>Explanatory Variable</b>	<b>Coefficient</b>	<b>Decision Rule</b>
Economic			
	tangible	<b>.2494626**</b>	<b>Reject the null hypothesis</b>
	intangible	<b>.4498518**</b> *	<b>Reject the null hypothesis</b>
	profit	<b>-.0127517</b>	<b>Null hypothesis not rejected</b>
Environ			
	tangible	<b>.0901442</b>	<b>Null hypothesis not rejected</b>
	Intangible	<b>.2612928**</b> *	<b>Reject the null hypothesis</b>
	profit	<b>.2893612**</b> *	<b>Reject the null hypothesis</b>
Phil			
	tangible	<b>.0172225</b>	<b>Null hypothesis not rejected</b>
	Intangible	<b>.2375689**</b> *	<b>Reject the null hypothesis</b>
	profit	<b>.3890508**</b> *	<b>Reject the null hypothesis</b>
ethical			
	tangible	<b>.2307546**</b>	<b>Reject the null hypothesis</b>
	intangible	<b>.5121871**</b> *	<b>Reject the null hypothesis</b>
	profit	<b>.2417021**</b>	<b>Reject the null hypothesis</b>

*The results are computed separately for each equation using the appropriate residuals  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis is placed on \*\*\* p<0.01, \*\* p<0.05}*

The above Table 5.79, shows that there is a causal connection flowing from firm level growth imperatives to CSR strategies. In the first series, the null hypothesis was rejected in two instances. In the relationship between economic and intangible resources the null hypothesis was rejected at the  $p<0.05$  probability level and it was rejected in the relationship between the economic variable and tangible assets dependant variable at  $p<0.01$ .

In the second series, the null hypothesis was rejected twice. In the relationship between environmental and intangible assets, the null hypothesis was rejected at the  $p<0.01$  probability value; and In the relationship between environment and profit, the null hypothesis was rejected at  $p<0.01$ . Similar conclusions were drawn in the third series. The CSR strategy philanthropic variable was regressed against the firm level growth imperative variables. Hence, the null hypothesis was rejected in the relationship between philanthropic and intangible assets at the  $p<0.01$  probability value. In the relationship between philanthropy and profit, the null hypothesis was rejected at the  $p<0.01$  probability level.

Lastly, between the ethical CSR and the firm level growth imperatives variables, the null hypothesis was rejected three times. In the relationship between ethical and intangible assets, the null hypothesis was rejected at the  $p < 0.01$  probability level. In the relationship between ethical CSR and profit, the null hypothesis was rejected at the  $p < 0.05$  probability value and in the relationship between ethical CSR and profit, the null hypothesis was rejected at the  $p < 0.05$  probability level. Thus, the evidence concludes that there is a positive and statistically significant relationship flowing from firm level growth variables to CSR strategies.

- **Null Hypothesis:** there is no positive causal relationship flowing from CSR strategy to firm level growth imperatives measured at  $p < 0.01$ , 0.05 and 0.10 probability values.
- **Alternative Hypothesis:** there is a positive causal relationship flowing from CSR strategy to firm level growth imperatives measured at  $p < 0.01$ , 0.05 and 0.10 probability values.

In this series, the causality of study variables was regressed with CSR strategies as explanatory variables explaining the changes in firm level growth imperatives. Therefore, the results in the series are informed by the results of the PA. Table 5.90 below shows the firm level growth variables.

**Table 5.90: Conclusion on Hypothesis 4 Retail Industry**

		Coefficient	Decision Rule
Structural	tangible	economic ethical environ phil	.1841004* .3441545** .1867492 .127674
	Intangible	economic ethical environ phil _cons	.1676823* .4695346*** .2584825** .3724357
Profit	Economic Ethical environ phil	-.0866254 .1595837** .1782864* .3621272***	Null hypothesis not rejected Reject the null hypothesis Reject the null hypothesis Reject the null hypothesis

*The results are computed separately for each equation using the appropriate residuals  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis is placed on \*\*\* p<0.01, \*\* p<0.05}*

Evidence in the above table, indicates that there is a causal direction flowing from CSR strategies to firm level growth imperative variables. Accordingly, empirical evidence in the above table indicates that in the series of intangible assets that the null hypothesis was rejected twice in the relationship between economic and ethical explanatory variables at  $p<0.10$  and  $p<0.05$  probability values, respectively.

In intangible resources, the null hypothesis was rejected three times. In the relationship between, economic, ethical and environment, the null hypothesis was rejected at  $p<0.10$ ,  $0.01$  and  $0.05$  probability values. And, in the profit dependent variable, in the relationship between, ethical, environment and philanthropic CSR, the null hypothesis was rejected at  $p<0.05$ ,  $0.10$  and  $0.01$  probability values. Evidence in this series indicates that there is a positive relationship between firm level growth imperatives and CSR strategies.

### 5.9.2 Conclusions in the mining sector

In this section, we present the discussion in the mining sector. This, in particular, analyses the hypotheses developed in the conceptual framework in the context of

empirical evidence on the mining sector. Table 5.91 below shows the conclusions on hypothesis 1.

- **Null Hypothesis:** there is no positive relationship flowing from firm level resource and CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability values.
- **Alternative Hypothesis:** there is a positive relationship flowing from firm level resource and CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability values.

**Table 5.91: Conclusion on hypothesis 1 Mining Sector**

Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Ethical	tangible	.1103583	Null hypothesis not rejected
	Intangible	-.0116274	Null hypothesis not rejected
	Profit	.1367747	Null hypothesis not rejected
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Economic	tangible	.0901817	Null hypothesis not rejected
	Intangible	.2445148**	Reject the null hypothesis
	Profit	-.080018	Null hypothesis not rejected
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Philanthropic	tangible	-.0500244	Null hypothesis not rejected
	Intangible	.1871494*	Reject the null hypothesis
	Profit	.1648316	Null hypothesis not rejected
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Environment	tangible	-.1002108	Reject the null hypothesis
	Intangible	.0180579	Null hypothesis not rejected
	Profit	.2615784*	Reject the null hypothesis

*The results are computed separately for each equation using the appropriate residuals*

*\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis is placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

In the first section, when ethical CSR is treated as dependent variable evidence, this suggests that none of the firm level growth imperatives was statistically significant. In the second section, the evidence suggests that 24% changes in intangible resources influenced changes in the dependent variable (economic) at the 92% confidence level.

Thus, the null hypothesis of a non-positive relationship was statistically rejected at the  $p < 0.10$  probability level.

In the third section, the philanthropic variable was treated as a dependent variable. In the relationship between the philanthropic and the intangible resources variable, the evidence indicates that 19% changes in the intangible resources variable positively influenced changes in the environmental variable at the 0.00 probability value. Hence, the null hypothesis was statistically rejected at the  $p < 0.10$  probability value. In conclusion, the evidence in this series indicates that SMEs in the mining sector do not invest in CSR strategies.

