The characteristics of successful sustainability-driven enterprises in the Western Cape

A micro perspective on success factors of sustainability-driven entrepreneurship

in the Western Cape region of South Africa

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A micro perspective on success factors of sustainability-driven entrepreneurship in the Western Cape region of South Africa.

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Abstract

Recognition of businesses that are driven by motives alternative to profit-maximization is increasing. Such motives may be aimed at creating social, environmental and/or community value. Sustainability-driven entrepreneurship is celebrated in terms of the potential contribution to a sustainable way of development. However, the phenomenon is as of yet little understood and investigated. There are still only a few successful sustainability-driven enterprises and it is not clear what characterizes them and which factors are tied to their success. Especially in developing nations, where the impact of sustainability-driven entrepreneurship may be essential, more structural research is required. The complex socio-economic situation, rising environmental problems and emerging development status of South Africa make it an interesting country to look at in researching the link between entrepreneurship a sustainable way of development.

This thesis presents an empirical study on Sustainability-driven Entrepreneurship (SdE) performed in the Western Cape of South Africa. It is explored how factors on the micro level explain the success of SdE's. Success is approached through a triple bottom line, integrating positive impact in terms of 'prosperity', 'people' and 'planet'. The main focus is on organizational characteristics, more specifically on capabilities. Based on the assumption that SdE's differ from commercial enterprises in fundamental ways and they need specific capabilities to deal with the challenges they face, the relationship of five SdE-specific capabilities (based on the work of Parrish, 2010) with success is tested. 38 enterprises participated to this study; the majority was interviewed and filled out a questionnaire, some participated in one of those ways. The interviews were conducted to gain additional, qualitative data as to provide context to and aid interpretation of the quantitative data.

The quantitative data was subjected to factor, correlation and regression analysis to point out key factors of success. The regression analysed returned adjusted R square ranging from 20% for 'profit' and 'prosperity' to 50-60% for 'people', 'planet' and 'success total', which implies that the constructed model explains a considerable share of the variation in the outcome. This results in a fairly steady predictive model, showing a set of identified factors influencing the success of the SdE's. The findings indicate that other factors influence the economic pillars of success compared to the social and environmental pillars. The specific-SdE capabilities are concluded to be key factors to the success of SdE's, especially 'strategic satisficing' and (to a lesser extent) '(natural) resource perpetuation'. The stronger the presence of these capabilities, the more success in terms of (at least one) sustainability aspect(s) a sustainability-driven enterprise will have.

Although the methods used had not been used or tested before and were found to be flawed in some ways, their basis is solid and the findings of this research are valuable. As they indicate that the overall impact of these enterprises on the sustainable development of the region is considerable, some recommendations for policy makers are formulated. This and the many recommendations for further research indicate this important topic deserves and needs a lot more attention.

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"South Africa is a country built on possibility.

Possibility lies in making a difference and creating value from a situation

– without denying that certain issues exist."

- Benjamin Zander, Boston Philharmonic Orchestra conductor

1 Introduction

In the past decades, the need for a transition of our society into a more sustainable one has been established and is becoming more and more accepted. It is becoming a requirement for businesses to more directly support, rather than undercut, the ecological and social processes on which society relies (Parrish, 2010). Numerous articles and books regarding the debate on the extent of corporate responsibility and on finding ways in which companies can minimize their negative impacts in social and environmental terms have been published (e.g. Elkington, 1997; Carroll, 1999; McWilliams, 2001 and Kotler & Lee, 2005). Attention to the role entrepreneurship can play in this process has also been growing. However, considerable uncertainty remains regarding the nature of entrepreneurship's precise role in bringing sustainable development (Hall et al., 2010).

Traditional entrepreneurship theory focused on the undertaking of innovation to transform it into an economic good, whether in the form of a venture or innovation within an existing business. With the identification of many innovation opportunities in the environmental and social sphere, the focus has been broadened to include the 'business-case' of sustainability: the competitive advantage of running a business in a social and environmentally sound way (e.g. Ambec & Lanoie, 2008; Weber, 2008; Carroll & Shabana, 2010).

However, there is also increasing recognition of businesses that do not only operate responsibly while solely striving for economic profit-maximization, but instead are driven by alternative motives. Such motives may be aimed at creating social, environmental and/or community value. As this is a new field of study, there is little consensus in literature about the definition of such value-driven entrepreneurship. Commonly found are the terms 'social entrepreneurship' (e.g. Dees, 2001; Alvord et al., 2004; Sharir & Lerner, 2005; Mair & Marti, 2006; Bloom & Smith, 2010), and 'environmental entrepreneurship' (e.g. Mair & Marti, 2006) or the 'eco-preneur', 'green entrepreneur' and 'environmental entrepreneur' (Beveridge & Guy, 2005). Others group together both social and environmental oriented entrepreneurs or require an integration of aims and refer to 'responsible entrepreneurship' (e.g. Azmat & Samaratunge, 2009), 'sustainable entrepreneurship' (e.g. Cohen & Winn, 2007; Dean & McMullen, 2007; Schaltegger & Wagner, 2011) or 'sustainability(-driven) entrepreneurship' (e.g. Gibbs, 2009; Schlange, 2007; Parrish, 2010).

Schaltegger & Wagner (2011) sum up the existing literature and definitions in table 1 included on the next page (presented excluding the column 'institutional entrepreneurs', as this group is only indirectly related to and not relevant for this research).

Table 1| Characterization of different kinds of sustainability oriented entrepreneurship by Schaltegger & Wagner (2011:2)

	Ecopreneurship	Social entrepreneur	Sustainable entrepreneurship
Core motivation	Contribute to solving environmental problem and create economic value	Contribute to solving societal problem and create value for society	Contribute to solving societal and environmental problems through the realization of a successful business
Main goal	Earn money by solving environmental problems	Achieve societal goal and secure funding to achieve this	Creating sustainable development through entrepreneurial corporate activities
Role of economic goals	Ends	Means	Means and ends
Role of non-market goals	Environmental issues as integrated core element	Societal goals as ends	Core element of integrated end to contribute to sustainable development
Organizational development challenge	From focus on environmental issue to integrating economic issues	From focus on societal issues to integrating economic issues	From small contribution to large contribution to sustainable development

In this research the term *Sustainability-driven Entrepreneurship* (SdE) is used to describe the focus group, based on the work of Gibbs (2009), Schlange (2007), and Parrish (2010) and inclusive of all three concepts covered in Table 1. Sustainability-driven entrepreneurship is defined as *any entrepreneurial activities of individuals and/or organizations whose core operations are driven by sustainability-related motives, values, and goals that are internal and/or external to the business.*

In more detail, this definition is based on three explicit notions found in existing literature:

1. The entrepreneurial activities are driven by *motives and values* alternative to those of commercial entrepreneurship (Schlange, 2007 and Parrish, 2010), such as simply profit-maximization.
2. The entrepreneur and/or enterprise must have (a) *sustainability-related goal(s)*. The goal(s) may be social, environmental, and/or community-oriented nature, as well as be internal and/or external to the business operations. It is noted that many scholars view sustainability entrepreneurship as the simultaneous pursuit of social and environmental goals (Schlange, 2007; Parish, 2010), however, the working definition for this research does require the entrepreneur and/or enterprise to explicitly adopt such a holistic approach. This decision is based on the rational that the Western Cape is a relatively small geographical region with a limited amount of entrepreneurial activity and by adopting too strict of guidelines the chances of getting a large enough sample size for qualitative analysis may be limited.
3. The sustainability-related focus of the entrepreneur and/or enterprise must be integrated into the *core of the business*, thus going beyond merely 'responsible practices' (Schaltegger, 2002). It is noted that this research is not focused as much on 'large-scale effects and changes' and the required innovations for such initiatives as the research of Schaltegger and Wagner (2011).

The subsequent target group of this research is further explained in section 1.5 on the research boundaries.

How SdE's can contribute to the sustainable development of society is being explored through a growing body of research and literature. In general, entrepreneurship brings benefits primarily through job creation potential. Much of the recently increased interest in the relationship between entrepreneurship and sustainability is due to entrepreneurship's perceived benefits over government in its efficiency of delivering services, over conventional business due to greater accountability, trust,

and overall purpose, and over charities and NGOs, because of their greater financial stability (Fury, 2010). Recent empirical research by Parrish and Foxon (2009) found support for the claim made by Tilley and Young (2009) that sustainability-driven entrepreneurship even stimulates larger socio-economic changes toward sustainable development. Besides this catalyst role, they conclude similarly to Fury (2010) that "*sustainability-driven ventures have an important role to play in filling gaps left by commercial industries and government bodies by attending to critical social and ecological functions that others neglect."* (Parrish & Foxon, 2009:59). In the Social Entrepreneurship Monitor, it is explained that social entrepreneurs have been found to provide alternative delivery system for public services such as health, education, housing and community support (Harding, 2006).

Such gaps in social and ecological functions that Parrish & Foxon (2009) and Fury (2010) refer to and the resulting socio-economic problems are often numerous in developing nations. An interesting example is South Africa, a republic plagued by many social problems. The racial segregation problems stem from the colonial period, which started in the second half of the 1600's. After the Second World War, apartheid became the ruling system until 1994. South Africa's population was divided into four categories; 'native' or 'black', 'white', 'coloured' and 'Asian'. Residential areas and public services system were segregated, with the black African people, the majority of the population, receiving inferior treatment and being marginalized. This period cost the livelihoods and lives of many black South Africans. Although apartheid officially ended in 1994 with the country's new regime, the era left South Africa strongly divided. In 2003, the President at the time Thabo Mbeki spoke of 'two parallel economies' within one country. This metaphor refers to socio-economic dualism, with the modern, industrialized, wealth creating and globally integrating 'First economy' and the underdeveloped 'Second Economy' that contributes little to GDP and has weak social structures. The 'Second Economy' incorporates the poor, both in rural and urban areas, with low skill-levels and is structurally disconnected from both the First economy and global markets. It is deemed incapable of self-generated growth. The gap between the Two Economies needs to be bridged, ultimately eliminating the Second Economy (The Presidency, 2006). It can be debated to what extent the government is able to bridge this gap and bring development and what the role of business and entrepreneurship is. Since 1994, interest in social entrepreneurship in South Africa has grown rapidly. Mainly in the form of NGO's, social entrepreneurship grew quickly in South Africa, aiming to improve the situation of the disadvantaged communities (Visser, 2010). Within South Africa many lead experts are endorsing social entrepreneurship as a promising new field (Fury, 2010). Besides support of lead experts, the South African people have also indicated their belief in and hope for social entrepreneurship (e.g. Notten, 2010).

Besides these social issues, South Africa also faces serious (socio-)environmental problems. The four main areas of attention are: the decreasing water availability and quality; energy intensity and high carbon footprint per capita; high human vulnerability due to poverty and insufficient social structures, making South Africa being amongst most vulnerable countries to climate change; and finally the increasing loss of biodiversity and ecosystem functioning (South Africa Environment Outlook, 2006). Also regarding ecological functions, entrepreneurship may be able to play a significant role (Parrish & Foxon, 2009). A final note on South Africa is that its economy as a whole is currently categorized as being Efficiency-Driven (EDE) (GEM, 2010), which is the 'middle' category in terms of development; more developed then Factory-Driven Economies but less then Innovation-Driven Economies. EDE's are typically characterized by considerable industrialization and productivity with growth of small and medium-sized enterprises in the manufacturing sector.

Bringing the paragraphs above together; the complex socio-economic situation, rising environmental problems and emerging development status of South Africa make it an interesting country to look at in researching the link between a sustainable way of development and entrepreneurship.

1.1 Problem definition

A major concern tied to entrepreneurship in general is that many ventures fail within the first year(s), although statistics differ throughout the world and per sector. South Africa has displayed a troublingly low prevalence of success, ranking 41st out of 43 countries, with only 2.3% of South Africans owning a business older than 3.5 years (SBP, 2009). As enterprises with a social, environmental or community aim have an even harder time capturing the value created (Seelos & Mair, 2005), it is assumed that SdE's face similar or even larger start-up difficulties. Looking at some more specific statistics, the annually performed Global Entrepreneurship Monitor of 2010 has determined South Africa's SEA (social entrepreneurial activity) to be at 1.8%, which is average in its category (efficiency-driven society) but lower than 'peers' such as Uganda. However, the majority of the enterprises were still nascent (early start-up phase), and failure rates are high in the sequential phases (GEM, 2010). There is no conclusive evidence on why these numbers for South Africa are relatively low.

As of yet, the majority of research on entrepreneurship is still focused on the assumption that the main drive of economic activity is profit-seeking and self-interest (Cohen et al, 2008; Parish, 2010; Hall, 2010). However, an increasing number of entrepreneurs is driven by alternative motives. Sustainability-driven entrepreneurship is a new field of study; scientists do not even agree whether it is a sub-field of entrepreneurship research or a field on its own (Mair & Mari, 2006). As table 1 above implies, SdE's differ from commercial enterprises in more than one way. Although they have to meet the same general requirements of running a business, they strive for additional goals, meaning a different approach is needed to meet all these requirements and different, complex challenges arise. How successful SdE's manage to handle this effectively is as of yet not clear. There is limited (empirical) data available and the phenomenon is still little understood. This especially applies to developing nations (Hall et al., 2010) and South Africa is no exception to this (e.g. Urban, 2008; Visser, 2010).

To summarize the above, there are still only a few successful SdE's and it is not clear which factors are tied to success of such enterprises. Too little is known what characterizes successful sustainability-driven organizations. Although perceived as very valuable, the phenomenon sustainability-driven entrepreneurship is as of yet little understood and investigated, especially in developing nations such as South Africa.

1.2 Research project

While the concept of sustainability-driven entrepreneurship may not be completely understood, a number of potential key factors impeding or stimulating the growth and success of (sustainability-driven) entrepreneurship can be found through previous research and literature. Such factors are found in different viewing-levels or dimensions of the concept. As this thesis is based on a research-project that was conducted by a team of three students, the potential factors indicated by previous research could be categorized into three subsets, each studied by one student. A research model (as depicted in figure 1) was created that enabled the simultaneous studying of the three pools of potential influence factors of SdE success.

- **Micro dimension**; organizational characteristics – capability-based view (explored in this thesis)
- **Meso dimension**; access to resources: finance, education and networks – resource-based view (explored in the work of Bretlyn Curtis);
- **Macro dimension** = socio-political and cultural landscape – institution-based view (explored in the work of Pauline Kors);

Such joining of forces by students is not commonly seen in Master theses, but was deemed appropriate for the scope and explorative nature of this research. This way, a larger number of factors could be studied in depth amongst a larger sample group. Thus, a database of quantitative data of a size that allows for statistical analysis could be created, and the issue could be looked at from a multi-level perspective, adding to the comprehensiveness of the analysis.

As the model below shows, three dimensions all focus on the same outcome; the success of sustainability-driven enterprises. Success is approached in this research project as *having a positive impact on, or contribution to sustainable development*. As of yet, there is no consensus amongst scholars on how to measure sustainability success and there are no proven models available (e.g. Schlange, 2006). In this research, success is approached through Elkington's (1997) triple bottom line: people (social impact), planet (ecological impact) and profit (economic impact). In 2002 during the World Summit on Sustainable Development in Johannesburg, 'profit' was replaced by 'prosperity' as to also include positive societal profits. Based on those notions, it is attempted to measure success through three indicators: 'people' (positive social-ethical impact) 'planet' (positive environmental impact) and 'prosperity' (positive economic impact). In chapter 3, the method of measuring success is explained further.

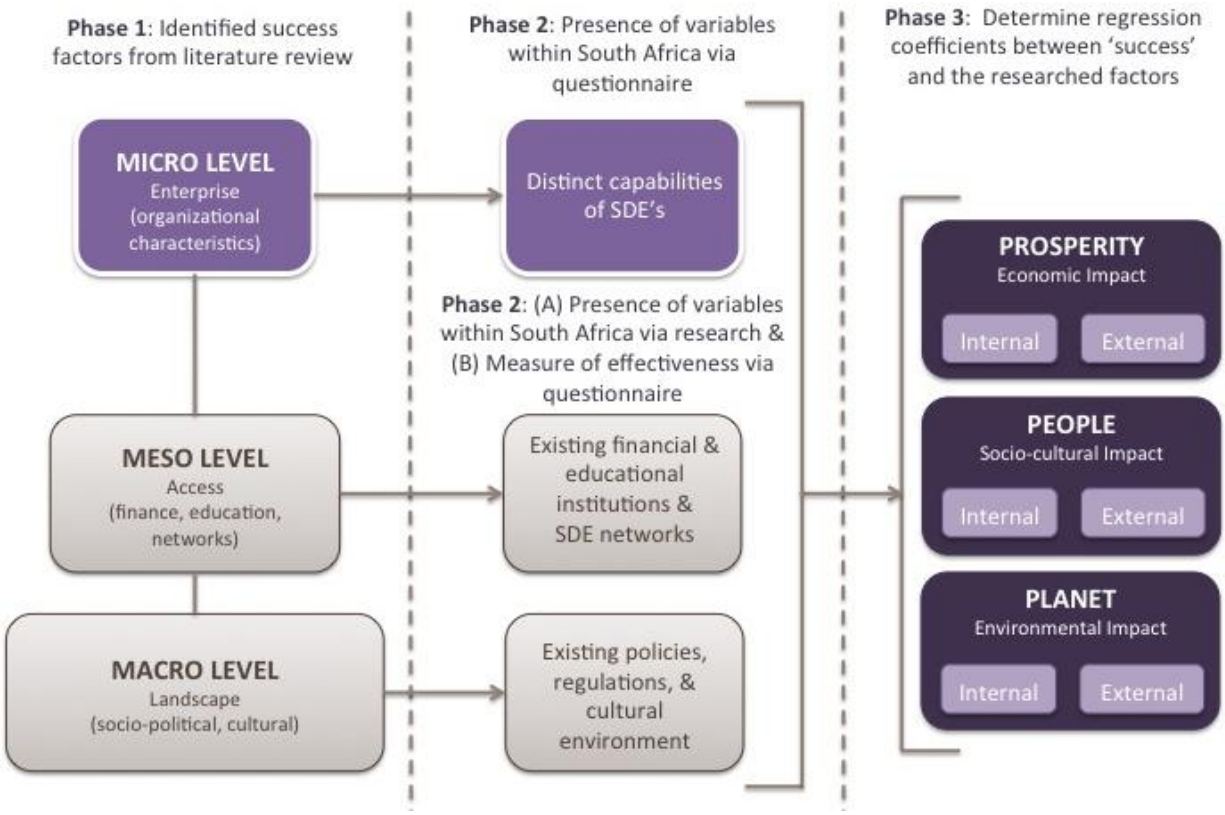

Figure 1| Overarching research model

The sub-research's focus of this thesis is on the factors on the *micro* level. Often the word 'micro' is associated with the entrepreneur as an individual with certain characteristics such as gender and psychological or personality traits. There has been considerable attention in literature on these factors, both regarding entrepreneurship in general (Ardagna & Lusardi, 2008; Zhang et al., 2009), sometimes even connecting it to entrepreneurial competence (e.g. Schmitt-Rodermund, 2004), and social entrepreneurship specifically (e.g. Sriram & Mersha, 2010; Koe Hwee Nga & Shamuganathan, 2010). However, some argue that 'who the entrepreneur is' is not the right question to ask (Gartner,

1988 in Mair & Marti, 2006). These scholars suggest that a more effective approach is looking at the activities that underlie sustainability entrepreneurship; focusing on behaviour and process, on 'how they act' (Mair & Marti, 2006). This can be supported by the idea that although SdE's have to meet the same general requirements of running a business as commercial enterprises, they strive for multiple goals of a different nature, implying a different approach in meeting these requirements and face different challenges.

Based on the above, this specific part of the research will focus on the distinct process-based *organizational characteristics* of sustainability-driven enterprises, more specifically their distinct *capabilities.* Capabilities refer to an organization's ability to do what they need to in order to reach the intended outcomes, i.e. be successful (Dosi, 2002). This research is based on the idea that successful SdE's are characterized by a different set of capabilities then commercial enterprises. Besides this, as the amount of research done on the entrepreneurs themselves shows, these individuals are interesting and important when looking at this new field of study. Information on their demographic and personality characteristics will therefore also be collected and considered in this research, but does not fall within the core focus. Thus, such information is not approached as to be related to success, but merely to lead to a typology.

Below, the objective and research question for both the overall research project and this sub-research are presented. It is noted that this document only attends to the sub-research objective and question. An additional document will be published by the three researchers of the overall research project, to tie the three individual theses together and present the findings of the comprehensive analysis.

1.3 Research objective

The objective of the *overarching research project* is to unravel the key factors that enable enterprises with a sustainability-related goal in the Western Cape to be successful, i.e. have a positive impact on the sustainable development of the region.

The research objective of this *sub-research* is to determine which of the through literature identified factors on the micro level stimulate the success of sustainability-driven enterprises in the Western Cape area. Within the micro level the main focus is on process-based organizational characteristics of the enterprises, more specifically their distinct capabilities.

