Sustainable Entrepreneurship in Zambia
The engagement in and effect of sustainable practices in small and medium-sized enterprises

Progress Choongo
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List of abbreviations

AVE          Average variance explained
BTS          Bartlett’s test of sphericity
CFA          Confirmatory factor analysis
CIA          Central Intelligence Agency
COMESA       Common Market for Eastern and Southern Africa
CopRep       Corporate reputation
CSR          Corporate social responsibility
EFA          Exploratory factor analysis
EmpCom       Employee commitment
EnvCSR       Environmental corporate social responsibility
EU           European Union
FP           Financial performance
GDP          Gross domestic product
GNI          Gross national income
GOF          Goodness of fit
ILO          International Labour Organisation
KCM          Konkola Copper Mines
KMO          Kaiser-Meyer-Olkin Measure of Adequacy
MCTI         Ministry of Commerce Trade and Industry
MICOM        Measurement invariance of composite models
MMD          Movement for Multi-party Democracy
NCC          National Council for Construction
PLS          Partial least squares
PVQ          Portrait values questionnaire
SADC         Southern African Development Community
SEM          Structural equation modelling
<table>
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<th>Description</th>
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<td>SMEs</td>
<td>Small and medium-sized enterprises</td>
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<tr>
<td>SocCSR</td>
<td>Social corporate social responsibility</td>
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<td>SPSS</td>
<td>Statistical package for the social science</td>
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<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>UNIP</td>
<td>United National Independence Party</td>
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<tr>
<td>USA</td>
<td>United States of America</td>
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<tr>
<td>VIF</td>
<td>Variance Inflation Factor</td>
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<tr>
<td>ZCCM</td>
<td>Zambia Consolidated Copper Mines</td>
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<td>ZEMA</td>
<td>Zambia Environmental Management Agency</td>
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Chapter 1  Introduction
1.1 Introduction

This chapter introduces this PhD thesis on “Sustainable entrepreneurship in Zambia: The engagement in and effect of sustainable practices in small and medium-sized enterprises”. Chapter 1 first presents the main theoretical developments in the fields of entrepreneurship, sustainable development and sustainable entrepreneurship, and sustainable entrepreneurship and SMEs. The four major research gaps, connected to above-mentioned fields, are highlighted, resulting in the main research question of this PhD thesis and four connected sub-questions. This is followed by an outline of the societal relevance. Next, the research context is described. Finally, this chapter explains the research methodology adopted and provides a brief introduction to each of the empirical.

1.2 Entrepreneurship

Entrepreneurship concerns the identification, evaluation, and exploitation of opportunities (Shane and Venkataraman, 2000). Entrepreneurial activities are also a means of reducing poverty and creating gains for economies, entrepreneurs and investors (Shepherd and Patzelt, 2011; Easterly, 2006). Such benefits of entrepreneurship may be particularly important in developing countries in which economic and social problems are more pressing, while there is a lack of adequate resources to address these problems (Valente and Crane, 2010). Despite these important contributions, entrepreneurial activities can also result in destructive outcomes (Hall, Daneke, and Lenox, 2012). For example, entrepreneurial activities cause pollution and pose risk and damage to nature and human health. Recent scientific research on entrepreneurial activities reveal global effects that
include climate change, ozone layer depletion and disruption of aquatic life (Dean and McMullen, 2007; York and Venkataramn, 2010; Archichvili, Cardozo, and Ray, 2003). It should be noted that although researchers and practitioners began to take action on the negative effects of entrepreneurial activities, the negative impact of entrepreneurial activities on climate and natural life has been known much longer than now.

In recent years, there has been a debate on the role of entrepreneurship in resolving such social and environmental problems. Hall et al., (2012), suggested that entrepreneurs can actually help resolve social and environmental problems. Related to this proposition, Pacheco, Dean, and Payne (2010) and Patzelt and Shepherd (2011) suggested that entrepreneurial action can help to preserve ecosystems, counter climate change, maintain biodiversity, and improve fresh air supply and agriculture practices. Consequently, there is a need for further research on the factors influencing entrepreneurs to engage in sustainable entrepreneurship and with what effects. Therefore, this study focuses on the following: (1) the factors influencing the identification of sustainable opportunities among entrepreneurs managing SMEs; (2) the influence of personal values on sustainability orientations; (3) the factors that motivate entrepreneurs to engage in sustainable practices; and (4) the impact of corporate social responsibility (CSR) on firm performance. These four areas of study are not well-researched in Sub-Saharan Africa countries, which is the setting for this study, in particular.

1.3 Sustainable development and sustainable entrepreneurship

Sustainable development, which is also referred to as sustainability (Dean and McMullen,
2007; Lichtenstein, 2011; Lourenço, Jones and Jayawarna, 2013) is defined as: ‘the development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (Brundtland, 1987: p. 37). It implies economic growth that integrates protection of the environment and meeting human social needs. Similar to sustainable development, sustainable entrepreneurship encompasses the three dimensions of sustainability: economic, social and environment; also referred to as the triple ‘P’ – people, planet, and profit (Bos-Brouwer, 2010; Dentchev, 2009; Crals and Vereeck, 2005).

The use of the term sustainable entrepreneurship is ambiguous. This stems from the fact that the phenomenon has been studied from a number of different fields (Hall et al., 2010). As a consequence, a number of related concepts are used, such as ecopreneurship (Isaak, 2002), social entrepreneurship (Hockerts, 2010; Zahra et al., 2009), corporate social responsibility (Masurel and Rens, 2015), sustainability entrepreneurship (Parrish, 2010), and environmental entrepreneurship (Meek, Pacheco, and York, 2010; York and Venkataraman, 2010). To avoid misunderstanding, this research adopts the definition of Patzelt and Shepherd (2011, p. 632) of sustainable entrepreneurship. They define sustainable entrepreneurship as: ‘The discovery, creation, and exploitation of opportunities to create future goods and services that sustain the natural and/or communal environment and provide development gain for others’. This definition incorporates the core aspects of sustainability (economic and non-economic gains) for the entrepreneur and society as well as the preservation of life support systems, nature and communities. Additionally, this definition centres on opportunities which are a central aspect of entrepreneurship. We prefer
to use the term sustainable entrepreneurship instead of other related concepts because the focus of our study is on small and medium-sized enterprises (SMEs) and the entrepreneur plays a crucial role in SMEs. Nevertheless, the terms sustainable entrepreneurship and CSR will be used interchangeably.

### 1.4 Sustainable entrepreneurship and SMEs

There is no globally unified definition of SMEs, hence there are over 50 definitions (International Labour Organisation, 2005), with many countries adopting different definitions. The most commonly adopted criteria of defining SMEs are based on the number of employees, asset value, annual turnover, and investment level. The commonly used definition which this PhD thesis adopts is based on the number of employees with a maximum threshold of 250 employees (Ayyagari, Beck, and Demirgue-Kunt, 2007). Even though there are variations in the definitions of SMEs (Obasan, Shobayo, and Amaghionyeodiwe, 2016), it is generally agreed that the focus on SMEs is important because they comprise the majority of business establishments (Ciliberti, Pontrandolfo, and Scozzi, 2008). For example, in Zambia SMEs represent about 97% of the private sector firms (MCTI, 2009). Given their large numbers globally, they contribute to employment creation, economic growth, social development, and their nations’ exports (Spence, 2016; Azmat and Samaratunge, 2009; Hosseininia and Ramezani, 2016). In Sub-Saharan African countries and other developing countries, SMEs play a vital role in poverty reduction (Mamman et al., 2015). We adopted the definition of SMEs that is based on the number of employees because SMEs are not consistent in keeping historical data such as asset value,
turnover, and investment level. Further, the threshold of 250 employees was chosen because it is the average of all available observations across countries (Beck, Demirgue-Kunt, and Levine, 2005).

Despite their important positive contribution to their nation’s development, SMEs potentially cause pollution and environmental degradation (Revell, Stokes, and Chen, 2010; Koe, Omar, and Sa’ari, 2015). It is estimated that SMEs cumulatively contribute up to 70% of all global pollution (Hillary, 2000; Revell et al., 2010). Given their large numbers worldwide, SMEs can play a critical role in pushing the sustainable development agenda. They are more flexible and closer to consumer demand than large firms, and could therefore be more capable in responding to social and environmental challenges (Masurel, 2007). SMEs are generally managed by their owners, which also influences their approach in dealing with sustainability issues (Bolton, 1971; Jenkins, 2006). Thus, it has been suggested that involving SMEs is key to solving social and environmental problems (Hall et al., 2010). Thus, this study seeks to understand the factors that influence the engagement in sustainable practices as perceived by entrepreneurs managing SMEs in the Zambian trading and service sector.

Sustainable entrepreneurship, especially as formalised through CSR practices, is an approach that seems to be mostly adopted by large industrial corporations rather than SMEs (Jenkins, 2006; Lawal, Worlu, and Ayoade, 2016; Crals and Vereek, 2012). This could be attributed to the differences in the characteristics between large enterprises and SMEs. For instance, large corporations have high degrees of formalisation, their focus of operations is
national and international, they have rigid bureaucratic systems, abundant resources, delegated management (separation of ownership and control) (Spence, 2016; Bos-Brouwers, 2010), and the emphasis is on responsibility to the shareholders (Spence, 2016). In contrast, SMEs have low degrees of formalisation, normally operate in their local communities, are highly flexible, have limited resources, ownership and control lies with the entrepreneur (Spence, 2016; 1999; Bos-Brouwers, 2010), and thus, their responsibility is towards the immediate stakeholders. These characteristics of SMEs actually help in the adoption, engagement and implementation of social and environmental practices (Jenkins, 2006). Their flexibility allows SMEs to quickly respond to the changing circumstances. Furthermore, their embeddedness in the local community provides them an opportunity to enhance their understanding of the local culture, hence, enabling them to take appropriate responses to social needs (Baden, Harwood, and Woodward, 2011). Additionally, since ownership and control lies with the entrepreneur, he or she can implant personal values in the firm. These values eventually guide the formulation, adoption, engagement in and implementation of sustainable practices in a firm (Thakur and Kohli, 2015).

SMEs that do not engage in sustainable practices may risk losing business to their more sustainable operating competitors (Crals and Vereek, 2012). Crals and Vereek (2012) reported that the benefits of sustainable entrepreneurship in SMEs include enhanced reputation, efficient production systems, lower burden imposed by legislation, decreased dependency on diminishing resources, increased employee motivation, and attractiveness of the firm to new employees. Another benefit to SMEs is that large firms that take
sustainability measures are most likely to buy their goods and services from SMEs that engage in sustainable practices (Crals and Vereek, 2012).

1.5 Research gaps
Existing studies on sustainable entrepreneurship mainly focus on large organisations and SMEs have received less attention (Amaeshi et al., 2017; De Oliveira and Jabbour, 2017). In addition, many of the studies on sustainable entrepreneurship (CSR in particular) are from developed countries (Kolk and Van Tulder, 2010; Egri and Ralston, 2008; Visser, McIntosh, and Middleton, 2006). As a result, there is a lack of studies on sustainable entrepreneurship in Sub-Saharan African countries, hence, only a limited number of aspects have been investigated. For instance, the factors influencing the engagement in sustainable practices amongst Sub-Saharan African SMEs have not been investigated, and form a topic that will be further studied in this dissertation.

In the Sub-Saharan African context however, there is also a great need for CSR research due the pressing needs of greater poverty levels, environmental degradation, and institutional governance issues affecting most countries on that continent. Further, Sub-Saharan Africa has a very high population growth, rampant diseases such as malaria and HIV, and shortage in fulfilling basic needs (Thorgren and Omored, 2015). Moreover, the continent is plagued by corruption, social and environmental problems, and misuse of donor aid (Spence and Painter-Morland, 2010). In this context, research on sustainability can show ways to stimulate firms to contribute to local solutions for these problems. Thus, Sub-Saharan Africa is an important context for research on these issues (Kolk and Rivera-
Accordingly, the research gap this PhD thesis aims to address is structured in four parts.

The first part is about the fact that in the Sub-Saharan African context we do not understand very well how entrepreneurs identify sustainable opportunities. Due to the dominant role of the entrepreneur in SMEs, there is a need to uncover the factors influencing entrepreneurs in identifying sustainable opportunities. Yet, much of the extant literature on sustainable entrepreneurship is conceptual (Hall et al., 2011; Kuckertz and Wagner, 2010). Several researchers, including Patzelt and Shepherd (2011), Gray et al., (2014), and Enthoven and De Jong (2017), propose different conceptual models that explain factors leading to the identification of sustainable opportunities. While these models explain the sustainable opportunity identification process, they have not been empirically tested. Specifically, Patzelt and Shepherd (2011) developed a model that suggests that entrepreneurs are more likely to discover sustainable development opportunities as their knowledge of natural and communal environments increases. Furthermore, entrepreneurs should also discover more sustainable opportunities if they perceive that the natural and communal environment in which they live is threatened, and they have higher levels of altruism towards others. However, the model and propositions were not empirically tested. This PhD thesis contributes to the sustainable entrepreneurship literature, especially in the Sub-Saharan African context, by conducting an empirical test of the Patzelt and Shepherd (2011) model and their propositions as well as uncovering the factors influencing the identification of sustainable opportunities. Understanding these
factors can help trigger or stimulate entrepreneurs to identify more and maybe more promising sustainable opportunities.

The second research gap is that the influence of personal values on sustainability orientations has been hardly investigated in Sub-Saharan Africa (Jamali, Lund-Thomsen, and Jeppesen, 2017). In order to understand the factors influencing sustainability orientations, existing studies have investigated the effect of personal values on CSR among samples of students (Fukukawa, Shafer, and Lee, 2007; González-Rodríguez et al., 2016; Schultz, 2001; Schultz and Zelenzy, 1999; Stern and Dietz, 1994; Wang and Juslin, 2012), consumers (Basil and Weber, 2006), managers (Hemingway and Maclagan, 2004; Şerban, 2015), and working professionals (Fritzche and Oz, 2007). Nevertheless, there is a limited number of studies exploring the relationship between personal values and sustainability orientations among established entrepreneurs (Jamali et al., 2017), which led Rajasekaran (2013) to express a need to investigate the core personal values that drive entrepreneurs to focus on sustainability.

Entrepreneurs initiate and implement policies in their organisations that are in line with their personal values, philosophies and aspirations (Jamali et al., 2017; Jenkins, 2006). Thus, it has been suggested that in order to engage in sustainable practices, personal values play a role. In other words, personal values that are aligned with sustainability principles stimulate entrepreneurs to engage in sustainable practices (Choi and Gray, 2008, Rajasekaran, 2013). This study provides new insights to understanding sustainability orientations in the context of SMEs in Sub-Saharan Africa. Understanding which personal
values drive entrepreneurs to engage in sustainable practices is crucial to promote responsible and sustainability-oriented behaviour of entrepreneurs. Thus, this study forms an important contribution to fostering social and environmental responsibility.

The third research gap relates to the limited understanding of why some individuals may be focused on searching solutions to issues related to the social and natural environment (Shepherd and Patzelt 2011). In particular, there is still a lack of understanding regarding what motivates SMEs to engage in different sustainable practices, which led Lichtenstein (2011) to express a need to identify why and when individual entrepreneurs become passionate leaders for sustainability. Extant literature suggests that key to understanding sustainable entrepreneurship is to examine the motivations of entrepreneurs (Shepherd and Patzelt, 2011). However, only a few studies have examined the motivations of entrepreneurs to engage in sustainable practices. Moreover, the few existing studies often assume that entrepreneurs are motivated by internal and/or external factors to engage in sustainable practices. Patzelt and Shepherd (2011), however, have a different concept which focuses on the identification of sustainable opportunities. They propose that when individuals identify sustainable opportunities and perceive that their welfare is threatened, then they are most likely to consider social and environmental issues. Yet, hardly any studies have incorporated the identification of sustainable opportunities in studying sustainability motivations (and not at all in SMEs in Sub-Saharan Africa, including Zambia). The contribution of this study is that, in addition to internal and external motivation factors, another variable (identification of sustainable opportunities) can also
influence entrepreneurs in SMEs to engage in sustainable practices. This study is important because it enhances our understanding of motivation for engaging in sustainable practices in SMEs in a Sub-Saharan African country. Understanding the drivers of entrepreneurs to engage in sustainable practices can advance sustainable development in Sub-Saharan Africa.

The fourth research gap is that there is limited understanding of the impact of sustainable behaviour on firm performance in developing countries. Even though sustainable entrepreneurship research has gained attention in business and academia, the question is whether or not the involvement in sustainable practices such as CSR results in improved firm performance in SMEs in Sub-Saharan Africa. So far, existing studies on the link between sustainable practices and firm performance indicate positive, negative, mixed, or insignificant results (Rettab, Brik, and Mellahi, 2009; McWilliams and Siegel, 2001). The mix in results could be due to differences in methodological approaches and datasets. Those that have examined the association between sustainable practices and firm performance tend to primarily focus on cross-sectional analysis and collect data at a single point in time. Thus, there is a research need for methodological approaches that take into account a time-interval between cause and effect (Aguinis and Glavas, 2012). Sustainable practices and policies usually involve a process and their effect on the firm may unfold over a longer period of time. There is a need for longitudinal research that will improve our understanding of the association between sustainable practices and firm performance. The
use of a longitudinal research design could be instrumental in establishing the causal relationship between sustainable practices and firm performance.

Thus, the fourth contribution of this PhD thesis relates to unravelling the impact of sustainable practices on firm performance by using a longitudinal study approach. More specifically, this study addresses the relationship between social and environmental dimensions of sustainability on the one hand and firm performance on the other hand. This research contributes to the body of knowledge by empirically testing the link between CSR and firm performance. The longitudinal study expands the view over a longer time-frame, which may help to eliminate the effect of confounding variables at a particular moment in time that can produce anomalies in the results (Revell et al., 2010).

1.6 Research question
In order to fill the research gaps as highlighted above, this PhD thesis aims to uncover the factors influencing the engagement in sustainable practices in SMEs in Zambia and to establish the impact of sustainable practices on firm performance. By doing so, the PhD thesis contributes to the literature on sustainable entrepreneurship in Sub-Saharan Africa. Yet, the results also have relevance beyond this immediate context, in particular for other settings with similar characteristics. This dissertation addresses the following main research question:

What factors influence the engagement in sustainable practices among SMEs in Zambia and what is the performance effect of the engagement in these practices?
To answer the main research question, and in line with the research needs and opportunities that we identified, the following four sub-questions are specified:

1) Which factors influence the identification of sustainable opportunities in Zambia?

2) What is the influence of personal values of entrepreneurs in SMEs in Zambia on their social and environmental CSR orientations?

3) Which factors motivate SMEs to engage in different forms of CSR activities in Zambia?

4) What is the impact of CSR on firm performance in SMEs in Zambia over time?

These research questions will be theoretically grounded and empirically studied in chapters 2 to 5. Based on the findings from the four empirical studies, the main research question can then be answered.

1.7 Societal relevance

Besides the scientific relevance, this research has relevance for entrepreneurs, the broader community, and policy makers. First, this study develops insights on the factors stimulate that SMEs to get involved in sustainable practices, which in turn can help SMEs to get more business. Socially responsible customers are likely to buy from SMEs that engage in CSR and develop good relationships with the community. Second, understanding factors influencing entrepreneurs to engage in sustainable practices can help regulators and policy makers in designing awareness programmes that focus on stimulating businesses to engage in sustainable practices. Third, as the study’s results help to positively influence the movement toward more sustainable behaviour, the community may be increasingly
provided with help for social needs. Lastly, reducing waste and pollution protects the planet from environmental degradation and contributes to the well-being of people.

1.8 Research context

This section describes the research context in which the four empirical studies were conducted.

1.8.1 Country history and geographical location

The empirical studies were conducted in Zambia, a former British colony that gained independence in 1964. Zambia is a landlocked country located in Sub-Saharan Africa, with eight neighbouring countries namely Angola, Democratic Republic of Congo, Tanzania, Malawi, Mozambique, Zimbabwe, Botswana, and Namibia, see Figure 1.1. Zambia covers a total area of 752,614 sq. km and is divided in 10 provinces namely; Central, Copperbelt, Eastern, Luapula, Lusaka, Muchinga, Northern, North-western, Southern and Western provinces (CIA Fact Book Zambia, 2017).

In this study, we used the World Bank classification of developing countries (World Bank, 2013). The World Bank’s classifies countries by gross national income (GNI) per capita. The World Bank classification is: low income, middle-income, or high-income countries. Low and middle-income countries are referred to as developing countries and high-income countries are considered as developed countries. The term developing country describes a set of low income countries (GNI per capita $1035 or less) and middle-income countries (GNI per capita between $1036 and $4085) in 2012 (Keen and Wu, 2011). The GNI per capita for Zambia was $1810 in 2013. The term Sub-Saharan Africa refers to the
geographical area of the African continent that lies south of the Sahara Desert (New World Encyclopaedia, 2017). This area comprises 46 of Africa’s 54 countries. The eight African countries excluded from Sub-Saharan Africa are Algeria, Djibouti, Egypt, Libya, Morocco, Somalia, Sudan, and Tunisia (United Nations, 2010).

1.8.2 Country population and culture

Zambia has a population of 13 million people as indicated by the last population census (Central Statistics Office, 2011), although the number is now estimated to be 16.6 million people (World Bank, 2017), concentrated mainly in the Copperbelt Province located in the north and Lusaka Province in the south. The official language is English. Major vernacular languages spoken include Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja, Tonga, in total 73 languages are spoken in Zambia (Taylor, 2006). The Zambian society is considered to be a collectivistic society, promoting respect for the elderly and harmony, strong commitment and ties to the immediate family, extended family including ethnic group (Hofstede, 2017; Akande, 2009).

Figure 1.1 Map of Zambia
(Source: Flora of Zambia, 2017)
1.8.3 Economic and industrial structure

Zambia’s economy experienced strong growth in the years 2005-2013 with real GDP growth of 6% per year and with a GDP in 2013 of US$24.27 billion (CIA World Fact Book, 2017). The main industries include mining, agriculture, construction, oil processing, food processing, manufacturing, and textiles. Mining is the largest industry in the country and is concentrated in Copperbelt Province and North-western Province, see Figure 1.1. The mining industry has significantly contributed to the economic and social development of the country since 1928 (Lungu and Kapena, 2010). Copper is the main mineral extracted in Zambia, representing 70% of export earnings in 2011 (Chamber of Mines, 2014). Other minerals extracted include cobalt, zinc, lead, coal, emeralds, gold, silver, and uranium. Although mining is the main economic activity, the majority of the population in Zambia works as subsistence farmers. Commercial farming is mostly limited to a small number of large farms but this is slowly changing because of a shift from a mineral driven economy to an agriculture and tourism based economy (National Council for Construction, 2004). The leading crops are maize, sorghum, rice, sunflower, cassava, groundnuts, tobacco, sugar cane and coffee. Cattle and other livestock are also raised by commercial and subsistence farmers. The country’s imports include machinery, transportation equipment, petroleum products and food products. Leading trading partners are the European Union members, South Africa, Japan and the USA (CIA World Fact Book, 2017). Zambia is a member of two regional economic groupings, namely the Southern Africa Development Community (SADC) and the Common Market for East, Central and Southern Africa (COMESA).
1.8.4 Privatisation of state-owned-enterprises

Zambia advanced into mining development during the 1920s and 1930s. Between 1928 and 1969, two private companies owned the copper mines: Anglo-American Corporation and Roan Selection Trust. The two companies were nationalised in 1969 and became Nchanga Consolidated Copper Mines (NCCM) and Roan Consolidated Copper Mines (RCCM) respectively. In 1982, the two mining companies were combined to form the state-owned Zambia Consolidated Copper Mines (ZCCM) (Fraser and Lungu, 2007). ZCCM became responsible for the provision of social services such as free water, nappies for the newly born, electricity, health facilities and recreation activities. Housing, food, burial arrangements and transport were subsidised for the employees. Additionally, education was free for miner’s children. The company also provided services for the community such as infrastructure development (building of hospitals, schools, roads, and road maintenance), collection of refuse, support of social clubs and sports (Fraser and Lungu, 2007; Lungu and Kapena, 2010). ZCCM also offered training to unemployed young women and wives of miners in home economics such as sewing, knitting and cooking (Lungu and Kapena, 2010). Further, the mines introduced development schemes to help youths in compounds identify skills they could pursue and formalise as careers (Fraser and Lungu, 2007).

From the 1970s to the 1990s, there was a decline in copper prices as well as an increase in oil prices on the world market. This negatively affected the Zambian economy which led to the decline in social and economic indicators. The introduction of multiparty politics in 1991 brought an end to the one-party participatory ‘democracy’. Thus, in 1991,
there was a change of government in Zambia following the defeat of the one party-state of the United National Independence Party (UNIP) by the Movement for Multi-party Democracy (MMD). The new government could not sustain the loss-making state-owned enterprises including mining firms. Therefore, the government embarked on a privatisation programme aimed at preventing collapse of the state-owned companies (CIA World Fact Book, 2017). It was against this background that mining companies were sold to investors who were deemed competent to run the firms and had the finances to do so. Thus, ZCCM was unbundled and its divisions sold as separate companies. Konkola Copper Mines (KCM) was sold to Anglo-American Corporation, Mopani to Glencore of Switzerland and First Quantum of Canada, Luanshya Mine to Benani Group of Companies of India, Chambeshi to NFC Africa (Chinese company), Bwana Mkubwa and Kansanshi Mine to First Quantum and Chibuluma Mine to Metorex of South Africa (Fraser and Lungu, 2007; Lungu and Kapena, 2010).

The privatisation programme was meant to encourage the private sector investment and diversification of the mining sector (Graig, 2007). It was envisaged that the new mine owners would take over some CSR programmes of the old ZCCM and that local entrepreneurs and SMEs would benefit from the privatisation of the mines. Accordingly, the new mine owners were expected to support local businesses and help in the development of local entrepreneurs by awarding them contracts to supply goods and services. Through this arrangement, local SMEs would supply goods and services to support the operation of the mines. This led to the rise in entrepreneurial activities and the
increase in the number of SMEs selling goods and services to the mining sector. The nature of goods and services supplied is divided into three categories, namely (1) durable or manufactured products, such as electrical appliances, industrial cleaning machines, pipes, valves, motors, protective clothing, and timber; (2) consumables, like electrodes, paints, and cleaning materials; and (3) services, like repair and maintenance of plants, buildings and equipment, security, and consultancy. The mining industry attracts a large number of contractors and suppliers of goods and services. The Chamber of Mines (2014) reported that the four major mining companies procure an estimated US$2 billion of goods and services from Zambian businesses per annum.

Notwithstanding this, Fraser and Lungu (2007) stated that many expected benefits for SMEs have not materialised as the new mine owners prefer to buy certain goods and services from foreign suppliers. Despite these setbacks, there has been an increase in the number of SMEs that supply goods and services to the mining industry in Zambia. As of 2013, the four major mining firms worked with about 1,200 indigenous or local firms, mainly SMEs, in the trading and service sector that were registered as suppliers of goods and services to the mining industry.

Studies on CSR in Zambia have mainly focused on the companies doing the actual mining (e.g. Fraser and Lungu, 2010; Lungu and Kapena, 2010; Lungu and Mulenga, 2005; Lungu and Shikwe, 2006; Mayondi, 2014). There are hardly any studies on sustainable practices and CSR in SMEs in the trading and service sector that sell their goods and services to the mining industry in Zambia.
1.8.5 Social and environmental problems

Despite the strong economic growth, poverty, unemployment, diseases (such as HIV/AIDS, malaria, and tuberculosis), crime, lack of adequate health and education opportunities, housing shortage, and other social problems remain significant in Zambia (Gall and Hobby, 2009). HIV/AIDS has led to the rise of orphans and poverty levels. The main environmental concerns include air pollution resulting in acid rain in the mineral extraction and refining regions, chemical runoff into the watersheds, deforestation, soil erosion, and lack of adequate water treatment which presents human health risks (CIA World Fact Book, 2017).

1.9 Methodology

The purpose of this section is to explain the research methodology underpinning the current study leading to the research approach and the associated methods of data collection and analysis. For this dissertation, we adopted a mixed methods approach, with an emphasis on quantitative data analysis. Qualitative methods were used to explore the sustainable entrepreneurship variables to be included in the quantitative study.

In September, 2012, we started the study by conducting 12 semi-structured interviews with academics, business associations, consultants, entrepreneurs, and regulatory bodies. The objectives of the expert interviews were as follows: (1) to determine whether sustainability was a relevant issue in Zambia; (2) to identify the sustainability variables to be included in the survey questionnaire; (3) to assess other important variables that could be incorporated in the Patzelt and Shepherd (2011) model for identifying sustainability
opportunities; and (4) to identify important stakeholders regarding sustainable
trepreneurship in Zambia. The results of the expert interviews revealed that sustainability
(social and environmental responsibility) were important issues in Zambia. Specifically, the
qualitative study showed that the most common environmental issues were related to waste
reduction, recycling, and safe disposal of waste to designated areas. Regarding the social
involvement of SMEs, expert interviews revealed that unlike in developed countries which
provide medical and funeral insurance, there is no or limited insurance provided in Zambia.
Instead employers, including SMEs, provide funeral grants and partly pay medical bills for
their employees. To some extent, SMEs sponsor community projects and activities such as
sports, traditional ceremonies, building of schools, supporting orphans and underprivileged
people in their communities, digging wells for safe drinking water, repairing roads, and
providing internships and creating HIV/AIDS awareness. Regarding the Patzelt and
Shepherd (2011) model for identifying sustainability opportunities, we concluded that it
would be important to first empirically test the model before adding any new variables even
though other authors such as Majid (2012) and O’ Neil et al., (2009) have added variables
to the model of Patzelt and Shepherd (2011), however, their models remain untested so far.
Finally, qualitative interviews also revealed that SMEs in Zambia focus on three categories
of sustainable practices directed at involvement in community activities, care for the
environment and the employees.

Next, based on the literature review and the identified sustainable variables from the
qualitative study, we developed a survey questionnaire. The survey questionnaire was then
tested with two entrepreneurs and four experts from academia. The test was meant to get expert opinions on the suitability of the items to measure sustainable practices of Zambian SMEs that supply goods and services to the mining industry as well as to ensure that the wording of questions was clear and understandable to the respondents. Based on the pre-test, some necessary minor adjustments were made to the questionnaire.

Data were collected in two waves. The first wave of data collection took place in 2013 while the second wave was carried out with the same sample after a period of 12 months in 2014. The data collected in the first wave was used in Chapter 2, 3, and 4, while data collected in the second wave was used in the longitudinal analysis in Chapter 5 (in combination with data from the first wave). To increase the response rate, various survey administration techniques including face-to-face questioning, emailing, and dropping off and picking up were used. The data collected in the survey was analysed quantitatively using IBM SPSS software for the empirical studies in Chapter 2, 3, and 4 while structural equation model (SEM) was used to analyse the longitudinal data in Chapter 5. Each of the Chapters 2, 3, 4, and 5 provide more detailed explanations of the study sample, data collection, and analysis methods. The justification for the selection of the study sample is also explained in the respective empirical studies.

1.10 Introduction to the empirical chapters

This section introduces the next five chapters. Chapter 2, 3, 4, and 5 are empirical chapters and are based on the debates going on in the sustainable entrepreneurship literature and address the research questions outlined in section 1.6. The last chapter (Chapter 6) draws
conclusions from the four empirical chapters. Chapter 2 focuses on how entrepreneurs identify sustainable opportunities. Chapters 3 and 4 help to understand the predictors of engagement in sustainable practices. In Chapter 3, we investigate the influence of personal values on sustainable practices and in Chapter 4, we examine the motivations of entrepreneurs to engage in sustainable practices (CSR in particular). In Chapter 5, we focus on the outcomes of sustainable behaviour. Specifically, we investigate the impact of CSR on firm performance over time using a longitudinal approach. Lastly, Chapter 6 ends with conclusions and recommendations.

1.10.1 Introduction to Chapter 2: Study 1

Chapter 2 aims to answer sub-question 1. Entrepreneurship has been viewed as the identification, evaluation and exploitation of opportunities to create employment and contribute to economic development (Shane and Venkataraman, 2000). At the same time, other authors point out that entrepreneurial activities cause pollution, contribute to health problems as well as the destruction of the natural environment (York and Venkataraman, 2010; Archichvili et al., 2003; Dean and McMullen, 2007). Yet, entrepreneurship is also increasingly seen as a solution to social and environmental problems (Hall et al., 2010; Hockerts and Wüstenhagen, 2010; Kuckertz and Wagner, 2010; Pacheco et al., 2010; Parrish, 2008; Patzelt and Shepherd, 2011). Furthermore, Pacheco et al., (2010) and Patzelt and Shepherd (2011) argue that entrepreneurial action can help preserve the natural environment. Therefore, various models explaining when and how entrepreneurs actually
engage in sustainable entrepreneurship have been proposed (see Gray et al., 2014; Patzelt and Shepherd, 2011). In particular, Patzelt and Shepherd (2011) developed a model that suggest that entrepreneurs are more likely to contribute to sustainable development if they can identify sustainable opportunities. This model has received considerable attention in academic literature as it focuses on social and environmental aspects as well as altruistic motivation as key drivers of the identification of sustainable opportunities (Gray et al., 2014). Nevertheless, there are hardly any empirical studies that test on whether the Patzelt and Shepherd (2011) model actually can predict the identification of sustainable opportunities. Therefore, this chapter aims to answer the following research question:

\textit{Which factors influence the identification of sustainable opportunities in Zambia?}

The aim of this chapter is to investigate the factors influencing the identification of sustainable opportunities and to test whether or not the model of Patzelt and Shepherd (2011) can predict the identification of sustainable opportunities by entrepreneurs in the context of Zambia.

\textit{1.10.2 Introduction to Chapter 3: Study 2}

Chapter 3 answers sub-question 2. As stated above, entrepreneurial activities impact social and natural environments (Kechiche and Soparnot, 2012). Many researchers, including Hall et al., (2010), have suggested that entrepreneurship is a solution to the negative impacts on the social and natural environments. One of the debates to which this PhD thesis contributes is the debate about the predictors of sustainable behaviour. In particular, this chapter
focuses on the influence of personal values on CSR orientations. Different authors have applied the personal values theory to explore the relationship between personal values and corporate actions (Marcus, 2012), personal values and firm performance (Tomczyk, Lee, and Winslow, 2013), personal values and business success (Gorgievesk, Ascalon, and Stephan, 2011). Few studies have, however, examined the relationship between personal values and CSR (Fukukawa et al., 2007). Furthermore, the few existing studies on the effect of personal values on CSR show mixed findings. For instance, Wang and Juslin (2012) established that self-transcendence associates negatively with CSR performance while self-enhancement associates positively with perceptions of CSR performance. Fukukawa et al., (2007) reported that self-transcendence values are positively associated with social and environmental accountability. This mix in findings warrants further investigations. Therefore, this chapter aims to answer the following research question:

*What is the influence of personal values of entrepreneurs in SMEs in Zambia on their social and environmental CSR orientations?*

The aim of this chapter is to examine the relationship between the entrepreneur’s personal values and CSR orientations among SMEs in a developing country, Zambia.

1.10.3 Introduction to Chapter 4: Study 3

Chapter 4 answers sub-question 3. Entrepreneurial motivation has been an important field of study in the entrepreneurship literature (Eijdenberg and Masurel, 2013). Motivation factors for entrepreneurship include high need for achievement, locus of control, desire for
independence, passion, and drive (Shane, Locke, and Collins, 2003). Entrepreneurial motivations can be categorised into two groups: push factors (drivers that force individuals into entrepreneurship) and pull factors (drivers that attract individuals into entrepreneurship) (Gilad and Levine, 1986; Reynolds et al., 2005). Examples of push factors include unemployment, underpayment, job dissatisfaction, redundancy and examples of pull factors include status, recognition, desire for independence, seeking a new challenge, seeking for wealth and increased income (Hessel, Van Gelderen, and Thurik, 2008).

The debate is whether external motivations (originating from external pressure) and/or internal motivations (originating from within an individual) can motivate entrepreneurs managing SMEs to engage in different forms of sustainable practices such as CSR activities in SMEs. There is little research on the motivations of CSR in SMEs (Masurel, 2015).

Besides the general motivations to engage in CSR, we propose that the identification of sustainable opportunities provides an additional, conceptually different, explanation for the reasons why entrepreneurs may engage in CSR practices. Therefore, this chapter seeks to answer the following research question:

*Which factors motivate entrepreneurs to engage in different forms of CSR activities in Zambia?*

The aim of this chapter is to examine the motivations to engage in different CSR activities amongst entrepreneurs managing SMEs in Zambia in the trading and service sector.
1.10.4 Introduction to Chapter 5: Study 4

Chapter 5 answers sub-question 4. The importance of sustainable practices, especially CSR has been explained above. The debate is whether it pays off or not in terms of performance to be socially responsible (Masurel, 2015). A number of authors have examined the relationship between CSR and firm performance (Dobre, Stanila, and Brad 2015; Masurel, 2015; Mishra and Suar, 2010; Rettab et al., 2009; Saeidi, Sofian, Saeidi, Saeidi, and Saeaeidi, 2015). However, the results of these studies have been mixed with some showing that there is no correlation between CSR and firm performance, while other studies establish a positive association and still others indicate a negative association (Rettab et al., 2009). This mix in results calls for further investigations.

The aforementioned ambiguous picture between CSR and firm performance could be due to inadequate research approaches (Allouche and Laroche, 2005; Masurel 2015). For instance, those that have examined the association between CSR and firm performance have primarily used cross-sectional research designs. There are hardly any studies examining this association using longitudinal research designs, making it impossible to establish the presence or absence of a causal effect. Therefore, Chapter 6 aims to answer the following research question:

*What is the impact of CSR on firm performance in SMEs in Zambia over time?*

The aim of this chapter is to examine the link between CSR and firm performance using a longitudinal study design in an under-researched Sub-Saharan African developing country, Zambia.
1.10.5 Introduction to Chapter 6: Conclusions and recommendations

Finally, chapter 6 answers the main research question. “What factors influence the engagement in sustainable practices among SMEs in Zambia and what is the performance effect of the engagement in these practices?” Each of the four empirical chapters (i.e. Chapters 2, 3, 4, 5) are independent studies and can be interpreted separately. On the basis of the findings from these four independent papers, the main research question will be answered. In addition, in Chapter 6 we draw general conclusions, discuss the contributions, practical and policy implications and limitations of the study. We end by making recommendations for future research.
Chapter 2  Factors influencing the identification of sustainable opportunities by SMEs: Empirical evidence from Zambia

1 This chapter is based on a study that has been published in Sustainability: Choongo, P., Van Burg, E., Paas, L.J., and Masurel, E. (2016). Factors Influencing the Identification of Sustainable Opportunities by SMEs: Empirical Evidence from Zambia. Sustainability, 8(1), 81. Minor textual adjustments of the published paper have been made to enhance the fit of the chapter within the PhD thesis.
Abstract

This chapter uses the model of Patzelt and Shepherd to examine the factors influencing the identification of sustainable opportunities among SMEs in a developing country, Zambia. The factors under investigation include knowledge of the social/natural environment, perception of threats to the social/natural environment, altruism towards others and entrepreneurial knowledge. We interviewed 220 owner-managers in the trading and service sector who supply goods and services to the mining industry in Zambia. We found that the positive effect of altruism towards others was partially supported by our empirical results while the positive effects of knowledge of the social/natural environment and perception of threats to the social/natural environment on the identification of sustainable opportunities were not supported. Contrary to our expectations, entrepreneurial knowledge does not positively moderate the relationship between explanatory variables and the identification of sustainable opportunities. In sum, we found only limited empirical support for the model of Patzelt and Shepherd concerning the identification of sustainable opportunities. Our findings contribute to literature on entrepreneurship and sustainable opportunity identification by showing what factors influence the identification of sustainable opportunities. This can help us to create awareness among entrepreneurs regarding the effects of entrepreneurial activities on the environment and society; consequently, stimulating entrepreneurs to identify sustainable opportunities.
2.1 Introduction

In recent years, research on sustainable entrepreneurship has generated wide interest (Dean and McMullen, 2007; Dixon and Clifford, 2007; Lee, 2008). Entrepreneurship is concerned with the identification, evaluation and exploitation of opportunities (Shane and Venkataraman, 2000). Yet, certain entrepreneurial activities cause pollution, pose risk and damage to nature and human health. Recent findings reveal global effects that include climate change, ozone layer depletion and disruption of aquatic life (Archichvili, Cardozo, and Ray, 2003; Dean and McMullen, 2007; York and Venkataraman, 2010).