- **Null Hypothesis:** there is no positive relationship flowing from CSR strategy selection to firm level resources measured at  $p < 0.01$ , 0.05 and 0.10 probability values.
- **Null Hypothesis:** there is a positive relationship flowing from CSR strategy selection to firm level resources measured at  $p < 0.01$ , 0.05 and 0.10 probability values.

**Table 5.92: Conclusion on Hypothesis 2 Mining Sector**

Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Tangible	Ethical	.1840924	The null hypothesis not rejected
	Environmental	-.2519841	The null hypothesis not rejected
	Philanthropic	-.2214045	The null hypothesis not rejected
	Economic	.2086834**	Reject the null hypothesis
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Intangible	Ethical	-.0110425	The null hypothesis not rejected
	Environmental	.025851	The null hypothesis not rejected
	Philanthropic	.4715693**	Reject the null hypothesis
	Economic	.1236731	The null hypothesis not rejected
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Profit	Ethical	.041348	The null hypothesis not rejected
	Environmental	.1192005*	Reject the null hypothesis
	Philanthropic	.1322093	The null hypothesis not rejected
	Economic	-.0217388	The null hypothesis not rejected

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis is placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

In this study, the evidence indicates that there is little evidence that suggests that there is a relationship flowing from CSR strategy variables to firm level growth imperatives. For example, in all the series the null hypothesis was rejected three times. In the relationship between tangible assets and economic CSR, the null hypothesis was rejected at the  $p < 0.05$  probability value. In the relationship between intangible assets and philanthropic CSR, the null hypothesis is rejected at  $p < 0.05$ . And, in the relationship between profit and environment CSR the null hypothesis was rejected at  $p < 0.10$ . However, in the majority of the relationships, the null hypothesis was not rejected, and the evidence suggest that there is no relationship flowing from CSR variables to firm level growth imperatives in the mining industry.

- **Null Hypothesis:** there is no positive causal relationship flowing from firm level resources and the CSR strategy selection measured at  $p < 0.01$ , 0.05 and 0.10 probability values.
- **Alternative Hypothesis:** there is a positive causal relationship flowing from firm level resource and CSR strategy showing that the selection measured at  $p < 0.01$ , 0.05 and 0.10 probability values.

In hypothesis 3, the empirical evidence was informed by the results if the PA. In particular, the PA was conducted to test for unidirectional and bidirectional causality among study variables in the mining sector. Table 5.93 below shows the causal direction flowing from firm level resources to CRS strategies.

**Table 5.93: Conclusion on Hypothesis 3 Mining Sector**

		Coefficient	Decision Rule
<b>Structural</b>			
economic			
	tangible	<b>.1678631*</b>	<b>Reject the null hypothesis</b>
	intangible	<b>.4165768***</b>	<b>Reject the null hypothesis</b>
	profit	<b>.1566479</b>	<b>The null hypothesis not rejected</b>
ethical			
	tangible	<b>.1363363</b>	<b>The null hypothesis not rejected</b>
	intangible	<b>.3462901***</b>	<b>Reject the null hypothesis</b>
	profit	<b>.5799531***</b>	<b>Reject the null hypothesis</b>
environ			
	tangible	<b>-.0708846</b>	<b>The null hypothesis not rejected</b>
	intangible	<b>.1354381*</b>	<b>Reject the null hypothesis</b>
	profit	<b>.4907398***</b>	<b>Reject the null hypothesis</b>
phil			
	tangible	<b>-.0317809</b>	<b>The null hypothesis not rejected</b>
	intangible	<b>.2556211***</b>	<b>Reject the null hypothesis</b>
	profit	<b>.2851024***</b>	<b>Reject the null hypothesis</b>

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis is placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

In the series, the evidence suggests that SMEs in the Mining Industry should invest in CSR strategies and initiatives. For instance, in the economic series, the null hypothesis was rejected in the tangible and intangible resource variables at  $p < 0.10$ ,  $p < 0.01$  probability values, respectively. In the ethical CSR series, the null hypothesis was rejected at  $p < 0.01$  in both variables. In the environmental series, the null hypothesis was rejected twice. In the intangible series, showing the profit variables, the null hypothesis was rejected at  $p < 0.10$  and  $p < 0.01$  probability values, respectively. Similar evidence was recorded in the philanthropic series. The null hypothesis was rejected in the intangible resources series at  $p < 0.01$  and in the profit series the variable was at  $p < 0.01$ . Thus, due to the evidence in this study the researcher concludes that there is a positive causal relationship flowing from the firm level growth variables towards the CSR strategies variables.

- **Null Hypothesis:** There is no positive causal relationship flowing from CSR strategy to firm level growth imperatives measured at  $p < 0.01$ , 0.05 and 0.10 probability values.

- **Alternative Hypothesis:** there is a positive causal relationship flowing from CSR strategy to firm level growth imperatives measured at  $p < 0.01$ , 0.05 and 0.10 probability values.

In this series, the causality of study variables was regressed with CSR strategies as explanatory variables, explaining the changes in firm level growth imperatives. Therefore, the results in the series are informed by the results of the PA.

**Table 5.94: Conclusion on Hypothesis 4 Mining Sector**

		Coefficient	Decision Rule	
<b>Structura</b> I	tangible	Economic Ethical environ phil	.3920295*** .2747199* -.2642104 .2395257	Reject the null hypothesis Reject the null hypothesis Null hypothesis not rejected Null hypothesis not rejected
	intangible	economic ethical environ phil	.3661442*** .1088224 -.0566419 .6021413***	Reject the null hypothesis Null hypothesis not rejected Null hypothesis not rejected Reject the null hypothesis
	profit	Economic Ethical environ phil	.0202262 .0612399 .1031618 .1822204	Null hypothesis not rejected Null hypothesis not rejected Null hypothesis not rejected Null hypothesis not rejected

*The results are computed separately for each equation using the appropriate residuals  
\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis is placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

Empirical evidence in the above table suggests that the causal flow from CSR strategies and firm level growth imperatives in the mining industry is inconclusive and cannot strongly ascertain the path dependency of explanatory and dependent variables. For instance, the null hypothesis was rejected three times in all three series: namely, in the tangible, intangible and profit variables. In the tangible resources series, in economic and ethical variables, the null hypothesis was rejected in  $p < 0.01$  and 0.10 probability values. Also, in intangible assets, the null hypothesis was rejected in economic and philanthropic variables at  $p < 0.01$  in both instances. Therefore, the evidence in this study suggests that the positive relationship flowing from CSR variables to firm level growth in mining SMEs is inconclusive.