1.4 Research question

Based on the above research objective, both a joint central research question and individual central research question have been drafted. The joint research question is: *'To what extent do identified factors at the macro, meso and micro level explain the success of sustainability-driven entrepreneurship in the Western Cape region of South Africa?'*. This encompassing question will be answered in a separate document, combining the findings of the three theses based on the three dimensions. The individual research as presented in the box below forms the core of this research and thesis.

> Individual research question*: 'To what extent do identified organizational characteristics, in terms of distinct capabilities, explain the success of sustainability-driven enterprises in the Western Cape area?'*

This research question is approached through several sub-research questions:

- Which capabilities are relevant, according to literature?
- What are the demographic characteristics of the SdE's in the sample?
- How successful (in terms of the triple bottom line) are the enterprises within the sample?
- To what extent are various capabilities present amongst the sample?
- What is the influence of the capabilities on the success of the enterprises in the sample?
- Can a typology of the entrepreneurs in the sample be made?
- What do the results mean to theory and practice; which needed changes do they imply?

1.5 Research boundaries

As explained in the introduction, this research is focused on Sustainability-driven Entrepreneurship (SdE), which includes *the entrepreneurial activities of individuals and/or organizations whose core operations are driven, by sustainability-related motives, values, and goals that are internal and/or external to the business*.

Furthermore, two prerequisites have been determined to qualify SdE's as participants in this study. The following requirements should be met:

1. The enterprises may be one-person initiatives or small to medium enterprises (SMEs) that are formally registered as such in the Western Cape area. The criteria that is used for SME is having under 500 employees (full time employee equivalent).
2. The enterprise has to be established, as defined by a 'formal age' of at least 12 months. This criterion is taken so that only enterprises that have at least proven to be viable and have done some annual reporting are included. In order to differentiate in terms of success, an enterprise does not have to be stable or growing. It is noted that this criterion means enterprises in the earliest start-up phase are excluded, as they have not proven to be viable yet. Moreover, although the theoretical value of also looking at failed SdE's and factors that played a role in this is acknowledged; this group is not included in this research. Practically, failed enterprises are hard to identify and researched since they no longer exist, and the entrepreneurs are likely to be less willing to participate.

In terms of the nature of the enterprises, both non/not-for-profit entrepreneurial activities as for-profit ones may be included. The nature of an organization depends on which particular business model most effectively allows for the acquiring of the recourses needed for the addressed needs (e.g. Austin et al., 2006; Mair & Marti, 2006), thus both structures can be entrepreneurial. Another note is that individuals and organizations in both the 'First' and 'Second economy', the unique and strongly present division in the economy of South Africa, are included (see the introduction for more information). The economic position of the participants is included under the typology of the entrepreneurs, as this is considered relevant information when trying to create a comprehensive view of the existing situation.

1.6 Relevance

As explained in the sections above, the concept of sustainability-driven entrepreneurship and what drives its success is as of yet little understood. Related research that has been performed so far mainly consists of case studies and has resulted in anecdotal evidence. Because of the lack of systematic research in this field, the primary scientific relevance of this research project is to increase

the knowledge on this phenomenon. Through the creation of a database of quantitative data that allows for statistical analysis, this research helps bring the field of study to a more concrete level.

The societal relevance of this research project is that the results are to help existing and aspiring sustainability-driven entrepreneurs directly, but also improve the guidance for SdE's in the Western Cape area. This may help the business sector grow and with it its impact in terms of sustainable development of the region. Scholars have indicated the important role entrepreneurship can play in bringing sustainable development (Parrish & Foxon, 2009; Fury, 2010). Both scholars as well as the people of South Africa have expressed the need for more knowledge on this concept in South Africa (Urban, 2008; Notten, 2010; Visser, 2010). A lot of institutions are involved in the facilitation of SdE's, but it is often unclear whether they are indeed reaching the right people and addressing the most pressing needs. Knowledge about which organizational factors, specifically which distinct capabilities, stimulate success of SdE's can then form the basis for the content of policies, education and training for (aspiring) sustainability-driven entrepreneurs.

2 Theoretical framework

The theoretical framework of this research refers to the Resource Based View of the enterprise, is based on Organizational (and Dynamic) Capabilities theory, and build upon the work of Parrish (2010). After an outlay of the theoretical background, the conceptual model and hypothesis of this research are presented in this chapter.

2.1 Theoretical background

The theoretical framework of this research starts at the general theory Resource Based View (e.g. Wernerfelt, 1984; Eisenhardt & Martin, 2000), which sees enterprises as relying on several resources, which include competences. These resources range from physical resources; equipment, tools and machinery, to intangible goods such as technical know-how, and can be used to implement value-creating strategies (Wernerfelt, 1984). The World Bank categorizes such resources into several capitals (financial, social, human, etc.). These capitals form the foundation of the uniqueness of a firm; differences in resources and the combination of resources can bring a firm long-term competitive advantage (Bueno & Salmador, 2004).

2.1.1 Organizational capabilities

A less static concept, that can both still be seen as a form of capital as more in terms of how to manage (other) capital, is that of Organizational Capabilities (e.g. Grant, 1996; Dosi et al., 2002). Dosi (2002:277) states: "*To be capable of some thing is to have a generally reliable capacity to bring that thing about as a result of intended action*". For enterprises this refers to the collective expertise and ability to run the business successfully, i.e. to create or acquire different forms of resources (including competences), but also to mobilize and deploy them in competitively useful ways (Goldstein & Hilliard, 2008). In the words of Christensen (1996:114): capabilities help structure and orient clusters of recourses for productive purposes. Important is that capabilities are not actual performance; they *enable* outcomes or performance (Dosi et al., 2000). They are the stable, intangible assets that help produce superior market value (Ulrich & Smallwood, 2004).

Going into more detail, Ulrich & Smallwood (2004) make the distinction between *capabilities* and *competences* more clear. They explain Organizational Capabilities are of a different level then organizational competencies as well as individual capabilities and competences. These differences are portrayed in table 2 below. An important notion is that organizational capabilities emerge when an organization combines (and delivers on) individuals' competencies and abilities, and they enable the organization to turn technical knowledge into results.

Table 2| Capabilities vs. competencies (based on Ulrich & Smallwood, 2004:2)

	Individual	Organisational
Technical	An individual's functional competence (e.g. expertise in marketing or manufacturing)	An organization's core competencies (e.g. a production process)
Social	An individual's leadership ability	**An organization's capabilities (e.g. innovation, speed)**

Through their research, Ulrich & Smallwood (2004) have also identified 11 generic capabilities that well-managed companies tend to have. Typically, such companies excel in (up to) three of these, whilst scoring around industry average on the other areas. The paragraph below describes the 11 capabilities in more detail.

There is 'talent', which regards attracting, motivating and retaining competent and committed people. This implies the organization's leaders must be able to accurately assess and act on the competence of (potential) employees, and to ensure their commitment. 'Speed' refers to the ability to make important things happen fast. This requires opportunity recognition and acting on the right ones quick enough to gain competitive advantage. Brand identity or 'shared mind-set' means ensuring that customers and employees associate positive and consistent images and experiences to the organization. This is reflected in the congruency of internal and external perception of the main things that characterize the organization. Obtaining high performance from employees is referred to as 'accountability'. This requires the adequate use of performance management tools and appropriate acting on the results. 'Collaboration' regards gaining efficiency by working across boundaries. An example would be to save on administrative costs by sharing services with another department or even another organization. The capability that relates to generating and generalizing ideas with impact is called 'learning'. Essentially, it's ensuring that the tacit assets, or knowledge, within the organisation is continually updated. 'Leadership' refers to the ability to embed leaders throughout the organization. This is reflected by the ratio of potential back-up leaders that are consistently reachable for the organization. If an organization is good at building lasting relationships of trust with targeted customers, it will score high on 'customer connectivity'. This requires the ability to connect with (potential) customers; exposure to customers and employee-customer interaction. The capability 'strategic unity' means being able to articulate and share a strategic point of view from the top to the bottom of the organization. 'Innovation' is used to refer to doing something new in both content and process, thereby focussing on future successes. Last but not least, 'efficiency' is all about managing costs. The ability to prevent or eliminate redundancies allows for optimal profits and growth (Ulrich & Smallwood, 2004).

The explanations above make clear that capabilities are based on an interaction between several resources. "*They represent the ways that people and resources are brought together to accomplish work*" (Ulrich & Smallwood, 2004;1). Some of the 11 capabilities described above can be seen as dynamic of nature, especially 'speed', 'learning' and 'innovation'.

2.1.2 Dynamic capabilities

A very similar concept to Organizational Capabilities is that of Dynamic Capabilities, which is focused on the abilities of organizations operating in rapidly changing environments (e.g. Eisenhardt & Schoonhoven, 1996; Teece, 2007). Modern business environments are often fast-moving, open to global competition and characterized by scattered capitals that may be difficult to reach quickly. To capture value and gain and sustain competitive advantage in such a business climate requires unique and difficult-to-replicate dynamic capabilities (Teece, 2007).

These higher-order capabilities enable businesses to (1) sense and shape opportunities and threats, (2) to seize the right opportunities and (3) to create, deploy, and protect the tangible and intangible assets. They reflect an organization's ability to manage internal and external capitals and competences to create new and innovative forms of competitive advantage (Teece, 1997). These abilities are thus key in superior enterprise performance in dynamic environments. The micro-foundations of dynamic capabilities are the distinct skills, processes, procedures, organizational structures, systems, decision rules, and disciplines within an organization. These aspects support the sensing, seizing, and reconfiguring capacities of the enterprise and are difficult to develop and implement (Teece, 2007). An example of a focus point for dynamic capability theory is 'innovation', with micro-foundations such as cross-function R&D teams and routines on new product development, quality control and technology and knowledge transfer (Teece, 2007).

Teece (2007) proposes that the framework of dynamic capabilities can help scholars understand the foundation of sustained enterprise success and can guide managers in strategy formation.

2.1.3 Specific SdE capabilities

On a next level of theory; (dynamic) organizational capabilities have already been raised in research on *sustainability* performance of organisations. An example is the research by Goldstein and Hilliard (2008), which suggests variation in firms' environmental performance is driven by differential organizational capabilities. They approached these capabilities as the combining of related skills, technologies and work processes regarding environmental management and technologies. Also interesting is that this indicates that capabilities are formed and developed through accumulated practical experience; through 'learning by doing' (Goldstein and Hilliard, 2008).

Austin et al. (2006), Schlange (2007) and to a further extent Parrish (2010) have researched how sustainability-driven enterprises differentiate from commercial enterprises. Each points out the *tension* that exists for SdE's in the combination of their driving values and the business imperatives for an enterprise to survive and thrive in a competitive market context. In order for SdE's to be successful, this tension has to be overcome (Austin et al., 2006; Schlange, 2007; Parrish, 2010). As this challenge is unique to sustainability-driven entrepreneurship, it is suggested in this research that SdE's need specific capabilities compared to commercial enterprises in order to be successful. These are very likely of a dynamic nature, as SdE's operate in a field and environment characterized by rapid innovation and change and often have to be very innovative themselves (Schaltegger & Wagner, 2011).

Although as stated before sustainability entrepreneurship forms a new field of study, some relevant research on organizational characteristics has been performed already. A shared idea between scholars is that such enterprises are high in 'innovativeness' (Dees, 2001; Schaltegger, 2002; Barendsen & Gardener, 2004; Mair & Marti, 2006; Rego & Bhandari, 2006; Herrington, 2009; Ras & Vermeulen, 2009). Other identified characteristics are 'risk taking', 'pro-activeness' and 'opportunity seeking and seizing' (Weerawardena & Mort, 2006) or the similar term 'market responsiveness' (Ras & Vermeulen, 2009). Also, specifically for social enterprises, 'dedication to the mission' has been tied to success (e.g. Sharir & Lerner, 2005). Although such terms do not refer to individual characteristics, they do still seem behavioural of nature. More importantly, they do not seem to refer to concrete capabilities unique to SdE's, and can be argued to apply to any enterprise. Success for SdE's seems merely a matter of 'extent' of generic capabilities, for example that SdE's need to be *more* innovative or creative. Explained above, it is assumed SdE's and their challenges are significantly different from commercial enterprises and therefore suggested to need distinct capabilities.

Publications on more distinct characteristics of sustainability-driven enterprises are still sporadic. Austin et al. (2006) in comparing commercial and social entrepreneurs, found the latter need 'creative strategies' for financial and human resource management, due to limited resource-access. They explain that the social purpose of for-profit or hybrid forms of social enterprises limits their access to capital markets compared to commercial enterprises. Also, Austin et al. (2006) highlight that social impact is hard to quantify and measure, which implies that social enterprises need 'specific performance measurement' mechanisms. Still, these findings are of a generic level.

A researcher that has started to explore specific characteristics of SdE's into more depth is Parrish (2010). His work brings the field of study to a concreter level, because of the comprehensive, detailed and empirical approach. Parrish (2010) looked at which aspects of entrepreneurs' organization design expertise enable them to create sustainability-driven enterprises that successfully survive and thrive in a competitive context. He performed extensive empirical research on four successful SdE's in the service sector, in different industries and regions. He found that in dealing with organization design requirements these SdE's operate by a different interpretive scheme than commercial entrepreneurs. Theses schemes were labelled 'perpetual reasoning' vs. 'exploitative reasoning' and broadly speaking concern resource management. Within the scheme that is found to characterize SdE's, he identified five specific organization design principles of successful enterprises. These

principles make SdE's distinct from commercial enterprises. Table 3 below shows the design requirements, reasoning schemes and specific principles in more detail. The principles of 'exploitative reasoning' in the last column of the table are only included for clarification purposes and will not be used in this research.

Table 3| Comparison of 'perpetual' and 'exploitative' reasoning (from Parrish, 2010:517).

Organization design requirement	**Principles of 'perpetual reasoning'**	Principles of 'exploitative reasoning'
Purpose – justifying existence	**Resource perpetuation** Produce benefit streams by enhancing and maintaining quality of human and natural resources for the longest time possible	Resource exploitation Produce profits by using human and natural resources to generate maximum financial return in the shortest time possible
Efficiency – achieving synergies	**Benefit stacking** Stack as many benefits as possible onto each operational activity	Least-cost economizing Reduce inputs without a parallel reduction in outputs
Trade-offs – balancing competing objectives	**Strategic satisficing** Strategically identify satisfactory outcomes of multiple objective	Single-objective maximizing Maximize the outcome of a single overriding objective
Criteria – prioritizing decision choices	**Qualitative management** Use expected quality of outcomes and processes as decision criteria	Quantitative management Use expected quantity of outcomes as decision criteria
Inducements – allocating benefits	**Worthy contribution** Structure benefit streams to privilege worthy recipients by providing opportunities for contributing to the enterprise	Claims of power Structure benefit streams such that claims by recipients with more power are privileged over those with less power

The first principle of interest is 'resource perpetuation'. It regards the instrumental purpose for which the enterprise is created. Parrish (2010) found that for SdE's this is the creation of benefit streams (which could be financial profit and/or non-monetary benefits) through the perpetuation of resources. A long-term SdE-model requires an approach to human and natural resources that ensures the quality of their functioning for the longest time possible. This means that for example forest conservation may be (one of) the main objective(s) of a sustainability-driven enterprise.

All enterprises strive for efficiency, but SdE's were found to take a more qualitative approach to economizing. 'Benefit stacking' is a way to ensure as many beneficial outcomes for as many different stakeholders as possible through every activity by the enterprise. Moreover, this logic goes beyond one of least cost and input-output ratios and seeks to multiply the range of (ideally reciprocal) benefit streams produced. It forms a guiding principle in selecting the means of reaching intended outcomes, both on a strategic as practical level. Parrish (2010) gives the example of an enterprise that helped socially excluded individual gain job skills by having them restore ancient woodland.

However, 'strategic satisficing' is essential, as SdE's are fundamentally characterised by multiple objectives that will compete with each other at times. Operations need to be managed as such that both quantitative and qualitative objectives are continuously met to a satisfactory extent. Satisficing is a problem-solving activity used by all organizations, but to use this as a strategy tool, i.e. explicitly and deliberately aimed at achieving multiple ends, is unique to SdE-logic. A way of balancing trade-offs is for example formulating 'viable', 'fair' and 'reasonable' ROI's for shareholders whilst trying to create benefits for the community regarding the most pressing issues.

'Qualitative management' is used to refer to evaluating decisions based on foreseen qualitative effects. The three most important issues to which this principle applies are resource allocation, optimal scale and growth pace. Parrish (201) found that regarding these issues SdE's apply a logic of outcome quality over quantity. The resulting decision may differ fundamentally per situation. An enterprise focused on community building may identify a ceiling to growth based on what's optimal for a specific group, where a producer of clean energy may decide to grow as fast and large as possible.

The last of the principles is labelled 'worthy contribution'. Parrish (2010) explains this as distributing benefits created by an SdE, whether monetary or non-monetary, amongst stakeholders on the basis of 'worth', with 'worth' being a function of both need and contribution. Looking at a dictionary, the word 'worth' has three meanings; (1) the (equivalent) value of a specified amount or figure, (2) the value of something measured by its qualities or by the esteem in which it is held and (3) moral or personal value.[1] It is noted that Parrish's (2010) interpretation of the term as a *function* of *need* and *contribution* is thus slightly different. Practically speaking, Parrish (2010) suggests a system must be developed to ensure that those that need something get it, and those that contribute to the enterprise are rewarded. Capitals need to be attracted to the enterprise so that it has the resources to continue its existence and reach its outcomes. An example would be an SdE that helps build micro-enterprises in a disadvantaged area that are then motivated to supply the SdE with high-quality resources or goods.

To reflect, Parrish' (2010) research is of a small scale and limited to the service sector, but nevertheless very valuable. It sheds light on what differentiates SdE's and suggests what they need in order to be successful. The research that underlies this thesis is an attempt to take Parrish's findings a step further and analyse the situation on a larger scale and in different sectors. It builds on his work, but places it in a slightly different context. As the five short descriptions above show, the principles of 'perpetual reasoning' take the form of heuristic, generative rules of action for the process of organizing. This is in contrast to the prescriptive techno-rational structures that are often suggested in older entrepreneurship research (Parrish, 2010). To link this to the literature on capabilities, Teece (2007) calls the distinct skills, processes, procedures, organizational structures, decision rules, and disciplines within an organization the micro foundations of its dynamic capabilities. Based on these two notions, the five design principles of 'perpetual reasoning' are approached in this research as *capabilities* that SdE's need in order to face their challenges, optimally manage their required capitals and meet their goals. Capabilities help structure and orient clusters of recourses for productive purposes (Christensen 1996:114) and these particular five are expected to do exactly that for SdE's. It is therefore expected that these five capabilities are key in enabling the specific outcomes and performance (Dosi et al., 2000) and thus the success of SdE's.

In concrete terms, the sample of successful SdE's in the Western Cape will be analysed regarding the five specific SdE capabilities. It will be explored to what extent these capabilities are present amongst the sample and how each of these capabilities relates to the success of these enterprises.

2.1.4 Motivations and personality characteristics

Although this research and thesis already cover a considerable amount of theory and novel application thereof, the entrepreneur as a person cannot be excluded when exploring this topic.

Schick et al. (2002) studied entrepreneurial start-up processes in Germany and found that the entrepreneur him- or herself formed the most crucial factor for environmental considerations. Similarly, Spence et al. (2005, in Schlange, 2006) claim that the vision and entrepreneurial orientation

[1] Merriam-Webster Dictionnairy (www.merriam-webster.com, 6-10-2012)

of an owner/manager of an SME are instrumental in the integration of sustainable development practices into the business model. Schlange (2006) studied ten Swiss sustainable enterprises in their start-up phase and identified their main motives for starting their business. The participants indicated to want to preserve and further the local economic activity, by keeping the value creation within the region instead of letting it migrate to other areas. Often, the initial objective was to create jobs for local inhabitants. Most of the participants had a vision focused on creating something innovative, identified themselves with this vision but still took a pragmatic approach. Some went further and said to want to change the world, or at least their industry (Schlange, 2006).

Such findings on what motivates the founders of SdE's imply a certain character; the sustainability-driven entrepreneur. When looking at personality characteristics, the most common framework used in research is called the Big Five personality traits. This well-known five-factor model suggests that individual personalities are composed broad dispositions; relatively stable characteristics that interact determine behaviour. The 'Big Five' (named after the broadness of the factors, not greatness) have been researched by many scholars and are widely accepted in both scientific and practical fields (John & Srivastava, 1999). These five core traits are: openness (e.g. curious, imaginative), conscientiousness (e.g. orderly, achievement oriented), extraversion (e.g. outgoing, talkative), agreeableness (e.g. friendly, cooperative) and neuroticism (e.g. sensitive, nervous).

