
Attaining Sustainable Economic Development for Emerging African Markets using CSI and Financial Competence

by

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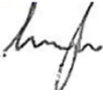
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Declaration

I, Thandokuhle Brandon Dlamini declare that this work is my own. I am aware that plagiarism is wrong. I have followed all the requirements for referencing. This work is submitted for the Masters Management in Finance and Investments at WITS Business School, the University of the Witwatersrand, Johannesburg, South Africa. The same work has not been submitted before for any other degree or examination in any other university. I am aware that University of Witwatersrand may take disciplinary action against me if there is plagiarism.

Signature 

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Dedication

This study is dedicated to my late father, may his inspiration live on. I also dedicate it to my younger brother Sibongakonke Ngubeni and newborn daughter Langelethu'elihle Dlamini may they find great motivation and inspiration in the future upon reading this research. Lastly, I dedicate this to my mother who deserves it as she has been with me since day one.

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List of Abbreviations

CSI	Corporate Social Investment
CSR	Corporate Social Responsibility
ESG	Environmental, Social and Governance
VAR	Vector Autoregressive
U.S.	United States of America
E&S	Environmental and social

Abstract

Corporate social investing has been a topical issue for years now, especially in the developing countries because there are many mining and related activities taking place. Generally, the criticism on mining activities does not link to their social economic benefits; hence, the story tends to be lopsided to negativity. Despite high CSI projects in Africa, there are still problems of high inequality, financial exclusion, low savings rate and bad economic development, academic literature is thin on how these projects can be used effectively. Motivated by previous literature, this study uses the VAR, logistic and multilinear models to investigate the effectiveness of using CSI to stimulate sustainable economic growth in selected African markets. The results of this research reveal that the main macroeconomic drivers of CSI projects are (i) global CSI expense, (ii) rehabilitation and community costs, and (iii) interbank rate. Surprisingly, inflation rate is a hedge variable. Although, the contribution of energy, mining and manufacturing industries to social economic development is evident, the findings of this study do not override the negative effects to global warming from these industries.

Keywords: CSI, CSR, economic development

JEL: E21, E22, E26

1 Introduction

1.1 Background to the Study

Emerging market countries are described as having rapid growth, large structural changes, and the emergence of a larger middle class (Grohmann, 2018). At the same time, these countries are characterised by high poverty and low access to finance (Xu and Zia, 2013). There is a lack of research on financial competence in developing countries thus studies need to be carried out to grow policy initiatives. As at 2021, out of approximately 502 studies on financial competence, 62% were conducted in developed countries and only a meagre 23% in developing countries (Goyal and Kumar, 2021). The authors further state that it is challenging to conduct financial literacy research in developing countries mainly due to socio-economic and basic literacy inequalities. The middle class in developing countries use more financial products but the measure of financial competence is not known whilst financial inclusion is limited for the poor, both are critical for economic development (Grohmann, 2018). The evidence shows that emerging markets have a large size of informal population which are financially illiterate and excluded (Grohmann, 2018). Estimates state 76 emerging countries have mean size approximately 36% of GDP dominated by informal sector (Cole, Sampson and Zia, 2011).

The World Bank Group suggested that the global goal of improving access to financial services is crucial given that as of 2014 half of the working adults were excluded from main economic activity. This resulted in more than 50 countries committing to the goal in 2013 through policy and regulatory bodies (Cull, Ehrbeck and Holle, 2014; Demirgüç-Kunt and Klapper, 2012). The World Bank reported that Africa is the second fastest growing continent, following Asia, mainly attributed to better access to financial services (Chummun and Ojah, 2016).

Changing the scope of businesses has the potential to use corporate social responsibility (CSR) in literacy development thus transforming developing countries (Nzekwu, 2007). A research on CSR, Environmental, and Social scores recording some variation across emerging market countries was done. The results show that even though African markets have the highest CSR scoring, the impact is not evident. It was found that South Africa has the highest CSR score (61.2); Qatar has the lowest (15.0) showing Middle East and North Africa having the lowest CSR (24.0), while Sub-Saharan Africa has the highest (61.2) (Khan, Lockhart and Bathurst, 2021). In African countries CSR is not being utilized efficiently, as Sub-Saharan Africa have one of the lowest

economic development and worst poverty ratings, they are struggling to make effective benefit from CSR projects despite having a lot of them. Therefore, new innovative approaches to CSI and CSR must be proposed and implemented to strive for sustainable development. The CSR definition for private sector should change, with a proposed focus on more long-term benefits of the initiatives (Nzekwu, 2007) particularly focusing on human development such as financial competence.

Competence is described as the combination of knowledge, skill and attitude or belief, the same can be used to define financial competence. Financial literacy, education, awareness and capability are all terms which are used interchangeably (Atkinson & Messy, 2012), all are key factors to economic development (Goyal and Kumar, 2021). Conceptually knowledge is power, and this is no different with regards to financial knowledge. On the other hand, according to Atkinson & Messy (2012) knowledge of concepts of finance is futile until it is put into financial behaviour.

Generally the combination of financial literacy and financial inclusion creates financial capability (Goyal and Kumar, 2021), of which financial capability has to do with money management and financial planning (Xu and Zia, 2013). Financial capability is the skillset aspect which is the blend of financial literacy and financial inclusion (Goyal and Kumar, 2021). From literature, it can be deduced that financial literacy is the knowledge, financial capability is the skillset. The addition of being able to participate in financial market as well as the pro-activeness with good attitude and behaviour will be described as Financial Competence, usually associated with entrepreneurship.

1.2 Substantiation of the Problem

Developing countries are in deep need of economic growth and development thus are searching for how to accelerate sustainable economic development. The need for economic growth was further exacerbated by recent crises such as the Covid-19 pandemic, dotcom market bubble and more especially the 2007/2008 global financial crisis. The main cause of the 2007/2008 global financial crisis was due to inadequate fundamental financial knowledge from both consumers and market participants who took high unjustified risks. This lack of fundamentals in financials which caused the 2008 crisis has increased research on financial literacy in order to encourage good financial mindsets and behaviour (Goyal and Kumar, 2021). Emerging markets also suffered more because of this crisis even though they were not the main culprits, Grohmann (2018) found that there is low rate of financial literacy in emerging markets compared to developed countries. Unfortunately

it is the people at the lower end who suffer the most. The author also found that higher income earners are more relatively financially literate than low-income earners. In the international environment, financial literacy has taken interest both in developed and developing economies (Grohmann, 2018).

An example is the United States who created a President's Advisory Council on Financial Literacy in 2008, which promotes financial education programs and financial inclusion (Cole et al., 2011). Indonesia committed to increased access to financial services and financial literacy. In 2007, the Indian reserve bank launched Financial Literacy and Credit Counselling Centres, which give free financial education to both urban and rural populations (Cole et al., 2011). Financial education is largely associated with financial behaviour and financial socialisation, which coincide with financial literacy (Goyal and Kumar, 2021). This area of knowledge has immense potential to influence behavioural finance. Evidence of household surveys has shown association between financial literacy and household well-being (Cole et al., 2011).

This growth of interest has motivated policymakers especially in the emerging markets to recognize the importance of financial wellness for public and are investing in financial education programs (Xu and Zia, 2013). These programs will enhance financial literacy and create better literate communities and individuals. Financial literate individuals share similar traits such as investing in stock market, have diverse portfolios, make better debt decisions (Grohmann, 2018).

Financial inclusion is central to the development of any country as financial inclusion aids in growth, subsequently forming a sustainable social and political environment (Chummun and Ojah, 2016). However, financial inclusion does not magically make financial problems disappear. As Chummun and Ojah (2016) illustrate how financial inclusion policies are successful in markets with higher propensity to save as opposed to those with a lower savings pool. The authors further stated that inclusion enables access to good education, better healthcare and overall quality of life supported by consumption smoothing. Empirical evidence states that a healthy stock market and liquid financial services firms drive economic growth in Africa (Ojah and Kodongo, 2015). Savings and investments have been largely promoted to having positive effects on countries particularly that it lowers poverty, enhances well-being and spurs economic growth. In developed areas the savings and financial inclusion indicators are higher than developing regions (Chummun and Ojah, 2016).

Financial inclusion is a term which has been used numerous times, mainly because it is a key to unlocking economic growth as has been advised by the World Bank. In 2009 at the Pittsburgh Summit, G20 made financial inclusion as one of their pillar topics showing the importance policy

makers place on financial inclusion as a development priority (Cull, Ehrbeck and Holle, 2014). Several suggestions have been made to eliminate the issue of financial exclusion, however the one leading the pack is utilizing technology to reach the masses to increase inclusion. This technology along with others has assisted in giving access to financial services in East Africa where the products are used for savings and payment (Chummun and Ojah, 2016). The use of mobile money applications is one suggestion which reduces transaction cost and thus allows households to share the risk, thereby increasing financial inclusion (Cull, et al. 2014). Kenya is a great example where mobile money through ICT infrastructure was effective in increasing inclusion, this shows the ultimate solution for financial exclusion which is an effective financial intermediation strategy through industries collaboration (Ojah and Kodongo 2015).

In India, Morocco, and Mongolia, research results showed that access to credit increased individuals psychological wellbeing, females in household had more decision-making power and there was a reduction in spending on temptation goods (Cull, et al. 2014). There is a keen interest from people to learn about finances evident in Tanzania where a FinScope survey showed 80-85 percent individual interest. There are similar interests from Nigeria and South African mineworkers, as well as in India and Indonesia who all feel they can benefit from the endeavour (Cole, et al. 2011).