### 5.9.3 Conclusion in finance and technology sector

This section, we present a discussion on the finance and technology sector. This, in particular, analyses the hypotheses developed in the conceptual framework in the context of empirical evidence on the technology and finance sector. Table 5.95 below illustrates the analysis of hypothesis 1.

- **Null Hypothesis:** there is a positive relationship flowing from firm level resource and CSR strategy selection measured at  $p < 0.01$ , 0.05, 0.10 probability value.
- **Alternative Hypothesis, Null Hypothesis:** there is a positive relationship flowing from firm level resource and CSR strategy selection measured at  $p < 0.01$ , 0.05, 0.10 probability value.

**Table 5.95: Conclusion on Hypothesis 1 Technology Sector**

Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Ethical	tangible	.1187628**	Reject the null hypothesis
	Intangible	.0464278	Null hypothesis not rejected
	Profit	.1215945	Null hypothesis not rejected
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Economic	tangible	.0869088	Null hypothesis not rejected
	Intangible	.28436***	Reject the null hypothesis
	Profit	-.0270093	Null hypothesis not rejected
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Philanthropic	tangible	-.0215228	Null hypothesis not rejected
	Intangible	.0708144	Null hypothesis not rejected
	Profit	.3686783***	Reject the null hypothesis
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Environment	tangible	-.0107096	Null hypothesis not rejected
	Intangible	.0366208	Null hypothesis not rejected
	Profit	.0602957	Null hypothesis not rejected

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis is placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

In this series, the evidence on the hypothesis that there is a positive relationship flowing from firm level growth imperatives to CSR strategy implementation is scanty,

given the econometrics results in the above table. For example, in all the series in this section, the null hypothesis was rejected three times. In the ethical dependent variable, the null hypothesis was rejected in respect of tangible assets variables at the  $p < 0.05$  probability value. In the economic variable, the null hypothesis was rejected in intangible resources at the  $p < 0.01$  probability value; and, in the philanthropic variable, the null hypothesis was rejected at  $p < 0.01$  probability values.

- **Null Hypothesis:** there is no positive relationship flowing from CSR strategy selection to firm level resources measured at  $p < 0.01$ , 0.05 and 0.10 probability values.
- **Hypothesis:** there is a positive relationship flowing from CSR strategy selection to firm level resources, measured at  $p < 0.01$ , 0.05 and 0.10 probability values.

**Table 5.96: Evidence on Hypothesis 2 Technology Sector**

Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Tangible	Ethical	.1859787**	Reject the null hypothesis
	Environmental	-.0396992	Null hypothesis not rejected
	Philanthropic	-.0634118	Null hypothesis not rejected
	Economic	.1052364	Null hypothesis not rejected.
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Intangible	Ethical	.0585374	Null hypothesis not rejected
	Environmental	.1092974	Null hypothesis not rejected
	Philanthropic	.1679829	Null hypothesis not rejected
	Economic	.2772321***	Reject the null hypothesis
Dependent Variable	Explanatory Variable	Coefficient	Decision Rule
Profit	Ethical	.0622307	Null hypothesis not rejected
	Environmental	.0730472	Null hypothesis not rejected
	Philanthropic	.3549979***	Reject the null hypothesis
	Economic	-.0106886	Null hypothesis not rejected

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis is placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

In this hypothesis, little evidence suggests that there is a positive relationship flowing from CSR strategies to firm level growth imperatives. Thus, in finance and technology, the null hypothesis was rejected three times. In the tangible resources series, the null

hypothesis was rejected in ethical CSR at  $p < 0.05$  probability value. In the intangible resources variable, the null hypothesis was rejected for the economic variable  $z$   $p < 0.01$ . And, in the profit variable, and in the philanthropic variable the null hypothesis was rejected at  $p < 0.01$  probability. Nonetheless, in this series the null hypothesis was not rejected in nine instances, clearly indicating that there is little evidence that CSR strategies influence firm level growth imperatives in finance and technology SMEs.

- **Null Hypothesis:** there is no positive causal relationship flowing from firm level resource and CSR strategy selection, measured at  $p < 0.01$ , 0.5 and 0.10 probability values.
- **Alternative Hypothesis:** there is a positive causal relationship flowing from firm level resource and CSR strategy selection, measured at  $p < 0.01$ , 0.5 and 0.10 probability values.

In hypothesis 3, the empirical evidence is informed by the results if the PA. In particular, the PA was conducted to test for unidirectional and bidirectional causality among the variable in the Technology and Financial sector. Table 5.97 below shows the conclusion on the causal direction flowing from level resources to CSR strategies.

**Table 5.97: Conclusion on Hypothesis 3 Technology Sector**

		Coefficient	Decision Rule
<b>Structural</b>			
Economic			
	tangible	<b>.2127863***</b>	<b>Reject the null hypothesis</b>
	intangible	<b>.4767912***</b>	<b>Reject the null hypothesis</b>
	profit	<b>.241006</b>	<b>Null hypothesis not rejected</b>
ethical			
	tangible	<b>.2605809***</b>	<b>Reject the null hypothesis</b>
	intangible	<b>.3898364***</b>	<b>Reject the null hypothesis</b>
	profit	<b>.5195043***</b>	<b>Reject the null hypothesis</b>
environ			
	tangible	<b>.0746637</b>	<b>-.0068249</b>
	intangible	<b>.1723146***</b>	<b>Reject the null hypothesis</b>
	profit	<b>.264091***</b>	<b>Reject the null hypothesis</b>
	_cons	<b>.2084543</b>	<b>-2.883523</b>
Phil			
	tangible	<b>.0210655</b>	<b>Null hypothesis not rejected</b>
	intangible	<b>.1433845***</b>	<b>Reject the null hypothesis</b>
	profit	<b>.4615299***</b>	<b>Reject the null hypothesis</b>

*The results are computed separately for each equation using the appropriate residuals  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  {Emphasis are placed on \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ }*

In this series, the evidence showed that there is a causal flow from firm level growth imperatives to CSR strategy, as informed by a series of explanatory variables that are statistically significant. From the table above, in the economic series, the null hypothesis is rejected in intangible and intangible variables at  $p < 0.01$  in both instances. In the ethical series, the null hypothesis is rejected in tangible and intangible asset variables at  $p < 0.001$  probability value.

Furthermore, in the environmental series, the null hypothesis is rejected in intangible and profit variables at  $p < 0.01$  in both instances. In addition, in the philanthropic series, the null hypothesis is rejected in intangible and profit variables at  $p < 0.01$  probability value in both instances. Therefore, the evidence in this study suggests that there is a positive causal relationship flowing from firm level growth imperatives to CSR variables in the finance and technology industry.