Research on traditional, commercial entrepreneurship has connected the Big Five personality factors to the well-known model of psychologist John Holland on occupational types (one of the six types being Enterprising). Especially extraversion has been shown to be positively associated with entrepreneurial tendency (e.g. Babb and Babb, 1992; Gottredson et al., 1993). Schmitt-Rodermund's work (2004) indicates that Holland's E-type (Enterprising) is associated with low agreeableness and neuroticism, and high extraversion, openness, and conscientiousness. Their research even linked the entrepreneurial personality-type to adolescent entrepreneurial competence (EC). Remarkably, research on social entrepreneurship returned differing findings. A study by Koe Hwee Nga & Shamuganathan (2010) revealed that agreeableness has a strong positive influence on social entrepreneurship, and openness a less strong but still positive influence. This implies sustainability-driven entrepreneurs may differ significantly from Holland's traditional E-type.

Recognizing the important role of personality characteristics in the topic of sustainability-driven entrepreneurship, these aspects are considered in this study. However, as this part of the study falls outside the core of the research, no hypotheses will be drafted and tested; it is merely considered in the typology of the entrepreneurs included in the sample.

2.2 Hypotheses and conceptual framework

Below, the five hypotheses of this research are presented.

The capability 'resource perpetuation' can be described as operating in a responsible way, i.e. having a successful business model while exploiting human and natural capital as little as possible. It can be assumed that this capability has an overall positive impact on the enterprise's social-ethical side and the environmental side, as the opportunity cost are lower than that of the alternative; commercial enterprise. The influence on the enterprise's 'prosperity' may be negative, as it is not expected to lead to the cheapest options (on the long run it is expected that resource perpetuation is the cheapest option, but this research is focused on the short term as many of the participating enterprises are young). As a positive effect on at least two out of three indicators is expected the hypothesis is:

H1: The capability 'resource perpetuation' in sustainability enterprises in the Western Cape area, overall positively influences their 'success'.

Achieving synergies, i.e. the co-production of multiple benefits from a single activity is expected to have a positive influence on success. 'Benefit stacking' increases efficiency of the processes, thereby demanding less from employees and resources, but not at the expense of other organizational activities. Therefore, the capability is expected to contribute to the enterprise's positive social-ethical, environmental and economic impact. The hypothesis is therefore:
H2: The capability 'benefit stacking' in sustainability enterprises in the Western Cape area, positively influences their success.

'Strategic satisficing', or the continuous strategic balancing of multiple objectives is suggested to be critical to SdE's. These enterprises face a unique challenge created by the tension between their sustainability-related goal(s) and business imperatives. It is pointed out in literature that this tension needs to be overcome in order for an SdE to be successful. When an enterprise is capable of meeting all its goals to an at least satisfactory extent, this is expected to contribute to its success.
H3: The capability 'strategic satisficing' in sustainability enterprises in the Western Cape area, positively influences their success.

Using the expected quality of outcomes and processes as the most important decision criterion prioritizes people and nature over pure profits. Therefore, this capability is expected to contribute to the 'people' and 'planet' impacts of an SdE. The influence on the enterprise's positive economic impact may be negative, as it is not expected this particular capability necessarily leads to increased (short-term) profits and job creation. As a positive effect on at least two out of three indicators is expected the hypothesis is:
H4: The capability 'qualitative management' in sustainability enterprises in the Western Cape area, positively influences their success.

Dividing benefits (such as profits but also non-financial benefits) based on worth as a function of both need and contribution is expected to have a positive influence on 'people'. Through this capability, all stakeholders get the opportunities they need. A positive influence on 'prosperity' is also expected, as benefits are used to induce contributions to the enterprise. With an expected positive effect on at least two out of three indicators, the hypothesis is:
H5: The capability 'worthy contribution' in sustainability enterprises in the Western Cape area, positively influences their success.

A number of control variables is also included, in order to obtain a better measurement of the extent to which these five capabilities are related to success. The most important generic business capabilities (based on Ulrich & Smallwood, 2004) will be measured and controlled for, as well as the size, age and sustainability focus of the organization and the previous managerial experience of the founder(s). The conceptual model of this research is depicted on the next page.

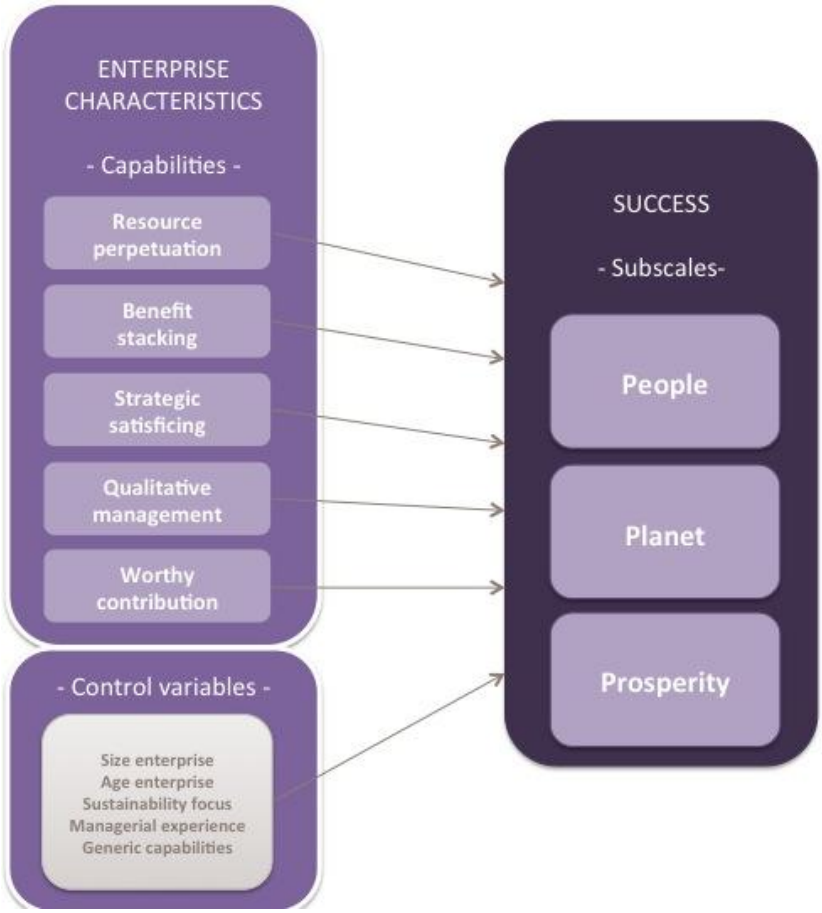

Figure 2| Conceptual model

3 Methodology

The methodology for this research was developed by the researchers and is presented below. The multiple phases of the research are first described, followed by an explanation of how data was gathered. Then, the detailed methods on how the dependent and independent variables were measured are presented, followed by a table that presents the operationalization of these variables and their indicators.

3.1 Research type

The overarching research project consists of several phases, each of a differing type. The first phase took place in The Netherlands and consisted of a joint literature study to further identify which factors were found to be important in the literature and thus to be included in the research. Per article, a short description and overview of identified success factors and conclusions was recorded. The database that was created this way formed the basis for the selection of factors that were the focus of each of the sub-researches. The table below shows a sample of the database.

Table 4| Sample of factor overview from general literature study

	Focus Area of Research	Success Factors	Conclusions
Ras & Vermeulen (2009)	The export potential of the table grape industry in SA and the influence of business-to-business interaction on the industry (SSCGS).	Entrepreneurial characteristics that influence environmental performance and profitability: 1. Innovativeness 2. Responsiveness 3. Adequate management 4. Business networking 5. Market timing	1. Environmental performance is driven by: innovativeness and responsiveness to the dynamic market, together with network participation and responding to the market dynamics. 2. Economic performance driven by: internal management skills and market timing 3. SSCGS has positive effect on performance, but more research is needed.
Visser (2011)	Overview of the social entrepreneurship in SA – what is it, why does it happen, typology, the significance of the GEM report, and features four case studies	Stimulating Factors: 1. High industrialization and productivity, with growth opportunities for small entrepreneurs 2. Financial capital 3. Increase in economic activity based on EofS 4. (indirectly mentioned) endorsement by government Inhibiting factors: - cultural: narrow-minded and isolated attitude in SA, the role of social entrepreneurship is not recognized or rewarded - not incorporated in education system (universities)	Social entrepreneurs act as socially and economically stabilizing forces in the communities they serve, however, thus far they have received inadequate attention. Areas that need addressing are: fostering the awareness of social enterprises, integrating social entrepreneurship into the education/university system, and entertaining similar government endorsements as have been seen in Europe and the UK.

Sriram (2010)	Stimulating entrepreneurship in Africa – factors that contribute to (1) the start-up and (2) success of new business ventures in Africa	1. Capital 2. Personality factors (i.e. individual drive and competency) 3. Availability of resources 4. Effective policy 5. Facility in preferred location 6. Competition/market 7. Having a business plan 8. Focusing on customer service/customer relations	Highlight that in order for successful entrepreneurship, the right business climate is needed, education and training are a must, and through policy the gender gap must be reduced. Government should also play a role via 'incubators' to assist start-ups.

The second phase consisted of quantitative data collection in South Africa through a questionnaire and additional qualitative data through interviews. The quantitative data was compiled into three separate databases per sub-research, used for the individual analyses. Another database will be created that contains all the data collected, allowing a meta-analysis which is to be presented in a separate document. The last phase of the research was to analyse the data. For this sub-research, statistical analysis of the quantitative data collected was performed. Multiple regression analysis, using SPSS, was used to show the extent to which the factors determine the success of sustainability enterprises in the Western Cape area. The qualitative data was collected in order to better interpret and provide context and additions to these results.

3.2 Data collection

The unit of analysis of this research is sustainability enterprises as defined in section 1 and 1.5. A sample group of at least 30 enterprises was taken as a goal. This number was deemed a realistic amount of participants for the available 3-month data-gathering period whilst still allowing statistical analysis. Enterprises were selected through a purposeful sampling strategy to ensure they would provide useful information for the research questions. Several means were used in this process: University Utrecht contacts, Stellenbosch University contacts, social media (LinkedIn and Facebook groups for local social entrepreneurs), online platforms and Internet searches using Google, with the latter yielding the most potential participants, and finally through referrals by participants during the research.

A mixed methodology was developed for this research, and both qualitative and quantitative data was gathered. Qualitative data was collected through a fixed questionnaire consisting of two general sections regarding demographic and performance data and three sections regarding the three sub-researches. The questionnaire also included open questions for some qualitative data gathering. The questionnaire was either conducted in person during an interview, using a hardcopy form or was distributed and collected via email after the interviews. The interviews were the main source of qualitative data gathering. They generally lasted 1,5 to 2 hours and took place at the office of the enterprise or in a local coffee shop. The interviews were recorded and extensive notes were taking during each interview. Several additional interviews with relevant people in the field were also sought out to enrich the view of the local situation. The results chapter and Appendix A contain more information on the data that was gathered. The questionnaire is included in Appendix B.

3.3 Methods

The methods used to gather the quantitative data are presented below for the success measures, organizational characteristics that are the focus of this research.

3.3.1 Performance and success

There is no consensus on how sustainability performance and especially the resulting success in terms of impact on sustainable development are to be measured in enterprises. Therefore, a method was developed for this research project. Based on the well-known triple-bottom line, coined by John Elkington (1997), three indicators were adopted. Success is approached through three equally weighted performance-subscales; 'prosperity' to measure positive economic impact, which includes societal profits, 'people' to measure positive social-ethical impact and 'planet' to measure positive environmental impact. The score per subscale consists for 50% on items focused on 'internal' impact and for 50% on items that focus on 'external' impact. It was decided to take this dual approach to capture both the value created internally and externally, as to better grasp the total contribution to sustainable development within the country. For example in regards to 'prosperity', the enterprises make a profit (internal value) but also create jobs (external value). The items concern those issues per subscale that were deemed most relevant for the South African context, for example health & safety policies, energy use and waste management. The subscales are listed in table 5 in section 3.4.

3.3.2 Organizational characteristics: capabilities

It is challenging task to make organizational capabilities measurable. "*Strategies used by past researchers in operationalizing the concept of capability have included asking for managers' own perceptions of organisational capability relative to their competition (Christmann 2000)*; *defining capability as a statistical residual, a portion of performance unaccounted for by measured explanatory variables (Dutta et al. 2005); and inferring capability from observable concomitant activities or characteristics (Sharma and Vredenburg 1998)*" (in Goldstein & Hilliard, 2008:10). Others have combined such strategies, such as the **Capability Audit** of Ulrich & Smallwood (2004) and the **two-step design** of Hase (2000). The method used in this research is based on these two existing methods.

Ulrich & Smallwood's (2004) **Capability Audit** provides a high-level picture of an organization's strengths and areas for improvement. Through their research, Ulrich & Smallwood (2004) have identified 11 generic capabilities that well-managed companies tend to have, explained in section 2.1.1. They also developed a generic questionnaire to measure the current and desired performance regarding these capabilities. The process of performing a Capability Audit starts with identifying which capabilities (based on their 11 generic ones) are most important to the organization. These are then evaluated through a survey (adapted from the generic questionnaire) amongst either higher management only or also employees or even including external stakeholders. The results, especially when the survey includes desired performance, can be used as a basis for corporate strategy and improvement plans.

In this research, the generic capabilities of the Capability Audit are used as a basis for one of the control variables: generic capabilities. All but one of the 11 generic capabilities are included, only excluding *efficiency* due to overlap with the other capabilities of focus. *Accountability* is renamed *performance*, as it was detected that the term *accountability* sometimes raises confusion. *Internal communication* is added as a general capability, as it was deemed this aspect is not represented by the standard selection of the Capability Audit. The capabilities are measured through questions that are based on the generic ones by Ulrich & Smallwood (2004). An assessment of the *desired* performance on the capabilities is not included, in order to keep the questionnaire clear and relatively fast to fill out. The full list of generic capabilities that are included in this study can be found in table 5 below.

To a larger extent, this research is based on the work of Hase (2000) who, in his research on human resource issues, developed a 2-step research design to measure organizational capabilities. The first step is a **Grounded Theory** research method through which he identified 10 critical elements of

organisational capability. The Grounded Theory approach was developed by Glaser & Straus (1967) and allows for the generation of theory from collected data, instead of drafting a hypothesis based on theory and then collecting data to test the hypothesis. The second step in Hase's (2000) design is the development of the instrument the **Organisational Capability Questionnaire (OCQ)** to measure the identified critical elements in the organizational unit of interest. The OCQ consists of 3 self-report items per element, using a 5-point Likert Scale to indicate the extent of agreement with a statement.

The method used in this research follows the same two steps. First, five essential factors of organisational capability were determined, through the detailed empirical case-study work done by Parrish (2010). Then the questionnaire was developed, through which each capability is measured by 3 items, asking entrepreneurs own perceptions of their capabilities using a 5-point Likert Scale. Each item is scored (1 to 5) resulting in an average score per capability. It is noted that it is difficult to define capabilities non-tautologically (i.e. not overlapping) with respect to the performance they are thought to enhance (Goldstein & Hilliard, 2008). Capabilities need to be measured independent of performance and the items were drafted with this in mind. The items were based on the combination of the descriptions of Parrish's (2010) five principles and on (dynamic) capabilities theory. Mainly, the micro-foundations of dynamic capabilities by Teece (2007), presented in section 2.1.2, were used to draft statements on a concrete level.

It is noted that the two methods described above were designed for and are generally used for purposes that differ from this academic research. However, they form a concrete and verified basis for how capabilities can be measured, and they have been adopted to increase the validity and reliability of the data collected and used in this research. Some further notes on the method are that the questionnaire was piloted first with positive feedback and no changes were made. Some items were reversed to assist further with response validity and reliability.

3.4 Operationalization

The table below shows the operationalization of the included concepts in this research. The first table regards the core of the research and shows the dependent and independent variables, which are of the organizational level.

Table 5| Operationalization of dependent and independent variables

Concept	Indicator(s)	Measure
Dependent variables		
'Prosperity'	Positive economic impact Internal: profit made, 1 item External: job creation, 2 items (score 1-5): inputs bought locally output markets	Ordinal
'People'	Positive social-ethical impact Internal: HR policies, 3 items (score 1-5): minimum wage health & safety equality (gender & race) External: community investment, 1 item (score 1-5)	Ordinal

'Planet'	Positive environmental impact Internal: resource use, 4 items (score 1-5) energy waste management (3 items) External: nature conservation, 1 item (score 1-5)	Ordinal
Total success of the SdE	The contribution to sustainable development (integrating 'prosperity', 'people' and 'planet').	Ordinal
Independent variables		
Resource perpetuation: natural capital (RP1) Resource perpetuation: human capital (RP2)	Scores on 3 items (score 1-5): In-house expertise Procedures Employee responsibility Scores on 4 items (score 1-5): Employee needs Feedback system Local community engagement Impact consideration	Ordinal
Benefit stacking (BS)	Scores on 3 items (score 1-5): Process costs (reversed) Win-win situations Multiple gains per activity	Ordinal
Strategic satisficing (SS)	Scores on 3 items (score 1-5): Formulated goals In-house skill diversity Reasonable outcomes	Ordinal
Qualitative management (QM)	Scores on 3 items (score 1-5): Continuous increase production (reversed) Growth pace Workload & workplace quality	Ordinal
Worthy contribution (WC)	Scores on 3 items (score 1-5): Salary differences policy Power prioritization (reversed) Community inclusiveness	Ordinal
Control variables		
Size of organisation	Number of fulltime employees equivalent (fte) (categorized)	Ordinal
Age of organisation	Number of months the organisation exists	Scale
Previous managerial experience founder(s)	The years of previous managerial experience of the founder(s) at start enterprise: none, some experience (1-3 years) or very experienced (>3 years)	Ordinal
Sustainability Focus	Main focus of mission: environmental, social or integrated	Nominal
Generic capability: talent	Score 1 item (score 1-5)	Ordinal
Generic capability: performance	Score 1 item (score 1-5)	Ordinal
Generic capability: shared mind-set	Score 1 item (score 1-5)	Ordinal
Generic capability: leadership	Score 1 item (score 1-5)	Ordinal
Generic capability: strategic unity	Score 1 item (score 1-5)	Ordinal
Generic capability: internal comm.	Score 1 item (score 1-5)	Ordinal
Generic capability: learning	Score 1 item (score 1-5)	Ordinal
Generic capability: innovation	Score 1 item (score 1-5)	Ordinal

Generic capability: customer connectivity	Score 1 item (score 1-5)	Ordinal
Generic capability: collaboration	Score 1 item (score 1-5)	Ordinal
Generic capability: speed	Score 1 item (score 1-5)	Ordinal

4 Results

This results chapter starts off with two paragraphs of a descriptive nature; the response rates and descriptive information on the participating enterprises that filled out the questionnaire (also referred to as cases). Then, the results of the three steps of statistical analysis (factor analysis, correlations and multiple linear regression analysis) are presented. The chapter ends with interesting additional findings, from relevant qualitative data gained from the interviews to a typology of the entrepreneurs.

4.1 Response rates

The response rates in this research are high. A total of 101 potential participants were contacted, of which 38 participated; a response rate of 37.6%. In the case of 35 of the participating enterprises, an interview with representatives of the enterprises was conducted and 28 of those representatives filled out the questionnaire; a response rate of 80%. In 3 cases no interview was conducted due to distance or time limitations and the questionnaire was sent and received via email. In total, 31 questionnaires were received and 40 interviews were conducted for this research. Besides the 35 interviews with entrepreneurs, five 'experts' in the field of sustainability-driven entrepreneurship within South Africa were interviewed. A full list of the interviewees and other participants can be found in Appendix A.

4.2 Descriptive: participating enterprises

A total of 38 sustainability-driven enterprises located in the Western Cape of South Africa participated in this research. Through the interviews, it became clear that the Western Cape region is generally considered the 'greenest' and relatively pro-active in terms of sustainability in South Africa. This explains the high number of potential and actual participants to this study, from many different sectors and industries. Below, a map and zoomed-in selection of this map of the physical location of the participating enterprises is shown. The legend included on the next page shows in which industries the participants were categorized. This map, including a breakdown of which enterprises belong to which industry, is digitally available through Google Maps (a direct link is included in the references).

Figure 3a| Location of participants (Western Cape area)

Figure 3b| Zoomed-in selection (Cape Town area)

Colour	Industry	Participants
	Arts and crafts	3
	Consultancy, media and advertising	5
	Packaging and recycling	3
	Retailing	10
	Awareness, education and training	6
	Food and hospitality	8
	Tourism and services	3
	Total:	**38**

Figure 3c| Legend

The representatives of the enterprises were asked to indicate the business-model of their enterprise, of which the answers are summarized in figure 4 below. The vast majority of the cases are for-profits, but 16 % of them have developed a hybrid model with both a profit and non-profit entity. Only one of the cases is registered as a non-profit entity (training centre RLabs) and one indicated to be currently researching the option to become a non-profit, as there might be some sector-specific benefits to it (filmmaker Green Renaissance). For a small group of participants, a non-profit registration would be out of the question due to the nature and goals of the enterprise; for example the wine producers. Most of the enterprises that would be more likely to be a non-profit due to a very strong social or environmental mission indicated to have explicitly chosen to adopt a for-profit structure.