In Sub-Saharan Africa, climate change, global warming and rainfall deficit impacted negatively on crop production and food security and reduce national welfare (Arndt, Asante, and Thurlow, 2015; Ogalleh, Vogl, Eitzinger, and Hauser, 2015; Thompson, Berrang-Ford, and Ford, 2010). Entrepreneurship is viewed as a solution for social and environmental issues (Hall, Daneke, and Lenox, 2010). Entrepreneurial action can preserve ecosystems, counter climate changes, improve fresh air supply and agriculture practices and maintain biodiversity (Pacheco, Dean, and Payne, 2010; Patzelt and Shepherd, 2011).

The role of sustainable entrepreneurship in addressing social and environmental concerns is reflected in an increasing number of studies (e.g., Hockerts and Wüstenhagen, 2010; Kuckertz and Wagner, 2010; Meek, Pacheco, and York, 2010; Parrish, 2008). As most scholars have studied sustainable entrepreneurship in the western context, very little is known about sustainable entrepreneurship in developing countries. Specifically, the number of published papers on sustainable entrepreneurship in Sub-Saharan Africa is low (Egri and Ralston, 2008; Kolk and Tulder, 2010; Visser, McIntosh, and Middleton, 2006). Developing countries have different characteristics compared to developed countries (Burgess and Steenkamp, 2006), and this renders it less obvious that established theories, empirical results and methodologies from developed countries are directly applicable to the unique
social, political, and economic context of developing countries (Bruton, Ahlstrom, and Obloj, 2008). Additionally, much of the current literature on sustainable entrepreneurship is more prescriptive than descriptive (Hall et al., 2010) as most contributions have remained conceptual (Kuckertz and Wagner, 2010). For example, Patzelt and Shepherd (2011) developed a model that suggests entrepreneurs will more likely identify sustainable opportunities as their knowledge of social and ecological environments increases, when they perceive that their social and ecological environment is threatened, and if they are more altruistic towards others. However, these and other propositions have not been empirically tested (Kuckertz and Wagner, 2010).

This chapter aims to contribute to the sustainable entrepreneurship and opportunity identification literature. The chapter extends the conceptual work of Patzelt and Shepherd (2011) by empirically examining the factors influencing the identification of sustainable opportunities. The model of Patzelt and Shepherd (2011) is chosen for our study because it is the only model that explicitly conceptualises how entrepreneurs identify sustainable opportunities. The model recently received attention in the literature (e.g., Gray, Duncan, Kirkwood, and Walton, 2014) as it pays explicit attention to key drivers of the identification of sustainable opportunities, in particular to environmental knowledge and altruistic motivations. Yet, the relationships in the model are not explicitly tested, and therefore this chapter aims at advancing understanding sustainable entrepreneurship by testing factors influencing the identification of sustainable opportunities. Therefore, the research question addressed in this paper is: Which factors influence the identification of sustainable opportunities?

This study is conducted in a developing country, Zambia, because in this setting the sustainability concerns are evident and there is almost no external and government pressure or incentive to behave in a sustainable manner. As such, this setting provides an ideal
context to test the model of Patzelt and Shepherd (2011), as sustainability would be largely driven by the entrepreneurs’ choice rather than influenced by external pressures. Despite these characteristics, no other known sustainable opportunity identification studies have been conducted in Sub-Saharan Africa. The findings and perspectives from Zambia will advance understanding of the factors influencing the identification of sustainable opportunities in Sub-Saharan Africa which will enable us to refine, revise and extend sustainable entrepreneurship theory.

This chapter proceeds as follows. First, we define the concepts of sustainable development and sustainable entrepreneurship. Second, we discuss SMEs and sustainable entrepreneurship, and then opportunity identification. Third, we review the model of Patzelt and Shepherd (2011). Fourth, we explain the research methodology, and present and discuss the results of our empirical tests. The paper will end with conclusions, and describe areas for future research.

2.2 Literature review

2.2.1 Sustainable development and sustainable entrepreneurship

Sustainable development, also referred to as sustainability (Dean and McMullen, 2007; Lichtenstein, 2011; Lourenço, Jones, and Jayawarna, 2013) is defined as: ‘the development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (Brundtland, 1987, p.37). It implies economic growth that integrates protection of the environment and meeting human social needs. Sustainable development encompasses the three aspects of sustainability: economic, social and environmental; also referred to as the triple “P”—people, planet, and profit (Bos-Brouwers, 2010; Dentchev, 2009). Relatedly, the concept of sustainable entrepreneurship is derived from sustainable development and aims to balance the economic, social, and environmental
objectives of the firm (Crals and Vereeck, 2005). There are many definitions of sustainable entrepreneurship (see Choi and Gray, 2008; Cohen and Winn, 2007; Crals and Vereeck, 2005; Dean and McMullen, 2007; Gerlach, 2003; Hockerts and Wüstenhagen, 2010; Schaltegger and Wagner, 2011; Shepherd and Patzelt, 2011) and the summary in Appendix 1). While these definitions capture the social and environmental aspects of sustainability, three definitions (Cohen and Winn, 2007; Hockerts and Wüstenhagen, 2010; Shepherd and Patzelt, 2011) also incorporate opportunity identification. Opportunity identification is a central aspect of entrepreneurship (Archichvili et al., 2003; Shane and Venkataraman, 2000). In particular, Patzelt and Shepherd (2011, p.632) define sustainable entrepreneurship as: ‘the discovery, creation, and exploitation of opportunities to create future goods and services that sustain the natural and/or communal environment and provide development gain for others’. This study adopts this definition, because it maintains the main aspects of sustainable entrepreneurship, and does include the opportunity identification aspect which is a central aspect of entrepreneurship and also the focus of our study. We note that definitions by (Cohen and Winn, 2007; Hockerts and Wüstenhagen, 2010) are also appropriate for our study.

Sustainable entrepreneurship has been studied from a number of different fields; hence there is an ambiguous use of the terminology and there are several themes (Hall et al., 2010). The common themes include sustainability entrepreneurship (Parrish, 2010), sustainable entrepreneurship (Crals and Vereeck, 2005; Gerlach, 2003), environmental entrepreneurship (Meek et al., 2010; York and Venkataraman, 2010) ecopreneurship and green management (Isaak, 2002; Rodgers, 2010). Consequently, there are many models of sustainable entrepreneurship. Most existing models only focused on the environmental aspect of sustainable entrepreneurship (e.g., Cohen and Winn, 2007; Dean and McMullen, 2007; Meek et al., 2010; York and Venkataraman, 2010). We choose to empirically test the
model of Patzelt and Shepherd (2011) for two reasons. First, while others (e.g., Dixon and Clifford, 2007; Hockerts and Wüstenhagen, 2010; Tilley and Young, 2009) incorporate the social and environmental dimensions of sustainable entrepreneurship in their studies, they provide no insights in sustainable opportunity identification. The model of Patzelt and Shepherd (2011) is the only model that explicitly conceptualises how entrepreneurs identify sustainable opportunities, using as explanatory variables important concepts from previous studies such as entrepreneurial knowledge, environmental knowledge and altruistic motivations. Second, the model combines the social and environmental dimension of sustainable entrepreneurship, which makes it a promising model to study sustainable entrepreneurship as a broad concept. Thus, the model brings in new concepts and insights that are not yet empirically tested. Research on the identification of sustainable opportunities is in its infancy, and therefore, further empirical study on factors influencing the identification sustainable opportunities is needed.

Empirical testing is in particular warranted because much of the extant literature on sustainable entrepreneurship is conceptual or based on small-scale case studies. For example, Cohen and Winn (2007) and Dean and McMullen (2007) conceptualised how market imperfections (i.e., inefficiencies, externalities, information asymmetric, flawed pricing mechanisms, government intervention, and monopolies) result in environmental degradation, consequently producing conditions in which entrepreneurs can earn profit by reducing environmental degradation. They highlight that these market imperfections yield opportunities for sustainable entrepreneurship (Hall et al., 2010). A different conceptual model by York and Venkataraman (2010) theorises how entrepreneurial action can address environmental degradation, provides innovation and engages in resource allocation to address environmental problems.
Other studies on sustainable entrepreneurship are case studies. For example, by comparing four cases, Parrish (2008) found that the organisational design standards, adopted by entrepreneurs concerned with sustainability, differ from those of other entrepreneurs. Yet, Crals and Vereeck (2005) showed in another case study, that entrepreneurs need to carefully plan how they can engage in such activities, as time is a constraint for SMEs to engage in sustainable activities. Focusing on sustainability reporting, Borga, Citterio, Noci, and Pizzurno (2009) studied seven cases of SMEs in the Italian furniture sector and found that existing reporting guidelines were mainly created for large firms; hence, some elements considered in the guidelines are not appropriate for SMEs. They suggest that SMEs require appropriately designed reporting guidelines in simple language in order for them not to rely on external consultants for interpretation, while another study further suggests the need for SMEs to select simple sustainability reporting guidelines tailored to their needs (Crals and Vereeck, 2005).

Only a few quantitative, large-scale studies have focused on sustainable entrepreneurship, but empirical testing of developed conceptual models is lagging behind. Recent quantitative studies have tested the effect of social norms and state-level incentives on founding of sustainable entrepreneurial firms (Meek et al., 2010). The results show that social norms and state-level incentives are important in influencing the founding new sustainable entrepreneurial firms. This is also demonstrated in another study that found that new entrants (small firms recently founded) are more likely than incumbents (large firms who tend to be old) to pursue sustainable opportunities (Hockerts and Wüstenhagen, 2010). Older firms are usually less eager to pursue social and environmental objectives because they have established markets. Hockerts and Wüstenhagen (2010) developed a model that shows sustainable entrepreneurship in organisations is going to be initiated by both the incumbents and new entrants.
While existing literature contributes key insights in sustainable entrepreneurship, most of the studies are conceptual and theoretical (Kuckertz and Wagner, 2010) or focus on the development process of a sustainable firm. Developed conceptual models are hardly empirically tested and few have focused on how existing firms identify sustainable opportunities. Thus, there is need to enhance our understanding beyond theorising to empirically testing the sustainable entrepreneurship concepts (Kuckertz and Wagner, 2010), with larger data sets, and in different contexts.

2.2.2 SMEs and sustainable entrepreneurship

Although social and environmental issues have often been researched in large organisations, SMEs have received limited attention. SMEs are suitable for this research for two reasons. First, SMEs form the majority of business establishments (Ciliberti, Pontrandolfo, and Scozzi, 2008). For example in Zambia, this sector consists of approximately 97% of all enterprises (MCTI, 2009). Moreover, SMEs are often associated with environmental degradation, pollution and depletion of non-renewable energy sources. Cumulatively, SMEs contribute 70% to global pollution (Hillary, 2000; Revell, Stokes, and Chen, 2010). Thus, scholars and policy makers have recognised that small firms can play an important role in finding solutions to environmental problems (MCTI, 2009). Therefore, given their large numbers worldwide, SMEs can play an essential role in driving the sustainable development agenda forward. They are more flexible and closer to their customers than large firms, and could therefore respond quicker and more effective to social and environmental problems (Masurel, 2007).

Despite their potential to affect the environment and society, most SMEs are slow in developing and implementing sustainability (Masurel, 2007; Revell et al., 2010). Environmental awareness and action is low among small firms (Mir and Feitelson, 2007).
SMEs are generally managed by their owners, are largely local (Russo and Tencati, 2009) and lack formal structures with specialised staff; this influences their approach in dealing with sustainability issues (Jenkins, 2006). Entrepreneurs are often ignorant of their environmental impact, have limited resources to tackle environmental issues, and are unwilling to take action due to time- and resource constraints (Pimenova and Van der Vorst, 2004; Revell et al., 2010). Yet, the idea of sustainability seems to drive some SMEs, as Rodgers (2010) found that in the UK sustainable entrepreneurs look for social change apart from financial change. They have ethical principles and values, are risk tolerant, and seek knowledge on sustainability issues. Also Kearins, Collins, and Tregidga (2010) found evidence of business-nature relationships aligned with ecological paradigms in a study of three SMEs in New Zealand. In general, smaller and younger firms appear to be better at integrating sustainability into their business objectives than older firms (Schaltegger and Wagner, 2011).

The focus of sustainability studies has been on environmental issues whilst the social aspects have been rarely examined (Rogers, Gardner, and Carlson, 2013). In Sub-Saharan Africa and other economically developing parts of the world, sustainable entrepreneurship research on SMEs has often focused mainly on environmental and corporate social responsibility (CSR). For instance, in Nigeria, the perception of managers of small firms towards sustaining the environment appears to be negative (Chendo, 2013). In contrast, the environmental attitude of owner-managers of SMEs seems to be positive (McKeiver and Gadenne, 2003). Amaeshi, Adi, Ogbechie, and Amao (2006) even found that indigenous Nigerian firms’ practice of CSR is altruistic and philanthropic. These authors suggested that goodness to society and charity is the moral economy of kin-based solidarity and reciprocity, and thus, there should be a clear link between responsibility for social and natural aspects of the environment. As such, social entrepreneurship appears to be prevalent in many Sub-Saharan African countries in such a way that the entrepreneurs feel responsible
for their own employees, their families and the wider community (Spence, 1999). Similarly, in the study of 1300 SMEs in eight countries in Latin America, sustainability practices appear to be related to employees although less to the community and the environment (Vives, 2005). Thus, there appears to be a link between sustaining the social and natural environment.

2.2.3 Opportunity identification

Entrepreneurship is concerned with the identification, evaluation and exploitation of opportunities (Shane and Venkataraman, 2000). Casson (1982) defines entrepreneurial opportunities as situations in which new services, goods, raw materials, organising methods, and markets can be introduced and sold at a profit. Sustainable opportunities are different. That is, while entrepreneurial opportunities focus on profit, sustainable opportunities seek to sustain the social and/or natural environment and provide development gains for the entrepreneurs and for others (Patzelt and Shepherd, 2011). Development gain for others comprises economic gain, social gain and environmental gain for society (Elkington, 1997). The natural dimension of sustainable opportunities includes environmental care, eco-efficiency, clean products, sustainable technology, and eco-design, while the social dimension of sustainable opportunities concerns people—care for employees and society (Crals and Vereeck, 2005). Opportunity identification has been measured as the number of new opportunities or new parts of a business pursued in the past five years (Shepherd and DeTienne, 2005). In general, factors influencing opportunity identification include alertness, cognition, creativity, extrinsic motivation, financial reward, human capital, learning, networks, prior knowledge (Elkington, 1997), prior experience (Alsos and Kaikkonen, 2004) and prior business experience (Ucbasaran, Westhead, and Wright, 2009). The latter factors are found to be very important; entrepreneurs identify opportunities related to the information they possess (Shane, 2000).
Prior knowledge refers to an individual’s knowledge about a particular matter and helps him/her to identify particular opportunities (Shepherd and DeTienne, 2005; Tang, Kacmar, and Busenitz, 2012), in a way that those lacking this information cannot depict (Tang et al., 2012). Shane (2000) found that entrepreneurs identify particular opportunities because of their idiosyncratic prior knowledge. This knowledge can be gained from work-experience, education, experiential learning and other means. According to human capital theory, knowledge increase in a certain field allows individuals to become efficient in information processing, such that they focus on the critical dimensions for the positive outcomes of their decisions (Tang et al., 2012). Prior knowledge helps to integrate and accumulate new knowledge, thereby, giving individuals a larger opportunity set (Shepherd and DeTienne, 2005). Opportunity creation may also be enhanced by knowledge resulting from previous entrepreneurial experience (Ucbasaran et al., 2009). Habitual entrepreneurs with previous business ownership identify a larger number of business opportunities than novice entrepreneurs (Westhead, Ucbasaran, and Wright, 2009). Consistent with these inferences about the effect of prior knowledge, Cooper and Park (2008) found that knowledge and an entrepreneur’s work experience play a central role in the recognition and exploitation of innovative new product technologies. Similarly, Alsos and Kaikkonen (2004) found that the process of opportunity creation is related to the entrepreneurs’ extensive experience from prior employment, prior business activities, and hobbies. While prior experience leads to the identification of larger numbers of opportunities, the positive effect of the identification of sustainable opportunities vanishes as business experience increases. Learning from experience causes entrepreneurs to evaluate opportunities more rigorously; thus, the number of perceived opportunities may decline with business and experience (Kuckertz and Wagner, 2010).
Despite the fact that the study of prior knowledge provides significant insights to the identification of entrepreneurial opportunities, there has been limited empirical research on the effect of prior knowledge on the identification of sustainable opportunities. The direct effects of conventional entrepreneurial knowledge found in previous studies are insufficient to explain the identification of sustainable opportunities (Patzelt and Shepherd, 2011). Additionally, Patzelt and Shepherd (2011) propose that the knowledge of the social/natural environment also plays a key role for sustainable opportunity identification.

2.2.4 The model of Patzelt and Shepherd (2011)

This chapter builds on the model of Patzelt and Shepherd (2011) concerning the identification of sustainable development opportunities (referred to in this paper as sustainable opportunities)—see Figure 2.1. The main variables of this model are: (1) identification of sustainable opportunities as a dependent variable; (2) three explanatory variables: knowledge of the social/natural environment, perception of threats of the social/natural environment and altruism towards others; and (3) entrepreneurial knowledge as a moderator variable.

![Figure 2.1](Source: Patzelt and Shepherd, 2011)
Patzelt and Shepherd (2011) suggested that entrepreneurs are more likely to identify sustainable opportunities if they have knowledge of the social/natural environment, if they perceive that the social/natural environment is threatened, and if they are more altruistic. Furthermore, they suggested that entrepreneurial knowledge moderates the relationship between the three explanatory variables and the identification of sustainable opportunities. It is important to note that while authors such as Gray et al., (2014) have extended the model of Patzelt and Shepherd (2011) by including other variables such as institutional factors, incidents and social embeddedness, the original model is still not empirically tested. There have not yet been empirical tests on whether the available model can or cannot predict the identification of sustainable opportunities; empirical testing of the proposed concepts is needed before we can add other variables. By first testing the model in this chapter, it will be clear which of the factors proposed explain how sustainable opportunities are identified. Later, follow-up studies can add other relevant variables that may influence sustainable opportunity identification. Therefore, as a starting point to test sustainable opportunity identification concepts, we chose the model of Patzelt and Shepherd (2011) as a well-received newly developed, yet untested model, focused on the identification of sustainable opportunities.

2.2.5 Hypotheses

Knowledge of the social/natural environment

Awareness of sustainability is an important driver for sustainable innovation (Crals and Vereeck, 2005). Similarly, Patzelt and Shepherd (2011) argue that awareness or knowledge of the natural environment (e.g., earth, biodiversity, ecosystems, overfishing; sources of soil, air and water pollution) and social knowledge (e.g., culture, health and life expectancy) influences the identification of sustainable opportunities. Therefore, education
for sustainable development appears to be especially valuable for nascent entrepreneurs because enhancing their knowledge about sustainable entrepreneurship may have an effect on their ability to identify sustainable business opportunities (Lourenço, 2012). This is confirmed by Rodgers (2010), who in a study of three UK-based SMEs, found that some entrepreneurs started sustainable enterprises after increasing their knowledge through “green” education. In particular, one owner-manager increased her knowledge of the natural environment by spending two full years conducting her own research into sustainable building before launching her firm. Similarly, knowledge of social difficulties and problems in a community can be a source for the identification of sustainable opportunities (Nga and Shamuganathan, 2010). Thus, it is hypothesised that:

\[ H1: \text{The entrepreneurs’ knowledge of the social/natural environment is positively associated with the identification of sustainable opportunities.} \]

Perception of threat to the social/natural environment

Natural resource degradation, pollution, and loss of biodiversity increase vulnerability and reduce the well-being of people and animals (Munasinghe, 2003). When individuals perceive that their physical and psychological well-being is threatened, they direct their attention towards sustaining the social/natural environment. Threats cause individuals to take a defensive posture (Crowson, Debacker, and Thoma, 2006). Thus, it is proposed that:

\[ H2: \text{The entrepreneurs’ perception of threat to their social/natural environment is positively associated with the identification of sustainable opportunities.} \]

Altruism towards others

Altruism is understood as an individual’s motivation to enhance the welfare of other people without conscious regard of one’s self-interest (Hoffman, 1981; Simpson and Willer, 2008). Altruistic individuals are generally more generous, helping, and kind than
others. The feelings of empathy and sympathy for other people make up altruistic motivations that aim to improve the welfare of the individuals in need. For example, people who empathise with the poor in society may experience their grief; consequently motivating empathetic individuals to find sustainable opportunities that improve poor people’s situation. Similarly, individuals who sympathise with the poor will understand their sorrows and will be motivated to help them by attending to opportunities that change their situation. Furthermore, individuals who experience empathy and sympathy for animals can identify opportunities that may improve the environmental condition in which the species live. These situations trigger the identification of sustainable opportunities, especially with a focus on the social aspect of these opportunities (Patzelt and Shepherd, 2011). This leads to the following hypothesis:

\[ H3: \text{The entrepreneurs' altruism towards others is positively associated with the identification of sustainable opportunities.} \]

\textit{Entrepreneurial knowledge}

As already stated, entrepreneurial knowledge plays a major role in the identification of sustainable opportunities. Identifying opportunities to sustain the social/natural environment requires individuals to associate their knowledge of the environment with their prior entrepreneurial experience (i.e., knowledge of the markets, ways to serve the markets, and dealing with customer’s problems). Therefore, entrepreneurial knowledge moderates the extent to which knowledge of the social/natural environment contributes to the identification of sustainable opportunities (Patzelt and Shepherd, 2011).

When an individual perceives a threat, he or she tends to seek opportunities to escape from it. For example, an individual living in a city where car emissions and pollution threaten her/his health and that of others will be more likely to seek opportunities to reduce that threat and improve air quality. Using her/his knowledge of the local car market
Entrepreneurial knowledge enhances the identification of sustainable opportunities amongst entrepreneurs with altruism. This is because knowledge of the markets will direct the mind of altruistically motivated entrepreneurs towards entrepreneurial activities that develop economic, social and environmental value (Patzelt and Shepherd, 2011). It is therefore hypothesised that:

**H4a:** Entrepreneurial knowledge has a positive moderating effect on the association of entrepreneurs’ knowledge of the social/natural environment with the identification of sustainable opportunities.

**H4b:** Entrepreneurial knowledge has a positive moderating effect on the association of the entrepreneurs’ perception of threats to the social/natural environment with the identification of sustainable opportunities.

**H4c:** Entrepreneurial knowledge has a positive moderating effect on the association of entrepreneurs’ altruism towards others with the identification of sustainable opportunities.

### 2.3 Methodology

**2.3.1 Study context: Zambia**

The empirical study is conducted in the Zambian mining industry. The country is appropriate for this study because of its dependency on the mining industry which contributes significantly to pollution, and thus, leads to a direct and well-known environmental threat, even though this sector is also known to be active in addressing social and environmental concerns. The findings can be applied to other industries as well as to other developing countries with mining industries (minerals, gas and oil) like Angola,
Botswana, Libya and Nigeria. The research is also important for SMEs in developing countries who sell goods and services to the large multinational firms (mining included) because failure to meet the social and environmental aspects can lead to loss of contracts from large firms who take environmental measures (De Gobbi, 2011). The mining and processing of copper is the largest industry in Zambia, representing 70% of export earnings in 2011 (Chamber of Mines, 2014). The mining industry attracts a large number of contractors and suppliers of goods and services. The major mining companies buy about US$2 billion of goods and services from Zambian businesses annually. In 2012, the major mining companies invested US$70 million in 200 community programs around the mine sites. The mining companies also run schools, health care centres and hospitals (Chamber of Mines, 2014).

This chapter focuses on sustainable entrepreneurship in a developing country of Zambia. This context provides an excellent setting to test sustainable entrepreneurship theories. In this study, we used the World Bank classification of developing countries (World Bank, 2013). The World Bank’s classifies countries by gross national income (GNI). The World Bank classification is: low income, middle-income, or high-income countries. Low and middle-income countries are referred to as developing countries and high-income countries are considered as developed countries. The term developing country describes a set of low income countries (GNI per capita $1035 or less) and middle-income countries (GNI per capita between $1036 and $4085) in 2012 (Keen and Wu, 2011). The GNI per capita for Zambia was $1810 in 2013. Developing countries have different characteristics compared to developed countries, as they are for instance characterised by rapid structural changes in socio-economic institutions (Keen and Wu, 2011). The social, environmental, and governance risk faced by developing countries varies from country to country. For example, in emerging countries like Brazil, deforestation and interaction with indigenous
people are major concerns. In China, depletion of water resources and air pollution are more critical (Sustainalytics, 2012, 2014). In Sub-Saharan Africa, social and environmental challenges include poverty, disease, poor infrastructure, unemployment, environmental degradation, natural resource depletion, and overfishing (Dobers and Halme, 2009). Moreover, most of the vehicles imported are second hand, this leads to increased emission of gas, and deteriorating air quality linked to industrial emissions (Dione, 2012).

In Zambia, key environmental issues include: drought, floods, extreme heat, and shortage of raw materials. Particularly, sulphur dioxide on the Copperbelt province is a well-known problem due to smelting of copper and roasting of cobalt, hence acceptable air pollution limits are often exceeded. These risks already impact agriculture and food security, natural resources, world life, forestry, human health, water supply and energy (KPMG, 2013). In 1992, Zambia Environmental Management Agency (ZEMA), a regulatory body was established to promote sustainable development, environmental management, conservation, protection, sustainable management and use of resources.

2.3.2 Sample and data collection

The sample for the study was selected from databases of the four major mining companies in Zambia—these are Kansanshi Mine (in Solwezi), Konkola Copper Mines (in Chingola), Lumwana Mine (in Solwezi) and Mopani Copper Mines (Kitwe and Mufulira). We selected SMEs that operate in the trading and service sectors and are registered as suppliers and contractors for the four major mining firms. The nature of goods supplied is divided into three categories, namely (1) durable or manufactured products, such as electrical appliances, industrial cleaning machines, pipes, valves, motors, protective clothing, timber; (2) consumables, like electrodes, paints, cleaning materials; and (3) services, like repair and maintenance of plants, buildings and equipment, security and consultancy. Suppliers and contractors in the mining sector were considered suitable for
this study because the mining sector is known to be active in social and environmental concerns. The selection of firms was based on firm size—we selected firms with numbers of employees ranging from 10 to 250. The database of firms in the construction sector had about 1200 firms that met these conditions. We first randomly selected 350 firms for our study. When we tried to contact them, we experienced difficulties as some telephone numbers were not going through, others had closed or changed location. Apparently, the database had not been updated for a long time. Therefore, for the subsequent field work, convenience sampling was used based on whether we could access the firms. As an example, during field work, when we visited a premise of one of the 350 randomly selected firms, and found a different company from the list, we also surveyed that firm. Respondents also helped us by referring us to other firms. Through this sampling process, questionnaires were administered to 320 SMEs. We assured geographical representation of the sample by selecting firms located in different towns. Previous studies have encountered similar difficulties in collecting data in developing countries, and therefore, Kriauciunas, Parmigiani, and Rivera-Santos (2011) recommend that the sampling frame and the survey administration techniques need to be context-specific. Hence, different survey administration techniques including face-to-face questioning, emailing and dropping off questionnaires and picking up were used. This combination of methods resulted in 230 responses, but only 220 respondents completed all questions in our survey, resulting in a 68.8% (220/320) response rate. The questionnaires were conducted with owner-managers or managing directors for firms where the owner-managers were not available. The sample was composed of 185 males (84.1%) and 35 females (15.9%).

2.3.3 Measures

As a pre-study, we conducted 12 expert interviews with business associations, consultants, regulatory bodies and entrepreneurs. The purpose of interviewing these
individuals was to (1) assess what other variables could be added to the Patzelt and Shepherd (2011) model; (2) assess whether sustainability was a relevant issue in Zambia; and (3) identify important sustainable entrepreneurship variables. The subsequently developed questionnaire was pre-tested prior to data collection with four subject experts from academia and two experienced entrepreneurs. The pre-test was to check if the questions were clear. Six pre-test interviews were sufficient as only minor changes were made to the initial questions. Based on the pre-test, three items on the altruism scale were modified to the context under study. For example, “I have helped push a stranger’s car out of the snow” is not applicable in the Zambian context and was adjusted to “I have helped push a stranger’s car”. The other measurement scales did not require adaptation because the concepts were appropriate, clear, readable and understandable. Details of all measurement scales and scale validation are provided in Table 2.1.
### Knowledge of the social/natural environment

<table>
<thead>
<tr>
<th>Factor loadings</th>
<th>Factor 1: Knowledge of the natural environment</th>
<th>Cronbach’s α</th>
<th>Factor loadings</th>
<th>Factor 2: Knowledge of the social environment</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.681</td>
<td>I have rich knowledge about sustaining the nature (i.e., earth, biodiversity, and ecosystem).</td>
<td>0.746</td>
<td>I have rich knowledge about social issues in the current society.</td>
<td>0.730</td>
<td></td>
</tr>
<tr>
<td>0.868</td>
<td>I know the potential sources of soil, air, and water pollution.</td>
<td>0.842</td>
<td>I am aware of the difficulties that disabled people have in our society.</td>
<td>0.725</td>
<td></td>
</tr>
<tr>
<td>0.735</td>
<td>I am aware that overfishing leads to decline of fish stocks.</td>
<td>0.692</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Perception of threat to the social/natural environment

<table>
<thead>
<tr>
<th>Factor loadings</th>
<th>Factor 1: Biospheric concerns</th>
<th>Cronbach’s α</th>
<th>Factor loadings</th>
<th>Factor 2: Egoistic concerns</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.762</td>
<td>Plants</td>
<td>0.759</td>
<td>Me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.819</td>
<td>Marine Life</td>
<td>0.765</td>
<td>My lifestyle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.901</td>
<td>Birds</td>
<td>0.712</td>
<td>My health</td>
<td></td>
<td>0.825</td>
</tr>
<tr>
<td>0.672</td>
<td>Animals</td>
<td>0.676</td>
<td>My future</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Altruism

<table>
<thead>
<tr>
<th>Factor loadings</th>
<th>Factor 1: Inclination to making efforts for others</th>
<th>Cronbach’s α</th>
<th>Factor loadings</th>
<th>Factor 2: Inclination to donating charity</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.601</td>
<td>I have delayed a bus and held the door open for strangers.</td>
<td>0.758</td>
<td>I have given money to charity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.633</td>
<td>I have helped a classmate whom I did not know well with a homework assignment when my knowledge was greater than his/her.</td>
<td>0.779</td>
<td>I have donated goods or clothes to a charity.</td>
<td></td>
<td>0.786</td>
</tr>
<tr>
<td>0.693</td>
<td>I have offered to help a handicapped or elderly stranger across a street.</td>
<td>0.719</td>
<td>I have done volunteer work for charity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.626</td>
<td>I have helped a classmate whom I did not know well with a homework assignment when my knowledge was greater than his/her.</td>
<td>0.809</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>0.712</td>
<td>I have helped a classmate whom I did not know well with a homework assignment when my knowledge was greater than his/her.</td>
<td>0.758</td>
<td>I have given money to charity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.694</td>
<td>I have helped a classmate whom I did not know well with a homework assignment when my knowledge was greater than his/her.</td>
<td>0.779</td>
<td>I have donated goods or clothes to a charity.</td>
<td></td>
<td>0.786</td>
</tr>
</tbody>
</table>

### Entrepreneurial knowledge

<table>
<thead>
<tr>
<th>Factor loadings</th>
<th>Factor 1: Entrepreneurial knowledge</th>
<th>Cronbach’s α</th>
<th>Factor loadings</th>
<th>Factor 2: Entrepreneurial knowledge</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.869</td>
<td>I know how to serve markets.</td>
<td>0.849</td>
<td>I am familiar with customer problems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.856</td>
<td>I have rich knowledge about markets such as supplier relationships, sales techniques, capital equipment retirement, etc.</td>
<td>0.849</td>
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<td></td>
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</tr>
</tbody>
</table>

### Table 2.1 Survey questions and scale validation
Dependent variable

The study includes one dependent variable: *Opportunity identification*, measured in terms of the number of sustainable opportunities perceived by respondents and was adapted from Ucbasaran et al., (2009). In the original scale respondents were asked, “How many opportunities for creating or purchasing a business have you identified in the last five years. We adapted and modified this question by asking respondents: How many opportunities for making your business more sustainable and/or starting sustainable businesses have you identified within the last five years?” Respondents were asked to indicate the category that fits the number of opportunities they identified from the following eight categories (0, 1, 2, 3, 4, 5, 6–10, and more than 10 opportunities). Respondents who identified zero opportunities were allocated a score of “1”, a score of “2” for those who identified one opportunity, “3” for two opportunities, “4” for three opportunities, “5” for four opportunities, “6” for five opportunities, “7” for six to 10 opportunities, and “8” for more than 10 opportunities (see [59]). In our sample three respondents (1.4%) identified zero sustainable opportunities, five (2.3%) one opportunity, nine (4.1%) two opportunities; 26 (11.8%) three opportunities; 31 (14.1%) four opportunities; 47 (21.4%) five opportunities; 82 (37.2%) six to 10 opportunities; 17 (7.7%) identified more than 10 opportunities. Overall, 98.6% of the respondents identified at least one opportunity. The eight opportunity identification categories were collapsed into two categories: low opportunity identification (identifying less than six opportunities) and high opportunity identification (identifying at least six opportunities), because some categories were infrequently selected and also to improve estimation (Murad, Fleischman, Sadetzki, Geyer, and Freedman, 2003; Ucbasaran et al., 2009). As a result, 52.2% were in the low opportunity category and 44.8% in the high category. The mean on this collapsed variable is 44.8% which gives an overall indication of low sustainable opportunity identification (see Table 2.2).
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>VIF</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Sustainable opportunity identification</td>
<td>44.8%</td>
<td>0.50</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Age</td>
<td>2.10</td>
<td>0.56</td>
<td>1.43</td>
<td>-0.063</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(3) Gender</td>
<td>1.84</td>
<td>0.37</td>
<td>1.08</td>
<td>-0.056</td>
<td>0.121</td>
<td>1.000</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(4) Education</td>
<td>2.38</td>
<td>0.51</td>
<td>1.08</td>
<td>0.022</td>
<td>-0.006</td>
<td>0.083</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>(5) Entrepreneurial knowledge</td>
<td>3.91</td>
<td>0.66</td>
<td>1.41</td>
<td>0.132</td>
<td>-0.016</td>
<td>0.058</td>
<td>0.095</td>
<td>1.000</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) Knowledge of natural environment</td>
<td>3.90</td>
<td>0.63</td>
<td>1.63</td>
<td>0.083</td>
<td>-0.006</td>
<td>0.088</td>
<td>-0.035</td>
<td>0.284 **</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7) Knowledge of social environment</td>
<td>3.97</td>
<td>0.58</td>
<td>1.57</td>
<td>0.097</td>
<td>0.006</td>
<td>0.031</td>
<td>-0.059</td>
<td>0.424 **</td>
<td>0.463 **</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(8) Threat biosphere</td>
<td>5.88</td>
<td>1.17</td>
<td>1.87</td>
<td>-0.102</td>
<td>0.065</td>
<td>0.005</td>
<td>0.025</td>
<td>0.096</td>
<td>0.325 **</td>
<td>0.114</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(9) Threat egoistic</td>
<td>6.43</td>
<td>0.70</td>
<td>2.32</td>
<td>-0.143</td>
<td>-0.113</td>
<td>-0.019</td>
<td>0.039</td>
<td>0.276 **</td>
<td>0.314 **</td>
<td>0.346 **</td>
<td>0.487 **</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(10) Threat social</td>
<td>6.57</td>
<td>0.63</td>
<td>1.67</td>
<td>-0.064</td>
<td>-0.059</td>
<td>-0.061</td>
<td>0.106</td>
<td>0.222 **</td>
<td>0.202 **</td>
<td>0.254 **</td>
<td>0.460 **</td>
<td>0.647 **</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(11) Inclination to donate to charity</td>
<td>3.30</td>
<td>0.96</td>
<td>1.35</td>
<td>0.225 **</td>
<td>0.111</td>
<td>-0.042</td>
<td>0.009</td>
<td>0.152 *</td>
<td>0.130</td>
<td>0.157 *</td>
<td>0.068</td>
<td>0.041</td>
<td>0.038</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(12) Inclination to helping strangers</td>
<td>2.99</td>
<td>0.75</td>
<td>1.54</td>
<td>0.152 *</td>
<td>-0.063</td>
<td>-0.092</td>
<td>-0.018</td>
<td>0.057</td>
<td>-0.012</td>
<td>0.137</td>
<td>0.079</td>
<td>0.058</td>
<td>0.010</td>
<td>0.343 **</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>(13) Inclination to make effort others</td>
<td>3.22</td>
<td>0.84</td>
<td>1.91</td>
<td>0.196</td>
<td>-0.076</td>
<td>-0.069</td>
<td>-0.036</td>
<td>0.040</td>
<td>0.229 **</td>
<td>0.218 **</td>
<td>-0.005</td>
<td>-0.008</td>
<td>-0.021</td>
<td>0.396 **</td>
<td>0.554 **</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**Table 2.2** Descriptive statistics and correlation matrix

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed). \( N = 220 \).
To check whether respondents understood the term ‘sustainable opportunity’, we asked them to give examples of sustainable opportunities they had identified. Some respondents indicated that they started to use high pressure cleaning machines which avoids using chemicals to clean heavy duty cleaning machines. Other examples include opportunities related to energy saving, water saving, and recycling. Examples of social opportunities include care for the employees by providing safe working environment for employees, paying funeral grants, providing transport to mourners in their community, buying fuel for police vehicles in their communities, and paying medical bills for their employees. Thus, the respondents mentioned opportunities to strengthen their business alongside providing social support. Examples of society based sustainable opportunities include sponsoring community based projects, sports, traditional ceremonies, building community schools for the underprivileged, support orphanages, digging wells for safe drinking water, repairing roads, providing industrial attachments to students, and creating HIV awareness.