- **Null Hypothesis:** there is no positive causal relationship flowing from CSR strategy to firm level growth imperatives, measured at  $p < 0.01$ , 0.05 and 0.10 probability values.
- **Alternative Hypothesis:** there is a positive causal relationship flowing from CSR strategy to firm level growth imperatives, measured at  $p < 0.01$ , 0.05 and 0.10 probability values.

In this series, the causality of study variables was regressed with CSR strategies as explanatory variables in order to explain the changes in firm level growth imperatives. Therefore, the results in the series are informed by the results of PA.

**Table 5.98: Conclusion on Hypothesis 4 Technology Sector**

		Coefficient	Decision Rule	
<b>Structura</b> I	tangible	Economic	<b>.2817166***</b>	<b>Reject the null hypothesis</b> <b>Reject the null hypothesis</b> <b>Null hypothesis not</b> <b>rejected</b> <b>Null hypothesis not</b> <b>rejected</b>
		Ethical	<b>.2703604***</b>	
	environ	<b>.0273999</b>		
	phil	<b>.0856103</b>		
intangible	economic	<b>.3833287***</b>	<b>Reject the null hypothesis</b> <b>Reject the null hypothesis</b> <b>Null hypothesis not</b> <b>rejected</b> <b>Reject the null hypothesis</b>	
		ethical		<b>.1689206**</b>
	environ	<b>.1307285</b>		
	phil	<b>.2514369**</b>		
Profit	Economic	<b>.0196194</b>	<b>Null hypothesis not</b> <b>rejected</b> <b>Reject the null hypothesis</b> <b>Null hypothesis not</b> <b>rejected</b> <b>Reject the null hypothesis</b>	
		ethical		<b>.0800141*</b>
	environ	<b>.0813038</b>		
	phil	<b>.3718747***</b>		

*The results are computed separately for each equation using the appropriate residuals  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 {Emphasis is placed on \*\*\* p<0.01, \*\* p<0.05}*

In this session, in the causality test in the technology and finance sector, the evidence strongly indicates that there is a causal relationship flowing from CSR strategies to firm level growth imperative variables. In the tangible series, the null hypothesis is rejected in economic and ethical variables at  $p < 0.01$  in both instances. In the intangible resources series, the null hypothesis was rejected three times; in the economic, ethical, and philanthropic series, at  $P < 0.01$ ,  $0.05$  and  $0.05$  probability values, respectively. Furthermore, in the profit series the null hypothesis was rejected in the ethical and philanthropic series at  $p < 0.10$  and  $0.01$  probability values, respectively.

## 5.10 CONCLUSION

In this chapter, the data was analysed, interpreted, and discussed in the context of the manufacturing, retail, mining, and technology economic sectors. This chapter provided empirical evidence of the relationship between drivers of CSR strategies and firm level growth imperatives in SMEs in KZN. In the next chapter, the study presents recommendations and conclusions that are informed by the research hypotheses.

## **CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS**

### **6.1 INTRODUCTION**

In this chapter, the discussion is informed by the conclusions and recommendations as drawn from the results that were analysed, presented, and discussed in Chapter Five. This chapter is drawn from the proceedings in the previous chapters; Chapters One, Two, Three, Four and Five. Thus, ensuing from the aforesaid chapters, this chapter seeks to provide conclusions, policy, and management recommendations. The information in these chapters as arranged as follows; Section 6.2 presents a reflection on the research objectives, questions, and the research hypotheses. Section 6.3 presents a conclusion, as informed by the research hypothesis. Section 6.4, present recommendations based on the conclusions, and Section 6.5, presents recommendations for further study.

### **6.2 RESEARCH QUESTIONS, OBJECTIVES, AND HYPOTHESES**

The objectives of the study are:

- To investigate the influence of drivers (Firm level Resources) on CSR strategy selection.
- To investigate the influence of the CSR strategy implementation process on firm level resources.
- To investigate the causal impact between CSR and firm level growth.

#### **6.2.1 Research questions**

- What is the influence of drivers (Firm level Resources) on CSR strategy selection?
- What is the influence of the CSR strategy implementation process on firm level resources?
- What is the causal impact between CSR and firm level growth?

## 6.2.2 Research hypotheses

Consistent with the research questions and objectives, the following study hypotheses is formulated.

### Hypothesis 1

- **Null Hypothesis:** there is no positive relationship flowing from firm level resource and CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability values.
- **Alternative Hypothesis:** there is a positive relationship flowing from firm level resource and CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability values.

### Hypothesis 2

- **Null Hypothesis:** there is no positive relationship flowing from CSR strategy selection to firm level resources measured at  $p < 0.01$ , 0.5 and 0.10 probability values.
- **Alternative Hypothesis:** there is a positive relationship flowing from CSR strategy selection to firm level resources measured at  $p < 0.01$ , 0.5 and 0.10 probability values.

### Hypothesis 3

- **Null Hypothesis:** there is no positive causal relationship flowing from firm level resource and CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability values.
- **Alternative Hypothesis:** there is a positive causal relationship flowing from firm level resource and CSR strategy selection measured at  $p < 0.01$ , 0.5 and 0.10 probability values.

### Hypothesis 4

- **Null Hypothesis:** there is no positive causal relationship flowing from CSR strategy to firm level growth imperatives measured at  $p < 0.01$ , 0.05 and 0.10 probability values.

- **Alternative Hypothesis:** there is a positive causal relationship flowing from CSR strategy to firm level growth imperatives measured at  $p < 0.01$ , 0.05 and 0.10 probability values.

### **6.3 SUMMARY OF CONCLUSION ON STUDY OBJECTIVES**

In this section, the conclusions are based on the rejection or non-rejection of the null hypotheses as informed in hypotheses 1, 2, 3 and 4. For ease of reference, this section is consistent with the hypotheses statements presented above.

#### **6.3.1 Conclusion on objective one: To investigate the influence of drivers (firm level resources) on corporate social responsibility strategy selection.**

To conclude, in the manufacturing industry, in this hypothesis, the CSR strategies are treated as dependent variables while the firm level growth variables are treated as explanatory variables.

This evidence concludes that there is a positive relationship flowing from firm level resources to CSR strategies. To conclude, in this study, evidence suggests that there is a positive flow from firm level growth variables in the manufacturing industry in KZN province. This suggests that SMEs in KZN invest in CSR activities.

In the retail industry, in objective one, evidence from the rejection of the null hypothesis suggests that the null hypothesis is rejected, and empirical evidence suggests that there is a positive relationship flowing from firm level growth variables to CSR strategy variables. In the mining industry, in objective one, considering evidence in the last chapter, there is little or scanty evidence that SMEs in the mining sectors invest in CSR strategies to drive or enhance firm level growth imperatives. Lastly, in the technology and finance industry, empirical evidence observed in this series suggests that there is firm level investment flowing from firm level drivers to CSR strategies.