Food Shed's founder stated: "*If you want green to be the order of the day, then it must be a business. … I'm so bored with NP's*."[2] Green Talent's founder explained that the sustainability of NP's may be doubted, as dependency on external funding is created and when donations stop, the situation can get very problematic for the beneficiaries.[3] Burchell's Food stated that a long-term model seemed the most effective to them; first set up a well-running business to have "*bread on the table*" as to be able to explore the product you would really like to develop.[4] Finally, one of CocoaFair's co-founders indicated: "*I don't like charity, I work to hard for it. But if we can do some good…*"[5]

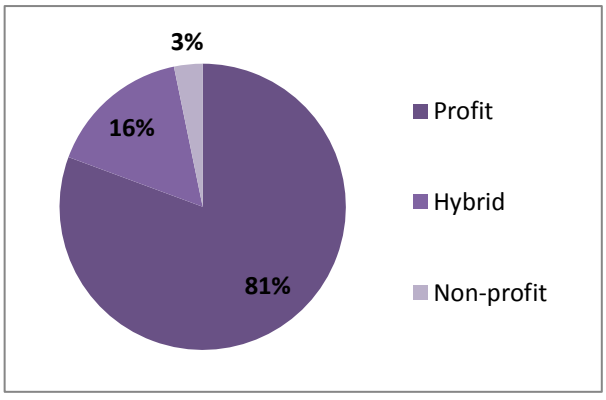

Figure 4| Business models of the enterprises

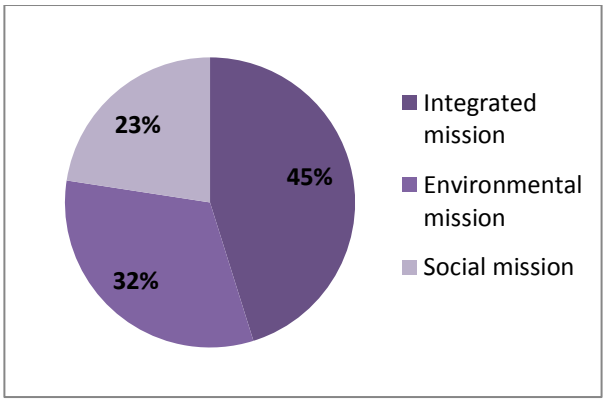

Figure 5| Missions of the enterprises

[2] Food Shed, interview with Liz Metcalfe on 26 April 2012
[3] Green Talent, interview with Elize Hattingh on 29 March 2012
[4] Burchell's Food, interview with Debbie Alcock on 14 May 2012
[5] CocoaFair, interview with Antonino Allegra on 16 May 2012

Another interesting categorization is based on the mission of the enterprises. The participating enterprises were grouped under 'environmental mission', 'social mission' or 'integrated mission'. As environmental and social aspects are often tightly intertwined and all the cases categorized under either environmental or social indicated to also have the other sustainability-related aspects in their mission, the categorization was based on the main focus. Still, the largest share belongs to the 'integrated mission' group striving for both socially and environmentally related goals at the same time, although the difference compared to the other groups is small. Figure 5 on the previous page visualizes the relative size of these groups.

Figure 6 below shows the size of the participating enterprises, divided into categories of number of employees. Small enterprises with between 2 and 5 full time employee equivalents (fte) have the largest representation. It is noted that some of the youngest enterprises are in this group; many were founded by two or several people. Some of the entrepreneurs highlighted the benefits in terms of flexibility of a small team, but many indicated to have expansion plans for the future.

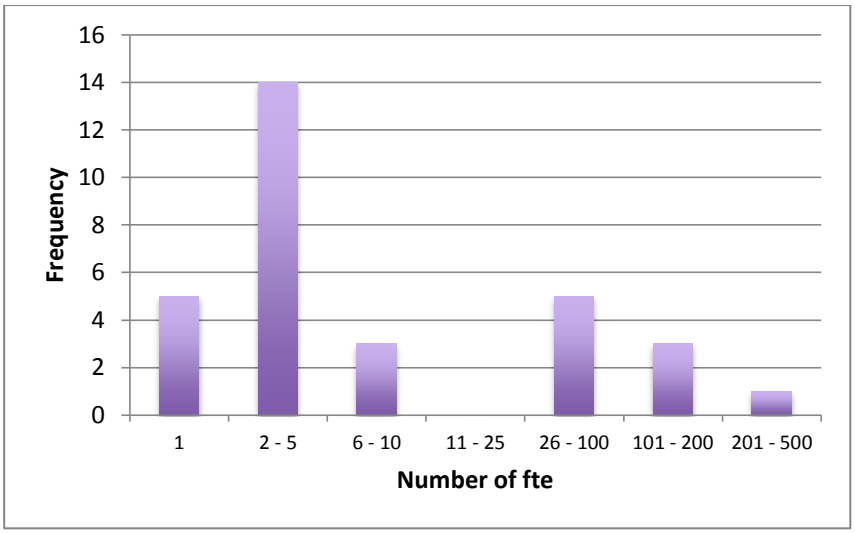

Figure 6| Size of enterprises in categories

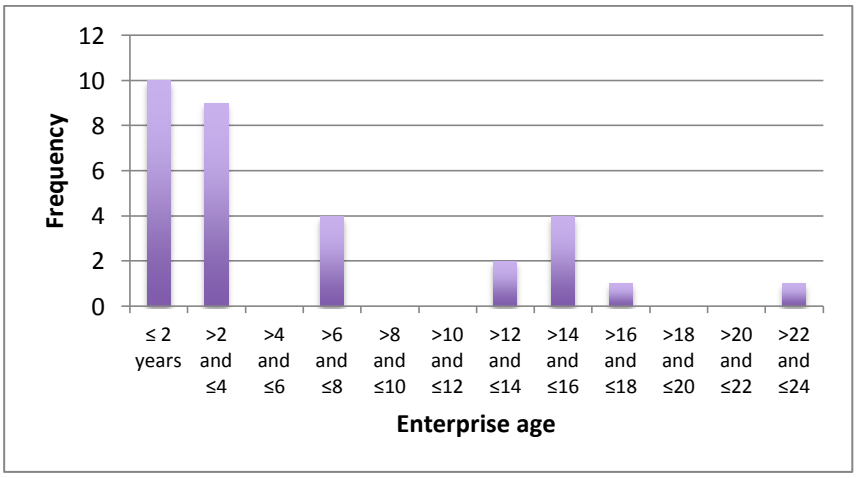

Figure 7| Age of enterprises in categories

Figure 7 shows the age-distribution of the enterprises. The average age of the participating enterprises is 6.4 years, but a third of the group consists of enterprises that have existed between 1

and 2 years and almost two third of enterprises between 1 and 4 years. In order to be eligible for participation to this study, an enterprise had to be in existence for at least one year.

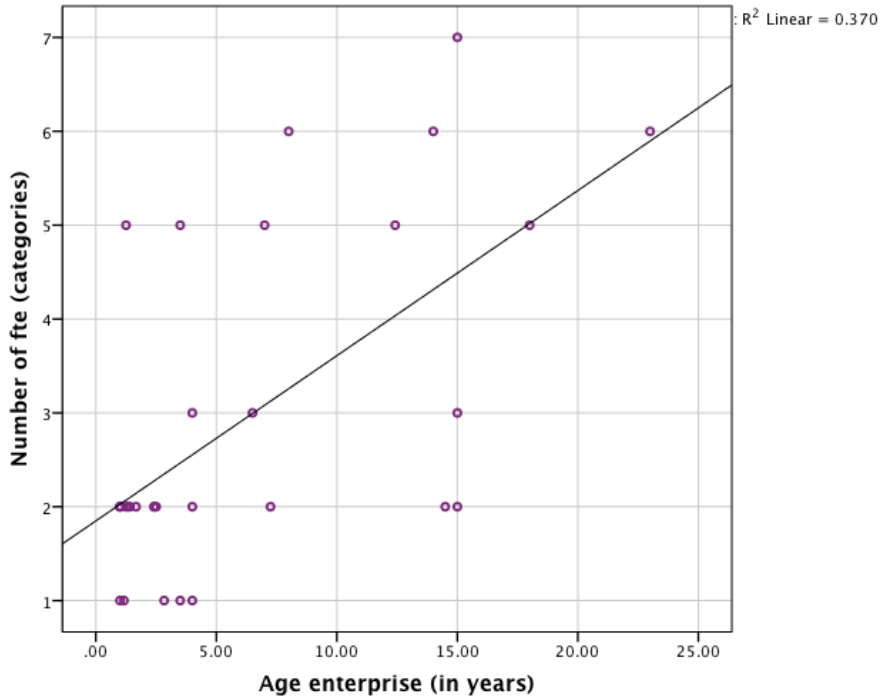

Figure 8| Scatterplot age and size of the enterprises

The scatterplot above shows a clear linear relationship between the size (in categories of number of fte) and age (in years) of the enterprises included in the sample, the R2 is .37. In general, the older the enterprises, the more employees they have.

4.2.1 Performance and success

The figures below visualize the self-indications of the enterprises on their performance. The performance measure consists of three parts; 'prosperity', focused on economic impact (profit and job creation); 'people', reflecting social-ethical impact; and 'planet', measuring environmental impact. Each of these scales consists of an internal and external indicator, which are both measured through one or several items.

Prosperity. As figure 9 on the next page shows, just over half of the participating enterprises was making a profit at the time of the data gathering. It is noted that many of the cases indicated that all the (would-be) profits were poured back into the enterprise as investments. Over a third was at break-even point and 13% was still on its way to becoming profitable. Large differences between the profitability of the enterprises were found. Some of them indicated that it took a very long time for their business model to work. An example is Original T-bag Designs, which is now starting to make a profit after 14 years of intensive work[6]. The complete opposite is shown by the example of EcoPack, which already started to make a profit in the first year of existence and is now looking to expand operations[7].

[6] Original T-bag Designs, interview with Jill Heyes on 25 April 2012
[7] EcoPack, interview with Lauren Clack on 28 March 2012

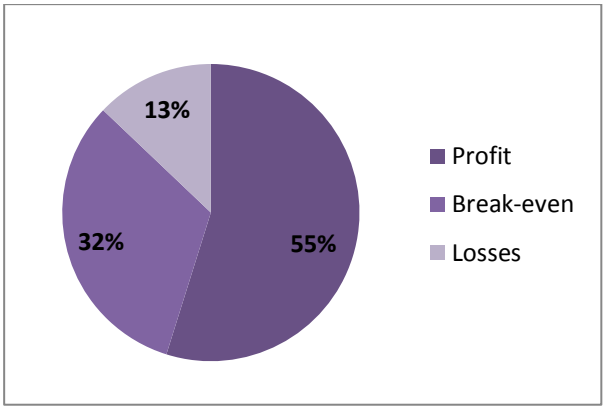

Figure 9| Financial performance of cases

The external indicator 'job creation' was measured by two proxy indicators; the percentage of inputs sourced locally and the percentage of outputs going to local, national or African markets. Figure 10 shows the distribution of the cases over the input categories. Just over half of the enterprises buy 81-100% from local sources.

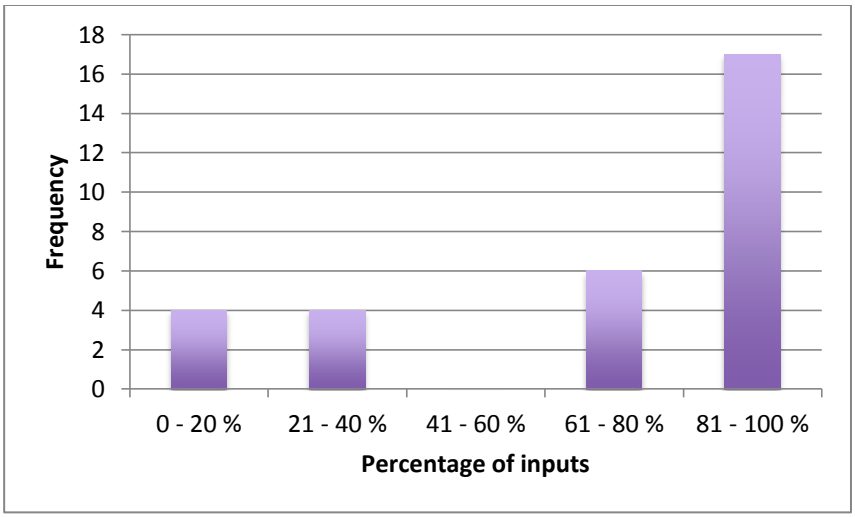

Figure 10| Distribution of inputs bought locally by the cases

It is noted that in some cases local sourcing would not be possible, as the resources are simply not available or price-technically not an option for the SdE's on the South African market. Examples are industrially grown hemp[8] and organic cotton[9].

Concerning the markets that are being reached; an average of 62% of the all the outputs of the cases goes to local markets, 18% goes to national markets, 3% to African markets and 17% to other, international markets (no figure included). In a few cases, a very large share of the products was destined for international markets. In the interviews with the representatives of these cases, it was discussed that this may be a result in a risky dependency, which reflects negatively on the sustainability of the firm. The wine producers are an example of enterprises in this situation, and they all indicated that one of their aims is to strengthen the local market, in order to diversify their markets and be less influenced by currency changes and international trade agreements.[10]

[8] Hemporium, interview with Tony Budden on 22 May 2012
[9] Scarecrow Organics, interview with Irene de Beer on 4 April 2012
[10] Spier, interview with Gerhard de Kock on 16 April 2012; Thandi Wines, interview with Vernon Henn on 25 April 2012; and Reyneke Wines, interview with Johan Reyneke on 19 April 2012

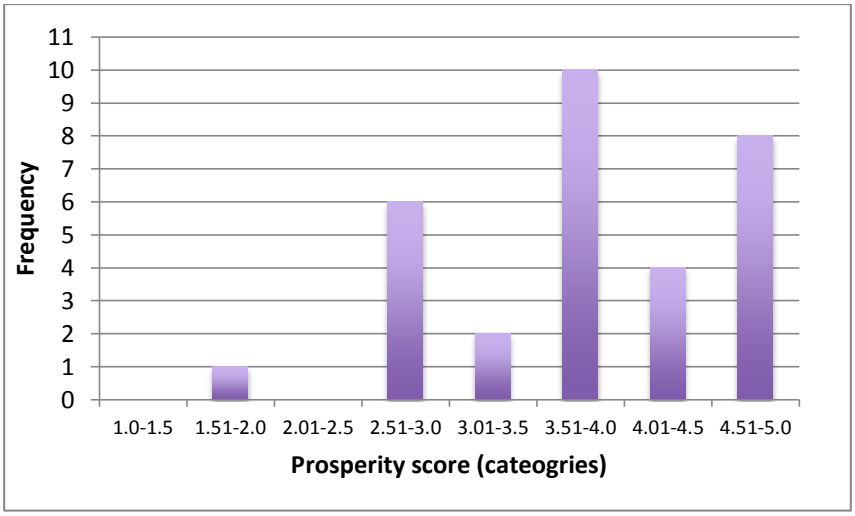

Figure 11| | Overall scores on 'prosperity'

The figure above shows the resulting scores of the 31 SdE's on the 'prosperity' scale (the combination of the internal and external measures). The mean is 3.88 and standard deviation .80.

People. The two figures below show the answer-patterns of the participants per statement regarding social-ethical issues. The bars in the figures are presented in order of most "*agree"* and "*strongly agree"* answers. They represent frequencies, in order to show the missing data per item.

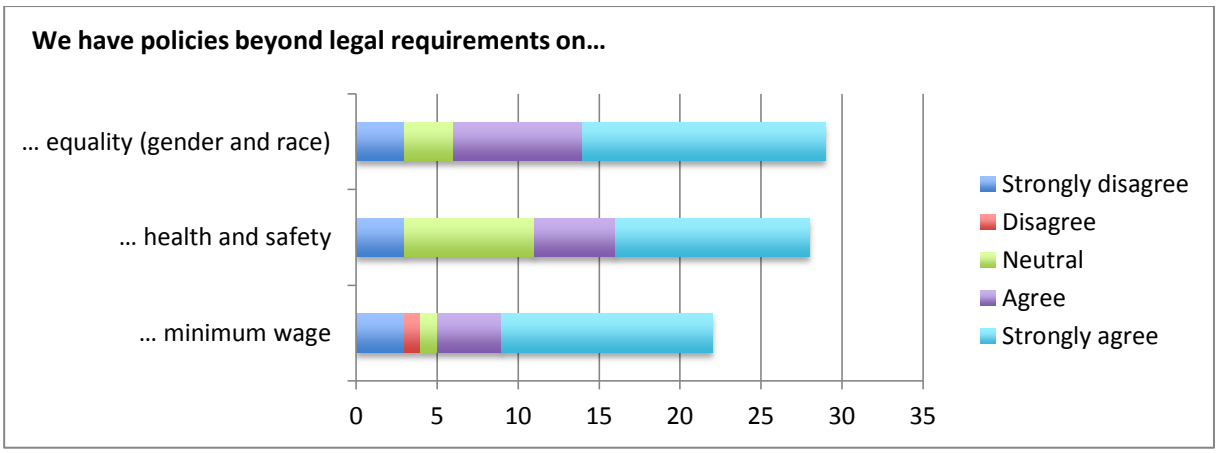

Figure 12a| Answer patterns on statements regarding HR policies

Figure 12a on HR policies clearly shows that almost a third of the cases did not provide an answer to "We have policies beyond legal requirements on minimum wage". This can be explained by the strict labour laws of South Africa, which make policies beyond legal requirements unnecessary to reflect an internationally acceptable minimum wage level. On the basis of such findings from the interviews, it was decided to exclude this item from the internal 'people' indicator used in the regression analysis (see 4.3). It is also noted that the younger companies often indicated they did not (yet) have documented policies. In these cases, it was discussed during the interviews how these issues were dealt with in order to select an answer. As health and safety aspects are not relevant for all types of enterprises, there is a relatively high amount of "*neutral*" answers on the corresponding item. Regarding al three statements on HR policies in figure 12a, over half of the cases indicated to agree or strongly agree with it. Equality seems to be issue that receives most attention.

Figure 12b shows the external indicator or the 'people scale'. Only 7 of the 31 cases did not explicitly indicate to invest (money/or time) in the community in which they operate.

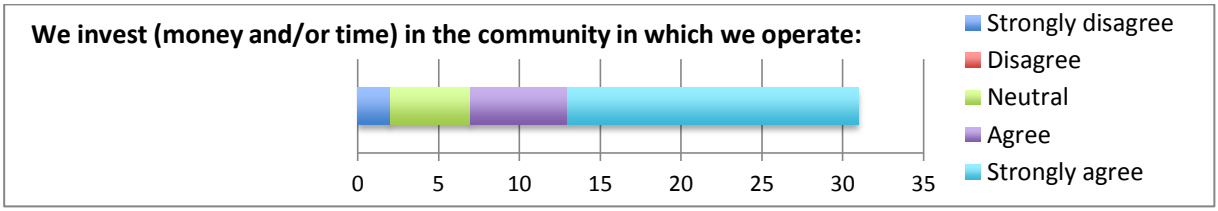

Figure 12b| Answer patterns on statement regarding community investments

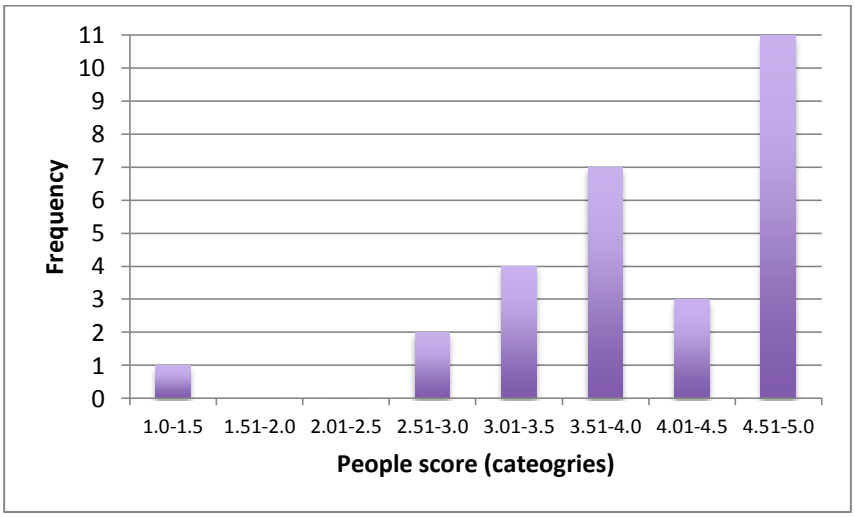

Figure 13| Overall scores on 'people'

Based on the above, figure 13 above shows the resulting scores of the 28 SdE's (also showing there are 3 cases with missing data on the indicators of this scale) on the 'people' scale. The mean is 4.14 and standard deviation .92.