**Independent variables**

Three independent variables were measured. *Knowledge of the social/natural environment* was measured on a six-item scale based on the work by Patzelt and Shepherd (2011). Three items relate to the knowledge of the natural environment and the other three relate to the knowledge of the social environment (see Table 2.1). All six items were measured on a 5-point Likert scale ranging from 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; and 5 = Strongly agree.

*Perception of threat to the social/natural environment* was measured using a 12-item scale adopted from (Schultz et al., 2005). Respondents were asked to rate each of the items from 1 (not important) to 7 (supreme importance) when answering the question: “I am concerned about the environmental problem because of consequences for:” “plants”, “animals”, “air”, “water”, “wild life”, “people”, “material products”, “food”, “energy”, “national security”, “national economy”, and “international relations”. All 12 items were measured on a 7-point Likert scale ranging from 1 = Not important; 2 = Somewhat important; 3 = Important; 4 = Very important; 5 = Supreme importance; 6 = Extreme importance; and 7 = Supreme extreme importance.
“marine life”, “birds”, “animals”, “me”, “my life style”, “my health”, “my future”, “people in the community”; “all people”, “children” and “future generations”. The measure covers sustainability problems the entrepreneur is most likely to be concerned with (planet, people and life support).

**Altruism towards others** was measured using Rushton, Chrisjohn, and Fekken (1981) 20-item Self-Report Altruism (SRA) scale. Respondents were asked to rate the frequency with which they have engaged in each of the 20 altruistic acts by ticking one of the following “Never”, “Once”, “More than once”, “Often” or “Very often”. Respondents who reported “Never” were allocated a score of 1, “Once” 2, “More than once” 3, “Often” 4 and “Very often” a score of 5. This measure reflects the altruistic behaviour of entrepreneurs as confirmed by experts in our study setting.

**Moderating variable**

**Prior entrepreneurial knowledge,** was operationalised using three items from Tang and Murphy (2012). These items include “I know how to serve the markets”; “I am familiar with customers’ problems” and “I have rich knowledge about markets”. All items were measured on a 5-point Likert scale ranging from 1 = *Strongly Disagree* to 5 = *Strongly agree*. This measure captures the three dimensions of knowledge which reflects the primary reasons why the entrepreneur starts a business.

**Control variables**

The following control variables were included. **Education**—studies show that knowledge gained from education has a key role in the opportunity identification process (Rodgers, 2010; Tang, Kacmar, and Busenitz, 2012). Education was coded “1” for respondents who reported “no post-secondary education”; “2” for “some post-secondary education”; and “3” with a “bachelor’s degree or more”. **Age** was coded in three categories:
“1” young < 30 years; “2” middle-aged 31–50 years; and “3” old > 50 years. Regarding gender, female entrepreneurs were coded “0”, whilst male entrepreneurs were coded “1”.

2.3.4 Scale validation

Exploratory factor analysis (EFA) with varimax rotation was applied for assessing the convergent and discriminant validity of the measurement scales. Table 2.1 shows rotated factor loadings and reliability tests for all variables. First, two factors for the knowledge of the social/natural environment scale were extracted, the first factor comprises three items relates to knowledge of the natural environment while the second factor consists of three items relates to knowledge of the social environment. The extracted factors were consistent with our expectations that were derived from Patzelt and Shepherd (2011).

Second, regarding perceptions of threats to the social/natural environment, three factors were extracted from the 12 items: the first factor consisted of four items related to biospheric concerns, the second factor includes four items related to egoistic concerns and the last factor four items related to altruistic concerns (we label this as “social concerns” for the purpose of this research) (KMO = 0.868). Our results are consistent with those reported in Schultz et al., (2005).

Third, for altruism towards others, after removing seven of the 20 items that were cross loading, we retained three factors labelled: (1) Inclination to make an effort for others; (2) Inclination to donate to charity; and (3) Inclination to helping strangers. These factors reflect different types of altruistic behaviours an individual entrepreneur and/or an organisation can engage in. The extracted factors for the altruism scale were not similar to those reported in previous studies, for example Otto and Bolle (2011) extracted four factors of altruism which they labelled as: public (general help publicly), social (personal help privately), charity (general help privately), and support (personal help publicly). There are
several potential explanations for this difference in the number of factors we extracted in our data set and those extracted by other researchers in previous studies. One explanation is that previous studies on the altruism construct were conducted in a Western context. Given the cultural differences between Sub-Saharan countries and Western countries (Hofstede, 2001), it is possible that the dimensionality of the altruism construct differs across these contexts. For entrepreneurial knowledge, one factor was extracted (KMO = 0.712).

All items in Table 2.1 had factor loadings of 0.40 or higher, the acceptable threshold for samples size between 200 and 249 (Hair, Black, Babin, Anderson, and Tatham, 2014), thereby, indicating satisfactory levels of convergent and discriminant validity. The scales had sufficient reliability levels as shown by the Cronbach’s alpha values in Table 2.1. Most of the Cronbach’s alpha variables exceed the 0.7 threshold originally suggested by Nunnally (1978). For the knowledge of the natural environment and inclination to help strangers the values are slightly below this threshold, 0.692 respectively 0.682, which is acceptable when developing new scales or applying scales in a new context (Nunnally, 1978). The KMO values were above 0.7, and the Bartlett’s test was significant ($p = 0.000$) for each of the measurement scales, therefore, our factor analysis was appropriate.

### 2.4 Empirical results

#### 2.4.1 Data analysis

The descriptive statistics and correlations for all variables are reported in Table 2.2. The variance inflation factor (VIF) scores suggest that multicollinearity is not an issue in this model. Multicollinearity refers to a high degree of correlations among independent variables. This implies that the effects of the independent variables cannot be precisely estimated (Hair et al., 2014; Pallant, 2001). All VIF values are below the critical value of 10 and most correlations in Table 2.3 are insignificant and/or of a low magnitude. This
implies that the estimated effects in the logistic regression models, see Table 2.3, are unbiased by high correlations between independent variables. The dependent variable measured the number of sustainable opportunities identified in eight categories (0, 1, 2, 3, 4, 5, 6-10 and more than 10). These eight categories were collapsed into two categories: (1) low opportunity identification (from 0-4 opportunities) and (2) high opportunity identification (from 5 and above), which gives a dichotomous dependent variable. Linear regression becomes inappropriate for categorical dependent variables because it relies on the assumption of normality of residuals (Aiken and West, 1991; Van Burg, Podoynitsyna, Beck, and Lommelen, 2012). Consequently, hierarchical logistic regression analysis was used to test the hypotheses H1–H4c. Four models were estimated. The first model included control variables only. The second model incorporated all independent variables for testing hypotheses H1, H2, and H3. Model 3 included the relevant interaction terms, for assessing significance of the moderating effects of entrepreneurial knowledge (for testing H4a, H4b and H4c). As an example, to assess whether the relationship between knowledge of the natural environment and sustainable opportunities is moderated by entrepreneurial knowledge, we built the interaction term (Knowledge of the Natural Environment * Entrepreneurial Knowledge). Interaction terms were mean-centred to mitigate the problems of multicollinearity in moderated regression models and to facilitate interpretations (Aiken and West, 1991; West, Aiken, and Krull, 1996). Model 4 incorporated the direct effects of entrepreneurial knowledge. The summary of the logistic regression results is shown in Table 2.3. We checked whether an ordinal regression model using three categories for the dependent variable could be used (low: 0–3 opportunities; medium: 4–5 opportunities; high: >5 opportunities). This, however, led to unbalanced categories, and as a result 66.5% of the cells are empty when using this model, implying the obtained model is likely to be unstable. The results of this ordinal regression showed similar results as the logistic
regression, implying that the dichotomisation of the dependent variable did not influence our findings.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>−0.205 (0.402)</td>
<td>−0.389 (0.150)</td>
<td>−0.381 (0.177)</td>
<td>−0.333 (0.252)</td>
</tr>
<tr>
<td>Gender</td>
<td>−0.282 (0.451)</td>
<td>−0.314 (0.440)</td>
<td>−0.225 (0.595)</td>
<td>−0.254 (0.549)</td>
</tr>
<tr>
<td>Education</td>
<td>0.103 (0.703)</td>
<td>0.305 (0.523)</td>
<td>0.281 (0.345)</td>
<td>0.197 (0.519)</td>
</tr>
<tr>
<td><strong>Direct effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial Knowledge</td>
<td></td>
<td></td>
<td></td>
<td>1.077 (0.003)  **</td>
</tr>
<tr>
<td><strong>Knowledge of the Social/Natural Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of the Natural Environment</td>
<td>0.323 (0.521)</td>
<td>0.464 (0.135)</td>
<td>0.384 (0.230)</td>
<td></td>
</tr>
<tr>
<td>Knowledge of the Social Environment</td>
<td>0.353 (0.245)</td>
<td>0.529 (0.106)</td>
<td>0.276 (0.416)</td>
<td></td>
</tr>
<tr>
<td><strong>Perception of Threats to the Social/Natural Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threat Biosphere</td>
<td>−0.104 (0.508)</td>
<td>−0.055 (0.749)</td>
<td>−0.016 (0.927)</td>
<td></td>
</tr>
<tr>
<td>Threat Egoistic</td>
<td>−0.776 (0.015) **</td>
<td>−0.924 (0.008) **</td>
<td>−0.059 (0.004) **</td>
<td></td>
</tr>
<tr>
<td>Threat Social</td>
<td>0.188 (0.542)</td>
<td>0.163 (0.635)</td>
<td>0.172 (0.630)</td>
<td></td>
</tr>
<tr>
<td><strong>Altruism</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclination to Donate to Charity</td>
<td>0.438 (0.013)  **</td>
<td>0.466 (0.013)  **</td>
<td>0.451 (0.021)  **</td>
<td></td>
</tr>
<tr>
<td>Inclination to Helping Strangers</td>
<td>0.134 (0.575)</td>
<td>0.158 (0.550)</td>
<td>0.212 (0.433)</td>
<td></td>
</tr>
<tr>
<td>Inclination to Making Effort for others</td>
<td>0.137 (0.543)</td>
<td>0.163 (0.522)</td>
<td>0.234 (0.370)</td>
<td></td>
</tr>
<tr>
<td><strong>Moderation effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of Nature Environment * Entrepreneurial Knowledge</td>
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<td></td>
<td></td>
<td>−0.342 (0.368)</td>
</tr>
<tr>
<td>Knowledge of Social environment * Entrepreneurial Knowledge</td>
<td></td>
<td></td>
<td></td>
<td>−0.092 (0.829)</td>
</tr>
<tr>
<td>Threat Biosphere * Entrepreneurial Knowledge</td>
<td>−0.116 (0.755)</td>
<td>−0.186 (0.656)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threat Egoistic * Entrepreneurial Knowledge</td>
<td>0.365 (0.528)</td>
<td>0.427 (0.494)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threat Social * Entrepreneurial Knowledge</td>
<td>0.230 (0.642)</td>
<td>−0.111 (0.843)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclination to Donate to Charity * Entrepreneurial Knowledge</td>
<td></td>
<td></td>
<td>−0.021 (0.952)</td>
<td>−0.219 (0.533)</td>
</tr>
<tr>
<td>Inclination to Helping Strangers * Entrepreneurial knowledge</td>
<td></td>
<td></td>
<td>−0.727 (0.048) **</td>
<td>−0.920 (0.012) **</td>
</tr>
<tr>
<td>Inclination to Making Effort for others * Entrepreneurial Knowledge</td>
<td></td>
<td></td>
<td>−0.100 (0.729)</td>
<td>−0.370 (0.399)</td>
</tr>
<tr>
<td>Logistic Regression Constant</td>
<td>0.219</td>
<td>−0.163</td>
<td>−0.114</td>
<td>−3.717</td>
</tr>
<tr>
<td>Chi²</td>
<td>1.552</td>
<td>2.967</td>
<td>39.378</td>
<td>49.703</td>
</tr>
<tr>
<td>Cox and Snell R²</td>
<td>0.037</td>
<td>0.119</td>
<td>0.164</td>
<td>0.202</td>
</tr>
<tr>
<td>Nagelkerke R²</td>
<td>0.009</td>
<td>0.160</td>
<td>0.219</td>
<td>0.271</td>
</tr>
</tbody>
</table>

Table 2.3 The summary of the logistics regression results

Note: * p < 0.10; ** p < 0.05; *** p < 0.001. N = 220. We applied logistic regression analysis with the dichotomous opportunity identification variable (low/high) as dependent. Interaction terms were centred to mitigate the problems of multicollinearity in moderated regression models and to facilitate interpretations.

60
2.4.2 Hypotheses tests

Model 1, in which only control variables were considered was insignificant ($\chi^2 = 1.552, df = 4, N = 220, p > 0.10$), and the influence of all three control variables was also insignificant. Thus, age, gender and education do no predict the identification of sustainable opportunities.

Model 2, which incorporated independent variables for testing the direct effects as formulated in H1, H2, and H3 is significant ($\chi^2 = 27.949, df = 11, N = 220, p < 0.05$). Of the eight variables introduced in Model 2, only one is significant in the expected direction, namely inclination to donate to charity ($\beta = 0.438; p < 0.05$). Thus, hypothesis H3 is partly supported. The remaining variables did not demonstrate any significant influence on the identification of sustainable opportunities nor had a negative effect. Hence H1 and H2 were not supported. Model 3 included control variables, independent effects and the interaction effects between entrepreneurial knowledge and independent variables. The model is significant ($\chi^2 = 39.378, df = 19, N = 220, p < 0.05$). Here, only one new variable was significant, the interaction between Inclination to helping strangers and Entrepreneurial knowledge ($\beta = -0.727; p < 0.05$). However, this effect is in the opposite direction than expected. Therefore, Hypotheses 4a, 4b and 4c were not supported.

Finally, we incorporated the direct effects of entrepreneurial knowledge in model 4. The model is significant ($\chi^2 = 49.703, df = 20, N = 220, p < 0.001$). The newly added variable, entrepreneurial knowledge is significant ($\beta = 1.077; p < 0.05$).

2.5 Discussion

Hypothesis 1 predicts that entrepreneurs’ knowledge of the social/natural environment is positively related to the identification of sustainable opportunities. The logistic regression analysis results do not support this hypothesis, as there is an insignificant relationship between sustainable opportunity identification and knowledge of the natural environment ($p = 0.230$) as
well as knowledge of the social environment \( (p = 0.416) \). Thus, Hypothesis 1 is rejected. The insignificance of the effect of knowledge of the social/natural environment is not consistent with the suggestions we derived from the literature. An explanation for our unexpected result might be that the entrepreneurs in our sample may not seek knowledge on sustainability issues. Future research is needed to explore under which conditions (e.g., industry, country, phase of the venture, type of entrepreneur) knowledge about the social/natural environment plays a role in identifying sustainable opportunities, as there is some evidence that this knowledge indeed is important (Rodgers, 2010).

Hypothesis 2 argues that the entrepreneurs’ perception of threat to the social/natural environment is positively associated with the identification of sustainable opportunities. This hypothesis is not supported as the factors related to perception of threat to the social/natural environment are almost all insignificant; “threat egoistic” is significant \( (p < 0.05) \), but the effect is in the opposite direction. This means that Hypothesis 2 is fully rejected, which suggests that the identification of sustainable opportunities is not influenced by the entrepreneurs’ perception of threats to the social/natural environment. Follow-up studies are needed to explore why this study did not find an effect, contrary to our expectations. The unexpected lack of effect may be because many entrepreneurs are ignorant of their environmental impacts (Revell et al., 2010). Hence, they may not be aware of the long-term impacts of social problems and environmental problems (such as ozone layer depletion, climate change, global warming). Therefore, the entrepreneurs may not pay attention to opportunities that contribute to sustaining the social/natural environment. It is also possible that high levels of threat may hinder sustainable opportunity identification because the stress experienced by entrepreneurs can lead them to inaction or to shift their attention to avoid the threat (Wood, Saltzberg, Neale, Stone, and
Rachmiel, 1990). As a consequence, high levels of concerns can lead to low environmental performance (Schaper, 2002). Some highly concerned individuals may become subject to “environmental load”; a situation that arises when individuals are so much concerned about the environment that they believe they cannot do anything, and give up trying to act more environmentally friendly (Spence, Gherib, and Biwole, 2011), consequently making it impossible for them to identify sustainable opportunities.

Concerning Hypothesis 3, it was predicted that the entrepreneurs’ altruism towards others is positively associated with the identification of sustainable opportunities. Inclinations to donate to charity is significant (p < 0.05), while the second factor, inclination to helping strangers and the third factor, inclination to dedicate effort for others, are insignificant. This means that Hypothesis 3 is partially supported, as one of the three altruism factors has a significant effect on the identification of sustainable opportunities. This result might be due to the fact that most individuals in our dataset have fairly high scores for all altruism factors, more or less unrelated to how sustainable they exactly behave in their business practice, which is in line with Spence, Gherib et al., (2011) who noted that in the Sub-Saharan African culture, entrepreneurs naturally feel responsible for families, employees and people in their community.

In model 3, entrepreneurial knowledge was examined as a moderator between the three explanatory variables and the identification of sustainable opportunities. Only one of the interaction terms is significant (Inclination to Helping Strangers * Entrepreneurial Knowledge), but this effect is not in the expected direction. Thus, hypotheses H4a, H4b and H4c are all rejected. We find no support for the hypothesis that entrepreneurial knowledge moderates the relations between knowledge of the social/natural environment, perception of threats to the social/natural environment and altruism towards others on the one hand and the identification of
sustainable opportunities on the other hand. This may be because of the high levels of prior experience among the entrepreneurs in our dataset given the fact that 57.5% of our respondents had prior employment experience. While prior entrepreneurial knowledge leads to the identification of more opportunities, over time with the increase of experience, the entrepreneur might get entrenched with established ways thinking which limits the identification of new opportunities (Shepherd and DeTienne, 2005). The positive effect on identifying sustainable opportunities vanishes as business experience increases (Kuckertz and Wagner, 2010).

On the other hand, the direct effect of entrepreneurial knowledge is significant in model 4, giving an indication that entrepreneurial knowledge does positively influence the identification of sustainable opportunities. This suggests that conventional prior entrepreneurial knowledge to a large extent explains the identification of sustainable opportunities amongst entrepreneurs. This confirms that our overall chapter setup and results are consistent with studies from the conventional entrepreneurship literature such as Shepherd and DeTienne (2005) and Tang, Kacmar, and Busenitz (2012) that found that entrepreneurial knowledge increases the chance of identifying opportunities. The reported empirical findings, thus, suggest that sustainable development opportunities form a normal subset of the total set of entrepreneurial opportunities.

2.6 Conclusions

This chapter set out to examine the factors positively influencing the identification of sustainable opportunities and to empirically test the model of Patzelt and Shepherd (2011) concerning the identification of sustainable opportunities in Zambia. We focused on three explanatory factors: knowledge of the social/environment, perception of threat to the
social/natural environment and altruism towards others, while entrepreneurial knowledge was a moderator.

Our research makes two main contributions to the domain of sustainable entrepreneurship. First, these results advance understanding how certain individuals, more than others, identify sustainable opportunities. Our empirical study reveals that altruism towards others can positively influence the identification of sustainable opportunities. Contrary to our expectations, knowledge of the social/natural environment and perception of threat to the social/natural environment do not lead to the identification of sustainable opportunities while entrepreneurial knowledge does not moderate the relationship between the three explanatory variables and the identification of sustainable opportunities. However, the direct effect of entrepreneurial knowledge on sustainable opportunity identification is significant and positive.

Second, our study empirically tested the Patzelt and Shepherd (2011) model and shows that this model can predict the identification of sustainable opportunities, but only to a very limited extent. As our research is among the first to empirically test the model of Patzelt and Shepherd (2011), additional research should explore the validity and predictive power of this model. A particularly interesting avenue for future studies would be to explore the lack of support of the Patzelt and Shepherd (2011) model in this study’s context, the Zambian mining sector. Is the rejection of hypotheses H1, H2, H4a, H4b and H4c an indication that Western perspectives do not fully apply to the non-Western context? Or is the predictive power of the model in general limited, also in Western settings? Rejection of the hypotheses might be because theories derived from the Western context may not be fully applicable to developing countries because of differences in culture and economic circumstances. For instance, the effect of altruism might be different in more individualistic versus more communal societies. Hence, there is a need to
consider the applicability of theories and assumptions to different contexts. There might, therefore, be a need to revise the model of Patzelt and Shepherd (2011) by incorporating contextual variables, such as culture and economic circumstances. Follow-up studies can consider a multi-case study approach to explore why and when entrepreneurs do identify more sustainable opportunities than others; this might enable researchers to build a theory more in line with the developing country setting.

Moreover, future studies need to explore whether the model of Patzelt and Shepherd (2011) needs to be extended by incorporating other variables known to influence the recognition of opportunities, such as social networks, prior business ownership, alertness and prior work experience. The inclusion of other variables will provide additional insights that will enable future researchers to extend our understanding of sustainable opportunity identification.

A limitation of our study is that we could not differentiate between types of opportunities. Future studies could focus on the type of sustainable opportunities identified (see Hair et al., 2014). Furthermore, we could not separate the number of sustainable opportunities identified for making an existing business more sustainable from the number of opportunities identified for starting a new sustainable business. Future researchers can explore these two lines of enquiry. Furthermore, a longitudinal study could be carried out to investigate the number of opportunities pursued or actualised.

This study has implication for practice and policy linked to sustainable entrepreneurship. As we found an effect of entrepreneurial knowledge, business associations, government, mining firms, and academic institutions should offer education and training to entrepreneurs, as this also helps them to identify more sustainable opportunities. Such general entrepreneurship training seems to have a larger effect on identifying sustainable opportunities than (only) addressing
social and environmental concerns. Still, we would not advice to neglect training in social and environmental issues, as this might impact the action-orientation of entrepreneurs and impact whether they actually follow-up on the opportunities identified.
Chapter 3  Entrepreneurs’ personal values and CSR orientations: Evidence from SMEs in Zambia


**Abstract**

This chapter examines the relationship between entrepreneurs’ personal values and CSR orientations among small and medium-sized enterprises (SMEs) in a developing country, Zambia. Data were collected through questionnaires. Two linear regression models were used to test the hypotheses. The Schwartz self-transcendence values have a significant positive influence on socially-oriented CSR but do not influence environmentally-oriented CSR. Self-enhancement values do not affect social and environmental CSR orientations. Conservation values have a marginally positive influence on environmentally-oriented CSR but no influence on socially-oriented CSR. Finally, openness to change values have a significant positive influence on environmentally-orientated CSR but no influence on socially-oriented CSR. The limitations of this study relate to the sector from which the sample was drawn, other predictors of CSR orientations, use of cross-sectional data, and the replication of this study to validate its findings. The findings inform policy-makers, scholars, educators, and regulators on the importance of aligning personal values with social and environmental concerns, thereby influencing entrepreneurs’ CSR orientations for the well-being of society and the natural environment. This study shows the influence of personal values on CSR orientations among entrepreneurs in a hardly researched Sub-Saharan Africa country.
3.1 Introduction

In recent years, there has been a growing interest in research on Corporate Social Responsibility (CSR) in small and medium-sized enterprises (SMEs) (e.g. Amaeshi et al., 2017; Baden and Harwood, 2011; Langwell and Heaton, 2016; Li et al., 2016; Masurel and Rens, 2015; Spence, 2016). The activities of SMEs impact human, social and ecological environments (Kechiche and Soparnot, 2012). Many investigators advocate sustainable entrepreneurship as a remedy for societal and environmental problems (Hall et al., 2010). Subsequently, there is an increase in research on the predictors of sustainable behaviour and CSR in particular.

Although extant literature shows that entrepreneurs play a dominant role in the sustainable activities of their firms (Cassels and Lewis, 2011; Hsu and Cheng, 2012; Schaper, 2002), there are still knowledge gaps. For instance, the influence of personal values on CSR orientations has hardly been investigated in Sub-Saharan Africa (Jamali et al., 2017), which is the topic of Chapter 3. Many of the studies on the relationship between values and sustainable activities (CSR in particular) are from developed and emerging economies (see Fukukawa et al., 2007; Wang and Juslin, 2012; Marcus, 2012). In the Sub-Saharan African context however, there is also a great need for CSR research due to the greater poverty levels, environmental degradation, and institutional governance issues affecting most countries on the continent. The only African countries in which research on CSR has been done so far are Nigeria, Kenya and South-Africa (Kolk and Tulder, 2010; Muthuri and Gilbert, 2011; Visser, 2008). Nonetheless, these studies mostly focus on the understanding and definitions of CSR, CSR practices, and barriers to the engagement in CSR, and hardly focus on the influence of personal on CSR orientations.

The results of studies in these three countries, however, may not apply to all Sub-Saharan African countries because of the huge and important differences between countries.
on the continent. For example, African countries are characterised by extreme differences in the level of economic development. Egypt, Kenya, South Africa, and Nigeria represent large and strong economies with a Gross Domestic Product (GDP) of 60% of African GDP in 2011. In contrast, Burundi, Democratic Republic of Congo, and Comoros are extremely poor countries (African Development Bank, 2014). Furthermore, countries on the continent have very diverse governance systems in terms of democracy, military rule, and authoritarian system (Kühn et al., 2015). In addition, African countries have diverse political systems; as a result, corruption and the human development index are high in certain countries and low in other countries (Kühn et al., 2015). Furthermore, some countries face ongoing wars, conflicts within clans, inadequate health care systems, and social and environmental problems (Demuijnck and Ngnodjom, 2013; Darkoh, 2009). These differences are influenced by the histories of the respective countries. For instance, the different colonial histories influence the industrial structure and focus on CSR (Kühn et al., 2015). In general, Africa has very high population growth, rampant diseases such as malaria and HIV, and shortage in possibilities for fulfilling basic needs (Thorgren and Omorede, 2015). Moreover, the continent is plagued by corruption, social and environmental problems, and misuse of donor aid (Spence and Painter-Morland, 2010). These characteristics make sustainability and CSR very important and having impact on every-day life. Thus, this is an important context for research on these issues (Kolk and Rivera-Santos, 2016).

To establish and understand factors influencing CSR orientations, existing studies have investigated the effect of personal values on CSR among a sample of students (Fukukawa et al., 2007; González-Rodríguez et al., 2015; Schultz, 2001; Schultz and Zelenzy, 1999; Stern and Dietz, 1994; Wang and Juslin, 2012), consumers (Basil and Weber, 2006), managers (Hemingway and Maclagan, 2004; Șerban, 2015), and working professionals (Fritzche and OZ, 2007). Nevertheless, there is a dearth of studies exploring the relationship between
personal values and CSR among established entrepreneurs. Therefore, this study is important, because the alignment of personal values of established entrepreneurs may be different from that of students prospecting to be entrepreneurs or other groups of people. Entrepreneurs managing SMEs are an important group to study because they control the firm; they set the policies and the direction of the firm and make the key decisions (Berent-Braun and Uhlaner, 2012; Hammann et al., 2009). They are close to the organisation, can easily influence the culture and values of the organisation and are directly responsible for initiating and implementing CSR policies and practices, in line with their personal values, philosophies, and aspirations (Jamali et al., 2017; Jamali and Mirshak, 2007; Jenkins, 2006; Williams and Schaefer, 2013). Thus, a sample of entrepreneurs provides an opportunity to capture the relationship between personal values and CSR orientation.

The purpose of this chapter is to examine the relationship between entrepreneurs’ personal values and their CSR orientations in SMEs in a Sub-Saharan African developing country, Zambia. This chapter is important because it provides new insights into CSR orientations of SMEs in Sub-Saharan Africa. Understanding which personal values drive entrepreneurs to engage in CSR is crucial to promote responsible and sustainability-oriented behaviour of entrepreneurs. Thus, this chapter forms an important contribution to fostering social and environmental responsibility. SMEs are the focus of this chapter because they comprise more than 90% of business establishment globally (Raynard and Forstater, 2002). SMEs are even more important in Sub-Saharan Africa. In Zambia for instance, SMEs comprise of about 97% of private business establishment (MCTI, 2009). Given their large numbers globally, they contribute to the provision of employment, social and economic development (Azmat and Samaratunge, 2009; Spence, 2016). Relatedly, in Sub-Saharan Africa, SMEs contribute to poverty reduction (Mamman et al., 2015). However, SMEs are also associated with pollution and environmental degradation (Revell et al., 2010). It has
consequently been suggested that SMEs and entrepreneurial action can help in addressing the social and environmental concerns (Hall et al., 2010). Thus, a sample of SMEs from Sub-Saharan Africa will enhance our understanding of personal values that influence entrepreneurs to engage in different types of sustainable practices. In turn, the findings from this chapter are important to policy-makers, scholars, educators, and regulators as the findings can help to promote personal values that align with social and environmental concerns, thereby, influencing entrepreneurs’ CSR orientations for the well-being of society and the natural environment.

For this chapter, the focus is more specifically on SMEs supplying goods and services to the mining sector in Zambia. These firms constitute the sample for this chapter because they are predominantly owner-managed (Spence and Rutherfold, 2003) and are responsible for instigating and executing CSR activities in their companies (Choongo et al., 2017, refer to Chapter 4; Hsu and Cheng, 2012; Schaper, 2002). Thus, the influence of the entrepreneur on the firm’s CSR activities is more easily discernible (Hammann et al., 2009). Additionally, there are no clear legislative frameworks, tangible guidelines, or policies governing CSR in Zambia (Noyoo, 2007). As such, CSR initiatives are largely driven by the entrepreneurs’ choices and personal values rather than by adherence to CSR standards (Schwarz, 2003). Moreover, the mining sector in Zambia is a sector where there is definitely room for CSR activities, thus, it is expected that entrepreneurs associated with the mining industry may develop their own CSR practices.

The findings from this research will be of great use for other Sub-Saharan African countries with mining, oil, and gas industries as the study will establish personal values that are aligned with social and environmental concerns. Knowing values aligned with CSR would help to develop policies and programs to stimulate the sustainable behaviour of entrepreneurs. The study is also important to SMEs in other Sub-Saharan African countries who sell goods
and services to large multinational corporations because understanding the importance of aligning personal values with social and environmental concerns can help to positively influence entrepreneurs’ CSR orientation, thereby, leading SMEs to win more contracts with large firms that prioritise sustainability issues (Crals and Vereeck, 2012; De Gobbi, 2011).

In this chapter, we examine how personal values influence CSR orientations because personal values play an important role in the decision-making process (Aguinis and Glavas, 2012; Cheng and Fleischman, 2010). Others have already started to explore the relationship between personal values and performance (e.g., Gorgievski et al., 2011; Tomczyk et al., 2013) and personal values and pro-environmental behaviour (Karp, 2006). The main research question for the chapter is formulated as: What is the influence of the personal values of entrepreneurs in SMEs in Zambia on their social and ecological orientation?

In the next section we review literature on CSR and personal values and their relationship. We then develop our hypotheses based on the theoretical considerations. This section is followed by the descriptions of methods. The chapter ends with the analysis of results, followed by the discussion and conclusion.

### 3.2 Literature review

#### 3.2.1 Characteristics of SMEs

There are many definitions of CSR. In this chapter, CSR is defined as “the responsibility of enterprises for their impact on society” (European Commission, 2011). The understanding of this definition is that “enterprises should have a process in place to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and close corporation with their stakeholders” (European Commission, 2011). We chose this broad and recent definition because it views CSR as a concern for all forms of
business regardless of their size, sector, or location (Martinuzzi et al., 2011), and therefore appropriate for SMEs.

Although SMEs do not commonly use the term CSR in describing their sustainability activities, they informally describe it by using terms such as, “work-life balance”, community involvement and environmental management (Raar, 2015; Vo, 2011). Even though SMEs may use the term “work-life balance” to describe their CSR activities, it should be noted that the work-life balance is an element of employee CSR (Golaszewska-Kaczan, 2015). Examples of work-life balance practices include offering employees’ flexible working hours, family care, and fringe benefits such as medical care or subsidising sporting activities for employees (Golaszewska-Kaczan, 2015; Jenkins, 2006). Community involvement is related to CSR as it implies supporting the local community by employing people living in the area in which the firm operates, education support, voluntary contributions of company resources such as donations, sports sponsorship, and providing internship to students (Amponsah-Tawiah and Dartey-Baah, 2011; Muthuri, 2007; Jenkins, 2006). Environmental management involves actions taken to protect the environment such as recycling waste, waste minimisation, pollution reduction, limiting the usage of natural resources, environmental education, and accreditation to environmental standards (Jenkins, 2006).

SMEs exhibit certain characteristics that differentiate them from larger organisations. They generally have limited cash and are independent (Spence, 1999), are more informal and business relationships are often personalised (Nejati and Amran, 2009; Spence, 1999). SMEs also tend to be located in the communities they serve (Demuijck and Ngodjom, 2013; Jamali et al., 2017; Jenkins, 2006; Perrini, 2006). These characteristics help the adoption of CSR practices in SMEs as they can respond quickly to changing circumstances (Jenkins, 2006). Furthermore, because of their closeness with the communities, SMEs have a greater
understanding of the political context, local culture and have more links with the local civil society, and have greater commitment to operating in a specific area (Baden et al., 2011).

3.2.2 CSR, stakeholder theory and ethics of care

Stakeholder theory provides us with an understanding of how CSR is implemented in SMEs (Jenkins, 2006; Turyakira et al., 2014; Munasinghe and Malkumari, 2012). The theory focuses on activities directed towards the environment, the local community, customers, local competitors, family and employees, and deals with the involvement of investors, suppliers and the supply chain actors (Turyakira et al., 2014; Jenkins, 2006; Mishra and Suar, 2010). Despite the large number of stakeholders, SMEs take CSR measures and practices that pertain to their immediate social and ecological environment. This is done in order to reduce the cost of implementation as well as being able to carry out activities within the constraints imposed by their characteristics (Kechiche and Soparnot, 2011).

The term “stakeholder” is defined as, “any group or individual who can effect or is affected by the achievement of the organisation’s objective” (Freedman, 1984, p. 46). Stakeholder theory plays a role in understanding the SMEs-community relationship (Carrol and Buchholtz, 2000). The theory advocates for firms to widen their social responsibilities for the stakeholders (Oruc and Sarikaya, 2011). Donaldson and Preston (1995) categorised the stakeholder theory in three types namely descriptive, instrumental, and normative. The descriptive type explains the past, present, and future relationship between a firm and stakeholder. The instrumental type describes the relationship between stakeholders and outcomes such as firm performance or profitability. While normative type focuses on the moral principles. In the context of SMEs, the entrepreneur is depicted as the central character in the stakeholder mapping (Spence, 2016).
In addition to stakeholder theory, Spence (2016) proposes that ethics of care could provide another lens of understanding CSR in small firms. This is because ethics of care recognise the needs of self and others. Further, features of ethics of care such as sympathy, empathy, sensitivity and responsiveness enhance a persons’ moral reflection in relation to caring for others and the natural environment. For example, entrepreneurs that adopt the ethics of care theory establish policies of taking care of their employees and the community such as providing training to employees and sponsoring students in schools as well as enabling their firms to protect the natural environment through the application of such methods as waste reduction, recycling, and pollution control (Oruc and Sarikaya, 2011).

As noted above, CSR approach in SMEs is based on stakeholder and ethics of care theories. Stakeholder and ethics of care theories are interrelated because they emphasise similar points such as not causing harm to others and giving importance to relationship with stakeholders (Goel and Ramanathan, 2014). Ethics of care means not only caring for the environment but also being ethical regarding business practices and decisions that concern key stakeholders, including employees and the community. Thus, ethics of care is important in evaluating the decision concerning stakeholders and the firm. Similarity, CSR is part of ethical and responsible business practices (Goel and Ramanathan, 2014). Since firms make decisions for the firms, all decision making should consider the impact on stakeholders and the moral aspect apart from profits (Goel and Ramanathan, 2014).

SMEs engage in different types of CSR activities (Orlitzky et al., 2011). For some SMEs, environmental management is a key part of CSR practices (Baden et al., 2011; Raar, 2015) while for others, employees, the community or customers are key for CSR activities (Jenkins, 2006). Studies have distinguished four different types of CSR activities. First, environmentally related CSR activities refer to measures a business entity can take to minimise its negative impact on the natural environment, such as using environmentally
friendly packaging, recycling, waste reduction, energy and water conservation, and pollution control (Turyakira et al., 2012, 2014). Next, socially-oriented CSR activities relate to both employee and society-oriented CSR activities. Third, studies have differentiated employee-oriented CSR activities, which refer to those activities aimed at improving the working conditions of workers such as: offering training and development, workplace diversity, and helping workers to maintain a work-life balance (Turyakira et al., 2012, 2014). Finally, society-oriented CSR activities refer to activities aimed at helping the community through for instance sponsoring sports and education, provision of health care, assistance to low income groups, and participation in community activities (Turyakira et al., 2012, 2014). Turyakira et al., (2012) pointed out that SMEs are mainly active in environmentally and socially related CSR activities. Therefore in this study we focus on environmentally and socially oriented CSR activities.

While existing studies contribute key insights on CSR practices and activities in SMEs, less attention has been given to how personal values influence the entrepreneur’s engagement in CSR activities. This study will in particular respond to Anguinis and Glava’s (2012) call to search for understanding the relationship between personal values and CSR involvement.

3.2.3 SMEs and CSR in developing countries

Visser et al., (2006) noted that most scholarly work on CSR in developing countries focuses on social issues, because they are given more economic, political, and media emphasis, than environmental and other issues. Additionally, there is evidence that CSR in developing countries emphasises philanthropy, and community embeddedness (Visser et al., 2006). In the case of Nigeria, Amaeshi et al., (2006) established that indigenous firms practiced philanthropy and altruistic CSR. Here, the top seven community-oriented CSR activities are education, provision of health care, infrastructure development, sports, arts, and
poverty alleviation. Similarly, in Kenya companies appear to be more oriented towards community and environmental CSR and less towards employee and marketplace CSR (Muthuri and Gilbert, 2011), driven by the need to conform to social norms and to address concerns such as HIV/AIDS, health care, and education (Muthuri and Gilbert, 2011). This is attributed to the strong community ties and the humanism ‘Ubuntu’ philosophy instilled in the African culture (Muthuri and Gilbert, 2011; Visser et al., 2006). Moreover, in Swaziland, community-oriented CSR is more practiced than employee-oriented, customer-oriented and environmental-oriented CSR (Kabir, 2011). The literature above suggests that the practice of CSR is socio-culturally embedded and varies across countries (Matten and Moon, 2008), but that overall in Sub-Saharan Africa emphasis is on community-oriented CSR.