#### **6.3.2 Conclusion on objective two: To investigate the influence of CSR strategy implementation process on firm level resources**

In this series, this study investigated the influence of CSR strategy implementation process on firm level resources in the manufacturing, mining, retail, and technology industries. In the manufacturing industry, empirical evidence suggests that there is a

positive relationship flowing from firm level resource and CSR strategy selection. This is evidenced by the rejection of the null hypothesis which indicates that CSR strategies have an influence on firm level growth strategies. Similar evidence is observed in the retail and technology industries, the null hypothesis of no relationship is rejected, thus suggest that there is reciprocal and flowing relationship firm level growth imperatives. Nonetheless, in the mining industry, the conclusion is not the same as evidence suggests that there is no flow from CSR strategies firm level growth imperatives.

### **6.3.3 Conclusion on objective three: To investigate the causal impact between CSR and firm level growth**

In objective 3, the empirical evidence is informed by the results of the PA. In particular, the PA was conducted to test for unidirectional and bidirectional causality among study variables. To conclude; in the manufacturing industry, in this hypothesis, the CSR strategies are treated as dependent variables while the firm level growth variables are treated as explanatory variables. This evidence concludes that there is a causal relationship flowing from firm level resources to CSR strategies. To conclude, in this study, evidence suggests that there is causal and positive flow from firm level growth variables in the manufacturing industry in KZN province. This suggests that SMEs in KZN invest in CSR activities.

From the analysis, the evidence from the rejection of the null hypothesis suggests that the null hypothesis is rejected, and empirical evidence suggests that there is a positive relationship flowing from firm level growth variables to CSR strategy variables. In the technology and finance industry, the empirical evidence observed in this series suggests that there is firm level investment flowing from firm level drivers to CSR strategies. Nonetheless, in the mining industry, in objective three, considering evidence in the last chapter, there is little or scanty evidence that SMEs in the mining sectors invest in CSR strategies due to firm level growth imperatives.

### **6.3.4 Conclusion on objective four: To investigate the causal impact flowing from firm level growth to CSR**

In this series, the causality of study variables was regressed with CSR strategies as explanatory variables in order to explain the changes in firm level growth imperatives and the decision rule on the null hypothesis. In the manufacturing industry, given the

evidence observed and discussed in the last chapter, the empirical evidence suggests that there is a causal relationship flowing from CSR strategies to firm level growth imperatives. This is observed in the technology and finance, manufacturing, and retail economic sectors in KZN. Nonetheless, in the mining industry, evidence in the last chapter meant that the researcher could not reject the null hypothesis. Therefore, this evidence clearly suggests that the SMEs in the mining sector in KZN do not invest in CSR strategies.

## **6.4 RECOMMENDATIONS OF THE STUDY**

In this section, the recommendations of the present study are advanced in the context of the conclusion drawn from empirical evidence, as presented in the previous section. As such, for ease of reference, the recommendations are presented in line with study of both the literature and the empirical evidence.

### **6.4.1 Recommendation on objective one**

First, from the analysis, evidence from the study recommends that investing in CSR strategy improves firm level growth imperatives by enhancing and enabling tangible resources, intangible resources such as goodwill; as well as positively impacting profitability and performance.

### **6.4.2 Recommendation on objective two**

Second, as noted in all the economic sectors that were investigated, the evidence suggests that an investment in CSR strategies has some significant positive impact on the performance of SMEs as measured by profit and firm level resources such as tangible and intangible resources. Thus, from this evidence the recommendations are that SMEs should invest in CSR strategies to develop firm level resources that should increase performance and growth.

### **6.4.3 Recommendation on objective three**

Third, in this study, the empirical evidence seems to suggest that there is a causal impact flowing from CSR to firm level growth imperatives. This evidence shows that the amount invested in CSR has a causal impact in the performance of SMEs. In light

of this evidence, the study recommends that SMEs should increase their investments in CSR strategies as it enhances the firm level growth imperative variables.

#### **6.4.4 Recommendation on objective four**

Furthermore, evidence in this study suggests that there is a causal impact flowing from firm level growth imperatives to CSR strategy. This evidence means that there is a bidirectional causal relationship flowing from firm level variables to CSR strategies; as well as flowing from CSR strategies to firm level variables. Therefore, the study recommends that SMEs should increase their investments in CSR strategies, as that will enhance firms' level of growth imperative variables.

### **6.5 CONTRIBUTION OF THE STUDY**

In this section, an appraisal on the contribution of the study can be done in the context of the literature and the empirical evidence. Therefore, this study has improved existing knowledge twofold. Firstly, this study employed advanced econometric analysis, in particular, the robustness of the SEM and PA, in uncovering the relationship between CSR strategies and firm level growth imperatives. The application of SEM and PA is an immense contribution to the field of science, since the majority of studies are qualitative oriented.

Secondly, the present study was designed in concert with industry analysis such as manufacturing, mining, retail and finance and technology SMEs. This approach provided knowledge that is relevant to the drivers of CSR strategy, in line with the variance in these economic sectors. Thus, to the best of our knowledge, in existing literature, the majority of studies are designed in such a way that they do not separate variances in different economic segments of SMEs.

### **6.6 SUGGESTIONS FOR FURTHER STUDY**

As noted, the present study answered its initial research questions, achieved its objectives, and successfully tested the hypothesis. Nonetheless, the present study was limited to its methodology and the context. Thus, the suggestions for further study are twofold.

First, this study was conducted among SMEs based in KZN; therefore, the evidence entailed is only relevant to SMEs in that province and might not be relevant to other provinces of South Africa. Due to this limitation, we argue that further studies should consider increasing the scope of the study by investigating SMEs in the other provinces of South Africa.

Second, the present study used a cross-sectional survey analysis. This is a substantial drawback. In econometrics analysis. A cross-sectional survey method is informed by data that is collected in the same time period. Therefore, it is impossible to use a cross-sectional survey to uncover short and long run deterministic trends in a particular study or when investigating phenomena. In light of this drawback, the study suggests that future studies could consider investigating the drivers of CSR strategy using time series analysis; such that short- and long-term trends can be analysed.

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## ANNEXURES

# ANNEXURE A: CERTIFICATE OF ETHICAL CLEARANCE



15 November 2022

Mr P K Vasala  
3 Summer Place Gardens  
34 Somme Road  
Berea  
Durban  
4001

Dear Mr Vasala

**Drivers of Corporate social responsibility and sustainable firm level growth: A case of Small Medium Enterprises in KwaZulu Natal province**  
**Ethics Clearance Number: IREC 072/22**

The Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tool.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the DUT-IREC acknowledges receipt of your gatekeeper permission letters.