Economic development or Economic growth is one of the three objectives every country wishes to accomplish. The other two objectives include effective management of the level of inflation and unemployment in the country. Usually, development is determined as the welfare of the society, whereas growth is portrayed as the increase in Gross Domestic Product (GDP). A question then arises, how do we achieve this development and growth? Blanchard (2017:pg 58) gave enlightenment by stating that:

“Economists think of output as being determined by demand in the short run. They think of output as being determined by the level of technology, the capital stock, and the labour force in the medium run. Finally, they think of output as being determined by factors like education, research, saving, and the quality of government in the long run”.

In African countries these long term economic development drivers are not adequate as the level of technology is slow to develop, human capital tools are not sufficient, high unemployment rates, low financial literacy and inclusion (Nzekwu, 2007). The private sector plays an important role in achieving transformation objectives and economic development including attracting foreign capital (Nzekwu, 2007), another tool they can use is CSI/CSR. Though CSR has the potential to

transform an economy, it is limited because of the way it is executed (Nzekwu, 2007). CSR initiatives focused on the lacking Early Childhood Development (ECD) and Adult Basic Education and Training (ABET) however through efficient CSI spending, businesses could foster education for wealth creation. CSR and CSI are similarly driven by the same moral values of social justice, equity and transformation (Nzekwu, 2007). Throughout the article the term CSI will be used as it speaks more to the investments made by the companies. Currently in the financial industry there is an interest on ESG which contains environment, social and governance; however, this article focuses on the social aspect more. The social aspect focused on is a subset which addresses how the social investments made by corporates can be utilized better to improve African's lives thus improving economy.

Corporates are usually faced with a moral dilemma whether to invest in CSI/CSR to reap a reward or for philanthropy reasons hence the differences in the terms. During the capitalist era, the motive has shifted to market forces instead of human nature and religious principles, which were the drive for CSR (Nzekwu, 2007). A combination of capital benefits and moral benefits needs to be investigated thus encouraging corporates to create more impactful CSR. Documentations on the relation between financial incompetence and poor economic outcomes are provided (Goyal and Kumar, 2021). However, there is still limited research on the direct relationship between financial competence and economic growth this shows there is a need in this area for more research.

1.3 Problem Statement

According to Goyal and Kumar (2021), financial competence is critically deficient amongst the youth; only a few know about inflation, interest rate and risk diversification, which are the common measures of financial literacy. Furthermore, the authors opined that with the growth in the African youth population, the savings rates are distasteful. There is a need for country-specific measurement metric for financial competence (Goyal and Kumar, 2021). Previous research has shown that financial competence is higher for respondents with higher education, higher income and higher financial assets leaving poverty-stricken markets who need it the most unserved (Grohmann, 2018). A problematic policy issue in many emerging economies is uninformed and excessive credit consuming population, who do not understand interest rates (Grohmann, 2018). The result of financial incompetence is burdensome, as some studies indicate how financial illiteracy is associated

with adverse financial outcomes eventually negatively affecting the general public's economic development (Xu and Zia, 2013). Low financial competent households tend to not plan for retirement, borrow at high interest rates, have fewer assets and participate less in the financial system (Cole et al., 2011) thus leading to underdeveloped economical markets.

According to The World Bank Group there is a problem that as of 2014 half of the working adults were excluded from the financial system. A key component of inclusive sustainable development suggested by Chummun and Ojah (2016) is financial inclusion or inclusive financing. As Chummun and Ojah (2016) further shows how financial inclusion policies are successful in markets with higher propensity to save as opposed with those with a lower savings pool, the problem is Sub-Saharan Africa has one of the worst savings rate in the world.

Financial inclusion has a huge role to play in the African development story, however there are a few structural issues which are obstacles. Chummun and Ojah (2016) state that the factors hindering inclusion are cost and distance, lack of documentation, restrictive regulation, inadequate public and private savings and poor infrastructure. Africa's inequalities limit formal financial intermediaries, such as banks from investing in expanding access to financial services as the capital cost will not yield direct profits (Ojah & Kodongo, 2015). Substantially less than international standards, one out of four adults in Africa have savings accounts while the most of Africans use informal methods to save (Dermiguc-Kunt and Klapper, 2012). Giving saving accounts access to these developing emerging markets foster them to be great savers hence better financial development to the market (Chummun and Ojah, 2016). Poor households are generally excluded from earning a pay through employment thus, forced to live and work in informal economy (Cull, et al. 2014).

The increase in life expectancy gives rise to better retirement planning along with complex financial products in the market showing the need for individual financial understanding (Grohmann, 2018). The minimal economic development and social equality in Africa and emerging markets is a long term problem, it can be attributed to mediocre education initiatives (Nzekwu, 2007). The low savings rate in Africa is a critical issue which is directly related to lack of financial inclusion thus, lack of production-based welfare improvement (Chummun, and Ojah, 2016). Blanchard (2017) attributes long term economic development to literacy, governance, human capital tools and financial inclusion. African countries have failed in providing these, the next best initiator could be the private sector by using Corporate Social Investments (CSI) which have not been used effectively.

1.4 Primary Research Question

The primary research question emanates from the need to address the problem of achieving sustainable economic growth through the CSI projects, which are aligned with the needs of the communities. As such, the research question is:

How to achieve sustainable economic development using financial competence?

1.5 Secondary Research Questions

From the primary question, the secondary research questions identified are:

- What is the relationship between economic development and financial competency?
- How to stimulate economic development such as entrepreneurship, through CSI projects?

1.6 Research Aim

The aim of this research was to illustrate how financial literacy can be used appropriately and adequately to stimulant economic development through the CSI projects. This is because this premise of ‘financial literacy which leads to financial well-being of individuals and society further having implications on economic health to stable economies’ needs to be investigated further. Importantly, how it can be implemented, the study aimed to investigate this lacuna by suggesting CSR as the solution thus adding to the body of knowledge.

1.7 Research objective

From the aim, the following research objectives were identified:

- To achieve sustainable economic development by using CSI methods incorporating well-grounded financial competency norms.

The sub-objectives were as follows:

- To disentangle the mixed-type of relationship between financial competency and economic development.

- To show how entrepreneurship can be best achieved using the CSI projects.

1.8 Hypothesis

Based on the research theme of this study, the main hypothesis of this study was;

Null hypothesis (H_0): financial competence achieves sustainable economic development through coordinated CSI projects.

Alternative hypothesis (H_1): financial competence does not achieve sustainable economic development through coordinated CSI projects.

1.9 Limitations

The following limitations were identified in this study:

- The study focused on an industry that has greater impact on communities based on its business activities as drawn from prior studies. Therefore, projects that have greater community impact are found in energy, mining and manufacturing industries (Liang, Upadhyay, Mohan and Subramanian, 2019; Mehahad and Bouner, 2020).

1.10 Assumptions

The following assumptions were made in this study:

- The assumptions employed in the research related to factors which were beyond the writer's control. The study assumed that the limited data that were collected from African countries were sufficient to give a holistic African perspective.
- Items beyond the bounds of the model were not considered in the analysis and were assumed to have no effect on the outcome. The researcher assumed that the sources for the information/data are accurate and trustworthy.

2 Literature Review

2.1 Introduction to the Literature Review

The literature review in this research report focuses on financial competencies in selected African markets and other related markets. Expanding on how CSR can be used effectively in selected African markets such that the financial impact of CSR projects lead to positive economic growth; thereby alleviating poverty in affected communities. Based on Liang et al. (2019), the mining industry is one of the industries that invest significantly into CSR projects; although, the impact of CSR projects are a mixed bag throughout the African continent. In the context of this study, the literature review is synthesised into three parts-(i) effectiveness of CSR in communities, (ii) economic development based on financial competencies, and (iii) entrepreneurship of financial competencies.

2.2 Effectiveness of CSR in Communities

According to Engbers and Rubin (2018), the effectiveness of financial literacy programs are of high importance as pointed out in the introduction that the consensus among academia is that it is not well measured. This issue coupled with CSR programs being used as a box ticking exercise amongst corporates in order to fulfil regulatory requirements without providing value to the beneficiaries, needs be addressed. In his article Krisnawati (2020) stated that financial literacy is heavily lacking amongst developing countries. Further to this the Indonesian government has made a regulation which encourages financial education programs (Krisnawati, 2020). Such regulations are found throughout developing and emerging markets who seek to promote financial literacy aligned with financial inclusion through the guidance of the World Bank Group (WBG). Krisnawati (2020) exclaims that in developing countries a greater part of their population is financially excluded. A staggering 35% of Indonesia's population is financially included and only 48% of the population have savings in a formal financial institution (Krisnawati, 2020). A critical problem identified by Krisnawati (2020) is that most of the research conducted in emerging markets on financial literacy is only focused on the standard of financial knowledge.

As such, a solution is needed for these various problems, a solution which does not marginalize any stakeholder whilst promoting collaborative effort. Krisnawati (2020) suggests

implementing government financial literacy and inclusion programs using CSR. Krisnawati (2020) utilizes middle range theory to investigate CSR programs by financial services-business in the form of financial inclusion and literacy. Using secondary data found in four Indonesian banks annual reports the writer maps out the CSR financial literacy programs of banks thus providing content analysis (Krisnawati, 2020).

The linkage of CSR and financial literacy is a new phenomenon that has the potential to develop society as a whole. CSR is a concept introduced by Howard Bowen in 1953; it has then gained large popularity amongst corporates who are keen on making a social impact (Krisnawati, 2020). According to the World Development Bank financial inclusion speaks to access to financial services and products including transactions, payments, savings, credit and insurance. Indonesia's regulation No 76 which promotes financial literacy and inclusion propelled the four Indonesian banks to focus their CSR initiatives on financial literacy (Krisnawati, 2020). The three categories modelled by Krisnawati (2020) common among the 4 banks for CSR and financial literacy are (i) financial literacy consisting of financial education and business coaching (ii) financial literacy on technology and (iii) financial literacy on banking services.