Indeed, the CSR activities highlighted above emerge from cultural and historical factors (Idemudia, 2014). For example, during the colonial rule, mining firms in Zambia were owned by the Anglo-American Corporation (a Multi-National Corporation) which used to provide social services such as provision of housing, sporting facilities, waste collection, repair and maintenance of infrastructure, free water and electricity (Lungu and Shikwe, 2006; Fraser and Lungu, 2007; Noyoo, 2007). In South Africa, CSR has been largely driven by historical events of apartheid and inequality (Hamann et al., 2005). In Cameroon, CSR activities have been influenced by tribalism, corruption and nepotism (Demuijnck and Ngodjom, 2013), while in Kenya, CSR is tailored to meeting the social-economic needs (Muthuri and Gilbert, 2011). It can be seen that even within Sub-Saharan African countries, CSR practices differ from country to country depending on the historical, socio-economic, and cultural influences shaped by the expectations of the community (Idemudia, 2014).
3.2.4 Personal values and CSR

Rokeach (1973, p. 5) defines a personal value as ‘an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence’. Schwartz and Bardi (2001) view personal values as desirable, transitional goals, varying in importance, which serve as guiding principles in people’s lives. Personal values have been recognised in academic literature as key determinants of human attitudes, behaviour, decision making, corporate actions and lead individuals to behave in a particular way (Fukukawa et al., 2007; Ţerban, 2015; Rosario et al., 2014). Personal values also drive ethical conduct of individuals (Thakur and Kohli, 2015). Ethical behaviour denotes being honest, kind, respectful, sincere, and socially responsible (Thakur and Kohli, 2015; Ţerban, 2015).

Individuals tend to adopt value structures that align with their life circumstances (Yao et al., 2009) and personal values are acquired through socialisation and life experiences. Thus, individuals in different cultures will have different value structures, which in turn influence their perception of reality (Schwartz, 1994; Rosario et al., 2014). Relatedly, Spence et al., (2011) noted that the dominant values in a community and country influence social and environmental policies. Waldman et al., (2006) further proposed that dominant societal values are predictive of values held at the firm level, which later influence the development of CSR in a firm. Entrepreneurs, like other individuals, are expected to develop values that reflect the thinking of a particular culture, economic context, interests of society, and all stakeholders (Hay and Gray, 1974). In SMEs, the entrepreneur is the owner-manager, who also implants his/her own values in the organisation (Hay and Gray, 1974; Ţerban, 2015). These values, therefore, guide in setting goals, allocating resources, and formulating policies (Rockeach, 1979), including the formulation, adoption, engagement and implementation of the economic, legal, ethical, social and environmental responsibility in a firm (Thakur and Kohli, 2015). It is
therefore likely that values developed in a particular society, culture, country or context will influence an entrepreneur to implant those values in his/her firm, and as a result, influence his/her CSR orientations.

Different authors have applied personal value theories to understand business success (Gorgievesk et al., 2011), firm performance (Tomczyk et al., 2013), and corporate actions (Marcus, 2012). Yet, few studies have examined the effect of personal values on CSR (Fukukawa et al., 2007). Although some studies reported that people’s basic values have implications for the types of corporate actions they are likely to engage in (Hamann et al., 2015; Hemingway and Maclagan 2004; Jamali et al., 2017; Marcus, 2012), detailed studies on which values drive what kind of CSR activities are scarce. Existing studies on the relationship between values and CSR focus on the relationship between personal values and managers’ involvement in CSR promotions (Șerban, 2015); personal values and CSR initiatives (Rosario et al., 2014); and the role of personal values for CSR perceptions. There are few studies that focus on the effect of values on the entrepreneurs’ CSR orientations. The few existing studies show mixed findings: Fukukawa et al., (2007) found that self-transcendence values are positively associated with social and environmental accountability for a sample of MBA students, yet, Wang and Juslin (2012) found that for Chinese university student’s self-transcendence associates negatively with CSR performance while self-enhancement associates positively with perceptions of CSR performance. These mixed findings warrant further investigation of this relationship.

The type of values acquired in one’s life (be it self-transcendence, self-enhancement, conservation or openness to change) influences an individual to have a positive or negative perception towards the development, adoption and implementation of CSR policies in a firm (Thakur and Kohli, 2015). Since individuals with different personal value types have different perceptions of CSR (Thakur and Kohli, 2015), we posit that different entrepreneurs have
different CSR orientations based on their personal values. Entrepreneurs possess values which influence them as they control their firms, set polices, and make decision to engage in CSR activities (Șerban, 2015). For example, if an entrepreneur has values such as equality, honesty, protecting the environment, wisdom, justice, and responsibility then she/he is likely to be socially responsible (Thakur and Kohli, 2015).

3.2.5 Hypotheses development

Since personal values guide behaviour, decision-making, and action, we argue that entrepreneurs’ personal values influence their engagement in socially and environmentally oriented CSR. We use the Schwartz (1992) values to develop the hypotheses. The Schwartz values framework is widely accepted and has been validated in many studies in the last decade across many academic disciplines (González-Rodríguez et al., 2015; Siltioja, 2006). Schwartz (1992) identified ten value types that are likely to be recognised across cultures (see Table 3.1).
1-Power: Social status and prestige, control or dominance over people and resources (social power security, authority, wealth, preserving my public image)

2-Achievement: Personal success through demonstrating competence according to social standards (successful, capable, ambitious, influential)

3-Hedonism: Pleasure and sensuous gratification for oneself (pleasure, enjoying life)

4-Stimulation: Excitement, novelty, and challenge in life (daring, a varied life, an exciting life)

5-Self-direction: Independent thought and action choosing, creating, exploring (creativity, freedom, independent, curious, choosing own goals)

6-Universalism: Understanding, appreciation, tolerance, and protection for the welfare of all people and for nature (broad-minded, wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature, protecting the environment)

7-Benevolence: Preservation and enhancement of the welfare of people with whom one is in frequent personal contact (helpful, honest, forgiving, loyal, responsible)

8-Tradition: Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide the self (humble, accepting portion in life, devout, respect for tradition, moderate)

9-Conformity: Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms (politeness, obedient, self-discipline, honouring parents and elders)

10-Security: Safety, harmony, and stability of society, or relationships, and of self (family security, national security, social order, clean, reciprocation of favours)

Source: Schwartz and Bardi (2001, p.270)

**Table 3.1 Definitions of motivational types of values in terms of their goals and the single values that represent them**

The ten values are arranged in the circular structure and displayed in nine sectors as shown in the values sphere displayed in Figure 3.1 (Schwartz, 1992; Davidov, 2010). One sector is further divided into two parts namely; tradition and conformity values (Bilsky, Janik, and Schwartz, 2010). The ten value types were further condensed into four higher order values namely; self-transcendence, conservation, self-enhancement, and openness to change values. Although the hedonism value type relates to both openness to change and self enhancement values (Rosario et al., 2014), we classify it under self-enhancement value for the purpose of this study because it is more of an egoistic value focused on self-interest.
The circular arrangement of values reflects either the degree of conflict or compatibility among the 10 value types, as well as the four higher order types (Schwartz, 1992, 1994). Value types that are closer to each other in a circle are more similar in their underlying motivation while values that are distant are more conflicting (Rosario et al., 2014; Koivula, 2008). Regarding the compatibility of values, Rosario et al., (2014) noted that universalism and benevolence values are both concerned with enhancement of others while conformity and traditional value types emphasise self-restraint and compliance. Further, conformity and security values are concerned with protecting order and harmony while power and security emphasise prevention of threats that might be caused by unpredictable situations. Both power and achievement dwell on self-esteem and a high social status. In the case of hedonism and
achievement, self-gratification is emphasised while hedonism and stimulation focus on pleasure and excitement. Finally, self-direction and stimulation include internal motivation aimed at openness to change and understanding new things.

Entrepreneurs differ in what they value; hence they are likely to differ in their CSR orientations. That is to say, different underlying values will lead to different CSR orientations. Schwartz (2003) and Schwartz and Bardi (2001) demonstrated this by showing that self-transcendence values are in disagreement with self-enhancement values while openness to change values are in disagreement with conservation values.

Self-transcendence and self-enhancement values

The first conflicting dimensions are self-transcendence and self-enhancement values. Self-transcendence values (comprising of universalism and benevolence) emphasise concern for the welfare of other people and for nature. Schultz et al., (2005) found that values of self-transcendence (positively), and self-enhancement (negatively) predict general concern for environmental issues. Self-transcendence values include both the social-altruistic and biospheric concern (Stern and Dietz, 1994). These values motivate people to transcend selfish concerns and promote the welfare of others and nature (Schultz et al., 2005). Benevolence and universalism value types involve transcending serving self-interest for the sake of others (Schwartz et al., 2000; Schwartz, 1992). However, the emphasis of benevolence values is on the welfare of those people that one regularly interacts with (Schwartz, 1992). Individuals who attribute more importance to these two value types promote pursuit of goals that enhance the welfare of others and are more likely to be oriented towards social and environmental CSR. Fukukawa et al., (2007) explained that individuals who scored higher on self-transcendence values were more likely to support social and environmental accountability. Schultz and Zelenzy (1999) established that self-transcendence was a strong positive predictor
of environmental attitudes. Further, González-Rodríguez et al., (2016) reported that self-transcendence values influence the acceptance of CSR initiatives. Thus, we hypothesise that:

**H1:** Self-transcendence values have a positive influence on the social and environmental CSR orientation of entrepreneurs in SMEs.

Conversely, self-enhancement values (achievement, power and hedonism values) are opposed to self-transcendence values as they emphasise an individuals’ self-interest and relative success and control over others (Schwartz and Bardi, 2001). This means that the interests of others are not important to individuals who emphasise self-enhancement (Schwartz et al., 2000). Individuals who highly value self-enhancement will be less concerned about environmental issues in contrast to those who value social-altruistic values (self-transcendence) (Fukukawa et al., 2007). Achievement and power values focus on an individual’s pursuit of his or her own interest and dominance over other individuals (Schwartz, 1992), even at the expense of others (Schwartz et al., 2000). Fukukawa et al., (2007) found that power did not have a significant effect on the support for social and environmental accountability. In contrast, Schultz and Zelenzy (1999) found that power was positively related to anthropocentric or social-altruistic concerns and was not a positive predictor of environmental attitudes. Hedonistic values focus on self-gratification and sensual gratification and also express self-interest (Schwartz et al., 2000). Individuals who attach more importance to these three types of values pay more attention to self-interest and promote self-enhancing goals and are less likely to be engaged in socially-oriented and environmentally-oriented CSR. Thus, we hypothesise that:

**H2:** Self-enhancement values have a negative influence on the social and environmental CSR orientation of entrepreneurs in SMEs.

Conservation and openness to change
Conservation values (comprising of tradition, conformity and security) emphasise self-restriction, preservation of traditional practices, and protection of stability. This is opposed to openness to change values (self-direction and stimulation) that emphasise independence of thought and action and also favour change.

The tradition value type relates to the tendency to accept, respect, and get committed to traditions and customs set by religion or culture (Schwartz, 1992). The aspiration of the conformity value type is honouring elderly people and restrain from any desires or emotions that might injure or cause disrespect to others (Schwartz, 1992). Security values express the importance people place on personal security, certainty, and structure in order to avert physical and psychological ambiguity, danger, and risk (Bilsky and Schwartz, 1994). The motivational goal of this value type is safety, harmony, and stability of the individual and societal relationships (Schwartz, 1992). It has been suggested that individuals who value conservation have a more positive perception of CSR. Fukukawa et al., (2007) found that the association between the tradition value type and the support for social and environmental accountability was marginally significant and security values were positively related to support for government enforcement of social and environmental accountability standards. Relatedly, Schultz and Zelenzy (1999) found that tradition and security value types were predictors of social concerns (anthropocentric). Furthermore, individuals with conservation values exhibit positive perception towards CSR performance of corporations (Thakur and Kohli, 2015; Wang and Juslin, 2011). We therefore hypothesise that:

**H3: Conservation values have a positive influence on the social and environmental.**

**CSR orientation of entrepreneurs in SMEs**

Those who attribute greater importance to openness to change values are less likely to attend to uncertainty regarding personal outcomes (Schwartz et al., 2000). This is because openness to change values emphasise independent thinking and express people’s readiness to
pursue new, challenging and uncertain personal outcomes (Schwartz et al., 2000). In the sphere of openness to change, stimulation values focus on pleasure and excitement for oneself. Therefore, those who attribute high importance to stimulation values are unlikely to attend to the problems of others (Schwartz et al., 2000). This means that emphasising stimulation values reduces the likelihood of being CSR oriented. Similarly, self-direction values focus on independent thought and action (Schwartz, 1992). Therefore, we hypothesise that:

\[ H4: \text{Openness to change values has a negative influence on the social and environmental CSR orientation of entrepreneurs in SMEs.} \]

3.3 Method

3.3.1 Study context: Zambia

Mining is the main economic activity in Zambia and has made a significant contribution to the development of the country since 1928 (Lungu and Kapena, 2010). In 1982, a state-owned company called Zambia Consolidated Copper Mines (ZCCM) was established to run the mines and also became responsible for all kinds of social and economic services (Fraser and Lungu, 2007). In 1991, the Zambian government split up ZCCM and sold it to different companies. It was envisaged that the new mine owners would take over some CSR programmes and support local SMEs by awarding them contracts to supply goods and services to the mines. These SMEs are now for instance supplying paints, electrodes, timber, industrial washing equipment and steel as well as multiple services (Choongo et al., 2016, see chapter 2; also refer back to chapter one for a broader discussion of the chapter’s setting).

Studies on CSR in Zambia have been focused on the mining companies (e.g. Fraser and Lungu, 2010; Lungu and Kapena, 2010; Lungu and Mulenga, 2005; Lungu and Shikwe, 2006; Mayondi, 2014), with the exception of (Choongo, 2017; Choongo et al., 2017; Choongo et al., 2016, refer to Chapters 2, 4. And 5 as well) who focus on SMEs. None of them have applied frameworks such as the Schwartz values framework to study CSR-involvement of
SMEs. Therefore, this chapter set out to investigate how the underlying values of entrepreneurs influence their CSR orientations.

3.3.2 Approach, sample and data collection

To investigate how the values of entrepreneurs influence CSR orientations, this chapter takes a quantitative approach using survey data and statistical analysis. This does not imply that other research approaches, for instance qualitative studies, are not relevant, but the quantitative survey approach is helpful to test the hypotheses formulated in this chapter (refer to Chapter one for a broader discussion of the chapter’s setting). The sample for this chapter was collected as follows: The names and addresses of the respondents were collected from data-bases of the four major mining companies in Zambia that include Mopani Copper Mines, Lumwana Mine, Konkola Copper Mine and Kansanshi Copper and Gold Mine. All supplier firms selected were categorised as belonging to the services- (service providing) and trading sector and satisfied the criterion of being SME’s defined as employing between 10 and 250 employees (Ayyagari et al., 2007). The data-bases for the four mining companies had 1200 enterprises listed as service providing and trading. These data-bases however, had not been updated for a long time. We randomly selected 350 firms from the data set. However, when we started contacting the firms, we encountered challenges as firms had changed location or closed down while their telephone numbers were not going through. Therefore, for the later field work, we relied on convenience sampling to get hold of respondents. This involved visiting the physical location of the randomly selected SMEs. If we found that the targeted firm had closed or relocated but instead found another similar firm, we also collected data from that firm and asked for the location of other firms. Thus, different methods of administering questionnaires such as interview, physically delivering or sending questionnaire via email were used. In total, 230 respondents filled in the questionnaire. However, nine
responses had missing data. As a result, only 221 responses were included in the analysis, giving a response rate of 69%. Past studies have experienced similar challenges in data collection in developing countries because of unreliable data bases and have contextualised questionnaire administration techniques as well (Kriauciunas, Parmigiani, and Rivera-Santos 2011). The sample was composed of 185 males (84.1 percent) and 36 females (15.9 percent), and included 99 trading firms (44.8 percent) and 122 service providing firms (55.2 percent).

3.3.3 Measurement of variables

Dependent variable. CSR was measured on a 16-item scale based on Masurel and Rens (2015). The outcomes of the pre-test resulted in minor phrasing changes to the initial questions. After deleting five items having cross-loading or that were not loading at all, we extracted two factors. We labelled the first factor as socially-oriented CSR. It included six items. The factor loadings of these six items ranged from 0.577 to 0.726. The second factor was labelled environmentally-oriented CSR and included five items. The factor loadings of these five items ranged from 0.552 to 0.883. The factor loadings reached an acceptable threshold for our sample size (Hair et al., 2014). The two extracted factors are consistent with theory (e.g. Masurel and Rens, 2015). Cronbach’s alphas for the six socially-oriented and five environmentally-CSR items were 0.742 and 0.764, respectively, which exceeds the 0.7 threshold suggested by Nunnally (1978). The factor loadings and reliability test of the CSR measurement scale are reported in Table 3.2.
Independent variables. Personal values were measured using the Schwartz (2003) 21-item Portrait Value Questionnaire (PVQ). The PVQ consists of 21 items, two items for each value type, except for universalism, which is measured using three items (Verkasalo et al., 2009). The 21-item PVQ questionnaire is a modification of the earlier Schwartz Value Survey (SVS) questionnaire. The SVS had 56 items which were reduced to 21 items in the PVQ questionnaire. This has made the PVQ more suitable to use across cultures and easier to administer to respondents with little or no formal education (Schwartz, 2003). The respondents were asked to rate the extent to which they were alike or similar to the person described in each of the questions using a six-point Likert scale that ranged from 6 (Very much like me) to 1 (Not at all like me). After the pre-test, two modifications were made to the PVQ questions to suit the context under study: (1) the questionnaire was modified to be used for self-reporting by both male and female respondents, therefore, the ‘he’ and ‘she’ were changed to ‘I’, ‘his’ and ‘hers’ to ‘my’; ‘him’ and ‘her’ were changed to ‘me; (2) the double-barrelled questions were changed to single questions for clarity. As an example, for the questions that cover self-transcendence value (universalism and benevolence), respondents were asked the following question: “Here we briefly describe some people. Please read each
description and think how much each person is or not like you. Put an X in the box to the right that shows how much the person in the description like you.” Three questions or items were presented to respondents to measure universalism – (1) “I believe everyone should have equal opportunities in life”; (2) “It is important to me to listen to people who are different from me” and (3) “Looking at the environment is important to me”. Two questions or items were presented to respondents to measure benevolence – (1) “It is very important to me to help the people around me” and (2) “It is important for me to be royal to my friends”. The modified questionnaire is shown in Appendix 2. The modification of the questions is in line with Beierlein et al., (2012).

Since Schwartz’ values are considered universal across cultures, we did not carry out confirmatory factor analysis (CFA) (Ralston et al., 2011). Instead we proceeded to undertake reliability checks for each of the 10 value types. Following the work of Schultz et al., (2005), the 10 value types where then aggregated into the four high-order dimensions (self-transcendence, self-enhancement, conservation and openness to change) by computing the averages within each specific item. Table 3.3 presents the Cronbach’s Alphas of reliability for the four dimensions. The reliabilities are acceptable and within the range observed by others such as Schwartz, Sagiv and Boehnke (2000).

<table>
<thead>
<tr>
<th>Values</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-transcendence</td>
<td>0.764</td>
</tr>
<tr>
<td>Self-enhancement</td>
<td>0.792</td>
</tr>
<tr>
<td>Conservation</td>
<td>0.721</td>
</tr>
<tr>
<td>Openness to change</td>
<td>0.654</td>
</tr>
</tbody>
</table>

Table 3.3 Reliability of personal values

Control variables. We considered three types of control variables, namely age, gender and education. Concerning age, past research (e.g. Schwartz et al., 2001) confirmed that age correlates most positively with conservation (tradition, conformity, security) as well as self-
transcendence (benevolence, universalism). In line with prior research, age also correlates negatively with openness to change (self-direction, stimulation) and self-enhancement (power, achievement, hedonism) (Schwartz et al., 2001). With respect to gender, men seem to emphasise energetic-instrumental values like power, whereas women emphasise expressive-communal values like benevolence (Schwartz et al., 2001). Past research shows that women give high priority to self-transcendence values (benevolence, universalism) and conservation values (tradition, conformity, security) more than men, whereas men value self enhancement (González-Rodríguez et al., 2016; Wang and Juslin, 2012; Fukukawa et al., 2007; Schwartz et al., 2001) and men adhere more to openness to change than women (Schwartz et al., 2001). The difference in personal values between men and women could be due to culture; women are expected to develop altruistic values while men are expected to be more aggressive and develop egoistic values (González-Rodríguez et al., 2016). When it comes to education, extant literature reveals that education consistently predicted a preference for openness to change values over conservation values (Schwartz et al., 2001). The education experience increases flexibility, ability to grasp different perspectives and opens the mind. Furthermore, individuals with education in business, economic and technology tend to give high priority to self-enhancement values (power and achievement), while those with knowledge in social sciences and natural environment give high consideration to self-transcendence and conservation values (Schwartz et al., 2001).

3.4 Results

Table 3.4 presents the summary statistics and correlations for the variables considered in the chapter. The variance inflation factor (VIF) scores and correlations were used to check for multicollinearity. The VIF scores were below 10, indicating that multicollinearity was not a problem for the estimation of the regression models (Hair et al., 2014). The correlations
between the independent variables were <0.9, indicating that multicollinearity does not arise (Tabachnick and Fidell, 2007).

To test hypotheses H1 through to H4 we ran two linear regression models with socially-oriented CSR and environmentally-oriented CSR as the dependent variables for models 1 and 2 respectively. For each of the models, we first entered the control variables, and the independent variables were entered later. Table 3.5 summarises the results of the influences of personal values on social and environmental CSR. Model 1, focusing upon socially-oriented CSR has an adjusted $R^2$ of 0.019, and is marginally significant ($p=0.082$). Model 2, focusing upon environmentally-oriented CSR has an adjusted $R^2$ of 0.107 and is significant ($p=0.000$).
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Age</td>
<td>2.10</td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(2) Education</td>
<td>2.32</td>
<td>.60</td>
<td>.000</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Gender</td>
<td>0.84</td>
<td>.37</td>
<td>.122</td>
<td>.069</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Socially-oriented CSR</td>
<td>3.18</td>
<td>.70</td>
<td>.011</td>
<td>.075</td>
<td>.088</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Environmentally-oriented CSR</td>
<td>3.57</td>
<td>.70</td>
<td>.016</td>
<td>.078</td>
<td>.007</td>
<td>.315</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) Self-transcendence values</td>
<td>4.85</td>
<td>.88</td>
<td>-.055</td>
<td>.150</td>
<td>.086</td>
<td>.131</td>
<td>.304</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>(7) Self-enhancement values</td>
<td>4.15</td>
<td>1.01</td>
<td>-.115</td>
<td>-.009</td>
<td>.068</td>
<td>-.055</td>
<td>.208</td>
<td>.424</td>
<td>1.000</td>
</tr>
<tr>
<td>(8) Conservation values</td>
<td>4.92</td>
<td>.08</td>
<td>-.007</td>
<td>.036</td>
<td>.102</td>
<td>.006</td>
<td>.318</td>
<td>.705</td>
<td>.508</td>
</tr>
<tr>
<td>(9) Openness to change values</td>
<td>4.60</td>
<td>.84</td>
<td>-.137</td>
<td>.051</td>
<td>.033</td>
<td>.063</td>
<td>.314</td>
<td>.630</td>
<td>.549</td>
</tr>
</tbody>
</table>

**Table 3.4 Descriptive statistics and correlation matrix**

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed). N=221.

Note: Gender: 0= female. 1= male; SD., standard deviation
Table 5 shows that self-transcendence values have a significant positive effect on socially-oriented CSR \((p<0.05)\), while self-transcendence values have a positive but insignificant effect on environmentally-oriented CSR \((p>0.10)\), thus, H1 is partially supported. This indicates that entrepreneurs’ self-transcendence values positively influence the engagement in socially-oriented CSR. H2 predicted that self-enhancement values have a negative influence on socially-oriented and environmentally-orientated CSR. Indeed, we found negative, yet insignificant effect of self-enhancement values on the two measures of CSR. Thus, H2 is not supported. H3 posited that conservation values have a positive influence on socially-oriented and environmentally-orientated CSR. Contrary to our expectations, conservation values have a negative and insignificant effect on socially-oriented CSR. However, conservation values have a marginally significant positive effect on environmentally-oriented CSR \((p<0.10)\), thus, H3 is only partially supported. Finally, H4 posited that openness to change has a negative influence on socially-
oriented and environmentally-orientated CSR. Results in Table 5 indicate that openness to change has an insignificant positive effect on socially-oriented CSR \((p>0.10)\), equally, openness to change has a significant positive effect on environmentally-oriented CSR \((p<0.05)\), hence, H3 is not supported.

3.5 Discussion

This chapter set out to examine the relationship between entrepreneurs’ personal values and their CSR orientations in SMEs in Zambia. The chapter addressed the following question: what is the influence of the personal values on entrepreneurs in SMEs in Zambia on their social and ecological orientation? Now, we turn to a discussion of the main findings.

_Self-transcendence versus self-enhancement values_

With respect to the first dimensions of the value structure (self-transcendence versus self-enhancement), the predicted association between self-transcendence values and socially-oriented CSR was supported while the relationship between self-transcendence and environmentally-oriented CSR was not supported. This means that self-transcendence values do influence the engagement in socially-oriented CSR, which is consistent with the Fukukawa et al., (2007) findings. The fact that the self-transcendence value type is positively oriented towards socially-oriented CSR could also be due to the context where the study’s sample was drawn from. Schwartz (1992) explained that the differences in value priorities might be due to the ecological, history, technology, social, and political structure of societies from which the study group is drawn. And since values are learnt during childhood and developed through social interaction with role models such as parents and teachers (Parks and Guay, 2009), they also tend to be
similar within cultures and passed on from one generation to another (Meglino and Ravlin, 1998).

Furthermore, in SMEs, entrepreneurs manage their own firms. They therefore, implant their self-transcendence values in their companies (SMEs) which later influence socially-oriented CSR practices. In other words, entrepreneurs’ self-transcendence values guide them in the formulation, adoption, and implementation of socially-oriented CSR (Hay and Gray, 1974; Şerban, 2015). Further, since personal values drive ethics (Thakur and Kohli, 2015), components of ethics, such as sympathy and empathy, can enhance entrepreneurs managing SMEs to care for others (employees and the community) (Spence, 2016). Furthermore, CSR approach in SMEs is based on stakeholder and ethics of care theories. This means that, self-transcendence values guide entrepreneurs that adopt the ethics of care approach in establishing policies of taking care of their employees and the community such as providing training to employees and sponsoring students in schools. Ethics of care means being ethical regarding business practices and decisions that concern key stakeholders, including employees and the community. Entrepreneurs have direct connections with immediate stakeholders, including employees and the community, hence, during the decision-making process, entrepreneurs may give priority to the immediate stakeholders (family and friends included), which is the requirement for the ethics of care. As they interact with employees and people in the community, entrepreneurs sympathise and empathise with them, resulting in making decisions that meet their needs such as sponsoring children in school. While normative type focuses on the moral principles. The theory advocates for firms to widen their social responsibilities for the stakeholders, thus, firms have the moral responsibility to take care of the concerns of stakeholders which includes employees and the community.
Additionally, since the practice of CSR in Zambia emerges from historical events such of the colonial rule and Anglo-American Corporation, it is very likely that entrepreneurs’ self-transcendence values are more developed or oriented towards the social aspects of CSR. Moreover, as the current mine owners have not taken over all socially-oriented CSR activities that were being undertaken by the old ZCCM, hence, this gap is partly filled by entrepreneurs managing SMEs. Perhaps, the value priorities of entrepreneurs in our study group have been influenced by the deterioration of CSR in the mining sector in view of the values of the old ZCCM that met social needs.

A possible explanation for the negative relationship, although insignificant, between self-transcendence values and environmentally-oriented CSR is that of the eight items in the universalism value scale (a self-transcendence value type) only two items (unity with nature and protecting the environment) pertain directly to ecological concerns (see Table 1). The rest of the items pertain to social concerns. This could explain why self-transcendence value types are a stronger predictor of socially-oriented CSR and might negatively influence environmentally-oriented CSR. Future research can design separate value measurement scales for the relationship between self-transcendence, on the one hand, and socially-oriented and environmentally-oriented CSR, on the other hand.

The hypothesised negative effect of self-enhancement values on socially-oriented and environmentally-oriented CSR is not supported. There are several possible explanations for this unexpected finding. First, self-enhancement values lead to concerns for self-interest. Self-enhancement reflects a narrow construal of self, and is less inclusive of other people or of other aspects of the living world (Schultz et al., 2005). Second, the elements of self-enhancement such as achievement emphasise individualism such as individual success and comprise elements such
as ambition and success, while power value types emphasise dominion and control over other people and resources and emphasise self-interest even at the expense of others (Schwartz et al., 2000). Hedonism value types represent individuals who enjoy pleasure and sensuous gratification to one self (pleasure, enjoying life) (Schwartz, 1992). These are more of an egoistic and individualistic nature focused on self-interest or social esteem (Schwartz, 1992). It is therefore possible that entrepreneurs with the egoistic value type are more likely to be interested in maximising profit than with the welfare of others and of nature. It is also very likely that entrepreneurs’ self-enhancement values lead them towards making profit for self-esteem as opposed to social and environmental responsibility. As Choongo (2017, see Chapter 5) established, these values could be the ones leading entrepreneurs to be motivated to engage in CSR for profit reasons. Furthermore, it is possible that environmental problems may not have reached serious or deadly levels to activate entrepreneurs in our study sample to engage in environmentally-oriented CSR (Schultz et al., 2005). Additionally, self-enhancement values are not positively related to environmentally-oriented CSR because there is no immediate direct perceptual threat to the individual posed by an environmental problem (Schultz et al., 2005).

Conservation versus openness to change

The results of the second dimension of the value structure (conservation versus openness to change) are mixed. Conservation values have a marginally significant positive effect on environmentally-oriented CSR \( (p=0.079) \), while their effect on socially-oriented CSR is insignificant \( (p=0.169) \). One reason could be that conservation values comprising of tradition, conformity, and security value types are not directly relevant to socially-oriented CSR. For instance, the conformity value type includes elements such as politeness, obedience, self-
discipline, honouring parents and elders. It could be that the above elements may not have been applicable to support the welfare of others and protect nature. Similarly, individuals who hold traditional values emphasise acceptance of culture and religious customs. They may therefore not be so sensitive to social concerns.

An insignificant effect was found of openness to change values on socially-oriented CSR \((p=0.939)\). A possible explanation is that openness to change values express self-interest (Schwartz, 1992) and cannot function as predictor of socially-oriented CSR. Additionally, individuals with self-direction values focus on independence of thought and action, and hence are less concerned about others (Schwartz, 1992). However, it is surprising that openness to change had a significant positive influence on environmentally-oriented CSR \((p=0.048)\). Yet, this finding is in line with Karp (1996) who reported that openness values have a positive influence on an individual’s environmental behaviour. An explanation is that openness to change values emphasise independent thinking and express an individual’s readiness to pursue new, challenging and uncertain outcomes (Schwartz et al., 2000), implying that entrepreneurs may want to change the status quo through activism to take positive steps for the environment (Karp 1996). This is also in line with entrepreneurship literature that informs us that people who exhibit openness to experiences are innovative, creative, imaginative and liberal (Zhao and Seibert 2006). It is therefore possible that through their business and work experience, entrepreneurs in our study acquired openness to change values (which increase their open their minds and increase flexibility) that are inclined towards environmentally oriented-CSR.

In sum, this chapter shows that CSR activities in SMEs are driven by values of the entrepreneurs that run these companies. Yet, not all values have similar effects, so it is important
to differentiate between values as well as between different types of CSR to foster understanding how personal values influence CSR orientations.

3.6 Limitations and areas for future research

Our study has some limitations, which at the same time opens up areas for future research. First, our sample was drawn from the suppliers to the four mining companies in the trading and service sectors. Replication of this study has to include other sectors in different contexts and cultures is needed to further understanding of which values are important in promoting CSR engagements among entrepreneurs in general. Especially the specification of which values influence precisely what type of CSR needs to be confirmed in future studies. Second, the values were self-reported. Respondents’ perception may not have revealed their true values and CSR orientation, and this could have led to biases in their responses. Future researchers can use peers or subordinates to access the respondents’ personal values. Third, the research did not study all predictors of CSR orientation and thus it would be interesting if future studies could jointly study personal values as well as other predictors of CSR orientation such as commitment from supervisors, awareness of CSR guidelines, and CSR training. Fourth, we used cross-sectional data, while a longitudinal research design would enable observing aspects of causality. Therefore, we recommend that future research should consider using longitudinal data to study the influence of personal values on CSR orientations.

3.7 Conclusion

This chapter makes two main contributions to the field of entrepreneurship and SMEs. The first contribution relates to the sample. Although there has been a steady rise in the studies
between personal values and CSR, there is a clear shortage of research in the context of established entrepreneurs. Thus, this chapter advances our understanding of values that influence entrepreneurs to engage in CSR. In this context, socially-oriented CSR is mainly positively influenced by self-transcendence values. Furthermore, environmentally-oriented CSR is positively influenced by conservation values and openness to change values. The results are important because they provide a better understanding of which personal values drive entrepreneurs to be more concerned about the welfare of others and sustainability of the environment. The chapter informs entrepreneurs on the importance of aligning their personal values with the social and environmental concerns. Responsible ownership behaviour can be a catalyst for ultimately improving firm performance in small firms (Berent-Braun and Uhlaner, 2012). The outcome of this research can help educators to devise education programmes that incorporate business ethics and CSR. The chapter also warns regulators and policy makers that SMEs involvement in CSR activities is driven more by personal values of entrepreneurs than regulation. Thus, understanding the values-structures of entrepreneurs can assist regulators and policy makers in designing awareness programmes that focus on the contribution of business to sustainable business practice. To scholars, this chapter provides a basis for further research on how entrepreneurs can re-align their values structure towards social and environmental care.

The second contribution is the applicability of the personal values and CSR orientations relationship in an under-researched Sub-Saharan African country, Zambia. The findings indicate that value alignment or priorities learned by entrepreneurs through history, social and political structures influence entrepreneurs’ CSR choices. That is to say, entrepreneurs in this context develop social values that prompt them to respond to social issues. This explains why CSR in developing countries such as Zambia is shaped by the social and economic context in which the
firm operates (Visser et al., 2006). These values tend to relate with socio-cultural embedded CSR orientations that had existed in the past (for example, during the time of ZCCM in the case of Zambia). Entrepreneurs with high conservation values tend to be positively oriented to environmental CSR. A surprising result is that openness to change values positively influence the engagement in environmentally-oriented CSR, as in the Schwartz value’s framework, openness to change values are negatively related to environmentally-oriented CSR (Schwartz, 2003).

In all, this chapter provides new insights in CSR orientations, especially when it comes to understanding these orientations in the context of SMEs in Sub-Saharan Africa. Understanding which personal values drive entrepreneurs to engage in CSR is crucial to promote responsible and sustainability-oriented behaviour of entrepreneurs. Thus, this chapter forms an important contribution to fostering social and environmental CSR. In turn, fostering of CSR can lead SMEs to win more contracts with large firms that require their suppliers to take sustainability measures.
Chapter 4  Corporate social responsibility motivations in Zambian SMEs

3 This chapter is based on the study that has been published in *International Review of Entrepreneurship* as: ‘Choongo, P., Van Burg, E., Masurel, E., Paas, L.J., and Lungu, J. (2017). Corporate Social Responsibility Motivations in Zambian SMEs. International Review of Entrepreneurship, 15(1), 29-62’. Minor textual adjustments of the published paper have been made to enhance the fit of the chapter within the PhD thesis.
Abstract

This chapter examines the motivations of small and medium-sized enterprises (SMEs) to engage in different forms of corporate social responsibility (CSR) in an under-researched Sub-Saharan African country, Zambia. The results show that internal motivations (financial, moral and ethical motivations) are the reasons why SMEs adopt community-CSR and environmental-CSR practices in Zambia. In addition, we find that the identification of sustainable opportunities positively influences entrepreneurs to engage in community-CSR practices. External motivation appears to play no role for any form of CSR engagements. The reported findings inform entrepreneurs, academics and policy makers who want to promote SMEs’ engagement in sustainable behaviour in general and CSR practices in particular.
4.1 Introduction
Small and Medium-sized Enterprises (SMEs) enhance a nation’s employment and social development, and contribute significantly to economic growth. In developing countries SMEs also support poverty alleviation initiatives (Azmat and Samaratunge, 2009), but may also cause pollution, environmental degradation and depletion of non-renewable energy sources. For instance, SMEs contribute up to 70% of the cumulative impact of all global pollution (Revell, Stokes, and Chen, 2010). However, despite these problems entrepreneurship is still being suggested as a solution to social and environmental problems (Hall, Daneke, and Lenox, 2010). This has led to a rise in research activities on corporate social responsibilities (CSR) in SMEs. Nevertheless, the focus of CSR research in SMEs has been on the characteristics of SMEs, definitions of CSR by SMEs, insights into SMEs’ CSR activities and the relevant barriers to CSR in SMEs (Kechiche and Soparnot, 2012; Vo, 2011).

Little research addressed the motivations for conducting CSR in SMEs (Masurel and Rens, 2015). Furthermore, there has been limited research on CSR in SMEs in developing countries, especially in Sub-Saharan African countries (Amaeshi et al., 2017; De Oliveira and Jabbour, 2017; Inyang, 2013). Due to the dearth of research on CSR in SMEs in Sub-Saharan Africa, only a few aspects of CSR in SMEs have been investigated in this context (Amaeshi et al., 2017; Demuijnck and Ngodjom, 2013). As a result, there is a lack of understanding of the motivations of entrepreneurs managing SMEs to engage in different CSR activities in Sub-Saharan African countries. Some studies report that SMEs in these countries rather focus on social forms of CSR activities (employee- and community-oriented) (e.g., Demuijnck and Ngodjom, 2013; Kabir, 2011), while others do find that also environmental CSR gets attention by SMEs (e.g., Amaeshi et al., 2017). Yet, knowing what motivates entrepreneurs to engage in
different forms of CSR is key to stimulating environmental and social responsibility by SMEs in Sub-Saharan Africa.

Studies on CSR motivations in SMEs (e.g. Nejati and Amran, 2009; Santos, 2011) assume that entrepreneurs are motivated by internal and/or external factors for them to engage in CSR. Moreover, when entrepreneurs and individuals in general identify sustainable opportunities and perceive that their welfare is threatened, they are more likely to consider social and ecological issues (Patzelt and Shepherd, 2011). Thus, in addition to the internal and external motivation factors, the identification of sustainable opportunities can also drive SMEs’ engagement in CSR. To the best of our knowledge, there are hardly any studies that have incorporated the identification of sustainable opportunities in studying CSR in SMEs in Sub-Saharan Africa and specifically Zambia.