Please note that **FULL APPROVAL** is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the DUT-IREC according to the DUT-IREC SOP's.

Please note that any deviations from the approved proposal require the approval of the DUT-IREC as outlined in the DUT-IREC SOP's.

Yours Sincerely

Prof J K Adam  
Chairperson: DUT-IREC

## **ANNEXURE B: TURNITIN REPORT**

# DRIVERS OF CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABLE FIRM LEVEL GROWTH A CASE OF SMALL AND MEDIUM ENTREPRISES IN KWAZULUNATAL

## ORIGINALITY REPORT

<b>13%</b> SIMILARITY INDEX	<b>14%</b> INTERNET SOURCES	<b>7%</b> PUBLICATIONS	<b>7%</b> STUDENT PAPERS
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<b>2</b>	<b>ccsenet.org</b> Internet Source	<b>2%</b>
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*Handwritten signature*

# ANNEXURE C: EDITORS' LETTER

Hugo Chandler  
BA Psychology and Drama (UCT)  
Office Hours: Monday to Friday: 08h00 to 17h00 / Weekends and Public  
Holidays: Closed  
20 Oester Street, Struisbaai, Western Cape, 7285  
Cell: +27 (0)72 244 4363 / +27 (0)82 807 0134  
Email: [info@busybeeediting.co.za](mailto:info@busybeeediting.co.za) / Website: [www.busybeeediting.co.za](http://www.busybeeediting.co.za)

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## PROOFREADING AND EDITING CERTIFICATE

Hugo Chandler and Brenda van Rensburg from Busy Bee Editing have completed the proofreading, editing, syntax, consistency in spelling, hyphenation, numerals, fonts and capitalisation, maintaining internal consistency, correcting spelling, grammar punctuation, syntax, altering sentence structure, creating a cohesive flow, ensuring appropriate paraphrasing, ensuring that formatting and layout are correct to the best of their ability on a PhD Thesis, titled: DRIVERS OF CORPORATE SOCIAL RESPONSIBILITY STRATEGY AND SUSTAINABLE FIRM LEVEL GROWTH; A CASE OF SMALL and MEDIUM ENTREPRENEURS in KWAZULU-NATAL for PRAVEEN KUMAR VASALA, Student No. 21033369. Submitted in fulfilment of the requirements of the degree of Doctor of Philosophy in Management Sciences Specialising in Business Administration in the Faculty of Management Sciences at the Durban University of Technology.

Hugo Chandler and Brenda van Rensburg from Busy Bee Editing will not be held responsible for any errors, spelling and grammar mistakes, amendments or alterations that were done to this PhD Thesis after it has been received by PRAVEEN KUMAR VASALA or by his supervisor PROFESSOR ABDULLA KADER. These errors, spelling and grammar mistakes, amendments or alterations are not covered by this proofreading and editing certificate. It is up to PRAVEEN KUMAR VASALA to ultimately decide whether to accept or decline any amendments done. It remains PRAVEEN KUMAR VASALA's responsibility at all times to confirm the accuracy and originality of the completed PhD Thesis to his supervisor PROFESSOR ABDULLA KADER.

*Hugo Chandler* - BA Psychology and Drama (UCT)

For Busy Bee Editing: Hugo Chandler

*Brenda van Rensburg*

For Busy Bee Editing: Brenda van Rensburg

Date: 11 June 2023

## **APPENDIX D: RESEARCH INSTRUMENT**

Dear Respondent,

You are herewith invited to participate in an academic research study conducted by Praveen Vasala, a Doctor of Philosophy in management science based in the DUT.

The purpose of the study is to investigate the drivers of CSR and sustainable firm level growth: A case of SMEs in KZN province. This study intended to uncover the impact of SCR in firm level growth and performance.

All your answers will be treated as confidential, and you will not be identified in any of the research reports emanating from this research. Your participation in this study is very important to us. You may however choose not to participate, and you may also withdraw from the study at any time without any negative consequences.

You are kindly requested to complete a questionnaire and return it to me by no later than 23 December 2022. It will only take 15-20 minutes to complete the questionnaire. This research has been approved by the DUT.

The questions are divided into twoparts:

- First, you will be asked about demographic information related to work experience, and
- Second, you will be asked about questions related to the research question being reviewed.

When you participate in this research, you do not need to incur any financial expenses. No financial benefits, compensation, or gifts will be provided to participants in exchange for the completed questionnaire. The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings upon request.

## Section 1: Demographic details of the respondent

1.1. Please indicate your gender.

Male	<input type="checkbox"/>
Female	<input type="checkbox"/>

1.2. Please indicate your racial group.

African	<input type="checkbox"/>
Indian	<input type="checkbox"/>
Coloured	<input type="checkbox"/>
White	<input type="checkbox"/>

1.3. Please indicate your age group.

18-25 years	<input type="checkbox"/>
26-35 years	<input type="checkbox"/>
36 and above	<input type="checkbox"/>

1.4. Level of qualification.

Matric and below	<input type="checkbox"/>
First Degree	<input type="checkbox"/>
Honours Degree	<input type="checkbox"/>
Master and above	<input type="checkbox"/>

### 1.5 Economic Sector.

Manufacturing	
Technology	
Retail and Consumer	
Finance	

### Section 2: Research instrument

A	<b>(Tangible Resources)</b> Please rate the level to which you AGREE with the following statements:(Mark with an <b>X</b> on the appropriate number denoting your level of agreement)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A1	Do you think that tangible resources influence the selection of social corporate responsibility strategy?	1	2	3	4	5
A2	Do you think that tangible resources influence the selection of economic responsibility strategy?	1	2	3	4	5
A3	Do you think tangible resources influence the selection of ethical social responsibility strategy?	1	2	3	4	5
A4	Do you think that tangible firm resources influence the selection of Philanthropic Responsibility?	1	2	3	4	5
A5	Do you think that tangible firm resources influence the selection of Environmental Responsibility?	1	2	3	4	5

A6	Do you think that intangible resources influence the selection of social corporate responsibility strategy?	1	2	3	4	5
A7	Do you think that intangible resources influence the selection of economic responsibility strategy?	1	2	3	4	5
A8	Do you think intangible resources influence the selection of ethical social responsibility strategy?	1	2	3	4	5
A9	Do you think that intangible firm resources influence the selection of Philanthropic Responsibility?	1	2	3	4	5
A10	Do you think that intangible firm resources influence the selection of Environmental Responsibility?					