Planet. Below, the first two figures are used to visualize the distribution of answers on the statements regarding resource use by the participating enterprises. Both in terms of energy use (figure 14a) and waste management (figure 14b), a large majority of the cases agrees or strongly agrees with the statements. Furthermore, a few of the cases indicated they offset their carbon footprint through internal activities or third parties when the financial situation allows this.

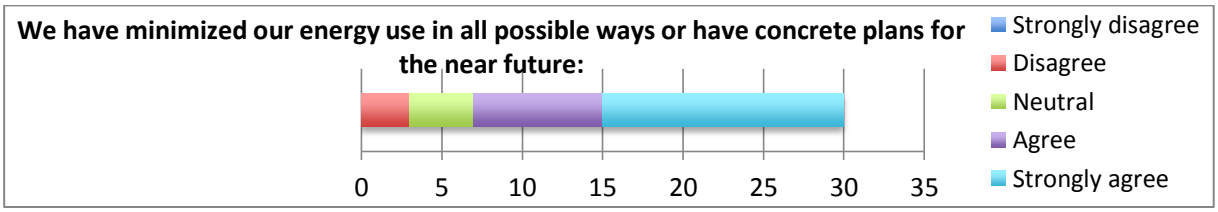

Figure 14a| Answer patterns on statement regarding energy use

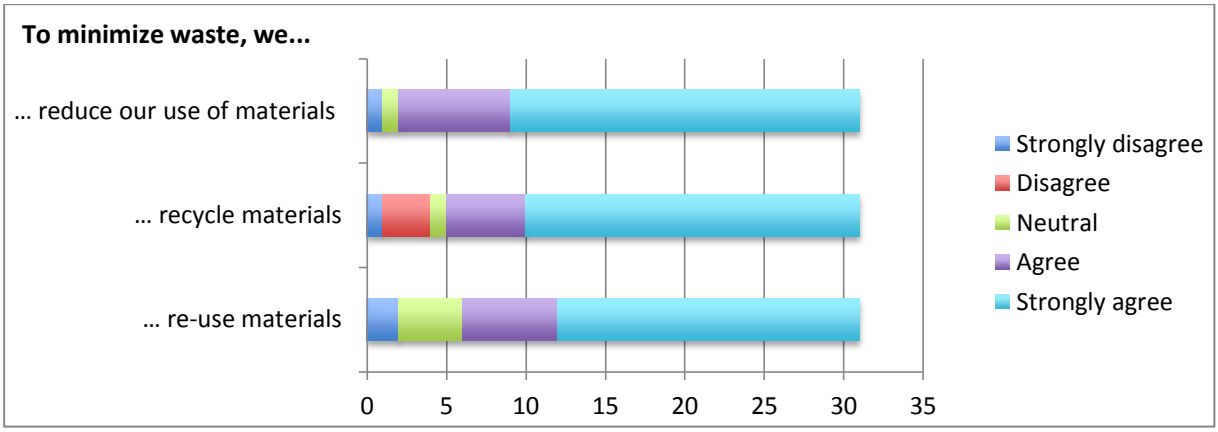

Figure 14b| Answer patterns on statements regarding waste management

Figure 14c below regards the external indicator of the 'planet' scale. The bar shows that a slightly lower number of "*agrees*" and "*disagrees*", but still two-thirds of the cases states to invest (money and/or time) in the preservation of the natural environment in which they operate. Looking at the 'people' scale, it can be observed that there is a higher number of cases that invest in the community in which they operate compared to the natural environment.

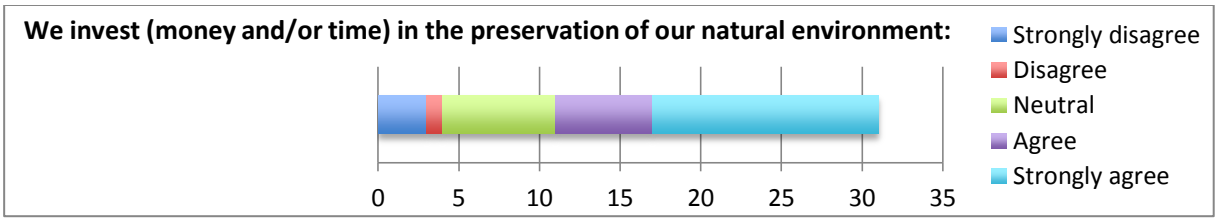

Figure 14c| Answer patterns on statement regarding investments in the natural environment

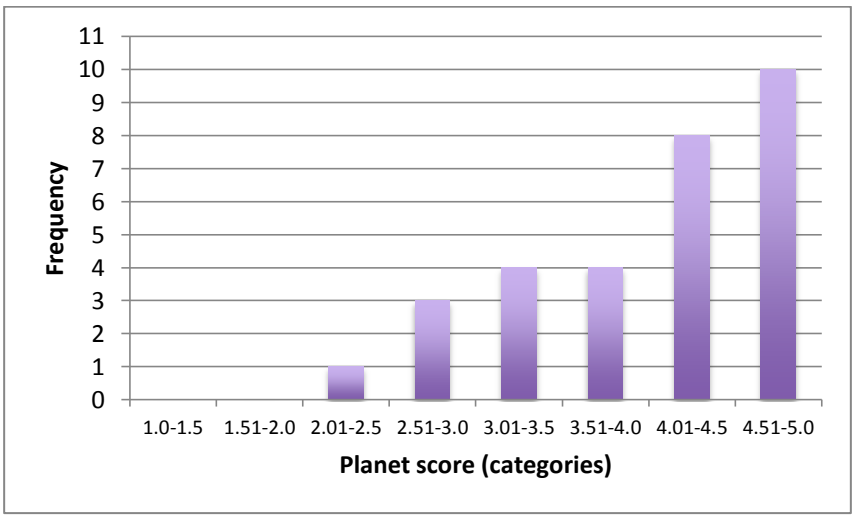

Figure 15| Overall scores on 'planet'

The figure above shows the resulting scores of the 30 SdE's (there is one case with missing data on this scale) on the 'planet' subscale of success. The mean is 4.16 and standard deviation .80.

Compared amongst each other, the sample performs best in terms of 'planet' (mean = 4.16) and 'people' (mean = 4.14) and relatively lowest on 'prosperity' (mean = 3.88). The scores on 'prosperity', 'planet' and 'people' were also combined into a total success score. Figure 16 shows the distribution of the scores on this integrated success scale of the enterprises included in the sample. The mean is 4.05 and standard deviation .59.

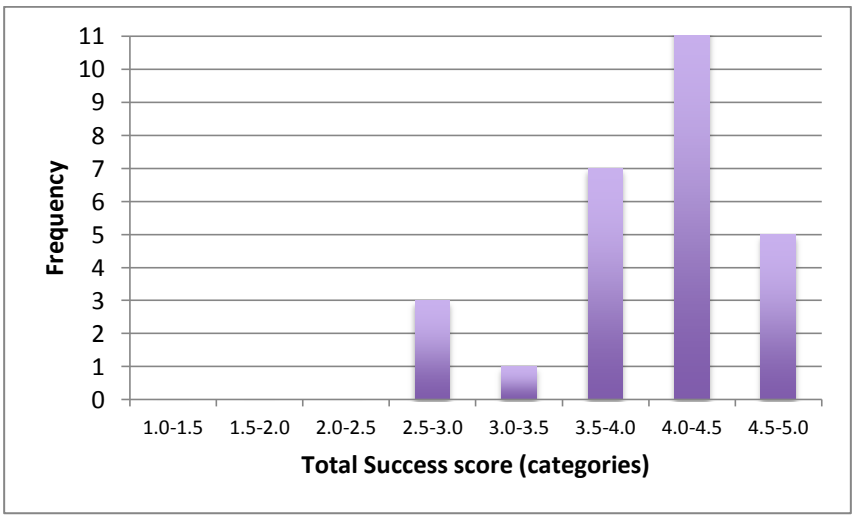

Figure 16| Resulting scores on 'success total'

4.2.2 Organizational characteristics: capabilities

The graphs on the previous and following pages, regarding the answer patterns on the capability-statements, are presented in percentages, as there are almost no missing data points. The aspect that is continued from the previous section is that the bars are presented in order of most "*agree"* and "*strongly agree"* answers.

The questionnaire included a section with eleven statements that were aimed at measuring the generic business capabilities of the participating enterprises, which were used as control variables in the multiple regression analysis. Figure 17 on the next page shows these statements and the answer patterns in percentages. It becomes evident that the representatives of the participating enterprises scored their organizations high on having these capabilities. Additionally, there is not a lot of spread in scores between the different statements.

Although the differences are small, the statements on 'collaboration', 'leadership', 'learning', 'customer connectivity', 'shared mind-set' and 'innovation' appear to have most agreeing answers, with 'innovation' having received the most *"strongly agree".* 'Strategic unity' has been scored the lowest in terms of agreement, with 'performance' receiving the least "*strongly agree*" answers.

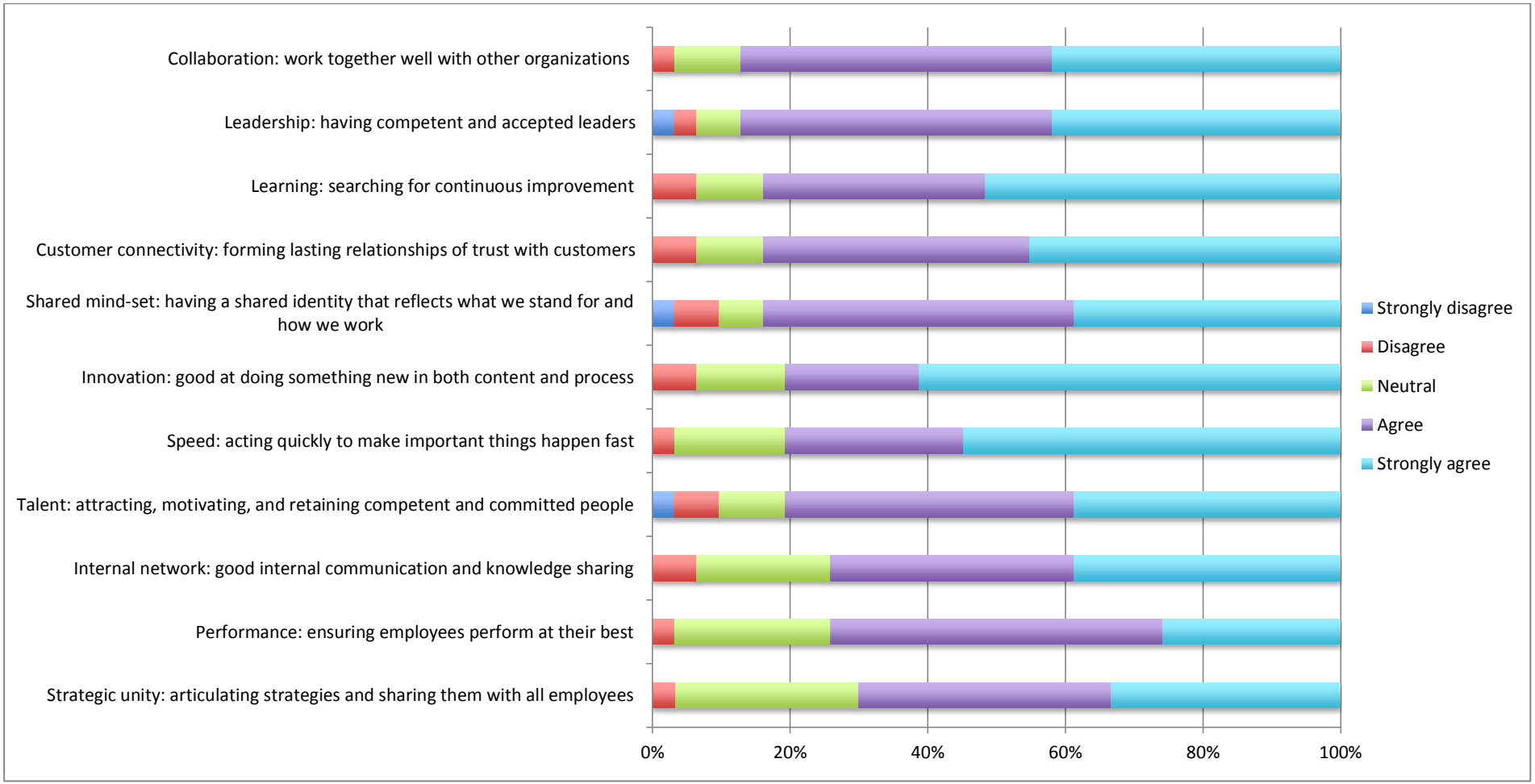

Figure 17| Answer patterns on statements regarding generic capabilities

The six figures below regard the five capabilities that are the core focus of this research, the independent variables. Again, on most statements around 75% of the representatives chose *"agree"* or *"strongly agree"*, leading to high scores on these specific capabilities. However, there is more spread in the answer patterns then is the case with the generic capabilities.

Resource perpetuation. Figure 18a (below) and 18b (on the next page) show the items that belong to the 'resource perpetuation' (RP) capability; the first figure includes those items that concern natural resources (RP1), the second figure those that concern human resources (RP2).

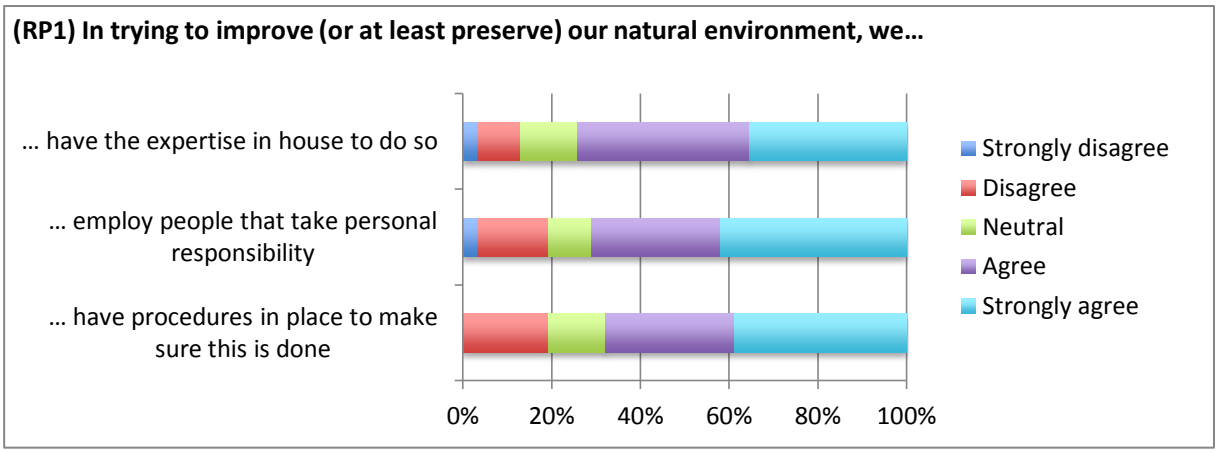

Figure 18a| Answer patterns on statements regarding 'resource perpetuation – natural'

The items for RP1 show little diversification in answer patterns; on each statement around 70% of the participants gave answers on the *"agree"*-side. There were quite a few examples from the interviews that refer to this capability. The founder of Impahla Clothing explained that all possibilities to make the company's operation more sustainable are identified by himself together with his people, such as the waste management systems and the solar panels recently installed on the roof of the factory (bought from and installed by another company). To keep everyone involved in the sustainability vision of the enterprise, the existing staff passes information and know-how on to new staff members. [11]

The statement on employing people that take personal responsibility resulted in more diverse stories. The enterprises that mostly operate in the 'first economy' and employ educated middle- or higher-class people generally strongly agreed with this statement, for example advisory services provider Icologie.[12] Enterprises that also employ less privileged people still often know how to engage them in their mission and vision. However, enterprises that are specifically focused on aiding disadvantaged people indicated these employees often have other priorities then 'saving the planet'. As Proudly Macassar Pottery's founder explained: "*Poverty limits choices and vision*."[13] Only when they and their families have a decent living situation and with a lot of training and education, they start to take personal responsibility for such issues.

Formal procedures regarding resource use are generally found with the larger, more established companies. For example wine producer and retailer Spier has detailed documents and performance measurement systems in place, both for its wine and leisure business-units[14]. In the smaller

[11] Impahla Clothing, interview with William Hughes on 28 March 2012
[12] Icologie, interview with Andy le May on 3 May 2012
[13] Proudly Macassar Pottery, interview with Johan de Meyer on 23 April 2012
[14] Spier, interview with Gerhard de Kock on 16 April 2012

companies, such procedures are often more of an ad-hoc nature and it seems these entrepreneurs often use their common sense and a 'moral compass' in assessing their activities and impacts.

Three of the four RP2-items are even a bit higher scored then those of RP1, only the 'engagement with local community-'item relatively scores a bit lower.

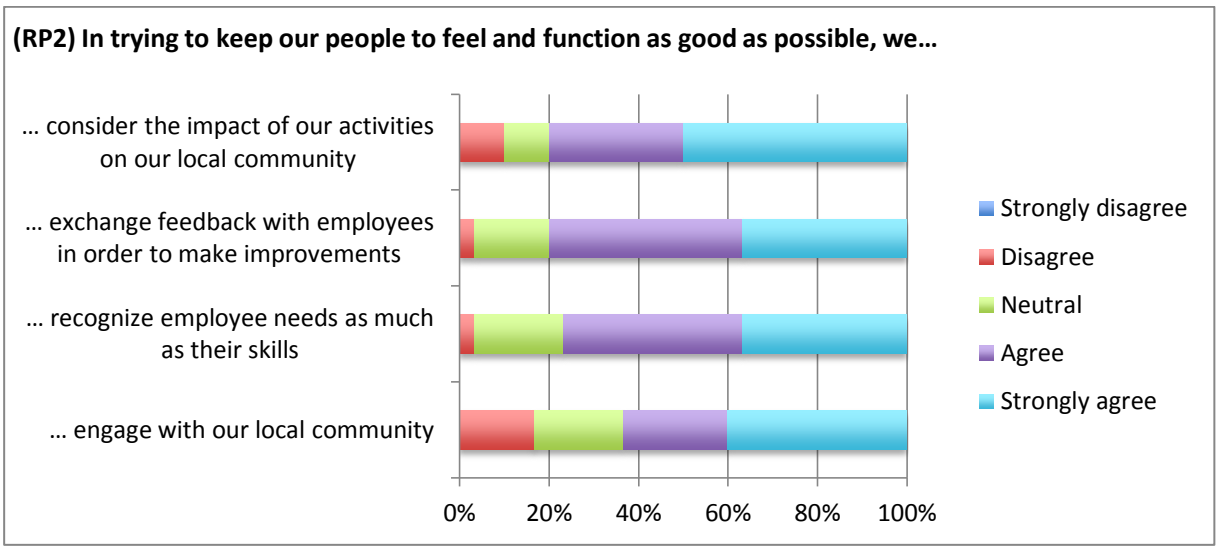

Figure 18b| Answer patterns on statements regarding 'resource perpetuation – human'

This people-centeredness, especially regarding employees, is also well reflected by the advice to aspiring sustainability-driven entrepreneurs that the participants were asked to give at the end of the questionnaire. Impahla Clothing indicated: "*The people that you employ are your most important asset.*"[15] Office products retailer GreenOFFICE wrote: "*Everything is about people!*"[16] EcoPack stated: "*Finding likeminded people who share common goals is key. We have found that all things are possible with the right people, mind-set and attitude.*"[17] And Proudly Macassar Pottery indicated: "*Start at the very bottom, skill people and take them with you as the business grows*."[18]

On the statement on considering the impact of business activities on the community, training centre RLabs and daughter-enterprise She's the Geek provided a nice quote: "*We don't do anything if it doesn't benefit the community. … There were no good role models in our community… RLabs brought words like innovation and entrepreneurship into the community*." She's the Geek was founded to specifically focus on the empowerment and (technological) skilling of woman in the community.[19] Others that are less focused on helping a community through their business, still indicated to consider the impact of their activities on their direct environment. In the positive sense, they often referred to creating sustainable jobs, as that is one of the main needs of many South African communities.

Most of the cases said to have an open culture, encouraging their employees to make suggestions. In line with the findings on RP1, those that employ (previously) disadvantaged people sometimes struggle in feedback from employees, as they don't always have reasonable demands. The managing director of Khayelitsha cookies explained that their staff sometimes expect utopia in terms of working environment and resist essential business steps like the implementation of a staff

[15] Impahla Clothing, questionnaire received in April 2012
[16] GreenOFFICE, questionnaire received in May 2012
[17] EcoPack, questionnaire received in March 2012
[18] Proudly Macassar Pottery, questionnaire received in April 2012
[19] RLabs and She's the Geek, interview with Clinton Liederman and Monique Ross on 30 May 2012

production measurement system. She further expressed that: "*People are not grateful, they need to learn to be patient…*" and "*…don't be in this type of business for yourself*"[20] , indicating you should not be driven by personal drives like money or status in such a socially oriented business, but by the desire to help others in need.