The purpose of this chapter is to examine the motivations to engage in different CSR activities for a sample of entrepreneurs managing SMEs in the trading and service sector. In particular, our chapter focuses on SMEs that supply goods and services to a sector in which CSR activities are significant, namely the mining industry in Zambia. This chapter seeks to address the following research question: *What factors motivate SMEs to engage in different forms of CSR activities in Zambia?* Our research focuses on established firms and actual entrepreneurs managing SMEs. This sample differs from many other studies of CSR in SMEs that use samples from developed countries (e.g. Graafland and Mazereeuw-Van der Duijn Schouten, 2012; Masurel and Rens, 2015; Vo, Delchet-Cochet, and Akeb, 2015). Understanding what drives entrepreneurs to engage in CSR will help to advance sustainable development in Sub-Saharan Africa. We explicitly focus on owner-managers of these firms because they are responsible for initiating and implementing sustainable practices in their firms (Hsu and Cheng, 2012; Schaper,
Moreover, our study adds a new explanatory factor to the literature, namely: identification of sustainable opportunities. The findings of our study are important for entrepreneurs, academics and policy makers who want to promote SMEs’ engagement in sustainable behaviour in general and CSR practices in particular.

This chapter is structured as follows: Section 4.2 reviews the literature on SMEs and CSR as well as CSR in developing countries. It outlines the motivations of SMEs to engage in CSR and then derives hypotheses concerning the motivations of entrepreneurs managing SMEs to engage in CSR. Section 4.3 outlines the methodology and the section 4.4 presents the findings, which is followed by a discussion of results. The chapter ends by drawing conclusions, and discussing limitations and recommendations for future research (section 4.5 to 4.7).

4.2 Literature review and hypotheses development

4.2.1 CSR studies in SMEs
This section reviews previous studies on CSR in SMEs. It begins with defining CSR, followed by an overview of the characteristics of SMEs and CSR activities in SMEs. Then a discussion of CSR in developing countries, Sub-Saharan Africa, and Zambia in particular follows, as well as a discussion on CSR motivations. The section ends with the development of hypotheses based on this literature review.

The term CSR is ambiguous. This stems from the fact that the phenomenon has been studied from a number of different academic fields (Fischer, 2004; Vo, 2011). As a consequence of this, various definitions of CSR have been suggested (see Dahlsrud, 2008; Inyang, 2013; Vo, 2011). To avoid misunderstanding, we adopt the commonly used definition of CSR formulated by the Commission of European Communities in 2001. They define CSR as ‘a concept whereby companies integrate social and environmental concerns in their business operations and in their
interaction with stakeholders on a voluntary basis’ (Dahlsrud, 2008, p. 7). This definition espouses five important dimensions or aspects of CSR. They include the economic, social, environmental, voluntariness and stakeholder dimensions. The social and environmental aspects of CSR are the main focus of our chapter. CSR implies that managers, in the process of achieving business interest, voluntarily take action that serves society and also protects the environment (Smit et al., 2011).

In order to understand CSR in SMEs, it is imperative to comprehend the characteristics of SMEs. Many SMEs are located in their respective communities and are managed by their founders and owners (Demuijnck and Ngnodjom, 2013; Jamali et al., 2017; Jenkins, 2006; Perrini, 2006). As such they have a better understanding of the local culture than larger firms and have strong ties with the local civil society (Baden, Harwood, and Woodward, 2011). This enables them to engage in community activities such as donations (Amaeshi et al., 2017; Coppa and Sriramesh, 2013). It has also been noted that the owners of SMEs feel responsible for their employees and the people in their community, especially in the Sub-Saharan African context (Spence, Gherib, and Biwolé, 2011). Furthermore, entrepreneurs managing SMEs make key decisions, initiate and implement CSR policies and activities in line with their aspirations, personal values, and philosophies (Jenkins, 2006; Williams and Schaefer, 2013). Because of the dominant role of the entrepreneur in SMEs, it is important to understand what motivates these owners and founders to engage in CSR.

CSR activities of SMEs are often informal, unstructured in nature, ad hoc, and not integrated in company policy (Santos, 2011). SMEs are focused on social practices within their markets and CSR activities in SMEs are embedded in the firm’s daily life (Lee, Herold, and Yu, 2016). CSR in small firms is typically implicit and the firms do not commonly use the term CSR
in describing their activities (Hsu and Cheng, 2012). The most common informal descriptions of CSR include terms such as work-life balance, community involvement, and environmental management (Vo, 2011). As such, CSR in SMEs is mostly explained using stakeholder theory (Vo, 2011), with key stakeholders being the employees, customers, suppliers, shareholders, community, and the natural environment (Jenkins, 2006; Vo, 2011). Our study focuses on the natural environment, employees and community because these are most relevant in our study context.

Environmental CSR activities refer to actions companies take towards minimising their negative impact on the natural environment. Generally, these activities have included the use of environmentally friendly packaging involving degradable paper instead of plastics, minimising energy and water usage, recycling, reduction of pollution and reduction of waste (Turyakira, Venter, and Smith, 2012; 2014). In an Asian country like Taiwan, the top three areas of CSR activities in most SMEs are recycling and reducing waste, energy saving and carbon reduction, and handling of customers’ complaints (Hsu and Cheng, 2012). In contrast, there is a lack of environmental concerns in SMEs in Sub-Saharan African developing countries (Amaeshi et al., 2006; Demuijnck and Ngnodjom, 2013; Painter-Morland and Dobie, 2009) while employee-related CSR activities seem to be more popular. In Uganda for instance, employee-related CSR activities involve helping workers to maintain a work-life balance, workplace diversity, offering training and development, flexible working time, provision of restaurant services within company premises, complementary social security plans and a company loan scheme (Turyakira, Venter, and Smith 2012, 2014; Santos, 2011).

Community-related CSR activities on the other hand involve assistance to low income groups by providing scholarships for education, providing health, sports and wellness facilities,
and voluntary participation in community activities (Turyakira, Venter, and Smith, 2012, 2014). In developed countries such as Sweden, CSR activities in SMEs focus on involvement with local community, sponsoring of local events, and concern for employee satisfaction and health (Lee et al., 2016). However, the most common CSR practices in SMEs in Portugal include donations, sponsoring of cultural and environmental events, support for charity and social marketing campaigns (Santos, 2011). Overall, it can be seen that although developing and developed countries practice some common CSR activities such as community involvement and sponsoring, in general both contexts emphasise different forms of CSR activities. Further, within regions of developing and developed countries, SMEs focus on different aspects of the environmental, employee and community CSR activities.

4.2.2 SMEs and CSR in developing countries

There has been a recent increase in research on CSR in SMEs (Jamali et al., 2017). Nevertheless, most studies on CSR in SMEs have been conducted in developed countries. CSR in developing countries is different from developed countries in the sense that developing countries are often rapidly expanding economies where the social and environmental crises are felt more strongly (Visser, McIntosh, and Middleton, 2006). Firms in developing countries tend to focus on social issues because they are given more political, economic and media emphasis, whereas CSR in developing countries is influenced by the historical factors and cultural relationships (Idemudia, 2011; Visser et al., 2006), which might lead to a preference for social (employee- and community-related) CSR rather than environmental CSR. Whilst there has been an increase in research on CSR in developing countries, there is limited research on CSR in Sub-Saharan
Africa; the few publications in the extant literature focus mainly on Nigeria and South Africa (Visser et al., 2006).

4.2.3 SMEs and CSR in (sub-Saharan) African countries

There is need for more research in Sub-Saharan African countries on CSR because of greater poverty, corruption, wars, fights between clans, misguided aid, health problems, and social and environmental challenges the continent is facing (Demuijnck and Ngodjom, 2013; Dobers and Halme, 2009; Spence and Painter-Morland, 2010). The socio-economic environment shapes CSR in African developing countries. For instance, Muthuri and Gilbert (2011) in the case of Kenya observed that CSR is driven by the need to conform to social norms. They observed that CSR is mostly oriented on the community and addresses national concerns such as HIV/AIDS, health, education, and the environment. Similarly, Amaeshi et al., (2006) established that in the case of Nigeria, CSR addresses the social-economic challenges such as poverty and inadequate health care services.

Relatedly, several authors have established that CSR in African developing countries takes on a community focus (rather than an environmental focus) and emphasises philanthropy, business ethics, and community embeddedness (see for example, Amaeshi et al., 2006, in the case of Nigeria; Lungu and Shikwe, 2006, in the case of Zambia and Muthuri and Gilbert, 2011, in the case of Kenya). Underlying this is the belief that African culture is strong on communal ties (Visser et al., 2006). Demuijnck and Ngodjom (2013) reported that employee-oriented CSR is important, as in Cameroon entrepreneurs managing SMEs feel responsible for the well-being of employees and their communities in terms of CSR but they lack awareness of the impact of their business activities on the natural environment. Also firms in Swaziland are more concerned
with community-CSR and employee-CSR and less concerned with environmental and customer CSR (Kabir, 2011). Furthermore, CSR practice in Cameroon includes how to deal with nepotism, tribalism and corruption. For instance, Demuijnck and Ngnodjom (2013) noted that some SMEs reject all forms of nepotism, tribalism and corruption even though they have to constantly cope with all kinds of extortion or corruption of the civil servants in the process of obtaining business services especially for customs clearance (Demuijnck and Ngnodjom, 2013). Thus, the main focus of CSR in SMEs appears to be on internal stakeholders and the community (Jenkins, 2004; Vives, 2006). Surprisingly, environmental concerns in Sub-Saharan African SMEs appear to be somewhat limited (Amaeshi et al., 2006; Demuijnck and Ngnodjom, 2013; Painter-Morland and Dobie, 2009).

Yet, in contrast to studies that find that the social aspects of CSR get most attention in developing countries. As an exception, Amaeshi et al., (2017) established that CSR in Nigeria and Tanzania incorporates multiple stakeholders such as employees, customers, the community, and also the natural environment, thus reflecting all three forms of CSR (employee, community and environment). Moreover, Muthuri and Gilbert (2011) found that SMEs in Kenya are concerned with community as well as environmental CSR.

Whilst the studies above provide insights in the nature and practices of CSR in Sub-Saharan Africa, only limited aspects of CSR in SMEs have been investigated (Amaeshi et al., 2017), and it is unclear what drives the preferences for different forms of CSR. In particular, the motivations of SMEs to engage in different forms of CSR in SMEs have hardly been investigated in Sub-Saharan Africa. Thus, Idemudia (2011) expressed the need for a better understanding of the drivers of CSR in Sub-Saharan Africa.
In sum, while studies on CSR point out that environmental issues are a critical area of concern in Africa, the employee and community CSR activities get much more attention by African SMEs. Furthermore, there seems to be some evidence that within the African developing countries, different countries facilitate their own CSR priorities due to the unique historical development, business systems, political and cultural settings.

4.2.4 SMEs and CSR in Zambia

CSR activities in developing countries focus on giving back to the nation and the community where the business operates (Kivuitu, Yambayamba, and Fox, 2005). In the case of Zambia, it has been shown that CSR in the mining industry has a community-related emphasis. For example, in his study of a large mining company, Mayondi (2014) pointed out that CSR in Zambia is characterised by community development projects such as constructing roads, schools, job opportunities, and micro-credit lending. Fraser (2010) also noted that many companies in Zambia engage in CSR out of a moral obligation to be ‘good’ corporate citizens. Negi (2011) reported that CSR in the mining industry is associated with charity, donations, provision of social services such as building sports facilities and sinking boreholes to provide water to villages around the mining area. Using a sample of small-scale mining companies, Lungu and Shikwe (2006) established that CSR activities involve building of schools, health facilities and maintenance of roads. Taken together, these studies suggest that CSR in the mining industry in Zambia is focussed on community involvement rather than environmental concerns. Since most CSR studies have focused on large and small mining companies, there are hardly any studies on CSR in SMEs in other sectors in Zambia.

Mining is the main economic activity in Zambia and contributes 70% to the country’s total exports (Chamber of Mines, 2014). The mining firms were first co-owned by two private
companies namely Anglo-American Corporation and Roan Selection Trust (Lungu and Kapena, 2010). In 1969, the Zambian government nationalised the two mining companies and in 1982 they were amalgamated to form the Zambia Consolidated Copper Mines (ZCCM) (Fraser and Lungu, 2007). In CSR terms, ZCCM provided all social services ranging from health care, electricity and recreation facilities. They practiced a cradle to the grave social policy. They also provided housing, maintained roads and collected garbage (Fraser and Lungu, 2007, Lungu and Kapena, 2010).

After enacting the Privatisation Act in 1992, the privatisation of the units of ZCCM also started. In 1997, Luanshya mine was sold to the Binani Group of Companies. By the year 2000, the two major companies namely Konkola Copper Mines (KCM) and Mopani were sold to Anglo-American Corporation and Glencore from Switzerland, respectively. Smaller mines such as Bwana Mkubwa, Chambeshi and Chibuluma were sold to First Quantum Minerals from Canada, NFC from China and Metorex from South Africa (Fraser and Lungu, 2007).

The expectations of the government of the Republic of Zambia and the communities on the Copperbelt were that the new mine owners would continue with the CSR activities of the ZCCM days based on the cradle to grave social policy. However, the new private mining companies have made little effort to pick up all CSR activities of ZCCM. They argue that their core business is mining and social services should be provided by the state through the local authorities (Fraser and Lungu, 2007). A further expectation was that local SMEs would benefit by way of obtaining contracts to supply goods and services to the mines. The development agreements signed with the new private mining companies had clauses aimed at local business support and development. This included awarding contracts to SMEs to supply durable or manufactured products, such as electrical appliances, industrial cleaning machines, pipes, valves,
motors, protective clothing and timber. The second category included consumables, like electrodes, paints and cleaning materials while the third category included services, like repair and maintenance of plants, buildings and equipment, security and consultancy. Notwithstanding this, Fraser and Lungu (2007) stated that many expected benefits for the SMEs have not materialised as the new mine owners prefer to buy certain goods and services from foreign suppliers.

Mining has been helpful to the country’s economic development, yet detrimental socially and environmentally. Mining has created significant air and water pollution in the towns located in the Copperbelt province. This has attracted a number of studies focused on CSR in the industry (Mayondi 2014). However, there are hardly any CSR studies on SMEs that supply goods and services to the mining industry. The underlying motivations for these SMEs to engage in CSR are not yet known. It is, therefore, important to examine the CSR practices in SMEs that supply goods and services to the mining industry and the underlying motivations for entrepreneurs to adopt CSR practices.

4.2.5 Motivations of CSR in SMEs

Motivation is defined as ‘the driving force within an individual by which they attend to achieve some goal in order to meet some need or expectation’ (Mullins, 2010, p. 125). Motivation as an internal process activates, guides and maintains behaviour (Baron, 1995). A number of studies have investigated what motivates entrepreneurs in SMEs to act in a socially responsible manner. In the CSR literature, several theories explain the motivation of entrepreneurs to adopt CSR, such as stakeholder theory, institutional theory and social capital theory (Vo, 2011)
Stakeholder theory focuses on how businesses meet the expectations of their stakeholders (Massoud, 2010). Each company may focus on one or more CSR domains (e.g., employees, community, and the environment) depending on the pressure or needs from stakeholders and the resources of the firm. Accordingly, the motivation to engage in each of the CSR activities may differ. For example, a client may attach more value to the environmental dimension of CSR; this could lead the entrepreneurs to also place emphasis on the environmental dimension of CSR. Institutional forces refer to coercive, mimetic, and normative aspects (Vo, 2011; Zhu and Zhang, 2015). Institutional theory is used to explain the process in which organisations are influenced by their institutional environment to adopt certain practices, structures, values and norms (Vo, 2011). Applying institutional theory to SMEs’ CSR, Spence (1999) found that the institutional environment influenced the environmental behaviour of British and Dutch SMEs. Social capital theory emphasises the importance of social capital, which provides SMEs with a mechanism to adopt and implement CSR policies and procedures (Perrini, 2006).

4.2.6 Motivations to engage in entrepreneurship versus motivations to engage in CSR

Understanding the motivating factors for entrepreneurship has been an important area of study (Eijdenberg and Masurel, 2013). Some of the motivation factors for entrepreneurship include high need for achievement, locus of control, and desire for independence, passion and drive (Shane, Locke, and Collins, 2003). While these personal factors can explain why some individuals pursue entrepreneurship, they do not shed light on the motivation for entrepreneurs to engage in CSR. Thus, researchers have begun to investigate the motivation for companies to engage in CSR. So far, studies have shown that companies adopt CSR practices due to different motivation factors, as we describe below.
4.2.7 Internal versus external motivations

Motivations for CSR can be categorised into two groups: internal and external motivation factors (Zhu and Zhang, 2015). External motivations refer to external rewards that follow certain behaviour, while internal motivations refer to a personal interest and satisfaction in the entrepreneur’s task (Carsrud and Brännback, 2011).

SMEs may adopt CSR practices due to the personal motivations of the entrepreneur. For example, SMEs can adopt socially responsible behaviour for ethical, moral (Jenkins, 2006; Longo, Mura, and Bonoli, 2005), and altruistic reasons (Graafland and Mazereeuw-Van der Duijn Schouten, 2012). Furthermore, entrepreneurs may be motivated to engage in CSR if they believe it will improve company reputation, increase sales, improve relations with stakeholders such as customers, employees and the wider community (Longo et al., 2005), or help them to follow regulations and to improve business performance (Williamson, Lynch-Wood, and Ramsay, 2006; Vo, 2011).

In Sub-Saharan Africa, SMEs’ owners are positively motivated to pursue CSR initiatives by their personal values, ethics and religious beliefs (Amaeshi et al., 2017). Furthermore, strong ethics of the managers were found as a key motive for SMEs in South Africa to engage in pro-environmental behaviour (Hamann et al., 2017). We therefore hypothesise that:

\[ H1: \text{Internal motivation positively influences entrepreneurs in SMEs to engage in CSR activities.} \]

Entrepreneurs may also adopt CSR practices due to external motivations that originate from external pressure. According to stakeholder theory, a company may adopt CSR due to pressure from stakeholders such as employees, clients, the media, public opinion, regulators,
suppliers, banks, and competitors. For example, Santos (2011) reported that even though the main motivation factors behind the engagement in CSR practices in SMEs is internal, pressure from clients, competitors and the government plays an important role as well as 40-49% of SMEs reported implementing CSR because of pressure. In developing countries such as those in Sub-Saharan Africa, SMEs are positively influenced by regulatory and supply chain pressures in their motivation to pursue CSR initiatives (Amaeshi et al., 2017). Based on the discussion above, we develop the following hypothesis:

**H2: External motivation positively influences entrepreneurs in SMEs to engage in CSR activities.**

4.2.8 Entrepreneurial versus sustainable opportunities

Generally understood, entrepreneurship involves the identification, evaluation, and exploitation of opportunities (Shane and Venkataraman, 2000). Two sets of opportunities arise from this: entrepreneurial opportunities (related to economic gain) and sustainable opportunities related to social goods and public benefit (Tyler III, 2014). Entrepreneurial opportunities are distinct from sustainable opportunities in the sense that while entrepreneurial opportunities focus on financial profit and are concerned with the introduction of new goods and services, usage of new raw materials and introduction of organising methods and markets (Casson, 1982), sustainable opportunities aim at sustaining the social and/or ecological environment (Patzelt and Shepherd, 2011). Crals and Vereeck (2005) state that the social dimension of sustainable opportunities includes concern for people or care for the community and employees, while the ecological dimension of sustainable opportunities includes eco-design, environmental care, sustainable technology, clean products, and eco-efficiency.
Besides general motivations to engage in CSR, the identification of entrepreneurial opportunities (Shane, Locke, and Collins, 2003) and sustainable opportunities (Patzelt and Shepherd, 2011) can influence the actual engagement in CSR activities. When entrepreneurs identify (sustainable) opportunities, this means that they imagine ways to acquire economic, social, and environmental gains, which differs from the general motivations for CSR. We therefore argue that in addition to external and internal motivations, the identification of sustainable opportunities provides an additional and conceptually different explanation for why entrepreneurs may engage in CSR practices. As stated above, entrepreneurs identify sustainable opportunities when they perceive that their own welfare (internal motivation) and/or the welfare of others (external motivation) is threatened (Patzelt and Shepherd, 2011). In this sense, internal motivation arises when an entrepreneur feels threatened by economic, social and ecological issues. External motivation is related to altruism. Altruism is the individual’s motivation to improve the welfare of another person or the community (Hoffman, 1981). For instance, entrepreneurs living in a society where poverty levels are high, education levels are low and health care is threatened may identify opportunities to solve these social problems (Hockerts, 2010; Hoogendoorn, Pennings, and Thurik, 2010; Spitzeck and Janssen, 2010; Tyler III, 2014). Similarly, entrepreneurs living in a community that is confronted with pollution, natural resource degradation, and loss of biodiversity may identify opportunities to improve the ecological environment (Patzelt and Shepherd, 2011). Also, unemployment and poverty can cause an entrepreneur to improve her/his own socioeconomic status and/or the status of people in that community.

The identification of sustainable opportunities triggers entrepreneurs to improve or sustain social and/or ecological environments (Patzelt and Shepherd, 2011). Since entrepreneurs
possess a significant level of control over how SMEs operate, their identification of sustainable opportunities can positively influence their engagement in CSR practices. We therefore hypothesise that:

\[ H3: \text{The identification of sustainable opportunities positively influences entrepreneurs in SMEs to engage in CSR activities.} \]

4.3 Data and methodology
The data were collected between January and end of August 2013. A total of 320 questionnaires were distributed to owners of SMEs. Of the 320 distributed questionnaires, 221 were completed, resulting in a 69.1% response rate, which is high. The high response rate might be caused by the respondent’s keen interest in the research subject and the assurance of confidentiality. The sample of entrepreneurs managing SMEs in the trading and service sector for the study was drawn from supplier databases of four major mining companies in Zambia. The selection of companies was based on firm size: SMEs employing between 10-250 employees.

4.3.1 Measurement of variables
This chapter examines the motivations of entrepreneurs managing SMEs to engage in CSR. The independent variables are internal and external CSR motivation factors and identification of sustainable opportunities. The dependent variables consist of the different dimensions of CSR (employee-CSR, community-CSR and environmental-CSR).

Dependent variables
Matten and Moon (2008) stated that CSR varies greatly depending on the place, the context of study and/or national business systems. To measure CSR, we first conducted a qualitative pre-study consisting of 12 expert interviews with the Chamber of Commerce, regulatory bodies, consultants, and entrepreneurs in Zambia. The purpose of the expert interviews was to assess the relevant CSR items to include in the questionnaire; identify important CSR stakeholders; and to explore the experts’ view on the motivational factors for CSR within Zambian SMEs. The results of the expert interviews revealed three categories of CSR practices directed at care for employees, involvement in community affairs and care for the environment. Thus, we developed items for measuring CSR towards the three dimensions of CSR practices based on existing literature and empirical studies.

We listed all the CSR items mentioned in these studies and subjected them to the experts to determine their relevance for our study-context. The final questionnaire consisted of 33 CSR items, 11 items for each of the three types of stakeholders (i.e. 11 items for employee-CSR, 11 items for community-CSR and 11 items for environmental-CSR). The 33 items were then given to 12 experts to judge the suitability of the items to measure CSR of Zambian SMEs supplying goods and services to the mining industry. All the 33 items were retained for the final survey after the experts agreed that the items were appropriate and relevant to the context under study. A copy of the final questionnaire is attached as Appendix 3. Respondents were asked to indicate which aspects of CSR could be found in their company. A five-point Likert scale for respondents was used to evaluate their level of CSR engagement in their firms, ranging from 1 = strongly disagree to 5 = strongly agree. We used exploratory factor analysis with principal component analysis and varimax rotation to explore the dimensions of CSR practices.

*Independent variables*
Two independent variables were measured in this chapter. Motivation factors for CSR were measured using a scale developed by Masurel and Rens (2015). We used this scale already in 2013 as it was developed earlier than 2015. The scale consisted of 16 items; eight items related to external CSR motivation factors and eight related to internal CSR motivation factors that influence SMEs to engage in CSR. Respondents were asked to indicate why they have or have not included aspects of CSR activities in their company. All motivation factors included in the questionnaire were based on a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree.

The number of opportunities perceived by the respondent was used to measure Sustainable opportunity identification. To measure the sustainable opportunities identified, we adapted and modified the measure used by Ucbasaran, Westhead, and Wright (2009). In the original questionnaire, respondents were asked to indicate how many opportunities for creating or purchasing a business they had identified in a period of five years. In this chapter however, the question was rephrased to read “How many opportunities for making your business more sustainable and/or starting a sustainable business have you identified within the last five years”. We asked respondents to choose the category that matched the number of sustainable opportunities they identified from eight categories. These categories included category 1 (zero (0) opportunities), category 2 (one opportunity) up to category 6 (5 opportunities) while category 7 represented 6-10 opportunities and category eight represented more than 10 opportunities. In this chapter, three respondents identified zero sustainable opportunities; five identified one opportunity; nine identified two opportunities while 26 identified three opportunities; 31 respondents identified four opportunities; 48 identified five opportunities while 82 respondents identified six to ten opportunities and 17 identified more than ten opportunities. Because some
categories were infrequently selected and also to improve estimation (Murad, Fleischman, Sadetzki, Geyer, and Freedman, 2003; Ucbasaran et al., 2003; 2009), the eight sustainable opportunity identification categories were collapsed into two categories: low opportunity identification including those identifying zero to five opportunities, and high opportunity identification constituting those identifying at least six or more opportunities.

Respondents were asked to give examples of sustainable opportunities they had identified to ensure a common understanding of sustainable opportunities. Regarding the social opportunities, some respondents cited that they paid for medical bills, provided a safe working environment, and paid funeral grants for their employees. Concerning community related sustainable opportunities, respondents cited a number of activities such as providing transport for burials in their communities, sponsoring traditional ceremonies, sports, buying fuel for the police vehicles in their communities, digging wells for safe drinking water, creating HIV awareness, providing industrial attachment to students, supporting orphanages and building community schools for the underprivileged in their communities. Examples of environmental sustainable opportunities included recycling, saving water and energy, and selling environmentally friendly products to the mining companies.

Control variables

We included five control variables: the entrepreneur’s age, education and gender, and firm size and firm age. The entrepreneur’s age may affect CSR engagements. This is because young people are more likely to change their CSR perceptions (Elias, 2004) and older people display the highest negative perception of CSR (Wang and Juslin, 2012). The education level of owners or top managers typically has a positive influence on the willingness to implement CSR (Hsu and
Cheng, 2012). Gender has been shown to have a significant impact on the perception of CSR performance (Wang and Juslin, 2012). Females have a higher perception towards CSR than males (Hur, Kim, and Jang, 2016). Previous studies have suggested that large firms have more resources and capital to engage in CSR than small firms (Hsu and Cheng, 2012; Revell and Blackburn, 2007), whereas SMEs generally have limited resources (Spence, 1999). Thus, we expect that firm size may positively affect CSR engagement among SMEs (Udayasankar, 2008).

Firm age was included as a control variable because younger firms appeared better at integrating sustainability in the business objectives than older firms (Schaltegger and Wagner, 2011). Firm size was measured using the natural logarithm (Ln) of the number of employees and firm age was measured using the natural logarithm of the number of years between the year the business was founded and the year the data were collected; i.e. 2013. Firm size and firm age had a skewed distribution and therefore do not meet the assumptions of parametric tests (McDonald, 2009). Thus, we applied the Ln transformation to make the skewed data more normal and more amenable to analysis (Casillas and Moreno, 2010; Mwaura and Carter, 2015; Yasuda, 2005).

The questionnaire was tested prior to the data collection with four experts from academia and two experienced entrepreneurs. Where necessary, questions were rephrased based on suggestions from the experts to make them more relevant to the study context.

4.3.2 Factor analysis and scale validation

As explained in Section 4.3.1, we developed CSR measures based on the literature and expert interviews. Thus, we used Exploratory Factor Analysis (EFA) with varimax rotation to extract the dimensions of CSR practices. The Kaiser-Meyer-Olkin (KMO) adequacy measure of 0.816 and Bartlett’s test of sphericity with a \( p \)-value of \( p<0.001 \) imply that the correlations between variables are sufficient for supporting the application of EFA. Selection of the final model was
based on eigenvalues and the scree plot. This led to a three-factor solution, accounting for 49.3% of the variance. We deleted items that did not load at all or loaded on more than one factor. In total, seven items relating to employee-CSR, three items relating to community-CSR and three items relating to environmental-CSR were deleted. We labelled the three extracted factors as employee-CSR, community-CSR, and environmental-CSR. The factor loadings and reliability tests for all items on CSR practices are shown in Table 4.1. The factor loadings for all items were greater than 0.40 making them acceptable for sample sizes of 200-249 (Hair et al., 2014). The Cronbach’s alpha values for community-CSR, and environmental-CSR were 0.808 and 0.834, respectively and are acceptable since they exceeded the 0.7 threshold suggested by Nunnally (1978). For employee-CSR, the Cronbach’s alpha value was 0.696, which is just below the threshold value. Yet, this is acceptable when using new scales or developing existing scales in a new context (Nunnally, 1978).
<table>
<thead>
<tr>
<th>CSR practices</th>
<th>Employee-CSR</th>
<th>Community-CSR</th>
<th>Environmental CSR</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>My company pays for some of the employee’s recreational activities</td>
<td>0.589</td>
<td></td>
<td></td>
<td>0.696</td>
</tr>
<tr>
<td>My company helps employees balance work-life and family life</td>
<td>0.706</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>My company has a flexible working hour’s policy</td>
<td>0.790</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>My company follows other employee-oriented social responsibility practices</td>
<td>0.586</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company supports orphans and underprivileged in society directly or indirectly through existing institutions</td>
<td></td>
<td>0.682</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company sponsors community activities (sports, church buildings, culture, traditional ceremonies)</td>
<td></td>
<td>0.659</td>
<td></td>
<td>0.808</td>
</tr>
<tr>
<td>My company sponsors students in schools</td>
<td>0.586</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company uses a formal customer complaints register for clients</td>
<td>0.520</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>My company donates money to charities in the communities where we operate</td>
<td>0.814</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company makes timely payment of taxes</td>
<td>0.427</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company is active within an organisation with a social purpose</td>
<td>0.615</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company follows other community social responsibility practices</td>
<td>0.559</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company saves energy beyond legal requirements</td>
<td></td>
<td>0.813</td>
<td></td>
<td>0.834</td>
</tr>
<tr>
<td>My company saves water beyond legal requirements</td>
<td></td>
<td>0.771</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company voluntarily does recycling and/or re-use</td>
<td>0.483</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company purchases environmentally friendly products</td>
<td>0.654</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company complies with environmental regulations and standards</td>
<td>0.493</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company is well equipped in order to improve the sustainability/CSR of my clients</td>
<td></td>
<td>0.688</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company suggests sustainable solutions to our clients</td>
<td></td>
<td>0.705</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My company follows other environmental social responsibility practices</td>
<td></td>
<td>0.650</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Deleted items**

- My company ensures workplace health and safety.
- My company motivates (gives incentives) employees.
- My company implements training and development programs for employees.
- My company offers free medical schemes for our employees.
- My company periodically tests employee satisfaction.
- My company human resource policy is aimed at workplace diversity.
- My company pays employees above the minimum wage and level.
- My employees and I actively offer our time and skills in volunteer activities.
- My company offers industrial attachments (internships) to students.
- My company improves the quality of life in the communities where it operates.
- My company takes action in order to reduce waste.
- My company has a health, safety and environmental policy.
- My company is a member of an environmental organisation.

**Table 4.1** Factor loadings of CSR items

For assessing convergent and discriminant validity of the motivation items we also
conducted EFA with a varimax rotation to extract the theoretical dimension of the external and internal motivation factors for CSR. The KMO was 0.865 and the Bartlett’s Test of sphericity reported \( p = 0.001 \). EFA results indicate one factor for external motivations and two factors for internal motivations, explaining 62.1% of the inherent variation. We labelled the first factor as External Motivation, the second as Financial Motivation and the third as Moral and Ethical Motivation. One item related to external motivation was deleted due to cross loadings and two items related to internal motivation were deleted for not loading at all. The Cronbach’s alpha values for the three motivations were 0.892 (External Motivation), 0.728 (Financial Motivation) and 0.730 (Moral and Ethical Motivation), all fulfilling the 0.7 threshold suggested by Nunnally (1978). Table 4.2 shows factor loadings and reliability tests for all items related to motivation.
Table 4.2 Factor loadings of motivational items

4.4 Results

This section presents our analysis and the results of the study. First, we present the general descriptive statistics and then we test the hypotheses using linear regression analysis.

4.4.1 Descriptive statistics

Table 4.3 shows amongst others the means and standard deviations for each of the three dimensions of CSR activities as well as the external and internal motivations and sustainable opportunity identification (SOI). Statistical results indicate that environmental-CSR has the highest mean (3.66), followed by employee-CSR (mean = 3.42), and community-CSR (mean =
3.26). Of the employee-CSR aspects, entrepreneurs focus most on flexible working hours and helping employees balance work-life and family life, with mean values of 3.69 and 3.67, respectively (see Table 4.4). For the community aspects of CSR, making timely payment of taxes is most prevalent, followed by following other community responsibility practices, sponsoring community activities, and supporting orphans and the underprivileged in the community, with mean values of 4.19, 3.37, 3.35, and 3.25, respectively. Concerning the environmental dimension of CSR, complying with environmental regulations and standards, purchasing environmentally friendly products and suggesting sustainable solutions to clients are the most prevalent practices, with mean values of 4.12, 3.85 and 3.85, respectively.

<table>
<thead>
<tr>
<th>CSR dimensions</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>221</td>
<td>1.00</td>
<td>5.00</td>
<td>3.42</td>
<td>0.74</td>
</tr>
<tr>
<td>Community</td>
<td>221</td>
<td>1.50</td>
<td>5.00</td>
<td>3.26</td>
<td>0.70</td>
</tr>
<tr>
<td>Environmental</td>
<td>221</td>
<td>1.75</td>
<td>5.00</td>
<td>3.66</td>
<td>0.65</td>
</tr>
<tr>
<td>Motivations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Motivation</td>
<td>221</td>
<td>1.00</td>
<td>4.71</td>
<td>2.61</td>
<td>0.80</td>
</tr>
<tr>
<td>Financial Motivation</td>
<td>221</td>
<td>1.00</td>
<td>5.00</td>
<td>3.24</td>
<td>0.81</td>
</tr>
<tr>
<td>Moral and Ethical Motivation</td>
<td>221</td>
<td>1.33</td>
<td>5.00</td>
<td>3.60</td>
<td>0.78</td>
</tr>
<tr>
<td>Sustainable opportunity identification</td>
<td>221</td>
<td>1.00</td>
<td>2.00</td>
<td>1.45</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Table 4.3 Descriptive statistics of CSR dimensions, motivations and sustainable opportunity identification

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Table 4.4 Descriptive statistics of CSR items

Regarding motivation factors, of the two internal motivational factors, Moral and Ethical Motivations has a high mean of 3.60 followed by Financial Motivations with a mean of 3.24.
The mean value of the External Motivations is only 2.61 (see Table 4.3). Regarding the internal motivation factors, improving the well-being of people in the community and improving business reputation have the highest means, 3.73 and 3.65 respectively (see Table 4.5). For the external motivation factors, the prospects of CSR becoming a legal requirement and preventing negative media attention have the highest means, 2.90 and 2.76 respectively, while pressure from the banks has the lowest mean value of 2.36.

| My company includes CSR because it improves my business reputation and image. | 221 | 1.0 | 5.0 | 3.65 | 0.97 |
| My company includes CSR because it ensures more revenue | 221 | 1.0 | 5.0 | 3.22 | 1.06 |
| My company includes CSR because it saves costs | 221 | 1.0 | 5.0 | 2.86 | 0.99 |
| My company includes CSR because it improves the natural environment | 221 | 1.0 | 5.0 | 3.63 | 0.97 |
| My company includes CSR because it improves the health/well-being of people in my community. | 221 | 1.0 | 5.0 | 3.73 | 0.89 |
| My company includes CSR because it gives me good feeling | 221 | 1.0 | 5.0 | 3.44 | 1.06 |
| My company includes CSR because employees demand it | 221 | 1.0 | 5.0 | 2.41 | 0.95 |
| My company includes CSR because my clients demand it | 221 | 1.0 | 5.0 | 2.65 | 1.05 |
| My company includes CSR because suppliers demand it | 221 | 1.0 | 5.0 | 2.53 | 1.03 |
| My company includes CSR because the community where my business is located demands it | 221 | 1.0 | 5.0 | 2.63 | 1.09 |
| My company includes CSR because in the future it will be a legal requirement | 221 | 1.0 | 5.0 | 2.90 | 1.04 |
| My company includes CSR because the bank demands it | 221 | 1.0 | 5.0 | 2.36 | 0.97 |
| My company includes CSR because I want to prevent negative media attention | 221 | 1.0 | 5.0 | 2.76 | 1.06 |

Table 4.5 Descriptive statistics of motivational items

4.4.2 Hypotheses tests

The dependent variable consisted of three dimensions of CSR: employee-CSR, community-CSR and environmental-CSR. Consequently, we used three different linear regression analyses to test each of the hypotheses H1-H3. We tested for multicollinearity using the Variance Inflation...
Factor (VIF) and found that the scores for all predictors and control variables were less than the critical value 10 (ranging from 1.01 to 1.28), implying multicollinearity is low (Hair et al., 2014). Table 4.6 shows the results of the regression analysis.

In the first regression (Model 1), employee-CSR was the dependent variable. The model was insignificant and had a low R² value of 0.052 (F = 1.275; p = 0.252) (see Table 4.6). In this model, External Motivation factors, and the two variables representing the internal motivation (Financial Motivation and Moral and Ethical Motivation) as well as Sustainable Opportunity Identification were all insignificant, thus, H1, H2 and H3 were all rejected for employee-CSR.

In Model 2, community-CSR was considered as dependent variable. This model was significant and has an R² value of 0.220 (F = 6.611; p < 0.000). In this model, Financial Motivation was significant (p<0.001) while Moral and Ethical Motivations and Sustainable Opportunity Identification were significant as well (p<0.05) and (p<0.01), respectively, indicating that Internal Motivation and Sustainable Opportunities Identification influence entrepreneurs to engage in community-CSR practices. Thus, H1 and H3 were supported for community-CSR. H2 was not supported for community-CSR, as there was an insignificant relationship between External Motivation and community-CSR (p > 0.05).

Environmental-CSR was the dependent variable in Model 3. The model was significant with an R² value of 0.299 (F=9.977; p<0.000), and the influence of Financial Motivation and Moral and Ethical Motivation were all significant (p<0.001). Thus, H1 is supported for environmental-CSR. This indicates that Financial Motivation as well as Moral and Ethical Motivation significantly influence the engagement in environmental-CSR practices. H2 and H3 were not supported for Model 3 as there were insignificant relationships between External Motivation and the identification of sustainable opportunities on the one hand and
environmental-CSR \( (p > 0.05) \) on the other hand. Table 4.7 summarises the outcomes of the testing of the three hypotheses, pointing to whether they are accepted or rejected for each of the three dimensions of CSR.