This model is suggested towards achieving the financial inclusion and poverty eradication objective aligned with the sustainability development goals (Krisnawati, 2020). The shortcomings of Krisnawati's research are that it does not use a robust model to test the research, specifically a quantifiable model. Furthermore, the theoretical analysis does not use a sample size, despite these limitations the result are useful for this research topic.

The CSR initiatives are conducted for good intentions however the effectiveness of the activities need to be thoroughly investigated. In the article by Appiah (2019), it is expressed that research is limited on how CSR enhances employee job satisfaction. Participants of the economic system demand assessment of firms' CSR initiatives. To address this problem researchers have suggested that a quantifiable investigation should be done which investigates how the business performs, to examine the influence of CSR on this research limitations. Appiah (2019) demonstrated that there is a relation between corporate responsible initiatives with the level of employees being satisfied in their job. The CSR initiatives highlighted in the article involve a lot of giving back to the community and increase the employee's satisfaction to their jobs. Appiah (2019) sample include the United States of America hotel industry. The research largely investigated the effects of CSR within these communities. The sample used in the study is hotels which are corporate managed within the United States hotel industry that has an estimated 1,6million employees (Appiah 2019).

The theories and concepts that underpin Appiah (2019) are CSR, human resources and CSR impacts on all stakeholders. The methods used in the research include moderation analysis and various regressions and tests to analyse the research. Hyperlinks were sent through email to the sample to conduct the survey ensuring anonymity of participants. QuestionPro a data collection tool was used; it uses simple random probability sampling selecting a 250 sample out of 2000 possible sample from 3rd party source. Using a recruiting organisation audience program, 116 participant's data were collected where membership in online organisation panel was used to identify sample frame. Adjusted R squared regression was used to test significance certain variables found to interpret.

The limitations of Appiah (2019) is the methodology used to conduct the study. Ultimately, the findings by Appiah (2019) show a statistically significant positive relationship between CSR and employee job satisfaction in U.S. hotel industry. There is no evidence for moderating effect of age and gender. The results further suggest that leaders in the hotel industry may benefit from community CSR initiatives. The article concludes by stating that corporate's initiatives to help social responsibility increases workers happiness in hotels. Overall, job satisfaction has a relationship with CSR (Appiah, 2019).

All decisions of a firm including CSR initiatives have to pass through the approval of management and then the Board of Directors. Understanding the level of influence that the directors have concerning CSR of a firm is of utmost importance. In their article Beji, Yousfi, Loukil and Omri (2020) explore how the board's characteristics relates with CSR of a firm. Beji et al (2020) analyse the problem board members face when integrating CSR into the company. There is a problem of endogeneity regarding governance and CSR of a company, this is taken from the information of the demographics of board members correlated to CSR. To measure CSR criteria the authors utilize VigeoEiris database and include sub-score. Using descriptive statistics score system, the result show CSR varies significantly amongst industries (Beji et al., 2020). A Pearson correlation matrix is used where in estimating the model, Generalized Method of Moments (GMM) was utilized (Beji et al., 2020). Additional analysis were used checking robustness and to fully eliminate effects to the dependent variable, the method used was the changes in changes analysis. To further analyse significance of Grenelle II law a mean difference test was conducted showing percentage increase after the period the law came into application (Beji, et al., 2020). Grenelle II law came into effect in 2010, this law resulted from France's government initiative to improve sustainable development. The

legislation has an objective of increasing environmentally friendly projects and promote good environmental practices by organisations (Beji et al., 2020).

The context of the study is a form of limitation as it is conducted in a European country that has a limited number of works done on the topic covered. The dataset has included a total of 120 companies which are listed on the French market, data attained from 2003 to 2016. France is one of the pioneers of CSR regulation as they have created and initiated many legislations to increase CSR (Beji et al., 2020). Various theories highlight the role of the board in implementing effective CSR strategies in addition Beji et al. (2020) explore this idea. According to the authors, there is strategic and responsive CSR, the former is influenced by executives' vision and values. Whereas in the latter, goals and decisions are determined by external expectations and regulations.

Beji's et al. (2020) findings show that large boards which participate in CSR tend to perform at levels which surpass expectations. Further, that there is strong evidence showing that a diversified board of directors has a strong correlation with CSR performances which are exceptional. Testing size of board, gender diversity, age diversity, outside directors, director educational level and non-family have a positive association with the CSR score (Beji et al., 2020).

In the period between 2004 and 2013, 41 countries were used as a sample in the research where Dyck, Lins, Roth and Wagner (2019) test the relationship of firms' environmental and social (EandS) performance in relation to how many shares are owned by institution shareholders. The idea of how EandS invested in a company helps a shareholder still needs to be investigated. Research on the financial implications of EandS and whether they outweigh the benefits, gives researchers findings which are not certain (Dyck et al., 2019). To test this relationship the writers collected financial data and company data obtained from an ESG database which acquires information across 45 countries annually (Dyck et al., 2019). In studying CSR, the firm's environment and social (EandS) performance is critically analysed using important factors on global environmental issues and social justice matters. What happened in 2010 when the BP Deepwater Horizon oil spill occurred showed how costly environmental disasters are (Dyck et al., 2019). This goes to show that norms in that region were not pro EandS; and illuminated the need for environmental policies.

In conducting the research social norm tests combined with the financial crisis tests were conducted after time series and cross-sectional tests from the BP oil spill causal interpretation was used to analyse (Dyck et al., 2019). There are other robustness tests completed which include a firm fixed effect specification (Dyck et al., 2019). The writers assess whether firm's governance or transparency level changes influence results by controlling factors. Testing whether EandS

performance motivation by financial returns was done in alignment to the 2008-2009 global financial crisis that positively shocked the appetite for EandS performance in firms (Dyck et al., 2019). There are several resources used to capture data in respect of EandS issues across countries. The researchers use two weighting approaches to test, the first transforms all line items into indicator variables the second uses the ESG database. Institutional ownership is measured using Factset Ownership database while Worldscope is utilized to acquire financial statement and stock market valuation data (Dyck et al., 2019). Fundamentally what is being tested is the relationship between shareholder ownership by institutions and EandS performance utilizing a log function. The writer's findings show that the more a firm is owned by institutional investors the greater their EandS performance, this result has a critical economic implication. Social norms toward EandS differ significantly across countries. European countries have the top 17 positions in EandS rankings of countries. Increasingly except European region firms, investors have a low influence on the EandS performance (Dyck et al., 2019).

Within Africa, ESG issues by big corporations are causing massive protests as citizens feel inadequate ESG policies impacts their lack of employment. Large-scale companies can be part of the solution through participating in community building activities largely comprising of CSR which can develop the community in an organised manner (Mehahad and Bounar, 2020). This is a problem especially for mining companies who are one of the largest employers in Africa; they therefore need to cater for all their stakeholders. A concept written about in the article that possess a huge business risks facing mining firms is getting a social licence to operate (SLO). This licence is largely about effective stakeholder communications (Mehahad and Bounar, 2020).

There were Arab Spring protests in Morocco caused by unhappy citizens because of socioeconomic inequalities and unemployment, propelled by the Phosphate mining issue in the country (Mehahad and Bounar, 2020). Mining firms have an opportunity to minimise these problems by utilizing CSR (Mehahad and Bounar, 2020). The authors go on to state that CSR within mining in Morocco is lacking thus there is a vast need for it. The Phosphate mines in Morocco are mostly in the Gantour basin where the provinces which host these areas are Youssoufia and Rhamna. This area has low levels of people employed, the unemployment rate is approximately 29% with 17.4% in the urban centres (Mehahad and Bounar, 2020). Their paper states approximately 85.4% of the population live poor lives as recorded in 2014 mostly caused by lack of access to basic services mainly education (Mehahad and Bounar, 2020).

The article uses qualitative research method conducted using exploratory research to explore CSR being applied. When collecting the data, the researchers used participant's observations

thereafter semi-structured interviews were conducted (Mehahad and Bounar, 2020). Thematic coding of the interview was done to translate and transcribe the data collected. In analysing the data NVivo 11 Plus software was utilized. The research concluded and found that the issue is that CSR is not a core long-term objective for these mining corporations (Mehahad and Bounar, 2020). One of the limitations of the research is that it did not investigate more on the environmental and socioeconomic factors, and the data analyses methods were not so rigorous (Mehahad and Bounar, 2020).

Rela, Awang, Ramli, Md Sum and Meisanti (2020) conducted research to investigate how CSR impacts the community by studying relation between CSR and community resilience (COM-R). The problem of mining communities having negative effects on social, economic and environmental impacts is further investigated. The study was done in a 45-year-old nickel mining industry in Indonesia, during those years it provided employment and economic development in local communities.

In researching the topic, resilience framework was adopted instead of sustainability. Resilience framework help in understanding the performance from endogenous and exogenous factors (Rela et al., 2020). CSR initiatives may be separated into four categories. Firstly, companies conduct their own CSR programmes. Secondly, organizations that provide monetary aid. Thirdly, initiatives that create collaborations with institutions. Finally, initiatives can become a member of a social organisation (Rela et al., 2020). CSR is well known to have a positive impact on the image of a brand and other stakeholders.

Using Partial Least Squares -Structural Equation Model (PLS-SEM) to analyse the effect of CSR practise on COM-R, the results show that CSR has a positive effect (Rela et al., 2020). The relationship is significant between CSR and COM-R. From a population of family leaders across 12 villages in nickel mining the sample used was 500 family leaders as required by SEM model for a reliable analysis (Rela et al., 2020). The data was collected using field surveys utilizing tested structured questionnaires; the researchers were helped by trained native enumerators to have face-to-face interviews. In analysing the data, the questionnaire was tested for internal reliability by finding the Cronbach's alpha (CA) for CSR as 0.90, classified as excellent and COM-R was 0.77 indicating acceptable internal consistency (Rela et al., 2020). CSR improves community collective efficacy and community action. The study empirically proves that CSR initiatives develops collaboration among community members thus having an indirect positive impact on communities which is significant (Rela et al., 2020).