**Objective 1: To investigate the influence drivers (firm level resources) on CSR strategy selection.**

**Objective 2: To investigate the influence drivers (firm level resources) on CSR strategy implementation process**

B	<b>Tangible Resources</b>					
	Please rate the level to which you AGREE with the following statements:(Mark with an X on the appropriate number denoting your level of agreement)	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
B1	Do you think that tangible firm level resource influences the focus areas of CSR implementation process?	1	2	3	4	5
B2	Do you think that tangible firm level resource influence the programme design, of CSR implementation process?	1	2	3	4	5

B3	Do you think that tangible firm level resource influence the programme design, of CSR implementation process?	1	2	3	4	5
B4	Do you think that tangible firm level resource influence the promotion and communication approaches, of CSR implementation process?	1	2	3	4	5
B5	Do you think that tangible firm level resource influences the evaluation procedures of CSR implementation process?	1	2	3	4	5
B6	Do you think that intangible firm level resource influences the focus areas of CSR implementation process?	1	2	3	4	5
B7	Do you think that intangible firm level resource influence the programme design, of CSR implementation process?	1	2	3	4	5
B8	Do you think that intangible firm level resource influence the programme design, of CSR implementation process?	1	2	3	4	5
B9	Do you think that intangible firm level resource influence the promotion and communication approaches, of CSR implementation process?	1	2	3	4	5
B10	Do you think that intangible firm level resource influence the evaluation procedures of CSR implementation process?	1	2	3	4	5

**Objective Three: To investigate the causal impact between CSR aspects and firm level growth**

C	<b>Economic Responsibility</b>  Please rate the level to which you AGREE with the following statements:(Mark with an X on the appropriate number denoting your level of agreement)	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
C1	Do you think that Economic Responsibility has an impact on firm level growth?	1	2	3	4	5
C2	Do you think that Economic Responsibility has an impact on firm level competitiveness?	1	2	3	4	5
C3	Do you think that Economic Responsibility has an impact on tangible assets growth?	1	2	3	4	5
C4	Do you think that Economic Responsibility has an impact on productivity?	1	2	3	4	5
C5	Do you think that Economic Responsibility has an impact on corporate brand image?	1	2	3	4	5
C6	Do you think that Ethical Responsibility has an impact on firm level growth?	1	2	3	4	5
C7	Do you think that Ethical Responsibility has an impact on firm level competitiveness?	1	2	3	4	5
C8	Do you think that Ethical Responsibility has an impact on tangible assets growth?	1	2	3	4	5
C9	Do you think that Ethical Responsibility has an impact on productivity?	1	2	3	4	5
C10	Do you think that Ethical Responsibility has an impact on corporate brand image?	1	2	3	4	5

C11	Do you think that Environmental Responsibility has an impact on firm level growth?	1	2	3	4	5
C12	Do you think that Environmental Responsibility has an impact on firm level competitiveness?	1	2	3	4	5
C13	Do you think that Environmental Responsibility has an impact on tangible assets growth?	1	2	3	4	5
C14	Do you think that Environmental Responsibility has an impact on productivity?	1	2	3	4	5

C	<b>Philanthropic Responsibility</b>	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
	Please rate the level to which you AGREE with the following statements:(Mark with an <b>X</b> on the appropriate number denoting your level of agreement)					
C1	Do you think that Environmental Responsibility has an impact on corporate brand image?					
C1	Do you think that Philanthropic Responsibility has an impact on firm level growth?	1	2	3	4	5
C1	Do you think that Philanthropic Responsibility has an impact on firm level competitiveness?	1	2	3	4	5
C1	Do you think that Philanthropic Responsibility has an impact on tangible assets growth?	1	2	3	4	5
C1	Do you think that Philanthropic Responsibility has an impact on productivity?	1	2	3	4	5
C2	Do you think that Philanthropic Responsibility has an impact on corporate brand image?	1	2	3	4	5

## ANNEXURE E: GATEKEEPERS' LETTERS

TARIOWORX PTY LTD

50 Gumtree Crescent,  
Mount Edgecombe,  
Durban, 4302

Cell: +2773 850 3998  
Email: ryangovend@yahoo.co.uk

---

Re: Permission to Conduct Research

Date : 2 November 2022

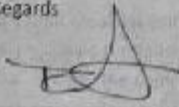
Dear Mr. Praveen K Vasala

Student Number : 21033369

We hereby grant you Gate keeper's permission to conduct research towards your doctoral studies , topic title : **"Drivers of Corporate social responsibility and sustainable firm level growth: A case of Small Medium Enterprises in KwaZulu Natal"** at our organisation. The management understands the scope and process that you are going to adopt as part of your studies. We ensure that you get the complete cooperation in your study at our organisation. It is further noted that the management as well as employees need to complete the questionnaire as well as any other interviews that deemed necessary towards your study.

Please note that no part of the study or research be reproduced for any commercial purpose. Without our express consent, except for the purpose of advancement of knowledge which is through your Doctorial studies /Publications in Journals

Regards



Name : R Govender

Director, R Govender  
Company Registration No: 2011/118545/07



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11 Royston Road | 033 387 3052 | 081 427 0907 | [info@midlandstraining.co.za](mailto:info@midlandstraining.co.za) | [www.midlandstraining.co.za](http://www.midlandstraining.co.za)

Date: 2 November 2022

Dear Mr. Praveen K Vasala

RE: PERMISSION TO CONDUCT RESEARCH - STUDENT NUMBER: 21033369

The abovementioned refers.

We hereby grant you Gate keeper's permission to conduct research towards your doctoral studies, topic title: "Drivers of Corporate social responsibility and sustainable firm level growth: A case of Small Medium Enterprises in KwaZulu Natal" at our organisation. The management understands the scope and process that you are going to adopt as part of your studies. We ensure that you get the complete cooperation in your study at our organisation. It is further noted that the management as well as employees need to complete the questionnaire as well as any other interviews that deemed necessary towards your study.

Please note that no part of the study or research be reproduced for any commercial purpose. With- out our express consent, except for the purpose of advancement of knowledge which is through your Doctorial studies /Publications in Journals

Kind Regards

Stanton Govender  
Director





73 Old Road  
Kloof  
Durban

081 300 7187

mongng@gmail.com

02 November 2022

**RE: Permission to Conduct Research**

Dear Mr. Praveen K Vasala

Student Number: 21033369

We hereby grant ~~Gate keeper's permission to conduct research towards your doctoral~~ studies, topic title: **"Drivers of Corporate social responsibility and sustainable firm level growth: A case of Small Medium Enterprises in KwaZulu Natal"** at our organisation.

The management understands the scope and process that you are going to adopt as part of your studies. We ensure that you get the complete corporation in your study at our organisation. It is further noted that the ~~managers~~ as well as employees need to complete the questionnaire as well as any other interviews that deemed necessary towards your study.