Table 4.6 The relationship between internal motivation, external motivation and sustainable opportunity identification and CSR engagement in SMEs

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Employee-CSR Model 1</th>
<th>Community-CSR Model 2</th>
<th>Environmental-CSR Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predictors</td>
<td>B</td>
<td>Significance</td>
<td>B</td>
</tr>
<tr>
<td>Constant</td>
<td>2.517</td>
<td>0.000***</td>
<td>0.883</td>
</tr>
<tr>
<td>Financial motivation</td>
<td>0.105</td>
<td>0.143</td>
<td>0.223</td>
</tr>
<tr>
<td>Moral and ethical motivation</td>
<td>0.087</td>
<td>0.221</td>
<td>0.142</td>
</tr>
<tr>
<td>External motivation</td>
<td>0.014</td>
<td>0.841</td>
<td>0.025</td>
</tr>
<tr>
<td>Sustainable opportunity</td>
<td>0.080</td>
<td>0.438</td>
<td>0.290</td>
</tr>
<tr>
<td>Age</td>
<td>-0.051</td>
<td>0.584</td>
<td>0.004</td>
</tr>
<tr>
<td>Education</td>
<td>0.021</td>
<td>0.807</td>
<td>-0.004</td>
</tr>
<tr>
<td>Gender</td>
<td>0.093</td>
<td>0.493</td>
<td>0.071</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.071</td>
<td>0.257</td>
<td>0.123</td>
</tr>
<tr>
<td>Firm age</td>
<td>-0.065</td>
<td>0.390</td>
<td>0.101</td>
</tr>
<tr>
<td>R²</td>
<td>0.052</td>
<td>0.220</td>
<td>0.299</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.011</td>
<td>0.187</td>
<td>0.269</td>
</tr>
</tbody>
</table>

Table 4.7 Hypotheses testing

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Employee-CSR Model 1</th>
<th>Community-CSR Model 2</th>
<th>Environmental-CSR Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Internal motivation positively influences entrepreneurs in SMEs to engage in CSR activities.</td>
<td>Rejected</td>
<td>Accepted</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2: External motivation positively influences entrepreneurs in SMEs to engage in CSR activities.</td>
<td>Rejected</td>
<td>Rejected</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3: The identification of sustainable opportunities positively influences entrepreneurs in SMEs to engage in CSR activities.</td>
<td>Rejected</td>
<td>Accepted</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
4.5 Discussion

This study set out to examine the motivations of entrepreneurs to engage in three dimensions of CSR: employee, community and environmental. We formulated and tested three hypotheses: (1) internal motivation factors positively influence entrepreneurs in SMEs to engage in CSR activities; (2) external motivation factors positively influence entrepreneurs in SMEs to engage in CSR activities; and (3) the identification of sustainable opportunities positively influences entrepreneurs in SMEs to engage in CSR activities.

We found that internal motivation positively influences entrepreneurs to engage in community- and ecological CSR activities. Furthermore, external motivation does not influence Zambian entrepreneurs to engage in employee-, community- or environmental CSR activities. Another important finding was that entrepreneurs’ identification of sustainable opportunities influences their engagement in community CSR. Surprisingly, the engagement in employee CSR is not influenced by internal and external motivations or the identification of sustainable opportunities by the entrepreneur. Below, we discuss these findings in more detail.

As reported above, internal motivation (i.e., both Financial Motivation and Moral and Ethical Motivation) positively influences entrepreneurs’ engagement in community and environmental CSR activities, but does not influence employee-CSR. With respect to the first dimension of internal motivation (Financial Motivation), our results are consistent with other researchers such as Lee et al., (2016) and Vo et al., (2015). These researchers found that SMEs are motivated to pursue community and environmental CSR activities when they perceive a business benefit and value for the company in the form of cost savings. Furthermore, a possible explanation is that SMEs’ involvement in community-CSR may result in better community relations and an improved image of the SMEs. In addition, SMEs depend on the community for their existence. It is therefore possible that once they perceive benefits such as improved
community image, better business performance, better community relations and improved
customer loyalty, SMEs will be willing to engage in community-CSR (Inyang 2013). Our
findings are also in line with Mankelow and Quazi (2007) who observed that SMEs are
motivated towards community-CSR for profit motives and growth of the business. Apparently,
trepreneurs in SMEs in Zambia are motivated to pursue community-CSR activities if they
perceive a business benefit.

Another point that can be made is that Financial Motivation positively influences
entrepreneurs’ engagement in environmental-CSR activities because of the potential financial
benefits that come from cost reduction in terms of waste recycling, reduction in water and energy
consumption (Graafland and Mazereeuw-Van der Duijn Schouten, 2012). Again, Kechiche and
Soparnot (2012) pointed out that in effect, by implementing cost saving measures or
purchasing/selling environmentally friendly products, SMEs can reduce waste, reduce cost and
increase efficiency which effectually brings about financial advantage. It is also possible that
SMEs in Zambia care for the environment to win more contracts with mining companies,
attracting those mining companies that are environmentally conscious to purchase their products.
Overall, the above findings are consistent with findings of previous studies (e.g. Santos, 2011),
that found that CSR in SMEs is internally focused and results from the motivation of the
potential benefits to the business from gains in eco-efficiency, a better social climate, or a higher
profile in the community.

Regarding the second dimension of internal motivation (Moral and Ethical Motivation),
the results show that Moral and Ethical Motivation positively influences entrepreneurs’
engagement in community and environmental CSR activities. These results are in line with Hsu
and Cheng (2011), Jenkins (2006), and Longo et al., (2005) who established that SMEs engage
in CSR for moral and ethical reasons of the entrepreneurs. Similarly, Amaeshi et al., (2017), Hamann et al., (2017), and Jamali et al., (2017) also noted that SMEs’ owner-managers and their senior managers in Sub-Saharan Africa are motivated to pursue CSR activities because of their strong ethics. Our result that the engagement in community-CSR is positively influenced by Moral and Ethical Motivation suggests a desire for good corporate citizenship in the community and entrepreneurs in SMEs perceiving that giving back to the community where the business is located is the ‘right thing to do’ (Inyang, 2013). It seems that entrepreneurs in SMEs in Zambia are motivated to engage in community CSR activities aimed at addressing some of the social problems in their community that are currently not being addressed by the new mine owners. Furthermore, our finding that the engagement in environmental-CSR is positively influenced by Moral and Ethical Motivation suggests that entrepreneurs take into consideration the moral and ethical aspects of the natural environment in their decision making. Entrepreneurs feel that they have a moral duty or obligation to take care of the natural environment.

External motivation does not influence the engagement in any of the CSR activities. Apparently, in the Zambian setting, SMEs have less pressure from regulatory bodies, supply chain partners, customers, banks, media, and public opinion to push them to engage in any form of CSR activities. One reason could be a lack of deliberate policy by the government that compels SMEs to adopt CSR activities (Noyoo, 2007). Even where there is some regulation, there are no incentives for SMEs to adopt CSR practices (Kivuitu et al., 2005). Similarly, during the pre-study, one manager of a consulting firm stated that “SMEs cannot see the benefits of external motivations unless these motivations are linked to profit or incentives.” Hamann et al., (2017) also found that state regulations hardly play a role in motivating SMEs to engage in pro-environmental behaviour.
The entrepreneurs’ identification of sustainable opportunities influences entrepreneurs to engage in community-CSR. However, the identification of sustainable opportunities does not influence entrepreneurs to engage in employee-CSR and environmental-CSR. A possible explanation for this could be that CSR in Sub-Saharan Africa focuses on addressing social problems rather than environmental problems (Amaeshi et al., 2006; Muthuri and Gilbert, 2011). It is possible that in the context of Zambia, entrepreneurs identify sustainable opportunities in the area of social problems in their communities. This eventually triggers them to be motivated to engage in community-CSR to solve these problems. The lack of effect of sustainable opportunity identification on environmental CSR is consistent with the results of several studies that noted that there is a lack of ecological concerns in Sub-Saharan African SMEs (Amaeshi et al., 2006; Demuijnck and Ngnodjom, 2013; Painter-Morland and Dobie, 2009).

Surprisingly, employee-CSR is not influenced by internal and external motivation nor by the identification of sustainable opportunities. This finding is conflicting with the results of Jenkins (2004) and Vives (2006) who concluded that the main focus of CSR in SMEs is on the internal stakeholder, especially the employee. A possible explanation is that in the Sub-Saharan African context, entrepreneurs naturally feel responsible for their employees and their families (Amaeshi et al., 2006). Hence, it could be that respondents in our sample did not see their responsibilities towards their employees as CSR but as a part of their normal obligations. Another explanation could be due to the overlap between employee-CSR and community-CSR. A large number of items on the employee-CSR scale were deleted for having cross-loadings on the community-CSR scale. Perhaps our respondents treated employees as part of the community. Apparently, most, if not all employees in SMEs come from the local community. As such, it is quite normal for SMEs to employ people mostly from their direct neighborhood. This overlap
could also be due to the study context, employee-CSR is not very accepted as CSR in this context because it is regarded as part of the legal obligation for the employer.

Our results also show that there are similarities in CSR activities in SMEs and large private mining firms in Zambia in the sense that CSR in the mining industry in Zambia still focuses on community involvement, yet to a limited extent compared to the way it was with ZCCM previously. Our study has revealed that SMEs are motivated to engage in community-CSR activities aimed at addressing social problems in the community where companies operate. Despite these similarities, our study is different in the sense that we focused on a sample of supplier SMEs while other CSR studies in Zambia focused on the mining firms.

4.6 Limitations and areas for future research
This chapter has some limitations. First, we did not investigate the economic conditions and institutional factors that can limit or promote CSR. Future researchers can investigate the extent to which the institutional environment and economic factors influence or exert pressure on SMEs to engage in CSR activities. Another limitation is that our study group was drawn from the trading and service sector. More studies that include different sectors in different contexts may inform us on the generalisability of our findings. Next to this, we used a survey approach to collect data in an under-researched context. Future studies can consider a multiple-case study approach to explore what motivates entrepreneurs in a developing country’s context to engage in CSR; this might facilitate the building of a theory in line with the contexts of developing countries especially those in Sub-Saharan Africa. Furthermore, a large number of items on the employee-CSR scale were deleted due to cross loading (overlapping) with community-CSR; this is a limitation in our study and may explain the low explanatory power for our employee-CSR
Further research is required into the overlap between employee-CSR and community-CSR. Lastly, while the identification of sustainable opportunities focused on the number of perceived opportunities identified, CSR focused on the identified opportunities that were actualised (acted upon). It is possible that respondents could not have differentiated between the identification of sustainable opportunities and actual CSR. Hence, the possibility that the estimated relationship between the identification of sustainable opportunity and CSR is spurious, cannot be completely ruled out.

4.7 Conclusions
The answer to our research question ‘what factors motivate SMEs to engage in different forms of CSR in Zambia’ can be answered as follows. Internal motivation (i.e., Financial Motivation and Moral and Ethical Motivation) plays an important role, as it influences both community-CSR and environmental-CSR. The identification of sustainable opportunities plays a limited role, as it only influences community-CSR. Finally, external motivation does not play a role at all for the entrepreneurs in SMEs to engage in any kind of CSR activities.
Chapter 5  A longitudinal study of the impact of corporate social responsibility on firm performance in SMEs in Zambia

This chapter is based on the study that has been published in *Sustainability* as: Choongo, P. (2017). A Longitudinal Study of the Impact of Corporate Social Responsibility on Firm Performance in SMEs in Zambia*, *Sustainability*, Vol. 9 No. 8: 1300. Minor textual adjustments of the published paper have been made to enhance the fit of the chapter within the PhD thesis.
Abstract
The aim of this chapter is to investigate the impact of corporate social responsibility on firm performance using a longitudinal design in small and medium-sized enterprises (SMEs). The reported study was conducted in a Sub-Saharan African developing country, Zambia. Data were collected from 153 entrepreneurs in two surveys and changes in CSR and firm performance measures were analysed over a 12-month period using SmartPLS structural equation modelling. The findings show that the relationship between CSR and financial performance is significant. Furthermore, the association between CSR and the two measures of firm performance (corporate reputation and employee commitment) was only partially significant over time. We discuss the relevance of these results for entrepreneurs, researchers and policy makers in understanding the outcomes of sustainability practices in SMEs in developing countries, especially in Sub-Saharan Africa.
5.1 Introduction

Recent decades have seen a growing interest in Corporate Social Responsibility (CSR) research in both commerce and academia. One line of enquiry concerns the outcomes of CSR (Aguinis and Glavas, 2012), often exploring the association between CSR and firm performance (e.g., Masurel, 2015; Mishra and Suar, 2010; Rettab, Brik, and Mellahi, 2009; Saeidi, Sofian, Saeidi, Saeidi, and Saeidi, 2015). However, results have been mixed with some showing that there is no correlation between CSR and firm performance while other studies establish a positive association, and still others indicate a negative association (Rettab et al., 2009). These mixed results warrant further research.

Various studies on the link between CSR and firm performance have focused almost entirely on developed countries (Rettab et al., 2009) and large firms (Masurel, 2015). Small and medium-sized enterprises (SMEs) have received less attention in this area. Thus, the most obvious gap in the extant literature pertains to the limited number of studies on the link between CSR and firm performance from developing countries’ perspectives (Moore and Spence, 2006; Vo, 2011). Kechiche and Soparnot (2012) called for the investigation of the links between responsible management for SMEs and financial performance in developing countries. Additionally, those that have examined the link between CSR and firm performance have used cross sectional study designs (e.g., Masurel, 2015; Saeidi et al., 2015), and there are few longitudinal studies examining this association, making it impossible to assess causality. This may account for variance in the reported results (Allouche and Laroche, 2005). To the best of our knowledge, there are no peer-reviewed studies that longitudinally examine the association between CSR and firm performance in a Sub-Saharan African country. The longitudinal approach could help
clarify the casual structure of the relationships between CSR and firm performance (Allouche and Laroche, 2005; Orlitzky, Schmidt, and Rynes, 2003).

This chapter examines the link between CSR and firm performance using a longitudinal analysis in Zambia, an under-researched developing Sub-Saharan African country. Zambia is chosen for this study because of limited research in sustainable entrepreneurship studies in developing countries (Bruton, Ahlstrom, and Obloj, 2008; Hall, Daneke, and Lenox, 2010), especially in Sub-Saharan African countries (Amaeshi et al., 2017; Idemudia, 2011; Jamali, Lund-Thomsen, and Jeppesen, 2017). We focus on SMEs because they have received less attention in the study of the link between CSR and firm performance. Studies on CSR in Zambia have mainly concentrated on mining companies but not SMEs, and have not linked CSR to firm performance. To achieve the aim of this chapter, the following research question is asked: What is the impact of CSR on firm performance in SMEs in Zambia over time? This chapter is important to entrepreneurs, policy makers and researchers that want to understand the specific CSR practices that impact firm performance and business improvement in SMEs. In addition, the chapter adds a different aspect to the limited literature on the relationship between CSR and firm performance in Sub-Saharan Africa.

This chapter proceeds as follows. The next section first reviews existing works on CSR in SMEs as well as CSR in developing countries’ perspectives. Afterwards, we present literature on the CSR-firm performance link, and then we develop the hypotheses to be tested in the chapter. Thereafter, we explain research methodology, data collection methods, measures used in the chapter, followed by presentation of results. We conclude the chapter by discussing findings, making conclusions, and highlighting future areas of research.
5.2 Literature review and hypothesis development

This section presents the existing literature on CSR by SMEs. It first defines CSR, followed by a review of the characteristics of SMEs. Then, it considers studies on CSR in developing countries perspectives with a particular focus on Sub-Saharan Africa. At the end of section 5.2, we derive hypotheses.

5.2.1 CSR in SMEs

There has been an increase in CSR studies (e.g., Choongo, Van Burg, Masurel, Paas, and Lungu, 2017 (see Chapter 4); Dobre, Stanila, and Brad, 2015; Lin, Chang, and Dang, 2015; Masurel and Rens, 2015; Pan, Sha, Zhang, and Ke, 2014). Nevertheless, there is still no generally agreed definition of CSR (Popa and Salanta, 2014), as a result, there is an ambiguous use of the terminology (Fischer, 2013). Fischer (2013) and Vo (2011) explain that the ambiguity is due to the fact that CSR has been studied in various academic fields. The Commission of the European Communities (2001), as cited in Dahlsrud (2008, p. 7), defines CSR as ‘the concept whereby companies integrate their social and environmental concerns in their business operations and in their interaction with their stakeholder on a voluntary basis’. We use this definition because it provides a clear conceptualisation of CSR and it has been commonly used by a variety of scholars (e.g., Carroll and Shabana, 2010). Further, in addition to identifying the company’s obligation toward the social and environmental issues, the definition incorporates three other dimensions of CSR: economic, stakeholders and voluntariness.

Considering the characteristics of SMEs is important in comprehending how CSR is practiced in SMEs. The key difference between large firms and SMEs is that, in the latter, in general, management lies with the owners as opposed to large firms (Spence and Rutherford, 2003; Vo, 2011). SMEs are located and operate in their local society, thus, maintain a close
relationship with various stakeholders (Demuijnck and Ngodjom, 2013). These characteristics aid SMEs to adopt CSR practices, as most of the decisions are made by the owners of SMEs. Entrepreneurs managing SMEs make decisions, initiate and implement CSR activities (Jenkins, 2006; Williams and Schaefer, 2013), which in turn contribute to the competitiveness and growth of the firm (Moore and Manring, 2009; Revell, Stokes, and Chen, 2010). Furthermore, the focus of CSR practices in SMEs is often with the immediate stakeholders, employees, followed by the community, and the least practiced aspect of CSR is environment related (Masurel, 2007; Spence, Gherib, and Biwole', 2011).

Over the years, there has been an increase in CSR studies in SMEs (e.g., Amaeshi et al., 2017; Jenkins, 2006). Nevertheless, several studies have concentrated on five major areas: the definitions of CSR by SMEs, characteristics of SMEs, motivations of CSR in SMEs, barriers to CSR studies in SMEs, and CSR activities in SMEs (Kechiche and Soparnot, 2012; Vo, 2011). Masurel (2015) further observed that there have been very few empirical studies on CSR outcomes or impacts of CSR on SMEs. Furthermore, most of the existing studies on the outcomes of CSR focused on SMEs in developed countries (De Oliveira and Jabbour, 2017). There has been limited research on SMEs engagement in CSR in developing countries (Amaeshi et al., 2017; De Oliveira and Jabbour, 2017; Jamali et al., 2017). Specifically, few studies investigate the link between CSR practices by SMEs and firm performance from the developing countries’ perspectives (Moore and Spence, 2006; Vo, 2011). Thus, there is need for more research on the impact or outcomes of CSR in SMEs.

The mainstream CSR agenda has been criticised because it is largely driven by Western countries’ perspectives and has given limited consideration to developing countries’ perspectives (Idemudia, 2011). Within the developing countries’ context studies mainly focused on Asia and
less on Sub-Saharan Africa (Idemudia, 2011; Visser, McIntosh, and Middleton, 2006). Within Sub-Saharan Africa, the majority of studies focus on South Africa and Nigeria (Visser et al., 2006). Therefore, our chapter focuses on CSR in Zambia, another Sub-Saharan African country.

Most research on CSR in Sub-Saharan Africa centres on multinational corporations, and the nature and practice of CSR. For example, Demuijnck and Ngodjom (Demuijnck and Ngodjom, 2013) focused on CSR practices in Cameroon. They established four CSR practices: well-being of employees, ethical issues (related to nepotism and tribalism), corruption, and the natural environment. Similarly, Amaeshi et al., (2017) and Turyakira, Venter, and Smith (2014) reported that CSR practices in SMEs in Sub-Saharan Africa are centred on areas such as the workplace, market place, local community and the natural environment. A number of authors have shown that CSR in Sub-Saharan Africa focuses on charity or donations, community involvement, and ethics (e.g., Amaeshi, Adi, Ogbegie, and Amao, 2006; Lungu and Shikwe, 2006; Muthuri and Gilbert, 2011). In contrast, Amaeshi et al., (2017) found that CSR practice in Sub-Saharan Africa is beyond charity and in some cases involves institutional works aimed at addressing some institutional gaps in the location where SMEs operate. Overall, the studies above provide insights into the nature and practices of CSR in Sub-Saharan Africa. They however do not investigate the outcome or impact of CSR on the performance of the firm.

Due to the paucity of research on CSR in SMEs in Sub-Saharan Africa, only limited aspects of the CSR-SMEs relationship have been investigated (Amaeshi et al., 2017). For example, the link between CSR and firm performance is particularly lacking in Sub-Saharan Africa. This presents an obvious research gap in the relationship between CSR and firm performance in SMEs in Sub-Saharan Africa, as we do not know much about the impact/outcomes of CSR on
firm performance in SMEs in this context. Thus, there is a need to further explore the impact or outcomes of CSR in Sub-Saharan Africa.

Most of the few existing studies on CSR in Sub-Saharan Africa are unrelated to our study as they focused mostly on CSR practices. We however, found one relevant study by Hilman and Gorondutse (2013). In this study, the authors examined the association between perceived ethics, social responsibility and firm performance in SMEs in the context of Nigeria. Their findings indicate that perceived social responsibility had a significant effect on firm performance; similarly, perceived ethics positively impacts SMEs performance. Another related study by Turyakira, Venter, and Smith (2014) focuses on the relationship between CSR and outcomes (competitiveness). Empirical results indicate that workforce-oriented CSR activities, society-oriented CSR activities, market-oriented CSR activities and regulated oriented CSR activities significantly influence the competitiveness of SMEs in Uganda (Turyakira et al., 2014).

The two studies highlighted above cannot be generalised to the entire continent of Africa with 52 countries because of the huge cross-country differences. Although developing countries share common features, CSR practices will vary from region to region or even within regions (Idemudia, 2011) and from country to country (World-Business-Council-for-Sustainable-Development, 1999, 2000). This is because CSR priorities for action differ from country to country and appear to depend on the perception of the local needs (Idemudia, 2011). Besides that, Hilman and Gorondutse (2013) used cross-sectional data, making it impossible to study causality. Therefore, in our chapter, we apply longitudinal analysis to unravel the causal association between CSR and firm performance over time.
5.2.2 CSR and firm performance in SMEs

Although CSR in SMEs has gained attention in the academic and professional fields, the question is whether or not the involvement in CSR activities contributes to firm performance in SMEs in developing countries, especially in the context of Sub-Saharan Africa. Thus far, studies on the relationship between CSR and firm performance show positive, negative, mixed or non-significant results (Rettab et al., 2009). For example, a number of authors found a positive relationship between CSR and firm performance (See Ahamed, Almsafir, and Al-Smadi, 2014; Rettab et al., 2009; Saeidi et al., 2015; Torugsa, O’Donohue, and Hecker, 2012). In contrast, empirical findings by Boyle, Higgins, and Rhee (1997) and Wright and Ferris (1997) showed a negative association between CSR and firm performance. Moreover, McWilliams and Siegel (2001) found a neutral relationship between CSR and firm performance. Dobre, Stanila, and Brad (2015) explain that these fluctuations in results could be related to the context or country of study, industry, differences in CSR-measures, differences in methodological approaches or the period in which the analysis was conducted. For instance, Ahamed, Almsafir, and Al-Smadi (2014) pointed out the need to consider the importance of time frame when investigating the link between CSR and firm performance. This is because even when firms actively engage in CSR, the link between CSR and firm performance may be negative if the country in which the research is conducted had a bad economic period. Therefore, our study applies a longitudinal approach to unravel the causal association between CSR and firm performance because time frame plays an important role when investigating this relationship.

As pointed out earlier, the bulk of studies on the CSR-firm performance link are from developed countries. Thus far, there are few studies on this relationship in developing countries and more especially in Sub-Saharan Africa. Hence, we cannot generalise the findings from
developed countries to developing countries, especially Sub-Saharan African countries without further research. This is because the enterprise structures of SMEs in developed countries often differ from those of developing countries (Jamali et al., 2017). Besides that, developing countries have different business systems from developed countries. In particular, Sub-Saharan African countries have different business systems, managerial characteristics and institutional environments. For instance, the social and economic crises have stronger effects in developing countries, because they have fast expanding economies (Visser et al., 2006). Further, in Sub-Saharan Africa, there is greater poverty and more wars, health problems, corruption, misguided aid, social and environment challenges (Demuijnck and Ngodjom, 2013; Dobers and Halme, 2009; Spence and Painter-Morland, 2010). Consequently, there is need for more research on the link between CSR and firm performance in this context. In particular, Jamali et al., (2017) and Amaeshi et al., (2017) called for further studies on the effects/outcomes of CSR in SMEs in developing countries especially Sub-Saharan African countries. This chapter aims to respond to these calls.

5.2.3 Corporate social responsibility studies in Zambia

The few studies that have previously been conducted on CSR practices in Zambia focus mainly on mining companies (see Fraser and Lungu, 2007; Lungu and Kapena, 2010; Lungu and Mulenga, 2005; Lungu and Shikwe, 2006; Mayondi, 2014). These studies show that the most common CSR activity in Zambia is community involvement. For example, Lungu and Shikwe (2006) observed that CSR in Zambia is more social and philanthropic in nature and CSR is viewed as a way of supporting the local community. Similarly, Mayondi (2014) reported that CSR in mining firms is mostly focused on community development activities such as building of
schools, roads, providing jobs and offering micro-credit loan to people in the local community. There is however one study that focuses on sustainable opportunity identification (opportunities to engage in sustainable behaviour such as CSR) by SMEs in Zambia (Choongo, Van Burg, Paas, and Masurel, 2016, see Chapter 2) and another study on CSR motivations in Zambian SMEs (Choongo et al., 2017, see Chapter 4). Choongo et al., (2016) (see Chapter 2), established that altruism towards others was the main reason why entrepreneurs identify sustainable opportunities. The nature of sustainable opportunities investigated in this chapter included opportunities related to the social environment (e.g., care for employees, supporting community activities) and natural environment (e.g., recycling, water and energy saving) (Patzelt and Shepherd, 2011). Furthermore, Choongo et al., (2017, see Chapter 4) reported that internal motivations (financial motivation and moral and ethical motivation) drive SMEs to adopt community-CSR and environmental-CSR practices in Zambia. In addition, the identification of sustainable opportunities also positively influences the engagement in community-CSR practices. External motivation appears to play no role for any form of CSR engagements. However, these two studies did not consider the impact of CSR activities on firm performance.

Prior to 1991, the mining companies in Zambia were owned by a state company called the Zambia Consolidated Copper Mines (ZCCM) Limited and CSR mostly involved philanthropic contributions to communities. ZCCM provided funds for social services such as free health facilities, nappies for the newly born babies, recreation activities, free water and electricity for the local community. In addition, education was free for children of employees and other social services such as transport, housing, funeral and burial arrangements including food were heavily subsidised for employees of ZCCM. ZCCM built infrastructure for the local communities such as schools, roads, hospitals, recreation facilities and provided maintenance of the infrastructure,
collection of garbage, support of sports and social clubs (Fraser and Lungu, 2007; Lungu and Kapena, 2010). However, there are no studies on the link between CSR and firm performance in SMEs in Zambia. Hence, we do not know whether or not the involvement in CSR activities positively impacts firm performance in Zambia. Thus, this chapter makes a contribution to the literature on the CSR-firm performance link outside developed countries by investigating the impact of the CSR on firm performance in SMEs in Zambia.

5.2.4 Hypotheses development

To examine the association between CSR and firm performance, we develop three main exploratory hypotheses. We argue that the involvement in CSR activities has an effect on three different indicators of firm performance: financial performance, firm reputation, and employee commitment.

5.2.5 Financial performance

While some studies also show negative or neutral effects, overall, the extant literature postulates that CSR impacts firm performance positively. Pan, Sha, Zhang, and Ke (2014) observed that employee responsibility and environmental responsibility have significant positive relationships with corporate financial performance. Lee, Herold, and Yu (2015) suggested that SMEs are motivated to pursue CSR activities when they perceive a business benefit and value for the company. Furthermore, SMEs engage in community CSR when they perceive benefits such as better business and improved customer loyalty. SMEs also get involved in community responsibility because it results in profitability and growth of the business (Mankelow and Quazi, 2007). CSR outcomes include better relations between the community and the firm as well as improved firm image. Consequently, this leads to better financial performance on the long term because clients will buy products and services from these firms. Environmental responsibility
can also result in better financial performance in the form of cost reduction (waste recycling, reduction in energy and water consumption) (Graafland and Mazereeuw-Van der Duijn Schouten, 2012). Care for the environment can also result in SMEs to win more contracts with clients that are environmentally conscious. It is therefore reasonable to suggest that firms which get involved in community and environmental responsibility can attain improved firm performance in the long term while firms that are unwilling to get involved in CSR perform less well. This leads to the following research hypothesis.

**H1.** The engagement in social and environmental responsibility is positively associated with financial performance in SMEs over time.

**H1a.** The engagement in social responsibility is positively associated with financial performance in SMEs over time.

**H1b.** The engagement in environmental responsibility is positively associated with financial performance in SMEs over time.

### 5.2.6 Corporate reputation

Barnett, Jermier, and Lafferty (2006, p. 34) defined corporate reputation as: ‘Observers’ collective judgments of a corporation based on the assessment of the financial, social, and environmental impacts attributed to the corporation over time’. Corporate reputation is also understood as ‘an important intangible resource which can be enhanced by the firms’ decision to engage in CSR activities and disclosures’ (Branco and Rodrigues, 2006; p. 111). Although the firm’s reputation is intangible, it aids in building sales, and attracts business partners and capital, while aiding the firm to recruit and retain employees and contributes to a company’s competitive advantage (Nowduri, 2012; Pharoah, 2003). Entrepreneurs and managers in SMEs expect improved company reputation when they engage in CSR. For example, Turban and Greening (1997) established that involvement in CSR activities contributes to a better reputation of the
firm in the society, thereby creating a competitive advantage. Enhanced reputation eventually leads to improved firm performance in the long run (Eberl and Schwaiger, 2005).

The link between CSR and corporate reputation in SMEs is not as straightforward as for large firms. Compared to a large firm, SMEs visibility to the media and the public is more difficult (Fraj-Andrés, López-Pérez, Melero-Polo, and Vázquez-Carrasco, 2012). Entrepreneurs in SMEs prefer not to report or publish their CSR activities (Jamali, Zanhour, and Keshishian, 2009). Furthermore, it can be argued that CSR activities in SMEs are informal, ad hoc, and usually not reported; as a result, CSR may not affect corporate reputation. Fraj-Andrés et al., (2012) suggested that CSR activities in SMEs contribute to building a better image and strong marketing position which creates a competitive advantage (Alshammari, 2015). In addition, Munasinghe and Malkumari (2012) pointed out that SMEs are motivated to engage in CSR activities to improve the firm’s reputation, employee motivation and economic performance. Despite the different characteristics between SMEs and large firms, it is possible that SMEs’ involvement in CSR can lead to improved corporate reputation and eventually better firm performance over time. This is because entrepreneurs make decisions based on the fact that CSR improves company reputation and image and increases sales figures (Fraj-Andrés et al., 2012). In doing so, improved reputation provides competitive advantages, which positively impacts on organisation performance in the long run. Based on the arguments above, we propose the following hypotheses.

\[ H2. \text{ The engagement in social and environmental responsibility is positively associated with corporate reputation in SMEs over time.} \]

\[ H2a. \text{ The engagement in social responsibility is positively associated with corporate reputation in SMEs over time.} \]

\[ H2b. \text{ The engagement in environmental responsibility is positively associated with corporate reputation in SMEs over time.} \]
5.2.7 Employment commitment

Employee commitment has been defined ‘as organisational and task commitment, and is related to personal, job or organisation characteristics’ (Nijhof, Jong, and Beukhof, 1998, p. 243). Employee commitment is also referred to as the degree to which employees feel devoted to their organisation and the degree of attachment or loyalty employees feel towards the organisation (Akintayo, 2010; Ongori, 2007). Vance (2006) posited that employee’s commitment to their firm gives companies vital competitive gains including greater productivity and lower turnover. Past research demonstrates that the involvement in CSR activities can build a strong bond between employees and the organisation, which consequently results in more employee commitment and better organisational performance over time (Ali, Rehman, Ali, Yousaf, and Zia, 2010). Furthermore, Albinger and Freeman (2000) and Turban and Greening (1997) suggested that organisations involved in CSR attract and retain employees, thereby, reducing hiring and training costs, thus, leading to better organisation performance in the long term. A number of authors established that CSR activities have positive significant effects on employee commitment to the organisation (e.g., Albinger and Freeman, 2000; Ali et al., 2010; Brammer, Millington, and Rayton, 2007; Greening and Turban, 2000; Rettab et al., 2009; Turker, 2009). Firms with a good social responsibility can not only attract better employees, but also increase their morale and retain them (Branco and Rodrigues, 2006).

In SMEs, CSR focuses on the internal stakeholders especially the employees and the community (Jenkins, 2006; Vives, 2005). Masurel (2007) found that SMEs invest in environmental responsibilities such as improving the working conditions. He further suggested that there may be a connection to “profit”, as improvement of working conditions may result in more motivated employees and less sick leave, thus increasing their productivity on the long-
term. Furthermore, in developing countries, in particular Sub-Saharan African countries, entrepreneurs feel responsible for their employees and people living in their communities (Spence et al., 2011). It is, therefore, possible that SMEs’ engagement in social activities such as providing training to employees, improving working conditions, sponsoring sports and donations so as to enhance their employee commitment to the firm, thereby, improving organisation performance on the long run. Turker (2009) found that social, employee, and customer CSR were significant predictors of the organisation commitment. Similarly, Ali et al., (2010) found a positive relationship between CSR and employee commitment to the firm. Based upon these findings, we therefore hypothesise that.

**H3. The engagement in social and environmental responsibility is positively associated with employee commitment in SMEs over time.**

**H3a. The engagement in social responsibility is positively associated with employee commitment in SMEs over time.**

**H3b. The engagement in environmental responsibility is positively associated with employee commitment in SMEs over time.**

### 5.3 Research methods

#### 5.3.1 Sample and data collection

The data for this chapter were collected through a longitudinal survey conducted amongst SMEs that supply goods and services to the mining industry in Zambia. The first wave was conducted in 2013, while the second wave was carried out on the same sample 12 months later, in 2014. We label the data collected in the first and second waves as $t_1$ and $t_2$, respectively. The spacing of the period between the two surveys covers a period of 12 months because performance in firms is usually assessed yearly. It is common practice to carry out longitudinal studies at two data points. For example, Bernhardt, Donthus and Kennett (2000) carried out a
longitudinal study at two waves over a 12-month period. Similarly, Mou and Cohen (2014) carried out a longitudinal study at two time-points over a six to seven month period. Furthermore, a longer time-period in the dynamic Zambian context, see comments below, may result in high levels of attrition.

The firms were selected based on the criteria of size: SMEs employing between 10 and 250 employees. The sample was drawn from databases of four large mining firms in Zambia (i.e., Mopani Mine, Lumwana Mine, Konkola Mine, and Kansanshi Mine) and had a population of 1200 registered local SMEs that met the selection criteria. The main goods sold by the firms in the sample include: (1) hardware and electrical items; (2) manufactured items such as industrial cleaning machines, motors, pipes, and valves; (3) consumables, such as cleaning materials, electrodes, and paints; and (4) services including maintenance and repair of industrial equipment and buildings.

At the start of the fieldwork in 2013, 350 SMEs were randomly selected from the population for this study. When we tried to contact and administer the questionnaire to potential respondents, we experienced some difficulties as we were unable to contact all respondents because a number of firms had either changed their location or their telephone numbers. Apparently, the databases had not been updated for a long time (see Chapter 2). For this reason, we relied on convenience sampling for the subsequent fieldwork to increase the number of survey participants. Kriauciuñas, Parmigiani, and Rivera-Santos (2011) acknowledged the difficulties of data collection in developing countries that arise from unreliable databases. Thus, they recommend that the sampling framework and survey administration techniques should be adapted to the context. Thus, our survey administration techniques included e-mailing, face-to-face questioning and dropping and picking up the questionnaire later. Overall, we collected 221
completed questionnaires in 2013. In 2014, only 153 of the 221 firms were willing to participate in the second survey wave. Therefore, our final sample for longitudinal analysis consisted of 153 SMEs.

5.3.2 Measures of variables

Dependent variables

Firm performance: firm performance comprises the actual output or result of an organisation as measured against its inputs. Firm performance is a complex and multidimensional phenomenon (Dess and Robinson, 1984). Despite this complexity, a number of authors have operationalised firm performance measures for SMEs in two categories: financial performance and non-financial performance (e.g., Chong, 2008; Hilman and Gorondutse, 2013). Examples of financial performance include return on assets, return on equity (De Massis, Kotlar, Campopiano, and Cassia, 2015), profit to revenue ratio, cash flow from operations, profit, return on investment, revenue growth, market share gained (Lonial and Carter, 2015), productivity (Masurel, 2015), effectiveness (i.e., sales growth and range of product or service growth), and efficiency (i.e., productivity and profitability growth) (Gronum, Verreynne, and Kastelle, 2012). The other measure of firm performance includes price per share (Orlitzky et al., 2003). Indicators of non-financial performance measures include corporate image, reputation, quality of human resources, customer base, brand devotion, investment in research and development (Hilman and Gorondutse, 2013; Kaplan and Norton, 1992). Other non-financial performance measures are new product development, capacity to develop a competitive profile, market orientation and development (Ismail Salaheldin, 2009). In this chapter, we use both financial and non-financial measures. The choice of adopting both measures of firm performance arises because SMEs use
both financial and non-financial measures to evaluate their performance (Chong, 2008). Moreover, previous studies indicate that non-financial measures correlated with objective measures (Keh, Nguyen, and Ng, 2007).

Three measures of firm performance were used: financial performance, corporate reputation, and employee commitment because they capture the full impact of CSR on the firm’s overall performance compared to single item measurement (Rettab et al., 2009). Following Rettab et al., (2009), financial performance was measured using seven items. Respondents were asked to indicate their perceptions of how each of the seven statements described their financial performance relative to their largest competitors on a 5-point Likert scale, from 1 = strongly disagree to 5 = strongly agree. The items include, relative to our largest competitor during last year: “we had a larger market share”; “we were larger in size”; “our profit growth has been substantially better”; “our sales growth has been substantially better” “our return on assets has been substantially better”; “our return on investment has been substantially better” and, regarding the overall performance during last year, “we performed poorly relative to our largest competitor”. The latter item is worded reversely to help control for response bias (Herche and Engelland, 1996; Pallant, 2001). We used this scale as the SMEs we studied are not consistent in keeping historical financial data and thus “objective” performance would be unreliable (Dess and Robinson, 1984; Hilman and Gorondutse, 2013). Questionnaire items of different performance measures are shown in Appendix 4.

The second dependent variable in this chapter is corporate reputation; it was measured using three items adopted from Fombrun, Gardberg and Sever (2000). The first item related to “our organisation has a good reputation”, the second “our organisation is widely acknowledged as a trustworthy organisation” and the third item “our organisation is known to sell high quality
products and service”. All items were measured on a 5-point Likert scale, from 1 = strong disagree to 5 = strongly agree.