Despite the findings, this study has its limitations. There is further analysis that needs to be conducted for a more insightful understanding of CSR relation with community resistance. The sample needs to have different stakeholders participating in the research not just limited to community members. These stakeholders can include public servants from government and social organizations which play a huge role in community initiatives. Utilizing both qualitative and quantitative methods in varying forms will provide a more credible depth particularly on how CSR awakens COM-R (Rela et al., 2020).

2.3 Economic Development based on Financial Competencies

Competence has been linked with one of the factors that fosters economic development. However, the extent to which this is true needs to be investigated. In theory, social capital affects economic development. One of the factors that account towards job creation is college graduates followed by bridging social capital (Engbers and Rubin, 2018). A concept dealt with within social capital literature is that of social capital theory (SCT) which argues that social capital is critical for economic health in civic society (Engbers and Rubin, 2018). Social capital is explained in four types identified as synergy, organizational integrity, integration and linkages (Engbers and Rubin, 2018). Similar to other forms of capital, it is a source for development and key in economic production however fades away with disuse (Engbers and Rubin, 2018). Various writers have expressed that key factors to economic development include skilled labour, access to capital, large number of employers, adequate infrastructure, citizen cohesion and efficiency in government whereby social capital is major underlying aspect in most of the factors (Engbers and Rubin, 2018).

In order to conduct the research the authors used an index of surveys and social network analysis. They empirically found that social capital is positively correlated to job creation and economic development. This happens through the joint ventures and public private partnerships that are formed through these social capitals thus fostering economic development (Engbers and Rubin, 2018). The study was undertaken in Italy where they found that between the northern and southern regions the north has and maintained a higher per capita level because of social capital (Engbers and Rubin, 2018). Northern Italy also has experienced rapid economic growth because of the connections (Engbers and Rubin, 2018). Social capital's economic effect is rooted on reduction in transaction costs and the Keynesian multiplier (income and employment multipliers). There is an idiosyncratic relationship between social capital and economic development however; the findings show a positive

correlation (Engbers and Rubin, 2018). The limitation to Engbers and Rubin's (2018) research is that the methodology they used does not allow for detection of small effects that would have been detected had they used a larger sample. The other limitation is that the writers do not consider cultural and regional differences in analysing the social capital's economic effect (Engbers and Rubin, 2018).

Esubalew and Raghurama (2020) studied the agreed variables between how Small-Medium firms perform and how much finance is given by banks shown as entrepreneurs' competence. Esubalew and Raghurama (2020) showed that access to finance is still an issue for MSMEs which are defined as Micro, Small, and Medium Enterprises. Entrepreneurs receive funding however their irrational decision-making does not bring growth. Measurement of business performance may be determined using various factors; however in MSMEs it is difficult, as financial indicators do not always apply thus non-financial aspects are good for capturing total organizational performance (Esubalew and Raghurama, 2020).

Entrepreneurial competence is defined as entrepreneur's ability to use resources whilst creating value. Attributes to entrepreneurial competence are composed of the willingness to take initiative, calculated risk taking, an ability to persuade and level of independency (Esubalew and Raghurama, 2020). The methodology used in the study was identifying four variables from academia with the aim of reaching the research objective. In collecting the data, the list of MSMEs in Ethiopia was the sample frame. In selecting the 400 MSMEs, the sample size considered a 5% significance level where Slovin's formula was utilized. A total of 413 questionnaires were sent to owner-managers, first doing a pre-analysis task thereafter factor analysis and modelling (Esubalew and Raghurama, 2020). In using the factor analysis, the writers considered a test to investigate appropriateness where result showed the data were suitable. Confidence intervals were determined using P values and standard errors (Esubalew and Raghurama, 2020). Using evidence from Amos version 22 output each hypothesis was tested on direct and mediating effects of variables. Structural Equation Modelling was applied when analysing the impact of identified unobserved latent variables and to develop a casual model to analyse performance of MSMEs determinant factors (Esubalew and Raghurama, 2020). The limitation of the study is that the variables investigated do not incorporate moderating.

The study's findings reveal that how competent an entrepreneur is has an implication on their firm whether small or medium along with other tested variables. Even though using banks to finance had a positive relationship with the performance of MSMEs this relationship was less direct due to mediating effects of behavioural finance (Esubalew and Raghurama, 2020). The writers further

reveal that level of competency of the entrepreneur does not have a significant positive relationship with the performance of MSMEs where government subsidies are involved. In conclusion, contradictory to existing literature behavioural finance is the real issue, as access to finance does not necessarily hinder MSMEs growth. Further, the level of competency of an entrepreneur has a long-lasting effect on their firm (Esubalew and Raghurama, 2020).

The COVID-19 pandemic caused a lot of negative shock to the business environment because of uncertainties and conspiracies, which limited start-up's ability to new market opportunities and taking good business decisions (Gupta and Rubalcaba, 2021). A framework called Competency-Industry Relatedness (C-IR) guides start-ups to strategic business decisions using internal factors instead of hearsay. This includes correctly investigating the market they enter into thus leveraging useful resources which are found in the system without having to source out external funding which enables sustainable growth for the business resulting in economic development (Gupta and Rubalcaba, 2021). Well-managed start-ups have an economic impact on the economy as they foster growth in economic performance indicators. The growth usually happens because of their innovative products or services. A start up is defined as a company seeking scalable and repeatable business model to grow in their market (Gupta and Rubalcaba, 2021).

Employing a methodology called two-step the researchers used start-ups from India, France, Italy, and Switzerland utilizing case studies to research five companies; thereafter a case study of 36 start-ups funded by European Union that were COVID-19 solution-based businesses (Gupta and Rubalcaba, 2021). The first case study identified beliefs that affected the start-ups decisions by interviewing 5 start-ups using an online platform. On the second survey, data was collected from the 36 start-ups (Gupta and Rubalcaba, 2021). The data collected were in-depth analysis of their websites, their LinkedIn profiles as well as Crunch-base. An excel file was used to collect, analysis and prepare the data which was then stored at Harvard Data-verse. After investigating beliefs that led to start-ups business decisions the results were further validated where 102 entrepreneurs were surveyed (Gupta and Rubalcaba, 2021).

The findings show that start-ups pandemic decisions were motivated by several myths linked to human, intellectual and financial resources (Gupta and Rubalcaba, 2021). C-IR framework helps business of any size to adapt products to new markets and use technology to solve problems (Gupta and Rubalcaba, 2021). The limitation of the research is that the conditions on which the study was conducted is limiting, which is during a pandemic. Further, the sample size is rather small posing a threat that the results may be skewed. Lastly, the projected C-IR framework will be difficult to plan

around until it is implemented in a real case scenario (Gupta and Rubalcaba, 2021). The C-IR framework is segmented into whether business should: ignore, delay, phase-in or diversify (Gupta and Rubalcaba, 2021).

The effectiveness of entrepreneurship playing a role in knowledge spill over, innovation and economic development depends on a region's knowledge bases, absorptive capacity, competition, networks of people, diversity and culture which are all grouped as entrepreneurial ecosystem (Qian, 2018). Knowledge bases and spill overs differ in regions thus the mechanisms of how spillovers occurred between economic stakeholders need to be investigated (Qian, 2018). In literature, competence is considered a key component in economic development therefore countries should be conscious on impactful usage of it. Schumpeter stated that combining knowledge with market value within an entrepreneurial activity is important for a good capitalist economy. Neoclassical growth theorist consider technical knowledge an important indicator of economic performance (Qian, 2018). It was during the 1980s where the economic role of knowledge took centre stage where two theories emerged. The first theory: "Knowledge production function (KPF), which studies the relationship between industrial and university research and development (RandD) input and the innovative output of the private sector" (Qian, 2018). The second is the endogenous growth theory (EGT) which showed why businesses have incentive to invest in RandD because of the patent system, in this theory derived knowledge is a major influencer to the long run development of the economy (Qian, 2018). Scholars have addressed missing link in EGT using the knowledge spill over theory of entrepreneurship (KSTE) (Qian, 2018).

A U.S. federal programme called the Small Business Innovation Research (SBIR) grant has shown how economic development policies can boost knowledge spillover in entrepreneurship where technology start-ups were encouraged (Qian, 2018). State laws play a critical role to spillover within entrepreneurship (Qian, 2018). The methodology that Qian (2018) used was reviewing the juncture of the literature in knowledge spillovers, entrepreneurship and economic development. The researcher's findings show knowledge spillover in entrepreneurship having a significant role in innovation thus leading to economic development. This growth happens when entrepreneurship accelerates knowledge commercialization thus aiding the entrepreneurial ecosystem, which fosters growth (Qian, 2018). A huge limitation of this research is that it only utilized theoretical review approach without any quantitative methodology, thus the results are not as rigorous.

Regions that experience economic stagnation and population outflow have expressed the importance of including immigrant entrepreneurship for their growth plans however little is known

about the effectiveness of the strategy. The hindrance is that policies do not address developing the immigrants' business acumen. Immigrants tend to have issues with scaling and performing mainly because of language, legal and capital barriers (Huang and Liu, 2019).

In the context of the U.S. economy immigrant entrepreneurs are important with their business formation, job creation and revenue generation that serves community development and vitalizes distressed regions (Huang and Liu, 2019). In 2012, 18% of small business owners were immigrants even though they are only 13% of the population (Huang and Liu, 2019). During the year 2010 these immigrant business in the U.S. generated revenue approximately \$121 billion amounting to 15% of all business income (Huang and Liu, 2019).

During the methodology in-depth review and content analysis were used researching public programme documents of 16 cities who have immigrant entrepreneurship and economic development initiatives. Thereafter 20 specific programs were derived categorised in these five forms: information, language, business service, financial support and place-based approaches (Huang and Liu, 2019). A systematic analysis was then done which show implications of these initiatives. Similar to the previous study the limitation of the study is that it only uses theoretical review approach without any quantitative methodology, thus the results are not as rigorous (Huang and Liu, 2019). Further to this, the initiatives being investigated need to be further explored particularly on their cost to benefit and ease of implementation.