An example regarding the last statement in figure 18b (*…engage with our local community*) comes from architect Malcolm Worby Designs and his not-for-profit entity HAPPI. His community housing projects, for example the recent one in Zambia, are developed with a central place for community engagement. From experience and from looking at similar projects by other initiatives, they found that engagement and empowering strongly benefits the long-term success of such projects. HAPPI goes into a community and works with the people to figure out what they want and need, they set up local structures to run the project (often with woman in charge as this has proven to be way more productive) and teach the people to built homes for themselves.

Benefit stacking. The figure below shows that on two of the items relating to 'benefit stacking' the scores are a fraction higher than those on 'resource perpetuation'. The third item concerns the reversed one, about keeping costs down no matter what. One would expect that the answer pattern for a reversed item would also be reversed compared to normal items, meaning many *"disagree"* and *"strongly disagree"* answers. This is however not the case, questioning the reliability of this item and the reponses.

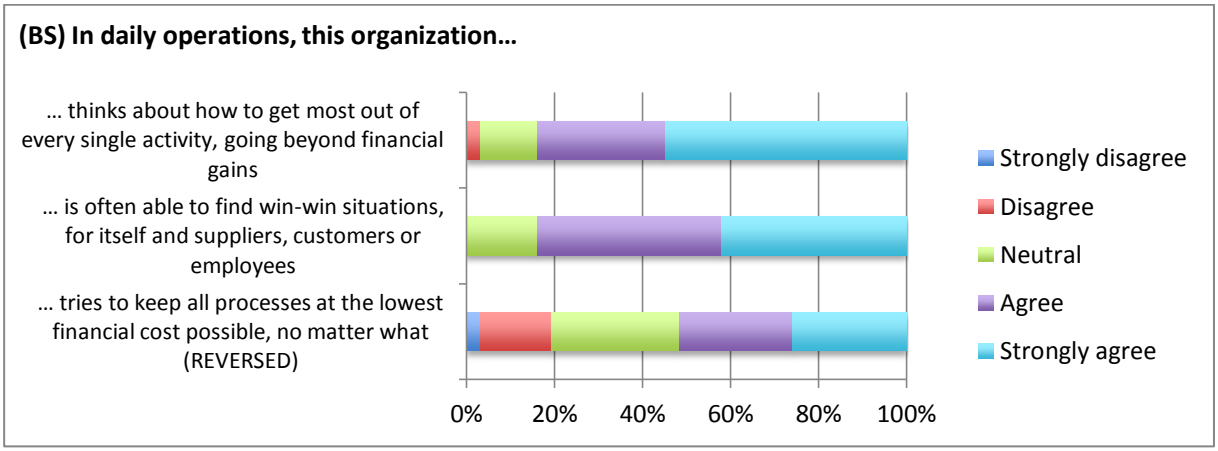

Figure 19| Answer patterns on statements regarding 'benefit stacking'

Some words of advice to other entrepreneurs provided by labour market facilitator Green Talent shows a practical process outing of this capability in terms of getting most out of every activity, going beyond financial gains: "*You have to cut your business expenses when you bootstrap during the start-up phase and this is a positive impact on reducing your footprint! For example, a no printing policy is not only beneficial to the environment but also cost effective.*" [21]

The words of Green Pop, creator of social and natural value through combined tree planting and awareness-raising, show how benefit stacking in terms of finding win-win situations is central to their approach: "*Focus on value adding in everything that you do. Understanding that there are always avenues that both clients, partners and beneficiaries can be given value.*" [22]

[20] Khayelitsha Cookies, interview with Adri Williams on 5 April 2012
[21] Green Talent, questionnaire received in April 2012
[22] Green Pop, questionnaire received in May 2012

Another example can be found at the Oude Molen eco-village, where rehabilitating mental patients and former convicts are hired to work on the fields and as guards to the village. Although it requires manpower and attention to work with these individuals, they provide labour to the community, find a safe environment to recover and reintegrate into society and learn about a sustainable way of living.[23]

Similarly, Burchell's Food operates by the rule that "*Everything has to have three uses, not one*." The recent challenge this enterprise has taken on is setting up a co-operative of sustainable growing scheme's in the region, of which the high-quality crops are used in Burchell's products. The region faces water and food security problems, and houses a large community of disabled people that are unemployed. The schemes skill the locals in sustainable farming techniques, involve the disabled, and make sure they can eat, learn and earn.[24]

Strategic satisficing. The items that were used to measure 'strategic satisficing' (SS) are included in figure x below. There were no reversed items included in this scale. The statement regarding striving for viable, fair and reasonable outcomes for all goals, not maximization of one has received the most *"agree"* or *"strongly agree"* answers (94%) out of all the items on the five specific capabilities.

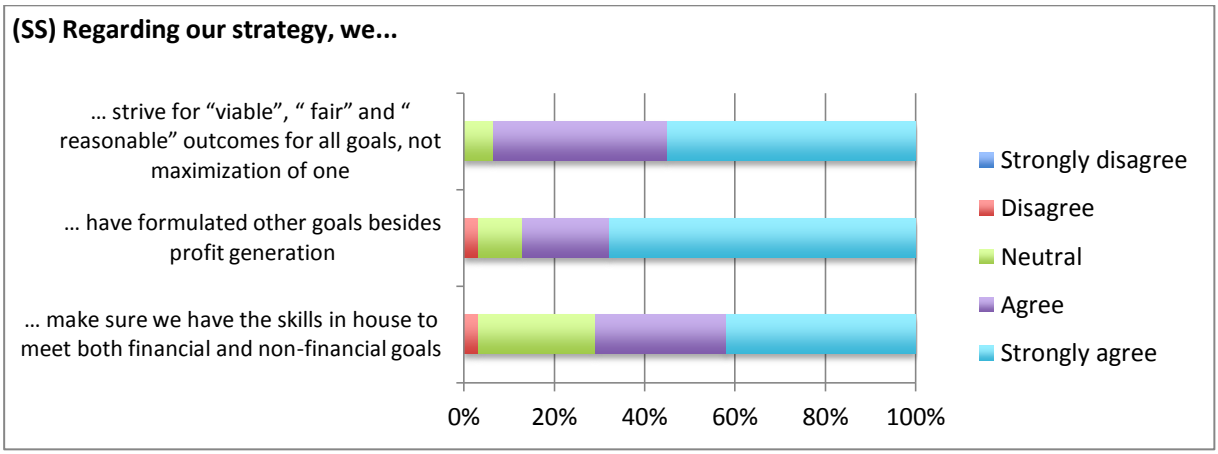

Figure 20| Answer patterns on statements regarding 'strategic satisficing'

An example of an enterprise that shows evidence of continuous strategic satisficing is Thandi Wines. This wine farm was set up to benefit a local disadvantaged community and is owned by a cooperative of black African families. The company faces a continuous trade-off between what benefits go directly to the families in need and how much of the profit goes back into the company to keep it growing. This discussion is not without struggles, but the company is one of the few black-owned cooperatives in the country that is a success story.[25]

Another interesting case here is Khayelitsha Cookies, which takes a sequential approach to strategic satisficing of formulated goals: "*You cannot change everything in one go, chose strategically what will have the greatest impact on your business and do this first, then go down the list*."[26]

Additionally, the founders of Turqle Trading, retailer of Fair Trade certified food products, explained how they need to constantly find a balance between their profit and sustainability aims. The price

[23] Oude Molen eco-village, interview with John Holmes on 3 April 2012
[24] Burchell's Food, interview with Debbie Alcock on 14 May 2012
[25] Thandi Wines, interview with Vernon Henn on 25 April 2012
[26] Khayelitsha Cookies, questionnaire received in April 2012

and quality of raw materials forms a limit in terms of what they import or source locally, but so does the impact of their activities on the communities. They stated that sometimes others will call them "*bloody mad commercially*", when they make a decisions to for example keep sourcing salt from a region as this supply structure benefits the local community. By balancing out the profit margins of several products in their portfolio, they make sure that the overall operations satisfice their diverse goals.[27]

Another interesting trade-off example can be found in two competitors; advertisement agency Derrick and filmmaker Green Renaissance. The company Derrick said to have walked away from several offers by companies in the oil or tobacco industry, in spite of the payment they were offered.[28] Green Renaissance's strategy is similar to that of Turqle Trading in terms of 'looking at the bigger picture'. Its founder indicated he could, in some way going against his principles, consider working with such 'bad guys', if it would benefit the NGO's these companies often work with and fund.[29]

As figure x shows, the participants were most reserved about whether the organisation has the skills in house to meet both financial and non-financial goals. Through the interviews, it became clear that many of the cases had at some point or frequently get some outside help. Cooperation with others was pointed out to be important to the functioning of SdE's and seems to be used in strategic satisficing. An example is shows by the case of consultancy firm Incite, whose founders characterized themselves more as entrepreneurs then as managers. In order to make their team of employees happy and have the company perform optimally, they decided to have a friendly connection come in twice to gather employee feedback and develop systems to improve management.[30]

Qualitative management. The first statement in figure 21, belonging to the 'qualitative management' scale, is scored relatively high compared to the other scales. 28 of the 31 enterprises consider its employees and community in determining the best growth pace.

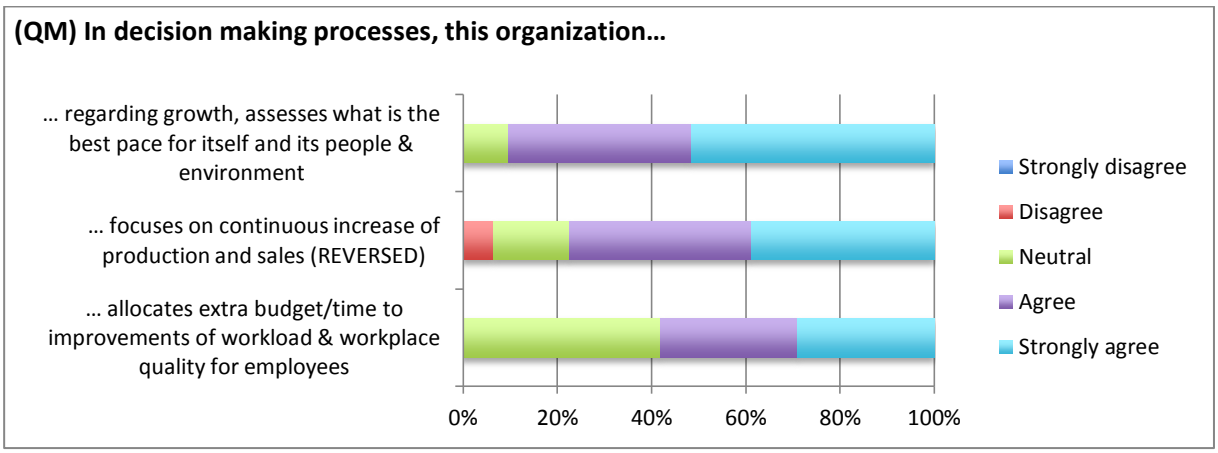

Figure 21| Answer patterns on statements regarding 'qualitative management'

Two enterprises that show how a different growth pace can be optimal for the community or environment in different situations are Atlantic Plastic Recycling and Lutzville Training Centre. Atlantic Plastic Recycling can grow as quick as possible without much change as there is an

[27] Turqle Trading, interview with Rain Morgan and Pieter Swart on 13 May 2012
[28] Derrick, interview with Myles Hoppe on 20 March 2012
[29] Green Renaissance, interview with Michael Raimondo on 3 May 2012
[30] Incite, interview with Jonathon Hanks on 4 April 2012

oversupply of recyclable plastic, which ends up in the overflowing landfills if not treated. New applications of recycled plastic are developed constantly.[31] On the other hand, Lutzville Training Centre carefully establishes its expansion plans to maintain the quality of the education, as they can only accommodate a certain amount of students in terms of logistics and teachers. Besides that, there are only a limited amount of jobs in the sectors on which their training programs currently focus. More over, the main sector is mining and the mines in the area will become depleted at some point and with it the job opportunities.[32]

The 'qualitative management' scale has one reversed item as well, which shows the same problem as the one in the 'benefit stacking' scale. The large percentage of participants that either agreed or strongly agreed (almost 80%) implies this items and the responses are not reliable. Through the interviews, many indications that the enterprises do not blindly strive for continuous increase in operations were found. Besides the two stories above, Carbon Calculated's co-founder explained that they are looking to grow, but grow *well.* They see growth as the most difficult thing to manage, as you need to manage your own people then and not just your clients. They further indicated to prioritize quality over quantity in terms of operating scales and only take one as many clients as they can handle, stating: "*you just want to do good work*".[33]

Consultancy firm Blue North decided to invest time into working together with the academic world to strengthen the quality of their work. Through this connection, they keep up to date on which issues are being researched and they find some validation for their activities.[34]

The last item in the figure, on workload & workplace quality is characterized by a relatively high percentage of *"neutral"* answers (over 40%), suggesting there may have been some confusion or difficulty regarding this item as well. However, previously mentioned statements show that the majority of the enterprises does focus strongly on the workload and workplace quality – for example the statements regarding 'people-centeredness' under the 'resource perpetuation' scale and Incite's decision to get external help to improve employees management mentioned under 'strategic satisficing'.

Worthy contribution. The last of the five specific capabilities of focus in this research is 'worthy contribution'. Figure 22 shows the answer patterns for the three related items.

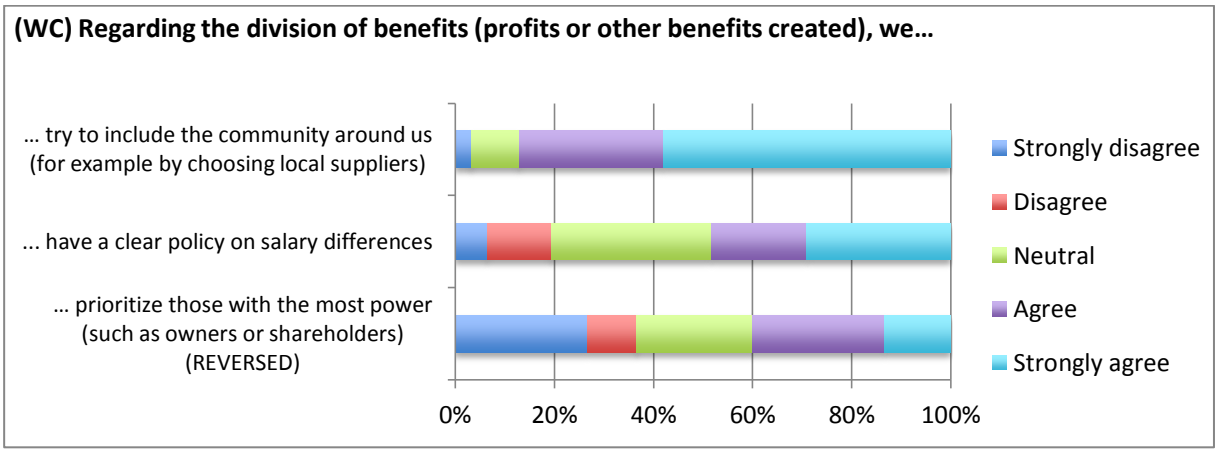

Figure 22| Answer patterns on statements regarding 'worthy contribution'

[31] Atlantic Plastic Recycling, interview with Steven Cheetham on 2 April 2012
[32] Lutzville Training Centre, interview with Johan Muller on 15 May 2012
[33] Carbon Calculated, interview with Alex Hetherington on 15 May 2012
[34] Blue North, interview with David Farrell on 15 March 2012

Again, one of the items has a high percentage of *"neutral"* answers. The statement on having a clear policy on salary differences raised some difficulties as most of the smaller entrepreneurs indicated not to have formalized policies and documents (yet). As with the statements on HR policies in the 'resource perpetuation' scale, the entrepreneurs were helped selecting an answer through discussion during the interviews. During the interviews it also became clear that the second (also reversed) statement was not measuring what it intended to. However, from the interviews it became very clear that there are very small salary differences and benefits are not distributed on the basis of power, but more on a need- and deserving basis. Many of the founders indicated that they only take in salary what they need and often they don't pay themselves every month. They showed great responsibility for their employees and seem to make sure their salaries remain secure.

The answers on the first item are very skewed towards the agreeing side. Many of the participating enterprises try to use local suppliers as much as possible, to keep the value created within the region. Many of the enterprises even have job creation as (one of) their main goal(s), some strongly involving their supply chain. For example Turqle Trading clearly stated: "*one of our main objective is to create lots of sustainable jobs in the region*".[35]

The founder of Atlantic Plastic Recycling explained how about 50% of the plastic he takes in is provided by poor, entrepreneurial people, although there is no infrastructure in place and they often have no mobility. He involves these individuals with his business and helps them out by coming to them to pick up the plastic. As the government does not recognize such informal sectors and micro-entrepreneurs, APR does not get any BBEEE points for this, although many people benefit from this structure.[36]

A final note that needs to be included when discussing this scale regards the enterprises aimed at helping (previously) disadvantaged people. It was already mentioned under 'resource perpetuation – human capital' that Khayelitsha Cookies, in dealing with work environment expectations, experienced that their employees do not always show gratitude. The founder of Original T-Bag Designs explained that in working with people from townships, you often do not get the thanks you deserve. In her case, this even went as far as lawsuits by employees that were let go.[37]

4.3 Statistical analysis: capabilities and success

To test the relationship between the specific SdE capabilities of focus and the success of the enterprises included in the sample, several inspections and analyses were performed using SPSS. First, the validity and reliability of the data were considered. The data was also inspected on missing values and outliers. Then, a three-step model of analysis was followed. (1) Factor analysis was performed to reduce the number of variables. (2) The resulting factors were included in a correlation matrix to investigate the relationship with the dependent variables (the success subscales). (3) Finally, regression analyses were performed for each dependent variable with those control and independent variables that were found to correlate significantly with that particular dependent variable.

4.3.1 Validity

The validity of the research is argued to be of acceptable level. The method of data gathering is based on existing techniques to measure capabilities, implying construct validity. The design includes multiple control variables, strengthening internal validity. Some underpinning of external validity can

[35] Turqle Trading, interview with Rain Morgan and Pieter Swart on 13 May 2012
[36] Atlantic Plastic Recycling, interview with Steven Cheetham on 2 April 2012
[37] Original T-Bag Designs, interview with Jill Heyes on 25 April 2012

be found in the sample size, which is considered large enough to generalize the results to the represented population (SdE's in the Western Cape of South Africa). It is noted however that the quantitative measurement of success through the triple-bottom line approach is unique and never tested before, making this research of explorative nature.

4.3.2 Reliability

The capabilities and success variables were each measured through several items. Although this concerns abstract constructs, a reliability analysis in SPSS was performed as a pre-analysis check if the items per subscale fit that scale. The table on the next page presents that Cronbach's Alpha's for both the independent variables and the subscales of the dependent variable.

Table 6| Overview of reliability analysis

Items belonging to variables:	Cronbach's Alpha
Resource perpetuation: natural	.896
Resource perpetuation: human	.808
Benefit stacking	-.058, when reversed item deleted: .612
Strategic satisficing	.550
Qualitative management	-.134, when reversed item deleted: .663
Worthy contribution	.301, when reversed item deleted: .588
Success: prosperity	-.210
Success: people	.701
Success: planet	.719
Success: total	.491

As the Cronbach's Alpha's in the table show, the reversed items in the scales 'benefit stacking', 'qualitative management' and 'worthy contribution' had to be deleted as they were found to be unreliable, which confirms the suggestions in the previous section. The items were included to assist with response validity and reliability but have unfortunately been proven to have an adverse effect. The items had to be excluded and the three independent variables were based on the remaining two items, resulting in acceptable Cronbach's alpha's. The Cronbach's Alpha of 'strategic satisficing' is on the low side, but based on the answer patterns to the items by which this scale is measured, it was decided they are all valid items and deleting any would not increase reliability.

For the 'prosperity' subscale of success, the Cronbach's Alpha is not the appropriate measure for reliability analysis (it is therefore presented in grey in the table). The scores on the two items that belong to this scale are not related, as whether the enterprise makes a profit or not and the percentage of local sourcing and selling are not normally expected to be related. This does mean that this subscale is thus of a different nature then the 'people' and 'planet' scales, where the items do highly correlate.

4.3.3 Missing data and outliers

It is noted that in the 'people' subscale of success, this scale's first item (policies beyond legal requirements on minimum wage) was excluded due to the high frequency of missing data, as is

shown in figure 18b in section 4.2.2. There are a few other missing data points, which were excluded pairwise.

Additionally, the data was checked on outliers with one of the cases being an occasional potential outlier. It was decided to keep this case in, as it is not a consistent and strong outlier, as the sample size is already very limited and because on the basis of the interview no decisive argument could be made to exclude this case.

4.3.4 Factor Analysis and multicollinearity

As the sample size of this study is relatively small for regression analysis (n = 30), the number of variables included in the analyses has to be limited. In order to reduce the amount of variables, factor analysis (principle component analysis) was performed to create clusters of the items that were included in the questionnaire.