The scale for measuring employee commitment was adopted from Jaworski and Kohli (1993) and was also used by Rettab et al., (2009). The scale consists of three items and is measured on a 5 point Likert scale, from 1 = strongly disagree to 5 = strongly agree. The three items were “Our employees are very committed to the organisation”, “The bond between the organisation and its employees is very strong”, and “Our employees often go above and beyond their regular responsibilities to ensure the organisation’s well-being”.

**Independent variables**

CSR was measured using a 16-item scale adopted from Masurél and Rens (2015). This scale is relevant for studying CSR in SMEs. Preceding our fieldwork, we pre-tested the questionnaire with four academic experts and two entrepreneurs. After the pre-test, questions were rephrased to make them relevant to the setting of the study. For example, the question, “My company periodically performs job evaluation interviews” was changed to “My company sponsors students in schools”. This is because the outcomes of the pre-test indicated that the original question was not relevant to our study setting. Instead, most entrepreneurs pay for school fees for students who are orphans or underprivileged in the local community. The items we used to measure CSR are listed in Appendix 4.

**Control variables**

We controlled for four variables that might affect the relationship between CSR and firm performance. Moore (2001) found that firm age and firm size significantly impact the effects of
CSR on firm performance. The other two variables are entrepreneurs age and gender. Firm size was measured as the natural logarithm of the number of employees. Firm age was measured as the natural logarithm of the number of years the business has been in existence based on the second wave of data collection; i.e., 2014. For both firm size and firm age, the natural logarithm was used to avoid skewed distributions (Casillas and Moreno, 2010; Mwaura and Carter, 2015). We controlled for the entrepreneur’s age because older people perceive CSR negatively (Wang and Juslin, 2012) while young people are more probable to change their CSR perceptions (Elias, 2004). Gender was included because it was shown to affect firm performance by Dwyer, Richard and Chadwick (2003).

5.4 Data analysis and results

In this section, we analyse the data and present the results of the study using a longitudinal approach based on the data collected at two times or waves. Data collected in the first wave \((t_1)\) and data collected in the second wave \((t_2)\) enable us to conclude whether CSR affects firm performance over time. We used SmartPLS version 3.2.3 to analyse the data (Ringle, Wende, and Becker (2015). Before testing the hypotheses, we first examined the psychometric properties of the scales described in Section 5.3.2 by assessing convergent validity, discriminant validity, and reliability of the SmartPLS measurement model.

5.4.1 Convergent validity

The items used to measure corporate reputation, employee commitment, environmental-CSR, financial performance and Social-CSR are listed in Table 5.1 together with the results of SmartPLS confirmatory factor analysis (CFA), reliability test, and Average Variance Explained (AVE). The loadings and AVE for all items exceeded the 0.5 acceptable threshold, thus
convergent validity is confirmed (Henseler, Ringle, and Sinkovics, 2009). The composite reliability among all the five latent variables exceeded the threshold of 0.70 suggested by (Hair, Black, Babin, Anderson, and Tatham, 2014). This demonstrates high level of reliability for all scales in the analysis.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Loadings</th>
<th>Composite reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Reputation</td>
<td>CopRep1</td>
<td>0.837</td>
<td>0.913</td>
<td>0.777</td>
</tr>
<tr>
<td></td>
<td>CopRep2</td>
<td>0.902</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CopRep3</td>
<td>0.905</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Commitment</td>
<td>EmpCom1</td>
<td>0.891</td>
<td>0.870</td>
<td>0.693</td>
</tr>
<tr>
<td></td>
<td>EmpCom2</td>
<td>0.890</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EmpCom3</td>
<td>0.702</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental-CSR</td>
<td>EnvCSR1</td>
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<td>0.869</td>
<td>0.527</td>
</tr>
<tr>
<td></td>
<td>EnvCSR2</td>
<td>0.793</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EnvCSR3</td>
<td>0.717</td>
<td></td>
<td></td>
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<td></td>
<td>EnvCSR4</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>EnvCSR5</td>
<td>0.676</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EnvCSR7</td>
<td>0.669</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
<td>FP1</td>
<td>0.761</td>
<td>0.899</td>
<td>0.598</td>
</tr>
<tr>
<td></td>
<td>FP2</td>
<td>0.768</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FP3</td>
<td>0.809</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>FP4</td>
<td>0.782</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>FP5</td>
<td>0.780</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FP6</td>
<td>0.737</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social-CSR</td>
<td>SocCSR1</td>
<td>0.826</td>
<td>0.765</td>
<td>0.529</td>
</tr>
<tr>
<td></td>
<td>SocCSR2</td>
<td>0.800</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SocCSR6</td>
<td>0.515</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.1 Outcomes of the measurement model.

Note: EnvCSR6, EnvCSR8, F7, SocCSR3, SocCSR4, SocCSR5, SocCSR7, and SocCSR8 were deleted because they had low factor loading (>0.5).

5.4.2 Discriminant validity

Discriminant validity shows the extent to which one construct is distinct from another construct (Hair et al., 2014). To determine the discriminant validity of the constructs used in this research, we followed the criteria suggested by Fornell and Larker (1981). They suggested that the value of the square root of the AVE for each construct should exceed the value of correlations between constructs. Table 5.2 shows the square root values of the AVE for each
construct are higher in comparison with the AVEs in Table 5.1, which thus confirms discriminant validity.

<table>
<thead>
<tr>
<th>Construct</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Corporate Reputation</td>
<td>0.882</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Employee Commitment</td>
<td>0.394</td>
<td>0.833</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Environmental-CSR</td>
<td>0.319</td>
<td>0.304</td>
<td>0.726</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Financial Performance</td>
<td>0.218</td>
<td>0.246</td>
<td>0.391</td>
<td>0.773</td>
<td></td>
</tr>
<tr>
<td>5 Social-CSR</td>
<td>0.239</td>
<td>0.255</td>
<td>0.336</td>
<td>0.364</td>
<td>0.728</td>
</tr>
</tbody>
</table>

Table 5.2 Discriminant validity.

5.4.3 Measurement invariance assessment

The analysis of measurement invariance is necessary in longitudinal studies (Vandenberg and Lance, 2000; Hernández-Perlines, 2016). In this chapter, we employed Hensler, Ringle, and Sarstedt’s (2016) three step procedure to assess the measurement invariance of composite models (MICOM) when using SmartPLS, i.e.: (1) configural invariance; (2) compositional invariance; and (3) the equality of composition mean values and variances. Step 1 (configural invariance) does not involve any statistical test, instead, it requires an inspection of the model’s set-up. In this chapter, the measurement and structural model for the two groups of data (data collected in the first fieldwork \(t_1\) and data collected in the second fieldwork \(t_2\)) are identical, thus configural invariance is established. Step 2 (compositional invariance) involves carrying out a permutation test. If the permutation test reveals that the correlation \(c\) values are not significantly different from one, then composition invariance is established. In this chapter, 5000 permutations were carried out. Table 5.3 shows that the lowest correlation value of social-CSR is 0.989 and is very close to one and none of the \(c\) values are significantly different from one. Thus, compositional invariance is established for all composite in the CSR-Firm performance model. In Step 3, we assessed the composites equality of mean values and variances. The assessment shows that the mean values and variances of composites do not differ significantly. Thus, the
equality of compositional mean values and variance are established. In conclusion, full measurement invariance is supported for the two groups of data (data collected in the first wave \((t_1)\) and data collected in the second wave \((t_2)\).

<table>
<thead>
<tr>
<th>Composite</th>
<th>c-Value</th>
<th>95% Confidence interval</th>
<th>Compositional invariance?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Reputation</td>
<td>0.9992</td>
<td>[1.0000; 1.0000]</td>
<td>Yes</td>
</tr>
<tr>
<td>Employee Commitment</td>
<td>0.9977</td>
<td>[0.9999; 1.0000]</td>
<td>Yes</td>
</tr>
<tr>
<td>Environmental-CSR</td>
<td>0.9907</td>
<td>[0.9988; 1.0000]</td>
<td>Yes</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>0.9926</td>
<td>[0.9995; 1.0000]</td>
<td>Yes</td>
</tr>
<tr>
<td>Social-CSR</td>
<td>0.9894</td>
<td>[0.9989; 1.0000]</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Composite Difference of the composites’ mean value 95% confidence interval

<table>
<thead>
<tr>
<th>Composite</th>
<th>Composite Difference of the composites’ mean value 95% confidence interval</th>
<th>Equal mean values?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Reputation</td>
<td>-0.001                      [-0.007; 0.007]</td>
<td>Yes</td>
</tr>
<tr>
<td>Employee Commitment</td>
<td>-0.001                      [-0.001; -0.009]</td>
<td>Yes</td>
</tr>
<tr>
<td>Environmental-CSR</td>
<td>0.000                       [-0.006; 0.008]</td>
<td>Yes</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>0.002                       [-0.004; 0.008]</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Composite Difference of the composites’ variance ratio (=0) 95% confidence interval

<table>
<thead>
<tr>
<th>Composite</th>
<th>Composite Difference of the composites’ variance ratio (=0) 95% confidence interval</th>
<th>Equal variance?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Reputation</td>
<td>0.001                                       [-0.011; 0.012]</td>
<td>Yes</td>
</tr>
<tr>
<td>Employee Commitment</td>
<td>-0.003                                      [0.001; 0.011]</td>
<td>Yes</td>
</tr>
<tr>
<td>Environmental-CSR</td>
<td>-0.004                                      [-0.017; 0.009]</td>
<td>Yes</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>0.000                                       [-0.010; 0.012]</td>
<td>Yes</td>
</tr>
<tr>
<td>Social-CSR</td>
<td>-0.001                                      [-0.019; 0.007]</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 5.3 MICOM results of CSR and firm performance relationship.

5.4.4 Model fit

SmartPLS assesses model fit using the Goodness of Fit (GOF) criterion and the standard square residual (SRMR). GOF is defined as the geometric mean of the average AVE and average \(R^2\) (for dependent variables).

\[
GOF = \sqrt{AVE} \times \sqrt{R^2}
\]

Akter, D’Ambra, and Ray (2011) suggest that values of GOF of 0.10 to 0.2 are small, 0.25 to 0.36 are medium and 0.36 or over are strong. Using the formula above, we obtained a GOF of 0.32. The standardised root mean square residual (SRMR) value for this study is 0.000. A cut off point of 0.10 indicated the model has a good fit (Garson, 2016).
5.4.5 Hypothesis testing

We used data on changes in CSR and changes in the three indicators of performance (i.e., \( t_2 - t_1 \)). Each of the three main hypotheses (H1, H2, and H3) consists of two sub-hypotheses: H1a and H1b; H2a and H2b; and H3a and H3b, respectively. Thus, we test the main hypotheses by testing the sub-hypotheses. To test the sub-research hypotheses H1a–H3b, we ran the PLS Algorithm and the bootstrapping procedure with 500 sub-samples in SmartPLS version 3.2.3. The relationships are tested using the path coefficients and the level of significance. We checked for multicollinearity using the VIF in SPSS. The VIF scores ranged from 1.026–1.121, indicating that multicollinearity does not play a role (Hair et al., 2014). Figure 5.1 and Table 5.4 show the results of the Structural Equation Model including the paths estimates and the \( p \)-values. Note that Figure 5.1 displays \( t \)-values, where \( t > 1.96 \) implies significance at the 0.05 level. Table 5.4 reports more information on the effects of the analysed constructs on each other. Even though we controlled for age, gender, firm size, and firm age, the control variables were omitted in the final model because they were insignificant.
Table 5.4 reports the highest coefficient value from the original sample is 0.303 for Environmental-CSR -> Financial Performance, followed by Environmental-CSR -> Corporate Reputation (0.269), while Social-CSR -> Corporate Reputation and Social-CSR -> Employee Commitment have the lowest values of 0.149 and 0.172, respectively.

As can be seen in Figure 5.1 and Table 5.4, there is a positive relationship between social-CSR and financial performance as the path coefficient value was found to be $\beta = 0.262$ ($p < 0.05$). The effect of environmental-CSR on financial performance is significant with a path coefficient value of $\beta = 0.303$ ($p < 0.05$). Thus, H1 is supported. H2 posited that engagement in social and environmental responsibility is positively associated with corporate reputation. Test
results of H2a indicate that the relationship between social-CSR and corporate reputation is not supported as the path coefficient value was found to be $\beta = 0.149 \ (p > 0.10)$, while H2b results indicate that the relationship between environmental-CSR and corporate reputation is supported as the path coefficient value was found to be insignificant, i.e., $\beta = 0.269 \ (p < 0.05)$. Therefore, H2 is partially supported. Hypothesis 3 posited that the engagement in social and environmental responsibility is positively associated with employee commitment. Concerning H3a, the results in Table 5.4 indicate that the relationship between social-CSR and employee commitment is not supported as the path coefficient value was found to be insignificant, i.e., $\beta = 0.172 \ (p > 0.10)$, while H3b results indicate that the relationship between environmental-CSR and employee commitment is supported with a path coefficient value of $\beta = 0.246 \ (p < 0.05)$. Thus, H3 is partially supported. The results of the $R^2$ were 0.21, 0.12, and 0.12 for financial performance, corporate reputation and employee commitment, respectively.

5.5 Discussion

The study reported in this chapter of the thesis was designed to examine the impact of CSR on firm performance in Zambian SMEs using a longitudinal analysis. Data were collected at two time-points, 12 months apart. Thus, longitudinal analysis of the association between CSR and the three indicators of firm performance (financial performance, corporate reputation and employee commitment) were conducted. The longitudinal analysis results reported in this chapter show that the two dimensions of CSR (social and environmental) significantly impact financial performance. However, the association between the two dimensions of CSR and the other two measures of firm performance (corporate reputation and employee commitment) only turned out to be partially significant.
We found that the relationship between CSR and financial performance is significant and fully supported. The positive effect of CSR on financial performance is consistent with many studies conducted in Western, Asian, and other countries (e.g., Dobre et al., 2015; Lin et al., 2015; Pan et al., 2014; Rettab et al., 2009; Torugsa et al., 2012). Additionally, in the context of Zambia, Choongo et al., (2017, see Chapter 4) established that SMEs are motivated to engage in CSR for financial benefits. It is therefore expected that the involvement in CSR activities such as reduction in energy and water usage translates in cost savings which ultimately improve firm performance. These findings imply that in non-Western contexts, CSR also positively impacts firm performance.

The relationship between CSR and corporate reputation is only partially accepted. Perhaps corporate reputation has less impact on SMEs than on large corporates. Fraj-Andrés et al. (2012) explained that SMEs visibility to the public and media is more difficult and SMEs do not normally publicise or report their CSR activities (Jamali et al., 2009). Hence, CSR may not have a great impact on corporate reputation even though other authors, such as Turban and Greening (1997), suggest that CSR activities in SMEs contribute to building a better image and strong marketing position which consequently leads to a competitive advantage.

The result of the association between CSR and employee commitment is also only partially accepted. This is a surprising result because CSR in Sub-Saharan Africa emphasises community ties and entrepreneurs feel responsible for the well-being of the community and employees including their family members (Amaeshi et al., 2006; Demuijnck and Ngnodjom, 2013; Vives, 2005). Previously it was proposed that strong community ties enhance the bond between the firm and its employees. The care for the community and employees and their family members may lead to increased employee commitment thereby improving employee productivity which may
ultimately result in improved performance in an organisation in the long run (Ali et al., 2010). A possible explanation for our surprising result may be that attempts to improve firm performance may require spending money on buying assets, marketing the products, hiring employees, training and developing employees. This may negatively affect employee commitment to the firm. Entrepreneurs managing SMEs can invest in CSR activities such as training and development that raise employee commitment to the firm, thereby improving the performance of the firm over time. If employees are very committed to the organisation, it will lead to employee retention and less costs in hiring new employees, thereby improving the performance of the firm over time.

5.6 Limitations

This research has several limitations. First, the study’s sample was drawn from one sector (trading and service), which might limit the generalizability of the reported findings. Future studies should verify these findings across sectors. Second, we used perceptual measures of financial performance due to lack of objective measures in SMEs, even though subjective/perceptual measures correlate with objective measures (Keh et al., 2007). Future researchers should endeavour to use objective measures of firm performance. Third, we did not investigate what drives changes in CSR and employee commitment over time. Future researchers can ask questions such as “what drives changes in the CSR and firm performance link overtime and when might CSR impact firm performance?” Finally, we collected two waves of data, 12 months apart. Future studies should consider collecting three or more waves of data to examine the causal change in the link between CSR and firm performance. Nevertheless, the reported
results are helpful to entrepreneurs, researchers and policy makers in understanding the outcomes of CSR in SMEs in developing countries, especially in Sub-Saharan Africa.

5.7 Conclusions

The most significant finding from our longitudinal analysis is that there is a significant effect of CSR on financial performance over a 12-month period. Furthermore, even though our study shows that there are limited effects of changes in the two dimensions of CSR on corporate reputation as well as on employee commitment over time, our evidence adds to the existing literature in entrepreneurship and small business in non-Western contexts by showing that there is a positive effect of changes in CSR on firm performance in the long run. The results of the study reported in this chapter are similar to previously reported empirical results from Western and Asian countries showing that CSR activities positively impact on firm performance. In comparison with previous studies, our results support the view that the involvement in CSR has the potential to lead to improved firm performance. We can therefore conclude that by applying a longitudinal analysis on the effects of CSR on firm performance, our empirical analysis helps to clarify the causal effect of the relationship between CSR and firm performance. This is because the use of longitudinal analysis overcomes the limitations and biases that may arise from cross-sectional analysis. This study has implication for entrepreneurs, researchers and policy makers in that they should exercise patience in evaluating the outcomes of the CSR activities in SMEs in Sub-Saharan African developing countries. It is clear from our longitudinal analysis that CSR activities can result in increased firm performance over a period of time.
Chapter 6  Conclusions and recommendations
6.1 Conclusion

The aim of this study was to investigate the factors influencing the engagement in sustainable practices and to examine the effect of sustainable practices on firm performance among SMEs in Zambia. Based on prior research we identified research gaps, predominantly related to the absence of sustainable entrepreneurship studies in Sub-Saharan African countries such as Zambia. The main research question was thus formulated as: What factors influence the engagement in sustainable practices among SMEs in Zambia and what is the performance effect of the engagement in these practices? To answer the main research question, four sub-questions were specified:

(1) Which factors influence the identification of sustainable opportunities in Zambia?

(2) What is the influence of personal values of entrepreneurs in SMEs in Zambia on their social and environmental CSR orientations?

(3) Which factors motivate SMEs to engage in different forms of CSR activities in Zambia?

(4) What is the impact of CSR on firm performance in SMEs in Zambia over time?

This resulted in four empirical studies.

In this final chapter of the PhD thesis, we first answer the sub-questions based on the results of the four reported empirical studies. This ultimately results in answering the main research question stated above. This is followed by a discussion of the theoretical contributions as well as practical and policy implications of the results of the research. Finally, the chapter addresses limitations of the study and provides suggestions for future research.
6.2 Main findings and answers to the sub-questions

6.2.1 Answers to the sub-questions

In Study 1 (Chapter 2), we used the model of Patzelt and Shepherd (2011) to examine the factors influencing the identification of sustainable opportunities among 220 SMEs in Zambia. Three factors were considered: (1) knowledge of the social/natural environment; (2) perception of threats to the social/natural environment; and (3) altruism towards others. In addition, entrepreneurial knowledge was examined as the moderator between these three factors, on the one hand, and the identification of sustainable opportunities, on the other hand. This chapter addressed sub-question 1: Which factors influence the identification of sustainable opportunities in Zambia? The answer is that altruism towards others influences entrepreneurs to identify sustainable opportunities, while knowledge of the social/natural environment and perception of threats to the social/natural environment do not influence entrepreneurs to identify sustainable opportunities (see Table 2.3). Furthermore, entrepreneurial knowledge does not moderate the relationship between the three factors and the identification of sustainable opportunities (see Table 2.3). However, entrepreneurial knowledge was found to have a strong impact on sustainable opportunity identification (see Table 2.3), implying that conventional prior entrepreneurial knowledge to a large extent also explains the identification of sustainable opportunities. This result is consistent with studies from conventional entrepreneurship literature (Shepherd and DeTienne, 2005; Tang et al., 2012) that found prior entrepreneurship knowledge increases the likelihood of identifying opportunities. Apparently, sustainable opportunities form a subset of the total set of entrepreneurial opportunities.

In Study 2 (Chapter 3), we examined the influence of entrepreneurs’ personal values on their CSR orientations in 221 SMEs in Zambia. Four higher order values namely, self-transcendence,
conservation, self-enhancement, and openness to change values of the Schwartz framework were considered. This chapter considered sub-question 2: *What is the influence of personal values of entrepreneurs in SMEs in Zambia on their social and environmental CSR orientations?* The results show that self-transcendence values positively influence entrepreneurs to engage in socially-oriented CSR while conservation and openness to change values influence entrepreneurs to engage in environmentally-oriented CSR (see Table 3.5). According to this study, self-enhancement values do not influence entrepreneurs to engage in any form of CSR activities (see Table 3.5). This chapter suggests that sustainable practices in SMEs are driven by personal values of the entrepreneurs that run the companies. At the same time, the results of Chapter 3 highlight that not all values have similar effects, so it is important to differentiate between values as well as between different types of CSR to foster understanding of how personal values influence CSR orientations. Chapter 3 further provides a better understanding of which personal values drive entrepreneurs to be more concerned about the welfare of others and care of the environment. Understanding the types of personal values that drive entrepreneurs to engage in CSR is crucial to promote responsible and sustainability-oriented behaviour of entrepreneurs.

Study 3 (Chapter 4) examined the motivations of SMEs to engage in three forms of CSR activities: employee, community, and environmental. The motivation factors considered in the study included internal (both financial motivation and moral and ethical motivation) and external motivation factors. In addition to these two factors highlighted above, it was proposed that the identification of sustainable opportunities can also drive SMEs’ engagement in CSR. To that end, Chapter 4 explored the third sub-question: *What factors motivate SMEs to engage in different forms of CSR activities in Zambia?* The answer to that sub-question is that internal factors motivate entrepreneurs in SMEs to engage in CSR (both community-CSR and environmental-
The identification of sustainable opportunities also influences the involvement in community CSR activities (see Table 4.6 and Table 4.7). According to this study, external factors play no role in motivating entrepreneurs to engage in any form of CSR activities (see Table 4.6 and Table 4.7). The results of Chapter 4 show consistency with the findings of others who observed that SMEs are internally focused and motivated towards sustainable practices for profit motives (Lee et al., 2016; Vo et al., 2015; Mankelow and Quazi 2007; and Santos, 2011). The results of Chapter 4 also point out that SMEs in Zambia have a strong focus on the social sustainable practices rather than the environmental sustainable practices. Furthermore, SMEs in Zambia are motivated to engage in community-CSR aimed at addressing the social needs in the community. This explains why SMEs in Zambia are more inclined to engage in social CSR.

Africa has very high population growth, widespread diseases such as malaria and HIV, and shortage in fulfilling basic needs (Thorgren and Omorede, 2015). Moreover, the continent is plagued by corruption, social and environmental problems, and misuse of donor aid (Spence and Painter-Morland, 2010). These characteristics make CSR very important and having impact on every-day life (Kolk and Rivera-Santos, 2016).

In the last empirical study, Study 4 (Chapter 5), the outcomes of being involved in sustainable activities were examined. The sub-question addressed in this chapter was: What is the impact of CSR on firm performance in SMEs in Zambia over time? Chapter 5 investigated the impact of CSR on firm performance in 153 SMEs using a longitudinal research design. The three indicators of firm performance were: (1) financial performance; (2) corporate reputation; and (3) employee commitment. By means of a longitudinal approach and a SmartPLS model, the key finding in Chapter 5 was that CSR has a significant positive effect on financial performance over time. The positive effect of CSR on financial performance is consistent with many studies.
conducted in Western, Asian, and other countries (e.g., Rettab, Brik, and Mellahi, 2009; Dobre, Stanila, and Brad, 2015; Lin, Chang, and Dang; Pan et al., 2014; Torugsa, O’Donohue, and Hecker, 2014). Additionally, in the context of Zambia, in Chapter 4, we established that SMEs are motivated to engage in CSR for financial benefits. The findings in Chapter 5 imply that in non-Western contexts, CSR also positively impacts firm performance. Further, in Chapter 5, the effects of CSR on the other two indicators of firm performance (corporate reputation and employee commitment) only turned out to be partially significant over time (refer to Figure 5.1 and Table 5.4). Even though Chapter 5 shows that there are limited effects of changes in the two dimensions of CSR on corporate reputation as well as on employee commitment over time, the findings of Chapter 5 add evidence to the existing studies on entrepreneurship and small business in non-Western contexts by showing that there is a positive effect of changes in CSR on firm performance in the long run. The results of Chapter 5 are similar to previous empirical evidence from Western and Asian countries showing that CSR activities positively impact firm performance. In comparison with previous studies, our sub-Saharan African results support the view that the involvement in CSR has the potential to lead to improved firm performance. It can, therefore, be concluded that applying a longitudinal analysis on the effects of CSR on firm performance helps to clarify the causal effect of the relationship between CSR and firm performance, as a longitudinal analysis overcomes the limitations and biases that may arise from cross-sectional analyses.

6.2.2 Answering the main research question

The main research question that this PhD thesis addressed was: “What factors influence the engagement in sustainable practices among SMEs in Zambia and what is the performance effect
of the engagement in these practices?” This PhD thesis presented four empirical studies. The results of the studies have shown the factors influencing the engagement in sustainable practices and the effects of the engagement in these practices. It has been shown in Chapter 2 that altruism towards others and entrepreneurial knowledge influences entrepreneurs managing SMEs to identify sustainable opportunities (as can be seen in Chapter 2, Table 2.3). Secondly, when opportunities are identified, entrepreneurs act on them. To act on the identified sustainable opportunities, personal values and motivation play an important role. Chapter 3 indicated that self-transcendence, conservation, and openness to change values influence entrepreneurs to engage in sustainable practices (as can be seen in Chapter 3, Table 3.5). Chapter 4 looked at different types of CSR and what influences engagement in these CSR types. The study found that internal motivations and the identification of sustainable opportunities motivate entrepreneurs managing SMEs to engage in sustainable practices (different types of CSR) (as can be seen in Chapter 4, Table 4.6 and Table 4.7). Finally, Chapter 5 disclosed the potential benefits of sustainable behaviour. In particular, the involvement in sustainable activities results in improved financial performance over time, while the engagement in sustainable activities has limited effects on corporate reputation and employee commitment over time (as can be seen in Chapter 5, Figure 5.1, and Table 5.4).

Taking all the empirical studies in this PhD thesis into consideration, the factors that influence the engagement in sustainable practices among SMEs in Zambia are altruism towards others, entrepreneurial knowledge, self-transcendence values, conservation values, openness to change values, internal motivations and the identification of sustainable activities. In turn, the engagement in sustainable practices leads to better financial performance. Thus, the engagement in sustainable practices is good for firms, society and environment.

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6.3 Theoretical contributions

This study is about sustainable entrepreneurship, which deals with how entrepreneurs identify sustainable opportunities, exploit those opportunities and then take action to engage in sustainable activities through their motivation and personal values for the benefit of nature and the people (Patzelt and Shepherd, 2011). Much of the literature on sustainable entrepreneurship has been conceptual (Hall et al., 2010). It is important to understand that a focus on the conceptual aspects alone can limit our understanding of how entrepreneurs identify sustainable opportunities. It was also indicated in Chapter 3 that there is a limited number of studies exploring the relationship between personal values and CSR in a sample of Sub-Saharan African entrepreneurs. Further, it was noted that there is a lack of understanding regarding what motivates entrepreneurs in Sub-Saharan Africa such as Zambia to engage in different sustainable practices (CSR in particular). Moreover, the few existing studies on CSR motivations in SMEs often assume that entrepreneurs are motivated by internal and/or external factors to engage in sustainable practices and CSR. Patzelt and Shepherd (2011), however, have a different theory which focuses on the identification of sustainable opportunities. They propose that when individuals identify sustainable opportunities they are most likely to consider social and environmental issues. Yet, hardly any studies have incorporated the identification of sustainable opportunities in studying CSR motivations (and not at all in SMEs in Sub-Saharan Africa, including Zambia) (see Chapter 4). Further, using cross-sectional analyses alone would also limit our understanding of the outcomes from being involved in sustainable activities (See Chapter 5). In this light, our findings have important implications and contributions to theory.
In particular, the results of this PhD thesis make four important theoretical contributions to the sustainable entrepreneurship literature. The first contribution relates to testing the model of Patzelt and Shepherd (2011) concerning the identification of sustainable entrepreneurship. The second relates to the application of Western sustainable entrepreneurship concepts to a non-Western context. The third relates to the introduction of a new construct (the identification of sustainable opportunities) in explaining the predictors of entrepreneurs engaging in CSR practices. The fourth contribution relates to the use of a longitudinal approach to explain the impact of CSR on firm performance in the Sub-Saharan African context.

6.3.1 Testing of the model of Patzelt and Shepherd (2011)

Our study makes an important contribution to the literature by empirically testing the model of Patzelt and Shepherd (2011) and examining the sustainable identification concept in a new and unique context. Specifically, Chapter 2 examined the ability of the model of Patzelt and Shepherd (2011) to predict factors influencing the identification of sustainable opportunities. The study examined the influence of three factors (knowledge of the social/natural environment, perception of threats to the social/natural environment, and altruism towards others) on the identification of sustainable opportunities by SMEs in Zambia. Entrepreneurial knowledge was examined as a moderator. We tested the ability of the model of Patzelt and Shepherd (2011) to predict the identification of sustainable opportunities while controlling for entrepreneurs’ ages, gender and education. Our study has shown that only the altruism construct and the direct effects of entrepreneurial knowledge predicted the likelihood of the identification of sustainable opportunities. Our findings add to the literature on sustainable
opportunity identification by departing from the conceptual approach and carrying out a first empirical test on whether or not the model of Patzelt and Shepherd (2011) can predict the identification of sustainable opportunities.

We note that two more studies have tested the model of Patzelt and Shepherd (2011) after we conducted our study. One study was conducted by Muñoz and Dimov (2017) using an online survey on a sample of business school students (country not specified), and they also found partial support for the model. Their findings indicate that prior knowledge of the natural and communal environments has marginally significant effects on sustainable opportunity identification. Furthermore, they found that the association between prior knowledge of the natural and communal environment and sustainable opportunity identification is moderated by moral intensity (persons’ perception of moral issues in a certain situation). Moral intensity consists of components that bear similarity to altruism towards others and perception of threat to the natural and social environment (Hanohov and Baldacchino, 2017). Nevertheless, Muñoz and Dimov (2017) did not test the moderating effect of entrepreneurial knowledge as suggested by Patzelt and Shepherd (2011). Another study carried out in Berlin (Germany) by Hanohov and Baldacchino (2017) found support for the model of Patzelt and Shepherd (2011). Their findings indicate that the identification of sustainable opportunities is influenced by (1) knowledge of the natural and communal environments; (2) altruistic motives; and (3) the direct effect of entrepreneurial knowledge. They, however, extended the model of Patzelt and Shepherd (2011) by including additional components, specifically adding prior jobs and prior projects to entrepreneurial knowledge as well as the concepts of traveling abroad and socialisation as they enhance knowledge of the natural and communal environment.
Overall, it can be concluded that in addition to altruism towards others, conventional entrepreneurial knowledge and entrepreneurial characteristics are important in the identification of sustainable opportunities and for the engagement in sustainable practices. This may also apply to Western countries as Hanohov and Baldacchino (2017) found. Furthermore, we found that the model of Patzelt and Shepherd (2011) does not adequately explain the identification of sustainable opportunities; future studies can explore other important components that enhance the identification of sustainable opportunities. The model of Patzelt and Shepherd (2011) could be improved by incorporating contextual variables, such as culture and economic conditions. Our study did not incorporate these variables, but future research may consider their inclusion. Authors including Majid (2012), O’Neil et al., (2009) and Nurse (2006) have also called for the inclusion of culture in future sustainability studies. This is because sustainable entrepreneurship research can be better understood within its historical, institutional, and cultural context as these contexts provide individuals with opportunities and set boundaries for entrepreneurial action (Gray et al., 2014).

6.3.2 Applicability of Western sustainable entrepreneurship concepts in a developing country
The second contribution relates to the extent to which sustainable entrepreneurship concepts are applicable in a developing Sub-Saharan African country. At the beginning of this PhD thesis, it was pointed out that there is a lack of empirical research on sustainable entrepreneurship in Sub-Saharan Africa (Visser, McIntosh, and Middleton, 2006). The consequence of limited research in developing countries is that we do not adequately understand the factors influencing the engagement in sustainable practices and the effect of engaging in these practices.
Our findings show limited empirical support for the model of Patzelt and Shepherd (2011) concerning the identification of sustainable opportunities because of the three predictor variables only altruism towards others was supported. This finding implies that altruism towards others can predict the sustainable opportunities in Sub-Saharan African countries such as Zambia. At the same time, the limited empirical support is at least an indication that the Western concepts of sustainable opportunity identification may not be fully applicable in the context of African developing countries such as Zambia.

There are a number of reasons that may explain why our findings show limited empirical support for the model of Patzelt and Shepherd (2011). The socio-economic context of Sub-Saharan African countries could be one reason why the used theories on sustainable entrepreneurship were not able to sufficiently describe all relevant relationships with opportunity identification. As discussed in Chapters 2, 3, and 4, the environmental and social crises are mostly felt in Africa (Visser et al., 2006). In Africa, there are important problems like poverty, corruption, wars, misguided aid, inadequate health, and low levels of education (Demuijnck and Ngnodjom, 2013; Muthuri and Gilbert, 2011; Amaeshi et al., 2006). The low levels of education may also imply that the African entrepreneurs have inadequate knowledge on environmental issues. Thus, they may not be able to perceive any threats to the natural environmental. Consequently, they may not be able to identify sustainable opportunities. Another reason concerns differences in cultural and economic circumstances. The African culture has strong emphasis on community ties (Amaeshi et al., 2006; Vives, 2005). As such, African entrepreneurs feel responsible for their employees, including their family members and the community (Demuijnck and Ngnodjom, 2013). This may explain why only altruism towards others is found to be a predictor of sustainable opportunity.
identification. In sum, the cultural context should to a larger extent be included in the study of sustainable entrepreneurship concepts.

Another contribution of this PhD thesis is the applicability of the factors influencing the engagement in sustainable practices in a Sub-Saharan Africa country. We highlighted that sustainable practices in Zambia emerge from historical events such as the colonial rule, the previously mine owners’ (i.e. Anglo American Corporation and ZCCM) practices which focused on social needs. The findings indicate that value alignment learned by entrepreneurs through history, social and political structures influence entrepreneurs’ choices of sustainable practices they engage in. These values tend to relate to socio-cultural embedded CSR orientations that existed in the past (for example, during the time of ZCCM in the case of Zambia). That is to say, entrepreneurs in this context develop social values that prompt them to respond to social issues. It is very likely that factors influencing entrepreneurs to engage in sustainable practices (such as self-transcendence values) are more oriented towards the social aspects of sustainability. In sum, this explains why sustainable practices in developing countries such as Zambia are shaped by the social and economic context in which the firms operate (Visser et al., 2006).

6.3.3 New variable in explaining predictors of sustainable behaviour

The PhD thesis’ third theoretical contribution is that an additional construct, namely the identification of sustainable opportunities as examined in this study, can help explain the motivation of entrepreneurs to engage in sustainable activities. This is in addition to other predictors of sustainable behaviour such as personal values, internal and external motivations. Consistent with existing studies on CSR motivations in SMEs (e.g. Lee et al.,
2016; Masurel and Rens, 2015; Vo et al., 2015; Santos, 2011; Nejati and Amran, 2009; Mankelow and Quazi, 2007), our study also shows that internal motivations (i.e., financial, moral and ethical motivations) can predict the involvement in CSR while external motivations play no role in any form of CSR engagement. Similar to previous research, it is clear that our results support the view that SMEs’ engagement in CSR is highly motivated by the entrepreneurs’ moral and ethical values rather than by external pressure. One possible reason why our result on this topic is consistent with extant literature could be that the predictor variables were adapted to the context of the study.

Further, our study revealed that personal values including self-transcendence, conservation, and openness to change can predict the involvement in CSR activities while self-enhancement values play no role in any form of CSR engagements. This study has provided a better understanding of the type of personal values that drive entrepreneurs to be more concerned about social and environmental issues in a hardly researched Sub-Saharan African country. Unlike other studies that focus on investigating the effect of personal values on CSR on samples of students, consumers, and working professionals including managers, our study is different in that it focuses on a sample of established entrepreneurs who are in the best position to help resolve social and environmental problems. Additionally, knowing values aligned with CSR would help those who want to stimulate sustainable behaviour of entrepreneurs. In sum, in addition to other factors influencing the engagement in sustainable practices such as altruism towards others, entrepreneurial knowledge, self-transcendence values, conservation values, openness to change values, and internal motivations, the identification of sustainable opportunities can also influence in engagement in sustainable practices.
6.3.4 Methodological: Use of the longitudinal approach

A fourth important contribution of this PhD thesis is made by employing a longitudinal design to test the relationship between CSR and firm performance in the Sub-Saharan African context (Chapter 5). The use of the longitudinal study design helps to provide clarity on the CSR-performance relationship because it is a means of understanding how changes in CSR affect firm performance over time.

As indicated above, one of the major findings of the longitudinal study reported in Chapter 5 is that CSR significantly impacts financial performance. That is, when changes in CSR are consistently observed as preceding outcomes of firm performance for the same sample, then we can conclude that there is a causal relationship between CSR and firm performance. This is supported by the longitudinal approach which provides greater prediction power because of repeated observations (Hutto, Yardi and Gilbert, 2013). To engage in CSR activities seems to be beneficial in the long run, and SMEs not aiming at involvement in CSR may perform less well over time. Through our improved way of testing this relationship, we contribute the insight that increased engagement in CSR over time leads to improved performance.

Since CSR activities in SMEs are in general unstructured and ad hoc (Santos, 2011), only a longer time frame will allow us to make a conclusion of the cause-and-effect relationship between CSR and firm performance. ‘Following a group of firms over time is expensive and time consuming, but it is important to recognise that only such large-scale longitudinal studies can start to provide us with enough confidence about causality to provide the basis for theoretical model building and experimental research’ (Low and MacMillan, 1988, p. 154). Moreover, Low and MacMillan (1988) pointed out that greater insights can be gained from studies which apply longitudinal designs than those that use cross sectional
designs. It is therefore desirable to move towards longer time frames because different strategic issues become clearer as firms and industries evolve.

Although the four studies in this PhD thesis can be read as stand-alone studies, they are also related. In particular, studies in Chapters 2, 3, and 4 point to the importance of personal values and attitudes for sustainability. For example, altruism (Chapter 2) is an aspect of personal values (self-transcendence) (Chapter 3). Personal values are also linked to ethical behaviour of entrepreneurs (Thakur and Kohli, 2015). Aspects of internal motivations such as moral and ethical motivations are related to personal values. Ethical behaviour denotes being honest, kind, respectful, sincere, and socially responsible (Thakur and Kohli, 2015; Şerban, 2015). In sum, this study found that altruism (Chapter 2), personal values (Chapter 3), and moral and ethical orientations (Chapter 4) of the entrepreneur play a key role in the sustainable activities of their firms. In other words, our study has shown that entrepreneurs managing SMEs are mostly driven by moral and ethical reasons to engage in sustainable activities. It seems that in our context, personal values are important in driving sustainable behaviour. Further studies are needed on the influence of entrepreneurs’ personal values on sustainable opportunity identification and sustainability motivations in SMEs.