The findings reveal that the regions address the immigrant entrepreneurs' needs differently. The current existing plans focus on bridging information, language, business skill gaps and leveraging existing city infrastructures with less focus on institutional knowledge and financing opportunities (Huang and Liu, 2019). From the analysed programmes, 20 are sectorised into these five categories: information assistance, language assistance, business service support, financial support and place-based approaches (Huang and Liu, 2019). Policy makers need guidance in planning and implementing these programmes in order to cater for immigrant entrepreneur needs without having unnecessarily broadly scoped programmes that do not have an impact (Huang and Liu, 2019). Regions with a high number of educated immigrant population have potential to develop high impact programmes to the economy through technical assistance to entrepreneurs (Huang and Liu, 2019).

2.4 Entrepreneurship of Financial Competencies

Different writers have described entrepreneurship using various terms that shows its multidimensional concepts. Schumpeter (1934) a famous entrepreneurship-growth scholar defined it as innovation whilst other recent writers consider it a process of discovering and exploiting opportunities in markets whilst being aware of entrepreneur's qualities and behaviour (Qian, 2018). Clearly, the competence of an entrepreneur has a huge impact on their performance.

In the article by García-Cabrera, García-Soto and Olivares-Mesa (2019) the writers investigate how entrepreneur's ability to use resources affects the performance of tech-based companies. Recent literature highlights the importance of human capital resources on how a company performs. Two factors affect this ideology: results of firms without required resources and ways of measuring the performance of NTBFs. An approach that studies the relationship of resource and strategy in conjunction with performance is critical (García-Cabrera et al., 2019). A total of 175 Spanish NTBFs with 7 years operations with an average 19.3 employees from the SABI database in 2008 were the sample (García-Cabrera et al., 2019). Using configuration perspective of fit method the writers study the multiple resources that must fit the chosen strategy, a limitation is that never before has it been used to study NTBFs. Questionnaires was used to test the hypothesis, but profits indicator was extracted from a database (García-Cabrera et al., 2019). Harris-Kaiser oblique rotation method was applied further Kaiser-Meyer-Olkin (KMO) Test and Bartlett's Test of Sphericity showed satisfactory levels (García-Cabrera et al., 2019). The Cronbach's alpha coefficient indicates an internal consistency. To analysis the hypotheses an ordinary least squares regression was done through a probit selection model then Enter method was used for selection (García-Cabrera et al., 2019).

The findings show that a firm's performance is attributed to the relation of technology strategy along with the resources available to the entrepreneur. The entrepreneurial team needs to have these variables: knowledge of business admin, knowledge on technology, experienced in working with large enterprises and have accessibility to investment partners and other partners in order to be included in this relationship; any weakness in these negatively affects performance (García-Cabrera et al., 2019). Financial indicators are only important for NTBFs' long-term survival as short term is about increasing number of costumers and increasing sales. When investigated through a linear regression model the variable identified as investment partner has a strong effect on how NTBF performs (García-Cabrera et al., 2019). A limitation of the research is that the impact of

the line of best fit on financial performance was not found using a robust test but rather using difference of means context analysis. Further the research is only limited to Spain thus results may be affected by the geographical context (García-Cabrera et al., 2019).

Guanxi relies on utilitarian elements focusing on mutual economic benefits, guanxi and social capital are treated equally as these are terms used in Eastern and Western markets (Bari, Mahmood, Qurrah-tul-ain, Bashir and Usman, 2021). The extent of how instrumental guanxi and social competence improves the performance of an entrepreneur's firm needs to be investigated. Using firms in China's and Pakistan's textile industry the writers explore the correlation of entrepreneurs' social competence and firm financial performance in the context of it being catalysed by instrumental guanxi (Bari et al., 2021). Literature points to a deficiency in technical skills, limitation of access to capital, obsolete technology and traditional business practices as a reason to bad performance in Pakistani entrepreneurs (Bari et al., 2021). In China, along with favourable labour wages and affordable prices the business world was attracted by the entrepreneurs' business skills mostly their social competence which explains their good financial performance (Bari et al., 2021).

The context of the study is the fast-growing China Pakistan Economic Corridor (CPEC), where textile start up owners were randomly selected from China and Pakistan which are largest exporting region in the world of textile (Bari et al., 2021). Using cross-sectional data and a random sample, the writers investigated a group of entrepreneurs from China and Pakistani composed of 251 and 270 people respectfully. The data was evaluated using partial least square structural equation model (Bari et al., 2021). The writers use model measurement to test for reliability and validity thereafter use item trimming to test for robustness (Bari et al., 2021). Local students from universities were employed to collect data from entrepreneurs through questionnaires. Dijkstra-Henseler's rho criteria was utilized to construct reliability. Convergent validity is confirmed using average variance extracted (AVE). For the mediation effects variance accounted for (VAF) is used (Bari et al, 2021).

After completing the study, the researchers found instrumental guanxi to be a significant factor in entrepreneurial behaviour thus enhancing performance (Bari et al., 2021). The research was limited, as other dimensions of guanxi are not explored. The research only uses data from two Asian countries whilst using a limiting time horizon. The final limitation is that the study was done in the context of one industry (textile) (Bari et al., 2021).

Entrepreneurship is one of the ways which can be used to alleviate developing countries from poverty however little is known about this method. An issue is that "poor entrepreneurs have less financial capital, human capital, and social capital than conventional entrepreneurs" (Nakara,

Messeghem and Ramaroson, 2021). The author's objective was to understand the determinants of innovation from poor entrepreneurs. It is not only developing countries which face a poverty problem, as developed countries do so as well thus they consider entrepreneurship in solving this problem. Developed countries poverty rates are surprising, in the European Union's most developed countries the average of the poverty rate is 11,6% and the United States has an astonishing 17,8% poverty rate. These countries have policies in place that encourage entrepreneurship mostly for jobseekers (Nakara et al., 2021).

The 3373 entrepreneurs living in poverty stricken France were tested using a multilevel approach theoretically derived model. A national statistics institution (Nakara et al., 2021) used new Enterprise Information System (SINE) database to collect the data that was developed. In analysing the said hypothesis, logistic regression analyses were used to estimate firms and ESG factors impact on poverty-stricken entrepreneur's likelihood to innovate. Multicollinearity is tested using variance inflating factors (VIF). Pearson-Windmeijer goodness-of-fit test and the Wald version of Stukel's goodness-of-fit test show that the model fits (Nakara et al., 2021). Diagnostic measures based on residuals are used to find outliers thereafter a robustness test was done (Nakara et al., 2021).

In the research the writers saw that innovation is promoted by an opportunity motivated individual as well as human and financial capital. Entrepreneurs motivated by necessity are less likely to innovate whilst less competition, financial aid and social capital fosters innovation by poor entrepreneurs (Nakara et al., 2021). A limitation to the study is that France is the only country being tested. The large dataset does not speak to individual entrepreneurial experience and the data limits analyst between entrepreneurs and their ecosystem limiting ability to find out effect of entrepreneurs' ability to innovate (Nakara et al., 2021).

Within literature, there is an interest in understanding entrepreneurship ecosystem. Stam and Van de Ven (2021) show that it is better to use systems perspective to understand entrepreneurship ecosystem as most scholars want to know the level of entrepreneurial participation within the society. Policymakers set instruments to encourage entrepreneurship thus fostering economic growth and job creation (Stam and Van de Ven, 2021). The ecosystem is composed of interdependent actors and factors that enable productiveness. A context of the study is done in twelve regions of Netherlands where data was collected for 3 years (2009, 2012 and 2015) resulting in 36 observations (Stam and Van de Ven, 2021). Indicators for the entrepreneurial ecosystem were identified and a measure of the quality of the system resulted in the Entrepreneurial Ecosystem Index (EEINDEX) (Stam and Van de Ven, 2021). Statical indicators such as mean, minimum and maximum values and standard

deviations were used to analyse the entrepreneurial ecosystem elements. Principal component analyses were used to determine dimensions of the ten identified elements. Instead of using the standard multivariate regression model, it had to be forfeited because of the study's inherent connectivity, nonlinearity and openness thus a limited functional decomposability (Stam and Van de Ven, 2021). The findings show that the growth of firms has a direct relationship with the quality level of the entrepreneurial ecosystem where the interconnection of the systems' elements is critical. A limitation to the research is the three data collection waves and the small sample. Further analyses should be conducted in different context particularly using different measures of ecosystem elements (Stam and Van de Ven, 2021).

Entrepreneurship is linked with high levels of stress because of the emotional demands it has however there is evidence that it results in job and life satisfaction (Shir, Nikolaev and Wincent, 2019). There is a need for an empirical study on the psychological mechanisms that affect entrepreneurs' well-being (Shir et al., 2019). In the study, a concept that they mention is self-determination theory, which is the "satisfaction of the basic psychological needs of autonomy, competence, and relatedness as critical to optimal human functioning and well-being" (Shir et al., 2019). To test psychological impacts on entrepreneurs' well-being the writers used a two-stage-multi-path mediation model, tested on a sample of 1837 working individuals from Sweden (Shir et al, 2019). Instead of using the common life or job satisfaction to check for well-being, the writers incorporate eudemonic aspects of well-being that capture psychological constructs (Shir et al., 2019). After selecting a random sample of 19300 people to participate in a survey 3101 responded. They used the 2011 Swedish Global Entrepreneurship Monitor (GEM) survey (Shir et al., 2019). Well-being was measured using life satisfaction, global happiness and subjective vitality thus creating the well-being index. To check for correlation between the indexes Kappa statistic was used further using Exploratory Factor Analysis (EFA), which revealed a single latent factor. Psychological satisfaction factors were taken from the Basic Psychological Needs Scale (BPNS). The data was analysed using the ordinary least squares regressions, structural equation modelling (SEM) and Two-Stage least squares estimator in the Stata 15 software (Shir et al., 2019). The first step to the empirical analysis was estimating well-being regressions whereby entrepreneurs were compared with non-entrepreneurial employees. In the second step SEM model was estimated whereby mediating relationship of the variables were tested. Finally, robustness tests were performed (Shir et al., 2019).