Table 7 below shows the factor analysis of the 11 generic capabilities that were included as control variables. Values under .1 are not included in the table. Extraction was based on the eigenvalues, with a threshold of > 1. The Kaiser-Meyer-Olkin measure of sampling adequacy is .700, indicating that factor analysis is appropriate for this data. The Varimax with Kaiser Normalization rotation method was used to make the interpretation of the results easier.

Table 7| Generic capabilities: rotated component matrix

Generic capabilities items	Component		
	1	2	3
Performance: ensuring employees perform at their best	**.817**	.198	.187
Learning: searching for continuous improvement	**.786**	.112	.420
Strategic unity: articulating strategies and sharing them with all employees	**.769**	.337	
Internal network: good internal communication and knowledge sharing	**.763**		.162
Speed: acting quickly to make important things happen fast	**.676**	.281	.288
Leadership: having competent and accepted leaders	.229	**.892**	.185
Shared mind-set: having a shared identity that reflects what we stand for and how we work	.191	**.882**	
Talent: attracting, motivating, and retaining competent and committed people	.217	**.811**	.323
Innovation: good at doing something new in both content and process	.260	.111	**.818**
Customer connectivity: forming lasting relationships of trust with customers		.154	**.714**
Collaboration: work together well with other organizations	.336	.292	**.694**

The resulting three factors can be argued to represent three practical-based clusters of generic capabilities. Component 1 includes those variables related to the internal performance of the enterprises (performance, learning, strategic-unity, internal network and speed). The second component includes variables regarding vision and management (leadership, shared mind-set and talent). The variables categorized into the final component all refer to the external orientation of the enterprises (innovation, customer connectivity and collaboration). The three created factors are used in all subsequent steps of the analysis.

For the specific SdE capabilities, a factor analysis including all the items was also performed. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is .426, which is too low for factor analysis to be suitable for this data (assuming a threshold of .5). Due to the abstract and differing nature of these five constructs, five separate inter-scale factor analyses were performed. This way, the items used to measure each construct were reduced into single factors. It is noted that the three reversed items were excluded on the basis of the reliability analysis, leaving the scales 'benefit stacking', 'qualitative management' and 'worthy contribution' with two items instead of three. The tables below show the factor analyses for each of the five capabilities. Values under .1 are not included in the tables. Extraction was based on the eigenvalues, with a threshold of > 1, however the results do not differ if the option of extracting a maximum of two (for 'resource perpetuation') or one (the other capabilities) factor(s) was selected. The Kaiser-Meyer-Olkin measures of sampling adequacy are .500 or higher, indicating that factor analysis is acceptable.

Table 8| 'Resource perpetuation': rotated component matrix

	Component	
In trying to keep our people to feel and function as good as possible, we…	1 (RP2)	2 (RP2)
… engage with our local community	**.885**	
… consider the impact of our activities on our local community	**.870**	
… recognize employee needs as much as their skills	**.759**	.270
… exchange feedback with employees in order to make improvements	**.556**	.376
In trying to improve (or at least preserve) our natural environment, we…		
… have the expertise in house to do so		**.962**
… have procedures in place to make sure this is done	.178	**.933**
… employ people that take personal responsibility	.532	**.725**

For 'resource perpetuation', again Varimax with Kaiser Normalization was used as the rotation method. The table above shows that the analysis results in two factors for 'resource perpetuation'; one regarding natural capital (RP1) and one regarding human capital (RP2), which suits the theory and operationalization of this capability very well.

For each of the other four capabilities, one factor was created; 'benefit stacking' (BS), 'strategic satisficing' (SS), 'qualitative management' (QM) and 'worthy contribution' (WC). As these four factor analyses each resulted in one factor, there was no rotation applied and the normal component matrixes are displayed instead. The tables 9 to 12 below show the results of these analyses.

Table 9| 'Benefit stacking': component matrix

	Component
In daily operations, this organization…	1 (BS)
… is often able to find win-win situations, for itself and suppliers, customers or employees	**.850**
… thinks about how to get most out of every single activity, going beyond financial gains	**.850**

Table 10| 'Strategic satisficing': component matrix

	Component
Regarding our strategy, we…	1 (SS)
… make sure we have the skills in house to meet both financial and non-financial goals	**.826**
… strive for "viable", " fair" and " reasonable" outcomes for all goals, not maximization of one	**.700**
… have formulated other goals besides profit generation	**.647**

Table 11| 'Qualitative management': component matrix

	Component
In decision making processes, this organization…	1 (QM)
… allocates extra budget/time to improvements of workload & workplace quality for employees	**.869**
… regarding growth, assesses what is the best pace for itself and its people & environment	**.869**

Table 12| 'Worthy contribution': component matrix

	Component
Regarding the division of benefits (profits or other benefits created), we…	1 (WC)
… try to include the community around us (for example by choosing local suppliers)	**.847**
… have a clear policy on salary differences	**.847**

The six factors (RP1, RP2, BS, SS, QM and WC) that were created through the process explained above were also inspected on multicollinearity. The method of variance inflation factor (VIF) was used and all values were found to be well below the rule-of-thumb threshold of 3.0, which indicates there are no multicollinearity problems.

4.3.5 Correlations

To select which of the potential control variables and the independent variables should be included in the regression analysis, their correlations with the dependent variables (the success subscales) were calculated. It was decided to also include 'profit' by itself as a dependent variable-subscale, to highlight the necessity of generating an income for an enterprise to stay viable. However, for the economic pillar of the triple bottom line this measure is too narrow; 'prosperity' also includes proxy's of job generation. The total success scale represents an integration of the 'prosperity', 'people' and 'planet' scales.

Table 13| Correlation matrix: control and independent variables with dependent variables

Spearman's rho	(Profit)	Prosperity	People	Planet	Success Total
Size (fte)	**.277(*)**	.147	.224	-.055	.109
Age enterprise (months)	**.443*** **	**.285(*)**	.179	.154	**.325***
Sustainability Focus	-.009	.120	.213	.144	**.263(*)**
Years of managerial experience	**.271(*)**	.188	.186	-.042	.122
Generic capabilities 1 (internal performance)	-.131	-.202	.056	-.54	-.008
Generic capabilities 2 (vision & management)	.103	.092	.254	-.038	.176
Generic capabilities 3 (external orientation)	-.222	**-.218(*)**	-.177	.083	-.197
RP1	.127	.021	-.118	**.558*** **	.127
RP2	-.193	-.165	**.283(*)**	-.010	.211
BS	-.061	-.061	**.314***	**.272(*)**	**.358***
SS	.009	.009	**.483*** **	**.558*** **	**.590*** **
QM	.098	-.161	.148	**.374** **	.183
WC	**-.366** **	**-.344***	**.271(*)**	-.015	0.100

*** = p <.001
** = p < .05
* = p < .10
(*) = p < .20

Table 13 shows that there are several significant correlations of both control variables and independent variables with (the subscales of) success. Of the control variables, the size of the enterprise has a (weak) positive correlation with 'profit'. The age of the enterprise (strongly) correlates positively with 'profit', (weakly with) 'prosperity' and also with the total success scale. The focus in terms of sustainability aspects of the mission of the enterprises also has a (weak) relationship with the total success scale. The previous managerial experience of the founder only has a (weak) positive correlation with 'profit'. Notable is that none of the control variables were found to correlate significantly with the 'people' 'and 'planet' scales. The lack of correlations between the generic capability factors and the dependent variable-scales is remarkable. The one (weak) significant correlation that can be found is the 'generic capabilities: external orientation' factor with 'prosperity', which more over shows a negative relationship. This is in sharp contrast with the five specific SdE capabilities, which were all found to correlate significantly with at least one of the success scales. More over, most significant correlations are with 'people' (RP2, BS, SS and WC) and 'planet' (RP1, BS, SS and QM), all of which are positive. Only one of them ('worthy contribution') correlates significantly with 'profit' and 'prosperity', showing a negative relationship. Two of the SdE capabilities (BS and SS) show a significant positive relationship with the total success value.

Thus, for 'profit' and 'prosperity' more control variables then independent variables show correlations, while for 'people' and 'planet' more independent variables then control variables (even none of those) correlate significantly. For the total success scale the ratio is equal (two and two) but the independent variables show stronger correlations then the control variables.

4.3.6 Multiple linear regression

For each of the dependent variable-subscales, a regression analysis was performed. As the sample size of this study is relatively small for a regression model, only a small number of variables could be

included in the analyses. The selection of variables for each of the five regression analyses was based on the correlations as presented on the previous page. Only those control and independent variables that were found to correlate significantly (with a loose criterion of $p < .2$) to a scale were included in the regression analysis of that particular scale. This resulted in a selection of 3 or 4 variables per analysis. When control variables were included, a hierarchical multiple regression analysis was performed. Table x shows an overview of the results of the five regression analyses.

Table 14| Regression analysis: standardized regression coefficients (β)

	(Profit)		Prosperity		People		Planet		Success Total	
	$R^2 = .300$ Adj. $R^2 = .192$		$R^2 = .231$ Adj. $R^2 = .142$		$R^2 = .700$ Adj. $R^2 = .490$		$R^2 = .725$ Adj. $R^2 = .526$		$R^2 = .766$ Adj. $R^2 = .587$	
	β	Sig. = .047	β	Sig. = .073	β	Sig. = .003	β	Sig. = .001	β	Sig. = .000
Size (fte)	.056	.78								
Age (months)	**.348***	**.07**	.281	.12					**.349****	**.02**
Founder's exp.	.075	.67								
Sust. Focus									.178	.22
Gen cap 1 (EO)			-.235	.19						
RP1							**.481*****	**.00**		
RP2					.061	.74				
BS					.026	.88	-.242	.15	-.146	.37
SS					**.480****	**.02**	**.568****	**.01**	**.738*****	**.00**
QM							-.095	.58		
WC	**-.344****	**.05**	**-.306***	**.09**	.292	.14				

*** = p <.001
** = p < .05
* = p < .10

Per analysis, the R square, adjusted R square and p-value of the model are provided. All of the models are found to be significant, with either acceptable or high adjusted R square values. The rows below those values show the standardized regression coefficients (beta's) of the control and independent variables with the dependent variable-scales. The empty cells show which control and independent variables were excluded (as no significant correlations were found) per dependent variable-scale.

For 'profit', the model included three control and one independent variable and explains just over 19% of the variance. The age of the enterprise is found to be a significant predictor of profit, showing a positive relationship. 'Worthy contribution' is also significant, showing a negative relationship to 'profit'.

'Worthy contribution' is also a significant predictor of 'prosperity', again showing a negative relationship. No other variables were found to significantly predict 'prosperity'. The model consists of two control and one independent variable, is significant but only predict 14% of the variance in the scale.

The model for the 'people' scale also returns one significant predictor: 'strategic satisficing' is found to positively relate to the scale. Almost 50% of the variance in the scale is predicted by the model, which includes no control but four independent variables.

For 'planet', about 53% of the variance in scale is determined by the four included independent variables, with two of the capabilities having significant influence. 'Resource perpetuation: natural capital' and 'strategic satisficing' both have a significant positive influence on 'planet'.

The regression model for the total success scale is found to be significant with a .00 level, and the adjusted R square is high at .59. Two control and two independent variables were included, one of each is found to be significant predictors of this integrated success measure. Both the age of the enterprise and the capability 'strategic satisficing' show a significant positive relationship to 'success total'.

4.4 Further findings: general notions

Several other interesting findings from the qualitative data gathered through the interviews deserve mentioning in this results chapter. To start off with, the sample of enterprises included in this research shows evidence of the more general characteristics of SdE's that were raised in previous research, explained in section 2.1.

Regarding 'innovativeness' (Dees, 2001; Schaltegger, 2002; Barendsen & Gardener, 2004; Mair & Marti, 2006; Rego & Bhandari, 2006; Herrington, 2009; Ras & Vermeulen, 2009), many of the enterprises included in the sample offer a product or service that was previously not (readily) available on the African market. Many have pioneering stories on the South African market, for example with the development of products like eco-friendly packaging (EcoPack and Green Life Store), hemp-based products (Hemporium), biodynamic Wine (Reyneke Wines) or Fair Trade certified food-products (Turqle Trading); and services like carbon measurement (Carbon Calculated) or labour-market access for sustainability students and professionals (Green Talent).

Also concerning Weerawardena & Mort's (2006) list of 'risk taking', 'pro-activeness' and 'opportunity seeking and seizing', the majority of the enterprises showed convincing proof. Most of them said a lot of 'risk-taking' and was needed to start their enterprise and keep it alive. Also interesting are the stories related to 'pro-activeness and 'opportunity seeking and seizing'. A lot of the enterprises were started when a market opportunity was identified. For example Atlantic Plastic Recycling, who's founder was previously working in metal recycling and through his work noticed how much recyclable plastic was just lying around at the time.[38] However, some of the entrepreneurs found a 'hole' when looking for a niche market and quickly fillable 'gap'. Examples are Green-Diesel, whose founder said to find himself to be an educator, trying to create a market for his biodiesel[39]. Pro Nature's founder indicated to have spent four to five years educating his clients before his natural paints really took off and bigger projects started coming in. This in contrast to the European market where he previously worked, where at that time the chemical industry was losing a lot of business to 'green paint' producers.[40] Burchell's Food indicated to have to respond to a shrinking of the organic food market in South Africa.[41] An enterprise that shows that the South African market is also reserved and conservative when it comes to social issues, is Khayelitsha Cookies. Their marketing strategy and logo were initially focused on the social benefits their cookies brought in Khayelitsha the biggest township of Cape Town. As the market did not respond enough to morality and even responded negatively tot this strategy due to the stigma associated to Khayelitsha, the focus was shifted towards quality and price.[42] This refers to 'market responsiveness', raised in the work of Ras & Vermeulen (2009).

[38] Atlantic Plastic Recycling ,interview with Steven Cheetham on 2 April 2012
[39] Green-Diesel, interview with Craig Waterman on 9 May 2012
[40] ProNature, interview with Bernhard Lembeck on 2 May 2012
[41] Burchell's Food, interview with Debbie Alcock on 14 May 2012
[42] Khayelitsha Cookies, interview with Adri Williams on 5 April 2012

There was also overflowing evidence of 'dedication to mission' (Sharir & Lerner, 2005), which was often explicitly connected to success as well. All of the entrepreneurs have compelling stories on why and how they started their enterprise and how they manage to keep it going. BottleCraft, training underprivileged people to create artistic products from discarded bottles, went bankrupt in the process but successfully started again to establish the business.[43] Scarecrow Organics' take-home-message for aspiring sustainability-driven entrepreneurs is: "*… Stick to your values, don't compromise*."[44], and several others indicated believing in what you do to be essential to success.

The other take-home-messages were focused on persistence and perseverance, underlined by quotes like: "*Persistence, perseverance and positive attitude are the anchors of success*" by BottleCraft[45] and "*Never give up*" by Burchell's Food[46] and "*Passion & persistence are what will get you to achieving your goals*" according to Hemporium.[47]

Another striking notion from these advice messages is the one from the consultancy firm GreenEdge, mentioning the importance of a mentor or coach.[48] This corresponds with the observation that several of the entrepreneurs during the interviews made very clear that they did not see themselves as managers or business man, which was already mentioned above in the discussion of the personality traits. Green Life Store's founder indicated she would have liked some formal guidance during the start of her business.[49] One of the founders of Hemporium thinks that if they had some one with typical business skills in their team, the company would have been even further then it is now.[50] When looking at themselves as leaders, the entrepreneurs take a mentorship approach towards helping their employees develop.

The value of mentorship became even more evident in the business structures of some of the cases. Most of the enterprises that were focused on creating jobs for and training previously disadvantaged people seemed to have developed some sort of mentorship- or partner-model, focussing on enterprise development. These structures also show 'innovativeness' (Dees, 2001; Schaltegger, 2002; Barendsen & Gardener, 2004; Mair & Marti, 2006; Rego & Bhandari, 2006; Herrington, 2009; Ras & Vermeulen, 2009), besides the product and services they offer that were mentioned on the previous page.

An example is Thandi Wines, which owes its own existence to an elaborate mentorship design. Several vested companies were involved with the founding of this black-owned cooperative. The mentorship took place in strategic sense but also, literally, in the field. The group of previously disadvantaged black people that were part of this project were given land after 1994 by the new regime. However, they did not know how to farm, nor were many of them educated at all. Only through the continuous training and mentorship of the other companies involved, did Thandi Wines manage to become a viable enterprise.[51]

Other examples are BottleCraft, that developed a 3-month mentorship program for micro-entrepreneurs after the 'micro/township MBA' they offer. This structure is based on their experience that only by staying involved and continuing guidance during those first months, success rates are high.[52] At Proudly Macassar Pottery, the founders developed a similar model and offer

[43] BottleCraft, interview with Jo Kearny on 13 March 2012
[44] Scarecrow Organics, interview with Irene de beer on 4 April 2012
[45] BottleCraft, interview with Jo Kearny on 13 March 2012
[46] Burchell's Food, interview with Debbie Alcock on 14 May 2012
[47] Hemporium, interview with Tony Budden on 22 May 2012
[48] Green Edge, interview with Hugh Tyrell on 3 April 2012
[49] Green Life Store, interview with Natashia Fox on 18 April 2012
[50] Hemporium, interview with Tony Budden on 22 May 2012
[51] Thandi Wines, interview with Vernon Henn on 25 April 2012
[52] Bottle Craft, interview with Jo Kearny on 13 March 2012

apprenticeships, training the local disadvantaged men pottery and business skills so that they can eventually start their own enterprise. PMP aims to become an umbrella-organization that continues to support and facilitate several micro-entrepreneurs.[53] Original T-Bags Designs sends their employees on (expensive) training courses and seeks to help those that show the potential of running their own business.[54] Burchell's Food's sustainable growing scheme's, mentioned under 'benefit stacking' in the results section, are also aimed at developing (micro-) enterprises.[55] Others in the food and beverage sector also show such enterprise development projects; Spier has elaborate and formal EDP's with the laundry service that was started by an employee as a success story[56] and Reyneke Wines is currently looking to help an acquaintance start his own fruit and vegetable business.[57] It is remarkable that all these enterprises have developed such similar structures, whilst they often did not know about each other's existence and activities. It gives an indication on how capabilities can be effectively taught to others, implying a 'learning by doing' approach.

4.5 Further findings: typology entrepreneurs

This last section of the results chapter contains descriptive information on the people behind the enterprises included in this sample; the entrepreneurs themselves. The data for the demographic characteristics was gathered through the first section of the questionnaire. At the end of this paragraph, some qualitative data is presented, regarding the motivations of the founders of the enterprises and regarding some observations of typical personality traits.

Figure 23 below shows the average age of the founder(s) at the start of their enterprise, divided into 5-year categories. The average age of the founders of the enterprises in the sample is 35.6 years. Entrepreneurs between 26 and 30 and between 35 and 40 have the highest representation. Over two-thirds of the group consists of entrepreneurs under 40 years old.

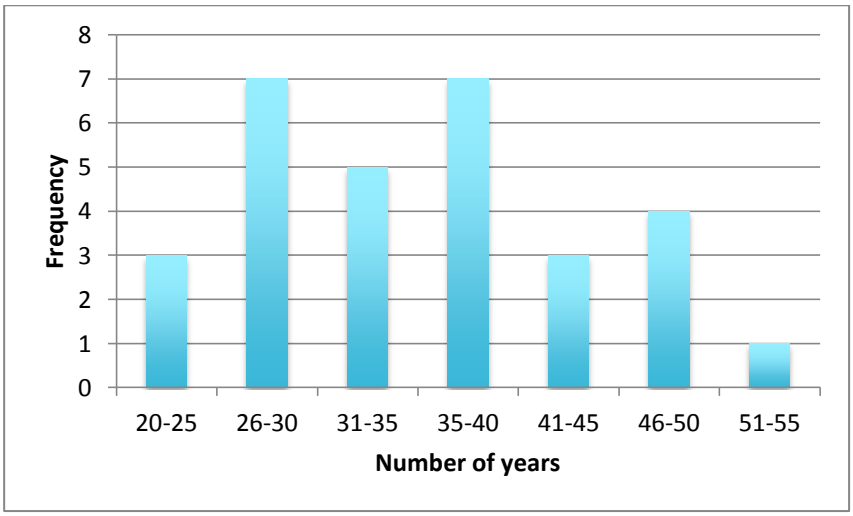

Figure 23| Age founder(s) at start enterprise in categories

Figure 24 shows that 58% of the enterprises were founded by a combination of both male and female entrepreneurs. 26% was founded my man; there is no exact data however on which part of that was

[53] Proudly Macassar Pottery, interview with Johan de Meyer on 23 April 2012
[54] Original T-Bag Designs, interview with Jill Heyes on 25 April 2012
[55] Burchell's Food, interview with Debbie Alcock on 14 May 2012
[56] Spier, interview with Gerhard de Kock on 16 April 2012
[57] Reyneke Wines, interview with Johan Reyneke on 19 April 2012

by one man and which part by several man, but from the interviews it turns out more of these cases were founded by one person then multiple. The same holds for the 16% that was founded by female entrepreneurs.