Chapter 5 is linked to the other three chapters (Chapters 2, 3 and 4) in the sense that after understanding the antecedents of the identification of sustainable opportunities and the predictors of sustainable behaviour, this chapter focuses on the effect of sustainable behaviour on firm performance.
6.4 Practical and policy implications

SMEs’ involvement in sustainable entrepreneurship is an important remedy to social and environmental problems (Hall et al., 2010). Thus, the findings of this PhD thesis are important to entrepreneurs, academics, and policy-makers as they may form a basis for entrepreneurial practice and specific policies. This PhD thesis found that personal values play an important role in sustainable entrepreneurship. Therefore, it is recommended that entrepreneurs, academics and policy-makers can work on ways of increasing entrepreneurs’ self-transcendence and altruism values that are oriented towards sustainability. This would enable entrepreneurs to identify more sustainable opportunities and engage in sustainable practices. Entrepreneurs should take into account the importance of personal values for the identification of sustainable opportunities and engagement in sustainable practices. The findings also warn regulators and policy-makers that SMEs’ involvement in sustainable practices is largely driven by entrepreneurial behaviour rather than external motivations through regulation and policies. As such, understanding which factors influence entrepreneurs to engage in sustainable practices can assist policy-makers in designing regulations and policies that can intrinsically motivate entrepreneurs to develop sustainable practices.

In addition, further evidence has been added regarding the importance of sustainable practices, in particular in Sub-Saharan Africa. Thus, this research provides a basis for further research on what drives entrepreneurs and SMEs to engage in sustainable practices. We also found that by applying the longitudinal analysis, there is a significant effect of CSR on the firms’ financial performance over time. It is therefore important for entrepreneurs to know that involvement in CSR activities can contribute to better firm performance over time, thus, more attention should be paid to involvement in sustainable activities.
Furthermore, most SMEs are managed by their founders and owners (entrepreneurs) (Demuijnck and Ngnodjom, 2013; Jamali et al., 2017; Jenkins, 2006; Perrini, 2006). Since this study found that entrepreneurial knowledge led entrepreneurs to identify more sustainable opportunities, it is recommended that policy-makers and regulators can introduce ways of increasing this type of knowledge. Business support institutions such as the Chamber of Commerce and Zambia Development Agency can offer training and advisory services regarding entrepreneurship and sustainable practices. Academics can incorporate topics on entrepreneurial knowledge and sustainable practices in their curriculum. This way, entrepreneurs will increase their entrepreneurial knowledge and sustainable practices, thereby, increasing their ability to identify sustainable opportunities and to engage in sustainable practices.

Yet, even where training is given and regulation exists, there might be a need to introduce incentives for SMEs to engage in CSR, even though our research shows that the external pressures are less important than internal motivations. Introduction of specific incentives can be considered, such as: (1) tax waiver on investments in sustainable activities; (2) mining companies can give preference to procuring from SMEs that demonstrate involvement of sustainable activities; (3) the Chamber of Commerce can introduce a sustainability award to the best performing SME in the area of social and environmental performance; and (4) commercial banks can consider giving preferential consideration to such firms. Such incentives may help SMEs to identify sustainable opportunities and could contribute towards changing the behaviour of SMEs, which may eventually lead to improved sustainable practices.
6.5 Limitations of the study

Although this study provides theoretical and practical contributions to sustainable entrepreneurship in Sub-Saharan Africa, it also has limitations. These limitations mean that the readers should interpret the findings with caution. The first limitation relates to the context of the study. Our empirical research was conducted in a single Sub-Saharan African developing country; thus, our findings may not be generalizable to other Sub-Saharan African countries and regions without further research. The second limitation relates to the study sample. The study population was drawn from a single sector (trading and services). This limits the generalisability of our findings to other sectors. Third, the study did not take explicitly into account the economic conditions and cultural factors of the country where the study was conducted. Yet, as the findings indicate, sustainability practices largely depend on the historical and cultural aspects of the country where the study is conducted. Fourth, due to unreliable databases for SMEs in Zambia, we ended up using different survey administration techniques and convenience sampling even though we started with random sampling, which limits the external validity of the study. Bowling (2005) pointed out that different questionnaire administration techniques affect the quality of the data collected. However, Kriauciunas, Parmigiani and Rivera-Santos (2011) noted that collecting data in developing countries possess a challenge to researchers and advised that survey administration techniques should be adapted to the study context. Fifth, a number of hypotheses especially in Study 1 (Chapter 2) were either partially accepted or rejected. This could be due to the fact that the Western concepts of sustainable entrepreneurship may not be fully applicable to the Sub-Saharan African context. Further, this PhD thesis neither differentiated between the types of sustainable opportunities identified (whether they were social or environmental) nor did we separate the number of opportunities identified from the number of
opportunities firms engaged in. It is possible that respondents could not have differentiated between the identification of sustainable opportunities and actual sustainable practices. Sixth, Study 2 (Chapter 3) did not specify which values influence precisely what type of CSR. Seventh, a large number of items on the CSR scale in Study 3 (Chapter 4) had to be deleted because of cross-loading. Eighth, although we applied a longitudinal approach in Study 4, our study was limited to two data points and a time frame of 12 months apart.

6.6 Suggestions for future research

In light of our findings and the study’s limitations, we provide recommendations for future research. First, future researchers can consider studying the topics of this PhD thesis in different contexts. For example, similar studies can be carried out in other Southern African Development Community (SADC) countries and/or Common Market for Eastern and Southern Africa (COMESA) countries as these countries have comparable economic conditions. Furthermore, similar studies can be carried out beyond this immediate context, in particular in other settings with comparable characteristics such as developing countries in Asia and South America, but also developed countries. This would enable cross-country comparisons and enhance the generalisability of our findings.

Second, future studies could extend similar research to include samples from different sectors such as agriculture, construction, processing and manufacturing. This would enable comparisons of sustainable practices in SMEs in different sectors and enlarge the generalisability of the findings.

Third, future studies on sustainable entrepreneurship could consider incorporating contextual variables such as culture and economic conditions of a country. Authors such as
Majid (2012) and O’Neil et al. (2009) have also expressed a need to include culture in sustainability studies. This is because sustainable practices can be better understood in the cultural and economic context of a particular country.

Fourth, the government through the Ministry of Commerce, other regulatory bodies, training institutions, support institutions, and the Chamber of Commerce in Zambia could consider developing reliable data bases that researchers can have access to, which would facilitate analysing such developments over time more efficiently.

Fifth, future studies could consider a qualitative approach such as a multiple-case study approach to explore sustainable entrepreneurship in Sub-Saharan Africa. This might enable academics to build theories that would be more in line with the developing countries context. Furthermore, there is need for research that differentiates the types of sustainable opportunities (whether they are social or environmental) identified and separate the opportunities identified from those firms engaged in. Our study also found that the knowledge of the social/natural environment and perception of threats to the social/natural environment do not influence the identification of sustainable opportunities. Future research could explore other sources of information that could increase the knowledge of the social/natural environment and perception of threats to the social/natural environment and determine whether the increase in the forms of knowledge can increase the identification of sustainable opportunities.

Sixth, personal values were found to play an important role in sustainable entrepreneurship. Future research could explore whether personal values mediate the relationship between sustainable practices and firm performance. There is also a need to further confirm which specific values precisely influence what type of CSR; this will foster understanding of how personal values influence CSR orientations.
Seventh, further research is needed into the overlap on the different CSR measures. The overlap could be due to the study’s context; employee-CSR is not very accepted as CSR in this context because it is regarded as part of the legal obligation for the employer. Hence, it could be that respondents in our sample did not see their responsibilities towards their employees as CSR but as a part of their normal obligations. Therefore, further research is needed to determine whether employee-CSR is different from community-CSR.

Eighth, while we applied a longitudinal analysis in Study 4 (Chapter 5), future researchers could consider a longer time frame of more than 12 month and collecting data at more than two data points. Further, future studies can consider questions such as, “Does the effect of sustainable practices increase or decrease over a period of more than one year?” This would enable researchers to conclude whether our findings can still hold across different time frames.

In sum, this PhD thesis made various contributions to understanding the relationship between entrepreneurship and sustainable practices. In turn, our findings form a basis for follow-up studies and contributions to understand and practice sustainable entrepreneurship, in particular in Sub-Saharan Africa.
References


Appendices
### Appendix 1. Definitions of sustainable entrepreneurship

<table>
<thead>
<tr>
<th>Source</th>
<th>Definition</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>[3] Dean and McMullen (2007, p. 58)</td>
<td>‘The process of discovering, evaluating, and exploiting economic opportunities that are present in market failures which detract from sustainability, including those that are environmentally relevant’.</td>
<td>Opportunities Economic Environmental</td>
</tr>
<tr>
<td>[12] Patzelt and Shepherd 2011 (p.632)</td>
<td>‘The discovery, creation, and exploitation of opportunities to create future goods and services that sustain the natural and/or communal environment and provide development gain for others’.</td>
<td>Opportunities Economic Environmental Social</td>
</tr>
<tr>
<td>[13] Hockerts and Wüstenhagen (2010, pp 482)</td>
<td>‘The discovery and exploitation of economic opportunities through the generation of market disequilibria that initiate the transformation of a sector towards an environmentally and socially more sustainable state’.</td>
<td>Opportunities Economic Environmental Social</td>
</tr>
<tr>
<td>[28] Crals and Vereeck (2005, p. 1)</td>
<td>‘The continuing commitment by business to behave ethically and contribute to economic development, while improving the quality of life of the workforce, their families, local communities, the society and the world at large, as well as future generations. Sustainable Entrepreneurs are for-profit entrepreneurs that commit business operations towards the objective goal of achieving sustainability’.</td>
<td>Economic Environmental Social</td>
</tr>
<tr>
<td>[29] Schaltegger and Wagner (2011, pp. 224)</td>
<td>‘An innovative, market-oriented and personality driven form of creating economic and societal value by means of break-through environmentally or socially beneficial market or institutional innovations’.</td>
<td>Economic Environmental Social</td>
</tr>
<tr>
<td>[30] Shepherd and Patzelt (2011, pp. 142)</td>
<td>‘Sustainable Entrepreneurship is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society’.</td>
<td>Opportunities Economic Environmental Social</td>
</tr>
<tr>
<td>[31] Choi and Gray (2008, p. 559)</td>
<td>‘Create profitable enterprises and achieve certain environmental and/or social objectives, pursue and achieve what is often referred to as the double bottom-line or triple bottom-line’.</td>
<td>Economic Environmental Social</td>
</tr>
<tr>
<td>[32] Cohen and Winn (2007, p. 35)</td>
<td>‘The examination of how opportunities to bring into existence future goods and services are discovered, created, and exploited, by whom, and with what economic, psychological, social, and environmental consequences’.</td>
<td>Opportunities Economic Environmental Social</td>
</tr>
<tr>
<td>[33] Gerlach (2003, p. 3)</td>
<td>‘Innovative behaviour of single or organisations operating in the private business sector who are seeing environmental or social issues as a core objective and competitive advantage’.</td>
<td>Economic Environmental Social</td>
</tr>
</tbody>
</table>
Appendix 2. Modified Schwartz’s 21-item portrait values questionnaire (PVQ)

Here we briefly describe some people. Please read each description and think how much each person is or not like you. Put an X in the box to the right that shows how much the person in the description like you.

<table>
<thead>
<tr>
<th>HOW MUCH IS THIS PERSON LIKE YOU?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Type</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>1. Thinking of new ideas and being creative is important to me.</td>
</tr>
<tr>
<td>2. It is important to me to be rich.</td>
</tr>
<tr>
<td>3. I believe everyone should have equal opportunities in life.</td>
</tr>
<tr>
<td>4. It is important to me to show my abilities.</td>
</tr>
<tr>
<td>5. It is important for me to live in a secure surrounding.</td>
</tr>
<tr>
<td>6. I like surprises and am always looking for new things to do.</td>
</tr>
<tr>
<td>7. I think people follow rules at all times, even when no-one is watching.</td>
</tr>
<tr>
<td>8. It is important to me to listen to people who are different from him.</td>
</tr>
<tr>
<td>9. It is important to me to be humble and modest.</td>
</tr>
<tr>
<td>10. Having a good time is important to me.</td>
</tr>
<tr>
<td>11. It is important to me to make my own decisions about what I do.</td>
</tr>
<tr>
<td>12. It is very important to me to help the people around me.</td>
</tr>
<tr>
<td>13. Being very successful is important to me.</td>
</tr>
<tr>
<td>14. It is important for me that the government ensures my safety against all threats.</td>
</tr>
<tr>
<td>15. I look for adventures and like to take risks.</td>
</tr>
<tr>
<td>16. It is important for me always to behave properly.</td>
</tr>
<tr>
<td>17. It is important to me to get to get the respect from others.</td>
</tr>
<tr>
<td>18. It is important for me to be royal to my friends.</td>
</tr>
<tr>
<td>19. Looking at the environment is important to me.</td>
</tr>
<tr>
<td>20. Tradition is important to me.</td>
</tr>
<tr>
<td>21. It is important to me to do things that give me pleasure.</td>
</tr>
</tbody>
</table>

Adapted from Schwartz (2003, p.313)

Legend:
1. SD = Self-direction
2. PO = Power
3. UN = Universalism
4. AC = Achievement
5. SE = Security
6. ST = Stimulation
7. CO = Conformity
8. TR = Tradition
9. HE = Hedonism
10. BE = Benevolence
## Appendix 3: Research questionnaire

**BUSINESS NAME:**  | **DATE**  
**BUSINESS ADDRESS** | **TIME**  
**RESPONDENT’S NAME** | **Email**  
**Phone #**  

<table>
<thead>
<tr>
<th>100</th>
<th>SECTION 1: ENTREPRENEUR’S PERSONAL INFORMATION (100)</th>
</tr>
</thead>
</table>

**101 Please indicate your Gender**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Female</td>
</tr>
<tr>
<td>2</td>
<td>Male</td>
</tr>
</tbody>
</table>

**102 Please indicate your age group?**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Under 20</td>
</tr>
<tr>
<td>2</td>
<td>20 to 30</td>
</tr>
<tr>
<td>3</td>
<td>31 to 40</td>
</tr>
<tr>
<td>4</td>
<td>41 to 50</td>
</tr>
<tr>
<td>5</td>
<td>51 to 60</td>
</tr>
<tr>
<td>6</td>
<td>Over 60</td>
</tr>
</tbody>
</table>

**103 What is the highest level of education that you have successfully completed?**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No Education</td>
</tr>
<tr>
<td>2</td>
<td>Basic Education (Grade 1-9)</td>
</tr>
<tr>
<td>3</td>
<td>Secondary Education (Grade 10-12)</td>
</tr>
<tr>
<td>4</td>
<td>Trade School (certificate holder)</td>
</tr>
<tr>
<td>5</td>
<td>College Diploma</td>
</tr>
<tr>
<td>6</td>
<td>University Degree</td>
</tr>
<tr>
<td>7</td>
<td>Professional Qualification</td>
</tr>
<tr>
<td>8</td>
<td>Other (Please Specify):</td>
</tr>
</tbody>
</table>

**104 Did you run another company prior to starting this company?**

Yes  | No  
---|---|
| If Yes, for how many years? (Years) |

**105 Did you have any experience of business management tasks through earlier employment prior to starting your business?**

Yes  | No  
---|---|
| If Yes, for how many years? (Years) |

<table>
<thead>
<tr>
<th>200</th>
<th>SECTION 2: COMPANY INFORMATION (200)</th>
</tr>
</thead>
</table>

*(Please tick [ ] the sector that represents your most important sector)*

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Trading</td>
<td>b</td>
<td>Services</td>
</tr>
<tr>
<td>c</td>
<td>Mining</td>
<td>d</td>
<td>Construction</td>
</tr>
<tr>
<td>e</td>
<td>Manufacturing</td>
<td>f</td>
<td>Processing</td>
</tr>
</tbody>
</table>

**201 Indicate your company sector.**

**202 In which month and year was your business founded?**

( MM/YYYY )

**203 Please indicate the total number of employees as at 1st of January in the following categories:**

<table>
<thead>
<tr>
<th>Category</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Full time employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Part time employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Owner Managers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Family Members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Peak/Casual Workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Total employees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**204 What is your total investment excluding land and building in 2012?**

<table>
<thead>
<tr>
<th></th>
<th>Up to KR80,000</th>
<th>b</th>
<th>KR151,000 – KR250,000</th>
<th>c</th>
<th>KR151,000 – KR300,000</th>
<th>d</th>
<th>More than KR800,000</th>
</tr>
</thead>
</table>

**205 What is your total annual turnover in 2012?**

<table>
<thead>
<tr>
<th></th>
<th>Up to KR150,000</th>
<th>b</th>
<th>KR151,000 – KR250,000</th>
<th>c</th>
<th>KR251,000 – KR800,000</th>
<th>d</th>
<th>More than KR800,000</th>
</tr>
</thead>
</table>

**206 Where is your business located?**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Copperbelt Province</td>
<td>2</td>
<td>Lusaka Province</td>
</tr>
<tr>
<td>3</td>
<td>North Western Province</td>
<td>4</td>
<td>Central Province</td>
</tr>
</tbody>
</table>
This survey uses the following definition of Corporate Social Responsibility (CSR):

CSR is a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with stakeholders on a voluntary basis.

SECTION 3:
Read each statement carefully and indicate which aspect of Corporate Social Responsibility can be found in your company. Select only one of the numbers below to indicate how well the statement describes your Corporate Social Responsibility activities. 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Neither Agree nor Disagree (3)</th>
<th>Agree (4)</th>
<th>Strongly Agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>301</td>
<td>My company ensures workplace health and safety.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(301a)</td>
<td>My company motivates (gives incentives) employees.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(301b)</td>
<td>My company implements training and development programs for employees.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(301c)</td>
<td>My company offers free medical schemes for our employees.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(301d)</td>
<td>My company pays for some of the employee’s recreational activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(301e)</td>
<td>My company helps employees balance work-life and family life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(301f)</td>
<td>My company periodically tests employee satisfaction.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(301g)</td>
<td>My company human resource policy is aimed at workplace diversity.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(301h)</td>
<td>My company pays employees above the minimum wage and level.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(301i)</td>
<td>My company has a flexible working hour’s policy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(301j)</td>
<td>My company follows other employee-oriented social responsibility practices.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Neither Agree nor Disagree (3)</th>
<th>Agree (4)</th>
<th>Strongly Agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>302</td>
<td>My company supports orphans and underprivileged in society directly or indirectly through existing institutions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(302a)</td>
<td>My company sponsors community activities (sports, church buildings, culture, traditional ceremonies).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(302b)</td>
<td>My employees and I actively offer our time and skills in volunteer activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(302c)</td>
<td>My company sponsors students in schools.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(302d)</td>
<td>My company offers industrial attachments (internships) to students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(302e)</td>
<td>My company uses a formal customer complaints register for clients.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(302f)</td>
<td>My company improves the quality of life in the communities where it operates.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(302g)</td>
<td>My company donates money to charities in the communities where we operate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(302h)</td>
<td>My company makes timely payment of taxes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(302i)</td>
<td>My company is active within an organisation with a social purpose.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(302j)</td>
<td>My company follows other society social responsibility practices.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Neither Agree nor Disagree (3)</th>
<th>Agree (4)</th>
<th>Strongly Agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>303</td>
<td>My company saves energy beyond legal requirements.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(303a)</td>
<td>My company saves water beyond legal requirements.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(303b)</td>
<td>My company voluntarily does recycling and/or re-use.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(303c)</td>
<td>My company takes action in order to reduce waste.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
My company purchases environmentally friendly products.

My company has a health, safety and environmental policy.

My company is a member of an environmental organisation.

My company complies with environmental regulations and standards.

My company is well equipped in order to improve the sustainability/CSR of my clients.

My company suggests sustainable solutions to our clients.

My company follows other environmental social responsibility practices.

SECTION 4:
Through the following statements you can indicate why or why not you have included the aspect of Corporate Social Responsibility (CSR) that you mentioned above, with the policy of your company.

401

(401) My company includes CSR because it improves my business reputation and image.

(402) My company includes CSR because it ensures more revenue (I want to win more contracts).

(403) My company includes CSR because it saves costs.

(404) My company includes CSR because it improves employee performance.

(405) My company includes CSR because employees demand it.

(406) My company includes CSR because my clients demand it.

(407) My company includes CSR because suppliers demand it.

(408) My company includes CSR because the community where my business is located demands it.

(409) My company includes CSR because it improves the natural environment.

(410) My company includes CSR because it improves the health/well-being of people in my community.

(411) My company includes CSR because it improves competitiveness.

(412) My company includes CSR because in the future it will be a legal requirement.

(413) My company includes CSR because it gives me good feeling.

(414) My company includes CSR because the bank demands it.

(415) My company includes CSR because it improves the relation with my suppliers.

(416) My company includes CSR because I want to prevent negative media attention.

705: NUMBER OF SUSTAINABLE BUSINESS OPPORTUNITIES
(Please select only one of numbers below to indicate how well the statement describes you).

<table>
<thead>
<tr>
<th>Opportunity</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6-10</th>
<th>More than 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many opportunities for making your business more sustainable and/or starting a sustainable business have you identified within the last five years.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 4: Research questionnaire for second wave of data collection

<table>
<thead>
<tr>
<th>Construct</th>
<th>Label</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Performance</td>
<td>FP1 Relative to our largest competitors, during last year we</td>
<td>- We had larger market share.</td>
</tr>
<tr>
<td></td>
<td>FP2 Relative to our largest competitors, during last year we</td>
<td>- We were larger in size.</td>
</tr>
<tr>
<td></td>
<td>FP3 Our profit growth has been substantially better.</td>
<td>- Our profit growth has been substantially better.</td>
</tr>
<tr>
<td></td>
<td>FP4 Our sales growth has been substantially better.</td>
<td>- Our sales growth has been substantially better.</td>
</tr>
<tr>
<td></td>
<td>FP5 Our return on assets has been substantially better.</td>
<td>- Our return on assets has been substantially better.</td>
</tr>
<tr>
<td></td>
<td>FP6 Our return on investment has been substantially better.</td>
<td>- Our return on investment has been substantially better.</td>
</tr>
<tr>
<td></td>
<td>FP7 Our overall performance has been substantially better.</td>
<td>- Our overall performance has been substantially better.</td>
</tr>
<tr>
<td>Corporate Reputation</td>
<td>CorpRep1 During last five years Our organisation has a good reputation.</td>
<td>- Our organisation has a good reputation.</td>
</tr>
<tr>
<td></td>
<td>CorpRep2 During last five years Our organisation is widely acknowledged as a trustworthy organisation.</td>
<td>- Our organisation is widely acknowledged as a trustworthy organisation.</td>
</tr>
<tr>
<td></td>
<td>CorpRep3 During last five years Our organisation is known to sell high quality products and service.</td>
<td>- Our organisation is known to sell high quality products and service.</td>
</tr>
<tr>
<td>Employee Commitment</td>
<td>EmpCom1 During last five years Our employees are very committed to the organisation.</td>
<td>- Our employees are very committed to the organisation.</td>
</tr>
<tr>
<td></td>
<td>EmpCom2 During last five years The bond between the organisation and its employees is very strong.</td>
<td>- The bond between the organisation and its employees is very strong.</td>
</tr>
<tr>
<td></td>
<td>EmpCom3 During last five years Our employees often go above and beyond their regular responsibilities to ensure the organisation’s well-being.</td>
<td>- Our employees often go above and beyond their regular responsibilities to ensure the organisation’s well-being.</td>
</tr>
<tr>
<td>Social-CSR</td>
<td>SocCSR1 During last five years My company ensures workplace health and safety</td>
<td>- My company ensures workplace health and safety.</td>
</tr>
<tr>
<td></td>
<td>SocCSR2 During last five years My company implements training and development programs for employees</td>
<td>- My company implements training and development programs for employees</td>
</tr>
<tr>
<td></td>
<td>SocCSR3 During last five years My company periodically tests employee satisfaction</td>
<td>- My company periodically tests employee satisfaction</td>
</tr>
<tr>
<td></td>
<td>SocCSR4 During last five years My company human resource policy is partially aimed at workplace diversity</td>
<td>- My company human resource policy is partially aimed at workplace diversity</td>
</tr>
<tr>
<td></td>
<td>SocCSR5 During last five years My company sponsors students in schools</td>
<td>- My company sponsors students in schools</td>
</tr>
<tr>
<td></td>
<td>SocCSR6 During last five years My company offers industrial attachments (internships) to students</td>
<td>- My company offers industrial attachments (internships) to students</td>
</tr>
<tr>
<td></td>
<td>SocCSR7 During last five years My company uses a formal customer complaints register for clients</td>
<td>- My company uses a formal customer complaints register for clients</td>
</tr>
<tr>
<td></td>
<td>SocCSR8 During last five years My company is active within an organisation with a social purpose</td>
<td>- My company is active within an organisation with a social purpose</td>
</tr>
<tr>
<td>Environmental-CSR</td>
<td>EnvCSR1 During last five years My company saves energy beyond legal requirements</td>
<td>- My company saves energy beyond legal requirements</td>
</tr>
<tr>
<td></td>
<td>EnvCSR2 During last five years My company saves water beyond legal requirements</td>
<td>- My company saves water beyond legal requirements</td>
</tr>
<tr>
<td></td>
<td>EnvCSR3 During last five years My company voluntarily does recycling and/or re-use</td>
<td>- My company voluntarily does recycling and/or re-use</td>
</tr>
<tr>
<td></td>
<td>EnvCSR4 During last five years My company takes action in order to reduce waste</td>
<td>- My company takes action in order to reduce waste</td>
</tr>
<tr>
<td></td>
<td>EnvCSR5 During last five years My company purchases environmentally friendly products</td>
<td>- My company purchases environmentally friendly products</td>
</tr>
<tr>
<td></td>
<td>EnvCSR6 During last five years My company is a member of an environmental organisation</td>
<td>- My company is a member of an environmental organisation</td>
</tr>
<tr>
<td></td>
<td>EnvCSR7 During last five years My company is well equipped in order to improve the sustainability/CSR of my clients</td>
<td>- My company is well equipped in order to improve the sustainability/CSR of my clients</td>
</tr>
<tr>
<td></td>
<td>EnvCSR8 During last five years My company suggests sustainable solutions to our clients</td>
<td>- My company suggests sustainable solutions to our clients</td>
</tr>
</tbody>
</table>
English summary

Entrepreneurship is often seen as a means of reducing poverty and creating gains for economies particularly in developing countries. Despite these important contributions, entrepreneurial activities can also result in destructive outcomes such as pollution and pose risk and damage to nature and human health. In recent years, entrepreneurship has been widely viewed as a solution to many social and environmental problems. This has led the increase to research on sustainable entrepreneurship. Nevertheless, research on factors influencing the engagement in sustainable practices among SMEs in sub-Saharan African country and the performance effect of the engagement in these practices is scanty. Thus, this dissertation aims to investigate the factors influencing the engagement in sustainable practices and to examine the effect of sustainable practices on firm performance among SMEs in Zambia. To achieve this aim, the dissertation’s main research question is: What factors influence the engagement in sustainable practices among SMEs in Zambia and what is the performance effect of the engagement in these practices? Based on the findings from the four empirical studies (i.e. the PhD thesis’ chapters), the main research question is answered.

The four empirical studies were conducted in an under-researched sub-Saharan African country, Zambia. Studies on sustainable practices in Zambia have mainly focused on the companies doing the actual mining. There are hardly any studies on sustainable practices and CSR in SMEs in the trading and services sector that sell their goods and services to the mining industry in Zambia. For this dissertation, we adopted a mixed methods approach, with an emphasis on quantitative data analysis. Qualitative was carried out September, 2012 in which 12 semi-structured interviews with academics, business associations, consultants, entrepreneurs, and regulatory bodies. Data were collected in two waves. The first wave of data collection took place
in 2013 while the second wave was carried out with the same sample after a period of 12 months in 2014. The data collected in the first wave was used in Chapter 2, 3, and 4, while data collected in the second wave was used in the longitudinal analysis in Chapter 5 (in combination with data from the first wave). Survey administration techniques included face-to-face questioning, emailing, and dropping off and picking up were used. The data collected in the survey was analysed quantitatively using IBM SPSS software for the empirical studies in Chapter 2, 3, and 4 while structural equation model (SEM) was used to analyse the longitudinal data in Chapter 5.

Chapter 2 focuses on the ongoing debate on the factors influencing the identification of sustainable opportunities among entrepreneurs managing SMEs and provides an answer to the question: Which factors influence the identification of sustainable opportunities in Zambia? On the basis of 220 respondents and a quantitative analysis, the answer is that altruism towards others influences entrepreneurs to identify sustainable opportunities, while knowledge of the social/natural environment and perception of threats to the social/natural environment do not influence entrepreneurs to identify sustainable opportunities. Furthermore, entrepreneurial knowledge does not moderate the relationship between the three factors and the identification of sustainable opportunities. However, entrepreneurial knowledge was found to have a strong impact on sustainable opportunity.

Chapter 3 investigates the influence of personal values on sustainability orientations. The following research question is answered: What is the influence of personal values of entrepreneurs in SMEs in Zambia on their social and environmental CSR orientations? On the basis of 221 questionnaires from entrepreneurs, the results show that self-transcendence values positively influence entrepreneurs to engage in socially-oriented CSR while conservation and openness to change values influence entrepreneurs to engage in environmentally-oriented CSR. According
to this study, self-enhancement values do not influence entrepreneurs to engage in any form of CSR activities. This chapter provides a better understanding of which personal values drive entrepreneurs to be more concerned about the welfare of others and care of the environment.

Chapter 4 investigates the factors that motivate entrepreneurs to engage in sustainable practices by answering the research question: *What factors motivate SMEs to engage in different forms of CSR activities in Zambia?* To answer this question, we carried out a regression analysis on 221 entrepreneurs managing SMEs. The results of chapter 4 show that internal factors and the identification of sustainable opportunities motivate entrepreneurs in SMEs to engage in CSR while external factors play no role in motivating entrepreneurs to engage in any form of CSR activities.

Chapter 5 determines the impact of corporate social responsibility (CSR) on firm performance in 153 SMEs using a longitudinal research design. By means of a longitudinal approach and a SmartPLS model, the answer to the research question: *What is the impact of CSR on firm performance in SMEs in Zambia over time?*, is that, CSR has a significant positive effect on financial performance over time. Further, the effects of CSR on the other two indicators of firm performance (corporate reputation and employee commitment) only turned out to be partially significant over time. This means that entrepreneurs in SMEs can be motivated to engage in CSR for financial benefits.

On the basis of the findings from the four empirical chapters, the answers to the main research question that this PhD thesis addressed: “*What factors influence the engagement in sustainable practices among SMEs in Zambia and what is the performance effect of the engagement in these practices?*”, is that altruism towards others, entrepreneurial knowledge, self-transcendence values, conservation values, openness to change values, internal motivations
and the identification of sustainable opportunities are the influencers. In turn, the engagement in sustainable practices leads to better financial performance. Thus, the engagement in sustainable practices is good for firms, society and environment.
Nederlandse samenvatting

Ondernemerschap wordt vaak gezien als een manier om armoede te bestrijden, met name in ontwikkelingslanden. Ondanks belangrijke bijdragen kunnen ondernemende activiteiten ook destructieve gevolgen hebben, zoals vervuiling, en kunnen ze risico’s met zich meebrengen voor de natuur en voor de gezondheid. In de afgelopen jaren werd ondernemerschap algemeen beschouwd als een oplossing voor veel sociale problemen en milieuproblemen, hetgeen onder meer heeft geleid tot toename van onderzoek naar duurzaam ondernemen. Desalniettemin is onderzoek naar de factoren die van invloed zijn op duurzaam ondernemen door kleine en middelgrote ondernemingen in Afrikaanse landen ten zuiden van de Sahara en het effect van dit duurzaam ondernemen op hun bedrijfsprestaties schaars. Dit proefschrift beoogt daarom de factoren te onderzoeken die van invloed zijn op de mate waarin deze ondernemingen actief zijn op het gebied van duurzaam ondernemen en het effect te onderzoeken van hun duurzaam ondernemen op hun bedrijfsprestaties. De centrale onderzoeksvraag van dit proefschrift luidt dan ook als volgt: Welke factoren beïnvloeden de mate van duurzaam ondernemen door kleine en middelgrote ondernemingen in Zambia en wat is het effect van dit duurzaam ondernemen op de prestaties van de betrokken ondernemingen?

Op basis van de bevindingen uit de vier empirische onderzoeken (zie de vier hoofdstukken van dit proefschrift) is deze centrale onderzoeksvraag beantwoord. De vier empirische studies werden uitgevoerd in een weinig onderzocht Sub-Sahara Afrikaans land: Zambia. Studies over duurzaam ondernemen in Zambia hebben zich tot nu toe vooral beperkt tot de grote mijnbouwbedrijven in dat land. Er zijn nauwelijks studies verricht naar duurzaam ondernemen door kleine en middelgrote ondernemingen in de handels- en dienstensector, die hun goederen en diensten verkopen aan de grote mijnbouwbedrijven in Zambia.
Voor dit proefschrift is gekozen voor een gemengde onderzoeksaanpak, met de nadruk op de analyse van kwantitatieve data. Kwalitatief onderzoek is uitgevoerd met name aan de hand van semi-gestructureerde interviews in 2012 met academici, bedrijfsverenigingen, consultants, ondernemers en regelgevende instanties. Kwantitatieve data zijn verzameld in twee series. De eerste serie van dataverzameling vond plaats in 2013 terwijl de tweede serie werd uitgevoerd met dezelfde steekproef in 2014. De verzamelde data uit de eerste serie zijn gebruikt in Hoofdstuk 2, 3 en 4 van dit proefschrift, terwijl de data uit de tweede serie zijn gebruikt voor de longitudinale analyse in Hoofdstuk 5 (in combinatie met data uit de eerste serie). Voor het verzamelen van de enquêtes zijn verschillende benaderingen gehanteerd, zoals directe ondervraging, e-mailen en tenslotte afgeven en later ophalen. De in het onderzoek verzamelde data zijn kwantitatief geanalyseerd met behulp van IBM SPSS software voor de empirische studies in Hoofdstuk 2, 3 en 4, terwijl ‘structural equation modeling’ (SEM) is gebruikt om de longitudinale gegevens in Hoofdstuk 5 te analyseren.

Hoofdstuk 2 richt zich op de factoren die van invloed zijn op het identificeren van duurzame kansen door ondernemers van kleine en middelgrote ondernemingen in Zambia en geeft antwoord op de volgende onderzoeksvraag: Welke factoren beïnvloeden de identificatie van duurzame kansen in Zambia? Op basis van de gegevens van 220 respondenten en een kwantitatieve analyse is het antwoord op deze vraag dat altruïsme ondernemers beïnvloedt om duurzame kansen te identificeren, terwijl kennis van de sociale / natuurlijke omgeving en perceptie van bedreigingen voor de sociale / natuurlijke omgeving niet beïnvloeden om duurzame kansen te identificeren. Bovendien beïnvloedt ondernemerschapsskennis niet de relatie tussen voornoemde altruïsme, kennis van de sociale / natuurlijke omgeving en perceptie van bedreigingen voor de sociale / natuurlijke omgeving,
enerzijds, en de identificatie van duurzame kansen, anderzijds. Er is echter wel gebleken dat ondernemerschapskennis een sterke directe impact heeft op het identificeren van duurzame kansen.

In Hoofdstuk 3 gaat het om de invloed van persoonlijke waarden op duurzaamheidsoriëntaties van Zambianse ondernemers. De onderzoeksvraag in de hoofdstuk luidde dan ook als volgt: Wat is de invloed van persoonlijke waarden van ondernemers in kleine en middelgrote ondernemingen in Zambia op hun sociale en ecologische oriëntaties? Op basis van de gegevens van 221 ondernemers laten de resultaten zien dat waarden op het gebied van zelftranscendentie ondernemers positief beïnvloeden om zich bezig te houden met sociale activiteiten, terwijl waarden op het gebied van instandhouding en van openheid voor verandering ondernemers positief beïnvloeden om zich bezig te houden met ecologische activiteiten. Volgens deze studie hebben waarden op het gebied van zelfverbetering geen invloed op ondernemers om deel te nemen aan enige vorm van sociale en/of ecologische activiteiten. Dit hoofdstuk geeft inzicht in welke persoonlijke waarden ondernemers ertoe aanzetten zich meer zorgen te maken over het welzijn van anderen en de zorg voor het milieu.

In Hoofdstuk 4 zijn de factoren onderzocht die ondernemers motiveren om duurzaam te ondernemen aan de hand van de volgende onderzoeksvraag: Welke factoren motiveren kleine en middelgrote ondernemingen om deel te nemen aan verschillende vormen van duurzame activiteiten in Zambia? Om deze vraag te beantwoorden is een regressieanalyse uitgevoerd op de data van 221 ondernemers. De resultaten van dit hoofdstuk laten zien dat interne factoren en identificatie van duurzame kansen ondernemers van kleine en middelgrote ondernemingen in Zambia motiveren om actief te zijn op het gebied van duurzaam ondernemen, terwijl externe
factoren geen rol spelen voor de motivatie van deze ondernemers om actief te zijn op het gebied van duurzaam ondernemen.

In Hoofdstuk 5 staat centraal de impact van duurzaam ondernemen op de bedrijfsspreaties van 153 kleine en middelgrote ondernemingen in Zambia. Aan de hand van een longitudinale benadering en een SmartPLS model is één antwoord op de onderzoeksvraag dat duurzaam ondernemen een significant positief effect heeft op de financiële prestaties van de betrokken ondernemingen. Verder blijken de effecten van duurzaam ondernemen op de andere twee indicatoren van bedrijfsspreaties (bedrijfsreputatie en medewerkersbetrokkenheid) slechts gedeeltelijk significant te zijn. Deze uitkomsten betekenen dat ondernemers gemotiveerd kunnen zijn om deel te nemen aan duurzaam ondernemen vanwege de financiële voordelen die deze vorm van ondernemen biedt.

Als antwoord op de centrale onderzoeksvraag van dit proefschrift kan dan ook worden gesteld dat altruïsme, ondernemerskennis, waarden op het gebied van zelftranscendentie, instandhouding en openheid voor verandering, interne motivatie en identificatie van duurzame kansen de mate van duurzaam ondernemen door kleine en middelgrote ondernemingen in Zambia positief beïnvloeden. Voorts blijkt duurzaam ondernemen te leiden tot betere financiële prestaties van deze ondernemingen. Derhalve kan op basis van het onderzoek dat is verricht voor dit proefschrift gesteld worden dat de betrokkenheid bij duurzame praktijken goed is voor bedrijven, de maatschappij en het milieu.
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