The findings show that entrepreneurial work is positively correlated to well-being as compared to non-entrepreneurial task. Thus, conclusion is made that entrepreneurial work is

beneficial to well-being as compared to non-entrepreneurial work because it allows for self-motivation and competence. The limitation to the study is that it is done in Sweden, which has a cultural complexity. Another issue is that the research results might be causality instead of correlation. The final limitation is that the results may be misleading as not all entrepreneurs experience well-being whilst most non-entrepreneurial work provides personal growth, which leads to life or job satisfaction (Shir et al., 2019).

2.5 Summary of the Literature Review

The evidence from the background shows that the recent rise in complex financial products and unexpected financial crisis presents a need for society to become more vigilant to economic changes and knowledge. Whilst most people in developing countries show low levels of financial competence (inclusion, literacy and entrepreneurship), the findings of this research provide people with knowledge in financial competence and inclusiveness.

By exploring (i) effectiveness of CSR in communities, (ii) economic development based on financial competencies, and (iii) entrepreneurship of financial competencies the research investigate current works of scholars. Moreover, this study adds to the existing body of knowledge on financial education and its impact on African economies. Subsequently, provides insight into future topical areas that can be explored within the area of focus and adding literature that can be explored for future research on related topics. This article has ability to provide policy makers with tools and information on policy application concerning CSR including financial education.

3 Research Methodology

3.1 Introduction

This section will describe the data, variables and methods that were used for the analysis determining the effects of financial competence on economic growth/development and further highlight the possibility of using CSR to achieve this effect.

3.2 Research Approach/Design

The objective of a research design is to answer the research questions in the best possible manner, which will provide the most accurate results thus achieving the objectives of the research. It enables to resolve the problem statement by proving a better scope of the research (Manda, 2019). The methodological choice, which was utilized in this research, is the quantitative approach because this approach helps the study to quantify and remove emotions in the analysis (Stam and Van de Ven 2021).

The research philosophy applied in the research is positivism. Mainly because of the quantitative nature of the methodology, the positivist epistemological position is implied. The research approach will be deductive given that a top-down approach will be applied which draws conclusion from the premises following the available facts. Saunders, Lewis and Thornhill (2009), describe a deductive approach as an approach that is used in the process when developing a theory which usually requires a rigorous test. A deductive approach follows five stages, these being:

- Deducting a hypothesis,
- Expressing the hypothesis in terms that are operational by indicating how the concepts or variables will be measured,
- Test the operational hypothesis,
- Examine the outcome of the inquiry; and
- Modifying the theory in light if the finding, if necessary.

The three key characteristics of a deductive study according to Saunders et al. (2009) are:

- The researcher should be independent of what is being observed
- The concepts that are being measured should be operationalised by making use of strict definitions
- Allow for generalisation of the finding, although this can be affected by the sample size.

These guidelines given above assisted in the research approach taken in this paper to answer the research questions.

3.3 Research Strategy

Research strategies according to Saunders et al. (2009) include case studies, survey, conducting experiments and other strategies. The strategy utilized is quantitative research. The first research question was answered through a regression analysis model to determine the relationship between financial competency and economic growth/development.

The method above was achieved through adopting the Ordinary Least Square (OLS) estimation technique. The second research question was answered through collecting data from company financial statements thereafter analysed using probabilistic models (i.e. logit or probit). The financial statement evidence collected is the CSR indicators all gathered from mining and energy companies across Africa.

3.4 Time Horizon

There are two research time horizons, namely longitudinal and cross-sectional. When researching human behaviour and development it is best to use a longitudinal study. This allows for the establishment of some control over the variable being studied, further useful in enhancing a particular research area through change and development (Manda, 2019). The period used to research is largely restricted on the data available, mainly because there is not a lot of data available on the research topic in African markets. A cross sectional time horizon was utilized which analysed the correlation at a specific time. Given that most African countries do not collect or report data only at least 3 years of Global Entrepreneurship Monitor (GEM) data is available (Dvouletý and Orel 2019).

3.5 Data Collection

In answering the first research question high controlled secondary data analysis was used which was collected from African countries, particularly data on financial literacy, inclusiveness, entrepreneurship and economic growth or development. The data was acquired from various data sources. To get data on entrepreneurship levels Global Entrepreneurship Monitor (GEM) and the Global Entrepreneurship and Development Index (GEDI) was used. The research also deployed data from World Development Indicators (WDI) of the World Bank to get other variables such as the economic growth. The second research question data was collected from company financial statements thereafter analysed using probabilistic models (i.e. logit or probit). The financial statement evidence collected was CSR indicators all gathered from one mining and one energy company each from four regions of countries thus totalling 8 companies. These companies will be based across regions of Africa, South Africa from South; Kenya from East; Nigeria from West and Egypt from North Africa because these are the economic hubs of those regions.

3.6 Population and Sampling Design

The sample used was the homogeneous technique as companies within the African context were considered in this study. Sample techniques deployed in any research can be considered probability or non-probability sampling technique. Probability systematic sampling techniques was used for the first research question where the sample was selected at regular intervals from the sampling frame. For the second question, non-probability purposive technique was used to select particularly robust company statements thus meet research objectives (Saunders et al., 2009). The sample used in the second research question was largely dependent on the availability of data (dependent on countries data found to answer the first question). As mentioned above, the countries considered included one from North Africa, West Africa, East Africa and Southern Africa. A longitudinal time horizon (panel data) was utilized which analysed the correlation across time. Given that most African countries do not collect or report data only at least 3 years of Global Entrepreneurship Monitor (GEM) data is available (Dvouletý and Orel 2019).

3.7 Research Instrument

In answering the first research question, high controlled secondary data analysis was used from African countries, particularly data on financial literacy, inclusiveness, entrepreneurship and economic growth or development. The second research question used CSR scores from financial statements of mining and energy companies.

3.8 Data Analysis

The first research question was answered through a regression analyses model to determine the relationship between financial competency and economic development. The method adopted step-wise regression. Whilst the second research question was answered through using probabilistic regression models (i.e. logit or probit).

3.9 Research Methods

For the actual analysis, this study used the autoregressive (VAR) model in order to explore interconnectedness amount all input variables. The formula for the VAR model (3.1) provided below:

$$y_t = c + A_1y_{t-1} + A_2y_{t-2} + \cdots + A_py_{t-p} + e_t \quad (3.1)$$

where the l -periods back observation y_{t-1} is called the l -th lag of l -th lag of y , c is a $k * 1$ vector of constants (intercepts), A_j is the time-invariant $k * k$ matrix and e_t is a $k * 1$ vector of error terms satisfying $E(e_t) = 0$, every error term has mean zero. $E(e_t e_t') = \Omega$, the contemporaneous covariance matrix of error terms is Ω (a $k * k$ positive-semidefinite matrix. $E(e_t e_{t-k}') = 0$, for any non-zero k , there is no correlation across time; in particular, no serial correlation in individual error terms. Kola and Sebehela (2021) illustrated the VAR model captures systematic relationship between all variables tested in a model. Thereafter, the study moved on to further tests, in order to deepen the relationships between independent parameters and dependent variable. For that, this study used the logistic model because the proposed model does not take into account linearity and/or distribution of the dataset. The formula for logistic model is;

$$f(x) = \frac{L}{1+e^{-k(x-x_0)}} \quad (3.2)$$

Where x_0 is the x value of the sigmoid's midpoint, L is the curve's maximum value, k is the logistic growth rate or steepness of the curve. Like any empirical study, the results needed to be validated and/or a robustness test needed to be undertaken in this study. Just like Marcato et al. (2019), the reason for using the multi-linear regression was because; first, it allowed for step-wise process and second, the rolling over of independent variables was done in a systematic manner. Finally, all statistical tests including multicollinearity and model improvement tests were inherent in the multi-linear regression. According to Marcato et al (2019) the log-linear model allows each variable to take its appropriate distribution in terms of (non-)linearity. Therefore, this study used a multi-linear regression for validation of the earlier test;

$$y = c + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \varepsilon_t \quad (3.3)$$

Where y is revenues generated β_1 is the global CSI expense, β_2 is rehabilitation and community cost, β_3 is inflation rate, β_4 is interbank rate and ε_t is the error term. Note that the reason why revenues is the indicator of competitiveness and/or well-being is because when companies do good, then the revenues of companies tend to increase during that tenure.

3.10 Ethical Consideration

Given that previously collected data will be used and literature review is the bulk of the research there is no risk. There will be no harm caused by this research. The confidentiality and anonymity of the research participants will be protected throughout the research especially in the final report. The study adheres to exemplary ethical standards and considers possible unintended consequences of the research undertaking. Therefore, the study did not need ethical clearance through application; it was cleared by the University of the Witwatersrand.

3.11 Research Limitations

There are various limitations, that were faced whilst conducting the research. Firstly, there was not be enough data for collection for answering the first research question. Given that, most African countries have not taken part in most data collection including the Global Entrepreneurship

Monitor (GEM) that explores how entrepreneurial a nation is. Of the identified 52 developing countries only a total of 17 carried out the GEM study at least once. Whilst only 12 of the 52 have conducted it a least three times. This data gave perspective to the researcher when investigating available information on other indicators and sources, including World Bank Indicators (Dvouletý and Orel 2019). Further limitation was the reliability and validity errors of the results along with issues of over generalizing given a small sample based on data collected. Throughout the literature read, agriculture and structural reforms were stressed as economic growth factors in African countries; however, this was not included when analysing the research (Jayne, Chamberlin and Benfica, 2018).