Please note that no part of the study or research be reproduced for any commercial purpose. Without our express consent, except for the purpose of advancement of knowledge which is through your Doctorial studies /Publications in Journals

Regards

Name : Mark Ngwenya

Director

IoT Academy Worldwide

Directors: Mark Ngwenya, Zolani Gwiliza  
VAT Nu: 4640304939



Re: Permission to Conduct Research

Date : 08 November 2022

Dear Mr. Praveen K Vasala

Student Number : 21033369

**We hereby grant you Gate keeper's permission to conduct research towards your doctoral studies ,** topic title : "Drivers of Corporate social responsibility and sustainable firm level growth: A case of Small Medium Enterprises in KwaZulu Natal" **at our** organisation. The management understands the scope and process that you are going to adopt as part of your studies. We ensure that you get the complete corporation in your study at our organisation. It is further noted that the management as well as employees need to complete the questionnaire as well as any other interviews that deemed necessary towards your study.

Please note that no part of the study or research be reproduced for any commercial purpose. Without our express consent, except for the purpose of advancement of knowledge which is through your Doctorial studies /Publications in Journals

Regards

A handwritten signature in black ink, appearing to read 'Londiwe Sibaya', written over a horizontal line.

Name : Ms. Londiwe Sibaya

Director

**Date : 09 November 2022**

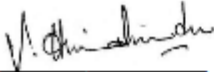
**Dear Mr. Praveen K Vasala**

**Student Number : 21033369**

**We hereby grant you Gate keeper's permission to conduct research towards your doctoral studies , topic title : "Drivers of Corporate social responsibility and sustainable firm level growth: A case of Small Medium Enterprises in KwaZulu Natal" at our organisation. The management understands the scope and process that you are going to adopt as part of your studies. We ensure that you get the complete corporation in your study at our organisation. It is further noted that the management as well as employees need to complete the questionnaire as well as any other interviews that deemed necessary towards your study.**

**Please note that no part of the study or research be reproduced for any commercial purpose. With- out our express consent, except for the purpose of advancement of knowledge which is through your Doctorial studies /Publications in Journals**

**Regards**



**Name : Hima Bindu Vasala**

**(Director)**



Tel: +27 31 837 2806, Fax: +27 86 582 0617  
Email: info@cattlewatch.co.za  
73 Old Main Road, Kloof, 3610  
www.cattlewatch.co.za  
www.cattle-watch.com

Re: Permission to Conduct Research

Date: 08 November 2022

Dear Mr. Praveen K Vasala Student

Number: 21033369

We hereby grant permission to conduct research towards your doctoral studies, topic title: "Drivers of Corporate social responsibility and sustainable firm level growth: A case of Small Medium Enterprises in KwaZulu Natal" at our organisation.

The management understands the scope and process that you are going to adopt as part of your studies. We ensure that you get the complete corporation in your study at our organisation. It is further noted that the management as well as employees need to complete the questionnaire as well as any other interviews that deemed necessary towards your study.

Please note that no part of the study or research be reproduced for any commercial purpose with-out our express consent, except for the purpose of advancement of knowledge which is through your Doctorial studies /Publications in Journals

Regards

A handwritten signature in black ink, appearing to be 'Mark Ngwenya', is written over a solid black horizontal line.

Name: Mark Ngwenya  
Director



**Bizfarm Venture Accelerator (Pty) Ltd.**

357, Che Guevara Road, Glenwood, Durban 4001.

**PERMISSION TO CONDUCT RESEARCH**

**01 November 2022**

Dear Pravin,

Your communication requesting support for Doctoral Research refers.

For your study titled "*Corporate social responsibility and sustainable firm level growth: A case of SMEs in KwaZulu Natal province*", it would be our pleasure to support the research and complete the questionnaires required towards the same.

We wish you all the best.

Regards,

A handwritten signature in black ink, appearing to read "Atul Padalkar".

**Atul Padalkar**

Co-Founder

Bizfarm.

*Directors: Dr D Padalkar (ind) Mr. Atul Padalkar (ind) Bizfarm Venture Accelerator (Pty) Ltd: K2014/230588*



**Re: Permission to Conduct Research**

**Date : 9 November 2022**

**Dear Mr. Praveen K Visala  
Student Number : 21053309**

We hereby grant you Gate keeper's permission to conduct research towards your doctoral studies , topic title : "Drivers of Corporate social responsibility and sustainable firm level growth: A case of Small Medium Enterprises in KwaZulu Natal" at our organisation. The management understands the scope and process that you are going to adopt as part of your studies. We ensure that you get the complete cooperation in your study at our organisation. It is further noted that the management as well as employees need to complete the questionnaire as well as any other interviews that deemed necessary towards your study.

Please note that no part of the study or research be reproduced for any commercial purpose. With- out our express consent, except for the purpose of advancement of knowledge which is through your Doctorial studies /Publications in Journals

Regards

(Signature )

Name : \_\_ Swati Modi \_\_\_\_\_

Director – White Grayhite Pty Ltd.  
CK No: 2018/252354/07  
2 Ncanda Pl Umhlanga Ridge, Durban, 4819

[www.whitegrayhite.com](http://www.whitegrayhite.com)  
[info@whitegrayhite.com](mailto:info@whitegrayhite.com) | +27 78 467 7878  
1902 Yamlingdale, 198 OR Tambo Parade, Durban

**Address:**  
357 Che Guevara, Glenwood  
(Near Glenwood Spar), Durban 4051

**Tel: /Whatsapp +27 [0] 76 164 4183**  
**Email: info@emgroservah.co.za**



**Emgroserv Accounting Hub is accredited by ACCA as Approved Employer – Trainee Development Platinum, Accreditation No:28719632**

**Re: Permission to Conduct Research**

**Date : 2 November**

**Dear Mr. Praveen K Vasala**

**Student Number : 21033369**

**We hereby grant you Gate keeper's permission to conduct research towards your doctoral studies, topic title : "Drivers of Corporate social responsibility and sustainable firm level growth: A case of Small Medium Enterprises in KwaZulu Natal" at our organisation.** The management understands the scope and process that you are going to adopt as part of your studies. We ensure that you get the complete corporation in your study at our organisation. It is further noted that the management as well as employees need to complete the questionnaire as well as any other interviews that deemed necessary towards your study.

Please note that no part of the study or research be reproduced for any commercial purpose. With- out our express consent, except for the purpose of advancement of knowledge which is through your Doctorial studies /Publications in Journals

Yours Faithfully

A handwritten signature in black ink, appearing to be 'PZ Mthiyane'.

**PZ Mthiyane**  
**CEO & Director**  
**Professional Accountant (SA)**  
**Practice No: 6402**

**EMGROSERV ACCOUNTING HUB (PTY) LTD**

**Directors: Zamekile Mthiyane, Kwazi Khumalo**