4 Data Collection

It can be inferred from Liang et al. (2019) and Ndhlovu (2011) that companies predominantly contribute towards the CSR initiatives as a way of contributing to environmental cleanliness. Moreover, it can be extrapolated from those studies that sectors and/or industry that are toxic industries include (i) mining, (ii) oil and (iii) manufacturing industries. Given that this research report focused on the African continent, this study selected blue chip companies from the four established stock/securities exchanges-(a) the Johannesburg Stock Exchange (JSE) in South Africa, (b) the Nigerian Exchange Group (NSG) in Nigeria, (c) the Egyptian Exchange (EE) in Egypt and (iv) the Nairobi Securities Exchange (NSE) in Kenya. The reason this research report extrapolated firms from those listed on those four exchanges was because those exchanges are influential and/or main exchanges in their respective regions-the JSE in the Southern African Development Countries (SADC), the NSE for the West Africa, the EE for the North Africa and the NSE for the East African region. From the JSE, (i) Sasol Limited and (ii) Anglo American PLC, based in South Africa. From the NSG, (i) Multiverse Mining and Exploration PLC and (ii) Oando PLC are used. For the NSE, this research used (i) Umeme Limited and (ii) BOC Kenya PLC, and from the EE, the study used (i) Ezz Steel Co S.A.E. and (ii) Alexandria Mineral Oils Company.

The key parameters that were used to illustrate and/or disentangle the effectiveness of the CSR were (i) global CSI expenses, (ii) inflation rate, (iii) total revenues, (iv) interbank and/or repurchase (repo) rate and (v) rehabilitation and community costs. The same parameters and/or variables have been used before in Krisnawati (2020), Engbers and Rubin (2018), and Shir et al (2019). Furthermore, those variables talk directly to the three hypotheses-(i) effectiveness of CSR in communities, (ii) entrepreneurship of financial competencies and (iii) entrepreneurship of financial competencies.

5 Analysis

5.1 VAR(1,2)

Consistent with Kola and Sebehela (2021), this report followed a specific order given that results of the VAR are sensitive to the order of the variables and/or parameters. For this report, the pattern or order hinges on the corporate social responsibility; therefore, the order adapted included the following variables in this particular order; global corporate social responsibility expenditure, rehabilitation and community costs, revenues, inflation and interbank rate. The logic for the pattern is that for most democratic countries, every company needs to rehabilitate the place after mining; and the money from rehabilitation of the place comes from the revenues of the firm. Just like every economic variable, global revenues of any firm are sensitive to the interest rates and the federal banks take into account interbank rate when deciding inflation rates. Thereafter, the report decides which lags to use for the VAR modelling using the following diagnostic tests. First, from the residual tests, one runs autocorrelation LM test based on lag 2, lag 2 is automatically chosen by Eviews software. The results showed that for both two lags, the results were statistically insignificant. Thus, there was no autocorrelation, irrespective whether ones uses 1 or 2 lags. As such, these two lags were sufficient to be included in the model. The report proceeded to lag structure test, using the leg length criteria, the Eviews choose up to lag 3. Then using Akaike Information Criterion and Schwartz Criterion, they support using lag 2. Finally, the report moved to lag structure test, using AR roots table. Looking at the absolute values from the modulus, all absolute values were less than 1; hence, all values are stationary. Overall, the tests support using VAR(1,2). Note that VAR values were interpreted in conjunction with the Cholesky decomposition graph.

Figure 5. 1: Cholesky Decomposition

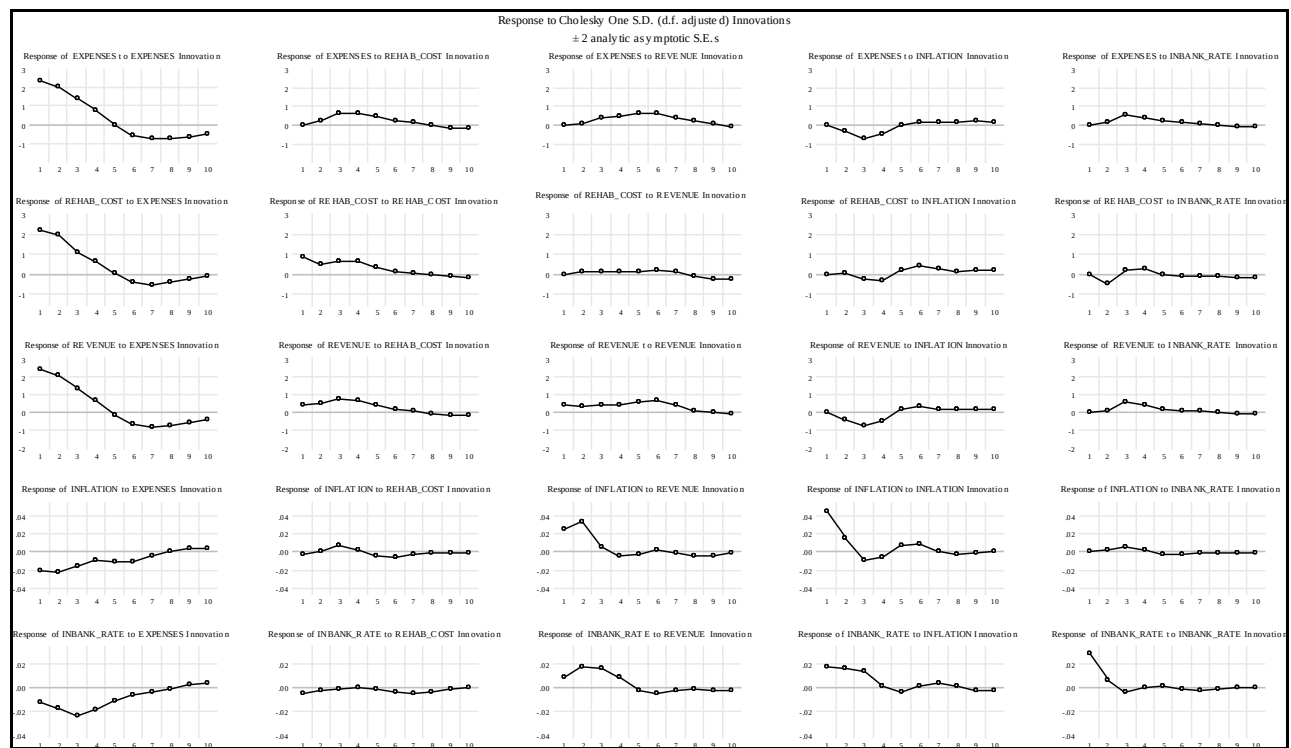


Table 5. 1: VAR(1,2)

Parameter	Global CSI Expense	Rehabilitation Cost	Revenue	Inflation	Interbank Rate
Global CSI Expense(-1)	0.1238 (0.8889) [0.1393]	0.2897 (0.9010) [0.3216]	-0.3898 (0.9149) [-0.4260]	-0.0459 (0.0206) [-2.0215]#	-0.0148 (0.0143) [-1.0324]
Global CSI Expense(-2)	-1.4048 (1.0353) [-1.3568]	-0.6319 (1.0495) [-0.6022]	-1.3727 (1.0657) [-1.2880]	0.0163 (0.0239) [0.6795]	0.0105 (0.0167) [0.6290]
Rehabilitation Cost(-1)	-0.0041 (0.6282) [-0.0065]	0.4701 (0.6368) [0.7382]	-0.0497 (0.6467) [-0.0768]	-0.0220 (0.0145) [-1.5112]	-0.0092 (0.0101) [-0.9067]
Rehabilitation Cost(-2)	-0.2181 (0.6329) [-0.3446]	0.2990 (0.6416) [0.4660]	-0.1279 (0.6515) [-0.1964]	0.0159 (0.0147) [1.0877]	0.0051 (0.0102) [0.4973]
Revenue(-1)	0.6816 (1.1476) [0.5940]	0.0994 (1.1633) [0.0854]	1.2312 (1.1813) [1.0423]	0.0563 (0.0266) [2.1183]#	0.0195 (0.0185) [1.0541]
Revenue(-2)	1.4474 (1.4171) [1.0214]	0.0874 (1.4365) [0.0608]	1.2791 (1.4587) [0.8769]	-0.0299 (0.0328) [-0.9124]	-0.0161 (0.0229) [-0.7057]
Inflation(-1)	-9.9496 (10.5398) [-0.9440]	7.8161 (10.6840) [0.7316]	-9.0671 (10.8492) [-0.8357]	0.3231 (0.2439) [1.3248]	0.2910 (0.1700) [1.7120]
Inflation(-2)	-14.8566 (14.7602) [-1.0065]	-5.9438 (14.9620) [-0.3973]	-15.3056 (15.1934) [-1.0074]	-0.1396 (0.3416) [-0.4086]	0.3209 (0.2380) [1.3485]
Interbank Rate(-1)	6.4277 (14.3032) [0.4494]	-14.2362 (14.4988) [-0.9819]	1.4145 (14.7230) [0.0961]	0.0591 (0.3310) [0.1786]	0.2287 (0.2306) [0.9918]
Interbank Rate(-2)	16.5333 (14.0143) [1.1798]	15.0683 (14.2059) [1.0607]	21.1246 (14.4256) [1.4644]	0.0149 (0.3243) [0.0462]	-0.2693 (0.2260) [-1.1916]
<i>Adjusted R²</i>	0.5722	0.4695	0.5638	0.2782	0.5249
F-Statistic	5.6812	4.0972	5.5242	2.3492	4.8664
Akaike Information Criterion	4.8258	4.8530	4.8837	-2.7065	-3.4290
Schwarz Criterion	5.3097	5.3368	5.3675	-2.2226	-2.9452

Note: In each cell, the first decimal number is the coefficient, the decimal number in rounded brackets is the standard error and the decimal number in squared brackets is the t-test. All squared bracket decimal numbers with # symbol next to them, are statistically significant for VAR values as they are at least 2 irrespective of being negative or positive.

Note that values starting from zero in figure 5.1 have been forced to that level by Cholesky decomposition. The results of Cholesky decomposition are read in conjunction with VAR(1,2) results in table 5.1. They are interpreted as follows: in the sixth column of table 5.1. one can see that the inflation responded negatively to the first shocks emanating from the global CSI expenses because inflation minimises the amount that goes towards corporate social responsibility (Lanis and Richardson 2015). The same phenomenon can be seen between inflation and first shocks coming from revenues, except the reaction is positive because revenues react positively to incremental effects of inflation (OH and KI, 2020). The rest of statistically insignificant variables are in line with prior

studies in terms of either positive and/or negative reactions. Thereafter, the research report ran the logistic model based on the variables central to testing hypothesis.

5.2 Logistic Results

In running the logistic model, this study followed the same procedure as Marcato, Sebehela and Campani, (2019). First, each dependent variable was modelled against independent variable. Thereafter, variables were rolled over based on the same sequence and/or order of how they react and /or contribute to corporate social responsibility. In terms some of econometric challenges such as multi collinearity and heteroscedasticity among others, are eliminated in the rolled over model. Table 5.2 illustrates the results from logistic regression.

Table 5. 2: Logistic Results

Eq.	Logistic 1	Logistic 2	Logistic 3	Logistic 4	Logistic 5	Logistic 6	Logistic 7
constant	5.9698 (0.0000)***	3.2134 (0.0348)**	2.4166 (0.0000)***	2.5803 (0.0000)***	4.5438 (0.0000)***	3.5291 (0.0000)***	3.6007 (0.0000)***
global CSI expense	1.0005 (0.0000)***				0.7957 (0.0000)***	0.8323 (0.0000)***	0.8299 (0.0000)***
rehabilitation cost		1.0258 (0.0000)***			0.2538 (0.0002)***	0.2472 (0.0000)***	0.2469 (0.0000)***
inflation			-1.3283 (0.1568)			5.3174 (0.0002)***	5.6203 (0.0018)***
interbank rate				-2.6724 (0.0115)**			-0.6101 (0.7668)
adjusted R ²	0.9643	0.8396	0.0286	0.1415	0.9751	0.9843	0.9825
F-Statistic	1000.637 (0.0000)***	194.7265 (0.0000)***	2.0913 (0.1568)	7.0999 (0.0114)**	726.7727 (0.0000)***	712.2593 (0.0000)***	519.9101 (0.0000)***
Durban- Watson	0.9499	0.5741	0.5667	0.5665	0.8571	1.0823	1.0708
Akaike Information Croterion	2.1308	3.6333	5.4346	5.3110	1.7934	1.4398	1.4897
Schwartz Criterion	2.2170	3.7195	5.5207	5.3972	1.9227	1.6122	1.7052
Hannan- Quinn	2.1615	3.6639	5.4652	5.3417	1.8394	1.5012	1.5664

Note: the single models were rolled over in similar manner to Marcato et al. (2019), but based on the significance of each variable in relation to contribution to corporate social responsibility. The logistic illustrates that model is a logistic one and based on numerous variables until all variables are rolled over to form one full model. ***, ** and * illustrates statistically significance at 1%, 5% and 10%, respectively.

Logistic 1 illustrates that CSI expenses are effective in contributing to the financial health and well-being of a company. The latter finding were similar to ones found by Krisnawati (2020) and Appiah (2019). Furthermore, findings of logistic 1 can be interpreted as when firms contributed towards CSI projects, those firms are likely to earn more revenues in return. Similarly, logistic 2 illustrates that rehabilitation costs have a positive significant effect on the revenues of a firm. The

latter point can be interpreted as economic development benefiting from financial competencies. Thus, effective investments and/or developments lead to evident economic developments. According to Engbers and Rubin (2018), effective investments stimulate economy through sustainable economic development. Among other factors that stimulate entrepreneurship is availability of capital. Logistics 3 and 4 illustrate that when the costs of capital (i.e. inflation and interbank rate) is high, then available revenues decrease, which should lead to less money available as capital.

In the rolling over process, all variables, except inflation rate keep their original signs and that would imply that inflation rate is a hedge variable while the rest of the variables are causal variables. A causal variable has an effective causal impact in model while a hedge variable only stabilise the model but it (hedge variable) has no causal effect-Marcato et al. (2019). The adjusted R^2 shows that as model is rolled over, they (adjusted R^2) become stronger as that number improves in relative terms. Diagnostic tests (i.e. Akiake, Schwartz and Hann-Quinn) are broadly normal, within the range 1.6 to 2.7. Thus, the panel data is normally distributed despite the fact that the Durban-Watson statistic shows skewness as it (Durban-Watson) is less than 1.3. The skewness is probably due to the panel nature of data.

5.3 Step-Wise Results

Interestingly, in terms of step-wise regression singular results, following an ascending order of significance, the first variable is the global CSI expense, by rehabilitation costs, then, inflation and finally, the interbank rate, which has the highest causal effect. If one looks at the stated pattern, it is actually the same pattern that is used in rolling over the model in table 5.2 based on the significance of each variable in explanation the contribution of each variable to the corporate social responsibility. Thus, if one rolls over the variables based on step-wise regression, then they will follow the same rolling over pattern used in table 5.2. Thus in principle, the rolling based on step-wise results is the same to the rolling over based on logistic results. According to Marcato et al. (2019), this type of situation is rare indeed and it confirms the strength of the earlier findings. Fundamentally, it means that the results in table 5.2 are encouraging as they are stronger when one uses two multilinear regressions.

6 Conclusions

6.1 Summary

The study investigated how companies can use CSI to attain sustainable economic development within the selected African markets, namely-Nigeria, Egypt, Kenya and South Africa. Overall, the study confirms that companies that invest in the CSI projects, tend to increase their revenues and by extension, the available cash including money for the CSI projects. The study explored three key areas-(i) effectiveness of CSR in communities, (ii) economic development based on financial competencies and (iii) entrepreneurship of financial competencies.

6.2 Hypotheses Findings

The main null hypothesis is that coordinated investments through the CSI stimulate sustainable growth in the selected African markets. The main hypothesis including the two sub-hypotheses were investigated using literature review and they were all supplemented by the empirical analysis. Based on the three hypotheses, the following key findings were extracted;

- The revenues from energy, mining and manufacturing companies are positively related and/or indicative of potential money that can be injected into the CSI projects.
- The selected macroeconomic variables (i.e. global CSI expense, rehabilitation and community costs, revenues, inflation rate and interbank rate) have some commonality. For example, inflation rate reacts to shocks emanating from the global CSI expenses, and similarly, interbank rate reacts to shocks from revenues. The latter relationship/illustration is unsurprising given that there is a rich grounded economic theory of those variables.
- In order to achieve sustainable economic growth through the CSI, the key indicators are (i) global CSI expense, (ii) rehabilitation and community costs and (iii) interbank rate. Surprisingly, inflation rate is a hedge variable in this case/study despite of the economic impact of the inflation rate.
- Interestingly, when the full model is rolled over based on the importance of the selected macroeconomic variables in explaining the effectiveness of the CSI, the same findings prevail when variables are rolled over using the step-wise regression. Thus, in the latter case (i.e.

step-wise), variables are rolled over in ascending order based on absolute coefficients, irrespective of the statistical significance of the variables.

6.3 Contribution of the Study

This study contributes to a highly debated topic- should countries allow expanding business activities of energy, mining and manufacturing companies given that those industries contribute significantly to global warming. One does not dispute the effects of global warming from aforementioned industries; however, the economic contribution of these industries have been debated and to date still remains a topical issue. Based on this study, those industries can make a meaningful contribution by investing through the CSI projects.

6.3.1 Academia

This study first illustrates that some economic variables (i.e. inflation and global CSI expense, and inflation and interbank rate) are interlinked; therefore, when modelling those variables in any model, one should be cautious about the results, which might be influenced by the existing relationship. Secondly, energy, mining and manufacturing industries are some of the major contributors to global warming but those sectors have economic spin overs, which can be achieved through CSI projects among other investment mechanics. Finally, positive and negative effects of different industries should be disentangled and be properly understood by various stakeholders.

6.3.2 Industry

Industries should invest in the CSI projects in a coordinated manner seeing that those projects yield positive economic outcomes. For example, this study shows that rehabilitation and community costs are not just about rehabilitation but they improve livelihoods through economic development. Therefore, the CSI projects are not just donations but part of economic development if the relevant stakeholders properly coordinate those projects.

6.4 Recommendations

CSI just like any type of investments and/or capital injections contributes to the economic growth on any market, when implemented and correctly coordinated by stakeholders. Following the findings of this study, it is recommended that;

- CSI Projects should be encouraged in different communities; however, the CSI investments should be well coordinated so that the economic effect should be meaningful in nature.
- For adequate and accurate modelling of any macroeconomic variables, the relationship between variables should be disentangled before the application of those variables.
- Companies; especially in energy, mining and manufacturing industries should be encouraged to invest in the CSI projects. This is mainly because CSR investing, unusually increase revenues of firms that engage in the CSI projects.

6.5 Further Research

CSI projects are viewed as donations, while their economic impact is underestimated for numerous reasons. Therefore, the economic impact of the CSI projects should be investigated further, such that the economic impact is not misunderstood. Secondly, the economic impact of the CSI projects is used to its full potential. Finally, CSI projects should be differentiated such that each contribution of the CSI project is well-understood by relevant stakeholders.

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