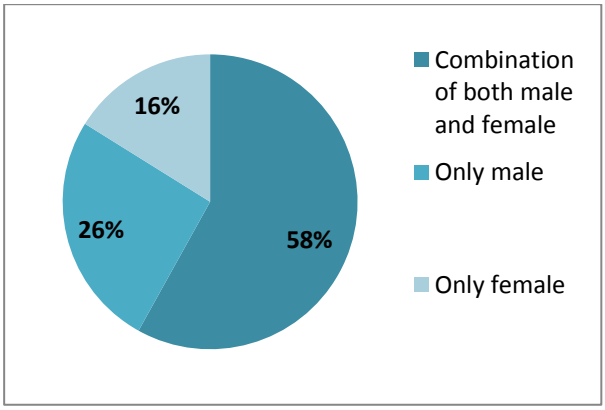

Figure 24| Gender founder(s)

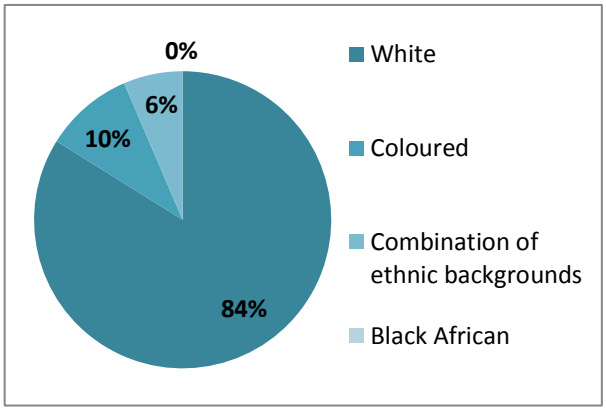

Figure 25| Ethnic background founder(s)

Figure 25 shows that the vast majority of the entrepreneurs is white[58]. Only 16% of the cases were founded by coloured people (including Indian/Asian ethnicities) or by several people with a combination of ethnic backgrounds. None of the cases were founded by solely one or several black Africans.

The majority of the enterprises that participated in this research was founded by more than one person. In several instances, participants indicated to have been very happy to have a co-founder.[59] Some of the solo entrepreneurs indicated that the fact they undertook the journey alone was very challenging and that they would have rather had a partner. Indicating it is difficult to find some one to share your vision and take on the risks associated with starting a business, they were happy to be able to turn to friends and family for support.[60]

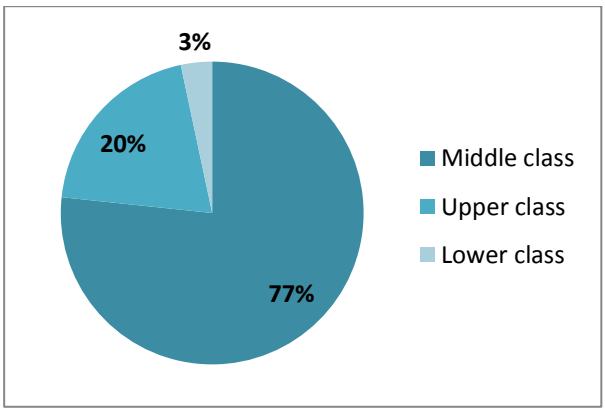

Figure 26| Socio-economic background founder(s)

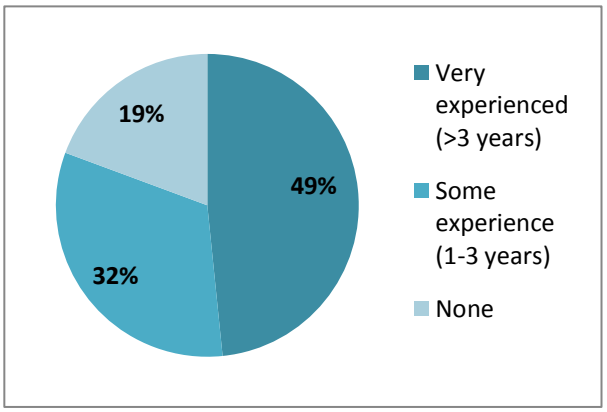

Figure 27| Previous managerial experience founder(s)

Figure 26 shows the socio-economic background of the founders. 77% of the entrepreneurs considered themselves to be of a middle class background. Only 3% indicated to be of a lower class

[58] It is noted that the terminology that was used for ethnic backgrounds was based on the terminology of Statistics South Africa (http://www.statssa.gov.za/)
[59] examples are Incite, interview with Jonathon Hanks on 4 April 2012; Carbon Calculated, interview with Alex Hetherington on 15 may 2012 and Turqle Trading, interview with Rain Morgan and Pieter Swart on 13 May 2012.
[60] Food Shed, interview with Liz Metcalfe on 26 April 2012; and Living Green, interview with Sam Adams on 24 April 2012

socio-economic background. The last pie chart, figure 27, shows that just under half of the entrepreneurs already had over three years of previous managerial experience when they founded the enterprise that participated in this study. A considerable 19% had no previous experience at all.

Finally, some additional, qualitative information on the entrepreneurs themselves was gathered through an open question in the questionnaire and through the interviews. It became clear that the entrepreneurs had differing motivations to start their enterprise. Some grew up with nature and a feel for sustainability-related issues, others grew into it or were inspired during travels. Various participants said to have always been entrepreneurs, others used to work in commercial sectors and had an 'epiphany' to start their sustainability-driven enterprise and a few, being phased-out of their job, saw this as an opportunity to set up their own business. However, almost all of them either indicated to want to respond to a social and/or environmental need they identified (often through personal experiences), create social and/or environmental value or drive sustainability change. Examples of motivations are Incite's: "*To establish a small team of passionate people seeking to make a difference through the provision of advisory services to business*."[61]; Thandi Wines': "*To help uplift and empower disadvantage communities*"[62] and Icologie's: "*To drive sustainable change in our societies*"[63]. Although as indicated above, 97% of the cases have a for-profit or hybrid business model, for-profit landscaper Living Green's founder said: "*If I was driven by money, I would have stopped long ago*."[64] Others said they are driven by wanting "*to do the right thing*", so as to "*easily go to sleep at night*" – words from vineyard Reyneke Wines' owner.[65] A few of the participants were initially mainly driven by financial motives, as they saw obvious business sense in sustainability for their activities. However, these entrepreneurs seemed to have quickly embraced sustainability-related goals, both in their business as well as in their private lives. Green-Diesel's founder shared how he starting the company opened his eyes and made him become more conscious at home too.[66] Furthermore, in reference to previous research (e.g. Schlange, 2006), the majority of the cases has a vision focused on creating something innovative, whether it concerns a product, service or business and management model. They seem to strongly identify themselves with their vision but clearly take a pragmatic approach to realizing it.

A last finding from the qualitative data that deserves mentioning, is the observation of some typical personality traits. Looking at the big 5 personality traits, in general the group shows most evidence of agreeableness (good-natured, cooperative, trustful), extraversion (especially in terms of assertiveness and talkativeness) and openness (independent minded and imaginative). The sample shows least typicality's of conscientiousness (orderly, achievement oriented). The latter is mainly based on the observation that several of the founders see themselves and similar entrepreneurs as visionary idealists, but lacking in certain business and management skills.[67] As the founder of Living Green stated: *"I may not be a business man, but I've always been an entrepreneur*".[68] Finally, the interviewees showed some behaviour that hint to some aspects that belong to the neuroticism scale (especially in terms of emotional, excited and restless behaviours).

[61] Incite, questionnaire received in April 2012
[62] Thandi Wines, interview with Vernon Henn on 25 April 2012
[63] Icologie, interview with Andy le May on 3 May 2012
[64] Living Green, interview with Sam Adams on 24 April 2012
[65] Reyneke Wines, interview with Johan Reyneke on 19 April 2012
[66] Green-Diesel, interview with Craig Waterman on 9 May 2012
[67] For example Green Edge, interview with Hugh Tyrell on 3 April 2012; ProNature, interview with Bernhard Lembeck on 2 May 2012; Incite, interview with Jonathon Hanks on 4 April 2012; and I Power SA, interview with Paul van Dyk on 28 March 2012
[68] Living Green, interview with Sam Adams on 24 April 2012

5 Conclusions

Sustainability-driven entrepreneurship is celebrated in terms of the potential contribution to a sustainable way of development. However, the phenomenon is as of yet little understood and investigated. There are still only a few successful SdE's and it is not clear what characterizes them and which factors are tied to their success. Especially in developing nations, where the impact of sustainability-driven entrepreneurship may be essential, more structural research is required. The complex socio-economic situation, rising environmental problems and emerging development status of South Africa make it an interesting country to look at in researching the link between entrepreneurship a sustainable way of development.

5.1 Main findings

The objective of this research was to identify key factors in the success of sustainability-driven entrepreneurship. This thesis is focused on factors on the micro level, on organizational characteristics. The research question that this study sought to answer is: *'To what extent do identified distinct organizational characteristics, in terms of capabilities, explain the success of sustainability-driven enterprises in the Western Cape area?'.*

In total, 38 sustainability-driven enterprises located in the Western Cape of South Africa participated in this research. These enterprises operate in diverse industries with the majority being in retailing of some kind. Almost all of them deliberately chose a for-profit or hybrid business model, believing such structures to be most effective in attaining their goals. Their missions often include both social and environmental issues, but about a quarter of the group focuses more strongly on social problems and a quarter more on environmental issues. Half of the enterprises exist less than four years, a quarter of the total less than 2 years. The biggest size category is between two and five employees. Generally, with increasing age the number of employees also tends to increase.

To determine the performance of the enterprises, a self-assessment approach based on the triple bottom line (Elkington, 1997) was taken. Overall, most of the enterprises indicated to be doing well. Over half is already making a profit and another third is at break-even point. On average, they mainly operate in local markets, both in terms of sourcing and selling. The exact amount of profit and jobs these enterprises generate and sustain together is difficult to measure, but it is clear that they do have a positive influence on the region's 'prosperity'. Through their internal HR policies and investments in the communities in which they operate, they also seem to have a positive social impact. Comparing these 'people' indicators to those of the 'planet'-impact; even more of the enterprises have policies on resource use, but on average a slightly smaller amount of them invests in their natural environment. The overall scores on 'people' and 'planet' are higher then the overall score on 'prosperity'. Although these triple bottom line measures are proxy's and do not always reflect hard numbers, these findings suggest that the overall impact of these enterprises on the sustainable development of the region is considerable.

In order to identify explaining factors of their performance and success, the enterprises were asked to indicate to what extent they possess certain organizational capabilities (stable, intangible assets that enable performance – Dosi et al., 2000; Ulrich & Smallwood, 2004). In terms of a list of capabilities that well-run organizations tend to have (based on Ulrich & Smallwood, 2004) the cases included in this research scored themselves high on 'collaboration', 'leadership', 'learning', 'customer connectivity', 'shared mind-set' and 'innovation'. 'Strategic unity' and (ensuring) 'performance' were scored lowest. However, based on previous research and literature, it is assumed that sustainability-driven enterprises differ in fundamental ways from commercial enterprises (Austin et al., 2006; Schlange, 2007; Parrish 2010). They strive for multiple goals of a different nature, implying a different

approach in meeting these requirements and different challenges that need to be faced. Based on this, the enterprises were also asked to score themselves on five SdE-specific capabilities (build on the work of Parrish, 2010). The answer-patterns show that they score highest on (1) 'strategic satisficing', closely followed by (2) 'benefit stacking'. After that come (3) 'qualitative management'. The capabilities (4) 'resource perpetuation' (divided into 'natural capital and 'human capital') and (5) 'worthy contribution' are scored relatively lowest. However, the average scores on all of these capabilities are around 4 out of 5 – meaning the enterprises have indicated all of these capabilities are strongly present within their organization. Parrish (2010) coined the five concepts, although he approached them as principles of 'perpetual reasoning' that take the form of heuristic, generative rules of action for the process of organizing. These findings are thus in line with Parrish's (2010) suggestions on which the five capabilities were based.

The core findings of this research are based on the multiple linear regression analysis that was performed to explore the relationship between the five proposed capabilities ('resource perpetuation', 'benefit stacking, 'strategic satisficing', 'qualitative management' and 'worthy contribution') and the success of the SdE's ('prosperity', 'people' and 'planet). First, two steps were made in order to reduce the amount of variables included in the regression analysis, as the small sample size only allows a very limited number of variables to be included in the models. Factor analysis was used to cluster the generic capabilities into three factors and was also performed to create single factors for the five SdE-specific capabilities, with 'resource perpetuation' resulting in two factors, one regarding natural capital and one regarding human capital. Subsequently, the correlations of the control variables (size and age of the enterprise, the founders' previous managerial experience, sustainability focus and generic capability factors) and the six independent variables (the factors RP1, RP2, BS, SS, QM and WC) with the success scales ('profit', 'prosperity', 'people', 'planet' and 'success total' were calculated. Interestingly, for 'profit' and 'prosperity' more control variables then independent variables show correlations, while for 'people' and 'planet' more independent variables then control variables (even none of those) were found to correlate significantly. This shows that other factors relate to the economic pillar of success compared to the social and environmental pillars. For the total, integrated success scale the ratio becomes equal (controls: age and sustainability focus; independent variables: BS and SS) but the independent variables show stronger correlations then the control variables. Of the independent variables, 'strategic satisficing' was found to correlate positively with most scales ('people', 'planet' and 'success total') and showed the strongest significance levels. 'Resource perpetuation', 'Benefit stacking', and 'qualitative management' were all found to correlate with at least one of the same scales, all positively. The exception is 'worthy contribution', which showed a negative relationship to 'profit' and 'prosperity', while no significant relationship with the other success scales was found. Again, this implies that other factors relate to the economic pillar of success compared to the social and environmental pillars.

After the two steps above, the five separate regression analyses were performed; for 'profit', 'prosperity', 'people', 'planet' and 'success total'. Only those control and independent variables that were found to correlate significantly with a scale were used in the regression analysis of that particular scale. Per regression model, three to four variables were included. The results from the analysis indicate that all the models are significant. The adjusted R square ranges from 20% for 'profit' and 'prosperity' to 50-60% for 'people', 'planet' and 'success total', which implies that the constructed model explains a considerable share of the variation in the outcome. This results in a fairly steady predictive model, showing a set of identified factors influencing the success of the SdE's.

'Strategic satisficing' was found to be the strongest predictor of success, being the only independent variable to show significant regression coefficients on multiple success scales with high beta's and p-values >.05. A positive relationship with 'people', 'planet' and the total success scale was found. This

indicates that a stronger presence of this capability results in greater social and environmental success, and this effect is still noticeable in the integrated sustainability-success scale.

The regression coefficient of 'resource perpetuation: natural capital' and 'planet' was also found to be significant, showing that a stronger manifestation of this capability results in greater environmental success. Interesting is the finding that 'worthy contribution' forms a significant predictor of 'profit' and 'prosperity', but that this is a negative relationship. A lower score on this capability leads to higher economic success scores in this research. Although this effect is only found for the economic scale of success, it is the opposite of what was expected. The influence of both of these capabilities; 'resource perpetuation' and 'worthy contribution', fall below the threshold of significance for the total, integrated success scale.

Based on these findings, the hypotheses of this study are accepted, partially accepted or rejected. All the capabilities were hypothesized to overall positively influence success, although the effects per subscale are expected to differ.

With an expected positive effect on at least 'people' and 'planet'**, H1: The capability 'resource perpetuation' in sustainability enterprises in the Western Cape area, overall positively influences their success.** This hypothesis is **partially accepted**, as only 'resource perpetuation – human capital' has a significant positive effect on 'people'. No significant results for 'planet' were found.

With an expected positive effect on all subscales, **H2: The capability 'benefit stacking' in sustainability enterprises in the Western Cape area, positively influences their success.** This hypothesis is **rejected**, as although 'benefit stacking' was found to correlate positively with the 'people', 'planet' and 'total success' scales, none of the regression coefficients were found to be significant.

With an expected positive effect on all subscales, **H3: The capability 'strategic satisficing' in sustainability enterprises in the Western Cape area, positively influences their success.** This hypothesis is **partially accepted** as a significant positive relationship was identified with 'people', 'planet' and 'success total', but the regression coefficient with 'prosperity' was not significant.

With an expected positive effect on at least 'people' and 'planet', **H4: The capability 'qualitative management' in sustainability enterprises in the Western Cape area, positively influences their success.** This hypothesis is **rejected** as no significant correlation coefficients were found, although this capability was found to correlate positively with the 'planet' subscale.

With an expected positive effect on 'prosperity' and 'people': **H5: The capability 'worthy contribution' in sustainability enterprises in the Western Cape area, positively influences their success.** This hypothesis is **rejected**, as this capability was found to significantly influence the 'prosperity' subscale but this relationship was found to be negative. The capability did show a positive correlation to 'people'.

Returning to the control variables, the research shows some more interesting findings. First of all, the lack of correlations and significant regression coefficients of the (clusters of) *generic* capabilities included in this research is remarkable and not in line with theory. The answers of the entrepreneurs indicate that the specific-SdE capabilities are relevant to their success, whereas there are (as good as) no clear relationships with *generic* capabilities. It does have to be noted that the qualitative data gathered in this study does show that the enterprises, also the most successful ones, show clear signs of some of these generic capabilities. The most outstanding example is 'innovation', belonging to the 'external orientation' factor. Literature beyond Ulrich & Smallwood (2004) suggests that 'innovativeness' is relevant to sustainability performance (Dees, 2001; Schaltegger, 2002; Barendsen

& Gardener, 2004; Mair & Marti, 2006; Rego & Bhandari, 2006; Herrington, 2009; Ras & Vermeulen, 2009) and in the products, services and business and management models that the entrepreneurs included in this sample have developed, clear signs of innovativeness can be found. However, in this research, where generic and specific-SdE capabilities were measured at the same time, only the latter form significant predictors of the success of SdE's.

Looking at the other control variables compared to the independent variables also yields interesting findings. As explained above, based on the correlations the size and age of an enterprise and its founder's managerial experience were connected to their economic performance and success, but not to their social and environmental performance and success. Now looking at the regression coefficients, only the one for age with 'profit' is significant. The regression coefficients of the independent variables show that social and environmental success does however depend on the SdE-specific capabilities 'strategic satisficing' and (to a lesser extent) 'resource perpetuation: natural capital'. The economic measures do not seem influenced by those SdE-specific capabilities, but they are by 'worthy contribution'. In turn, this capability does not show the same negative predictive relationship to the social and environmental scales. Therefore the suggestion raised through the correlations that other factors explain the economic pillar of success compared to the social and environmental pillars, remains standing. For social and environmental success pillars, this research points to SdE-specific capabilities.

Especially the capability 'strategic satisficing' was found to be important, and indications for this vital role can also be found in previous research and literature. SdE's are characterised by having multiple objectives that compete with each other at times, but all have to continuously be met. This creates a tension that must be overcome in order for the enterprise to be successful (Austin et al., 2006; Schlange, 2007; Parrish, 2010). Although the effect of 'strategic satisficing' on 'prosperity' by itself was not found to be significant, the findings from the regression analyses, especially regarding the total, integrated success scale, do indicate that 'strategic satisficing' is a key factor to the success of sustainability-driven entrepreneurship.

'Resource perpetuation - natural capital' significantly predicts the environmental success scale 'planet', and the qualitative data analysis underlines its importance. This capability is therefore also considered a factor of importance. For 'worthy contribution' it is interesting to see that the findings of this research contradict the theory and are the opposite of the expectations. The findings do imply that 'worthy contribution', or at least what it refers to in this research, is a relevant factor to success for SdE's. However, as this research does not provide a clear explanation for this finding, no conclusive statements are made. Finally, although the qualitative data does show evidence of the importance of the SdE-specific capabilities 'resource perpetuation: human capital', 'benefit stacking' and 'qualitative management', they cannot be directly tied to the success of SdE's as the regression analysis did not yield significant results. The box below summarizes the most important findings from this research.

This research indicates that SdE-specific capabilities are key factors to the success of SdE's, especially 'strategic satisficing' and (to a lesser extent) **'(natural) resource perpetuation'.** The stronger the presence of these capabilities, the more success in terms of (at least one) sustainability aspect(s) an enterprise will have.

5.2 Further findings

Another interesting finding from the qualitative data gained through the interviews is that mentorship plays a very important role in SdE. It was found to be important both to the entrepreneurs themselves and in how they approach their employees and beneficiaries. For enterprises that have a strong social mission, it even seemed to be the basis for their entire practical model. Reflecting on related theory, these findings suggest how capabilities can be transferred, i.e. through by learning-by-doing, which is in line with the suggestions by Goldstein and Hiliard (2008).

Finally, attention was given to the characteristics of the entrepreneurs themselves. The entrepreneurs in this sample were motivated to start their business by wanting to respond to a social and/or environmental need they identified, to create social and/or environmental value or to drive sustainability change. Most of the cases had a vision focused on creating something innovative, identified themselves with this vision but still took a pragmatic approach; which is similar to findings from previous research by Schlange (2006). Over two-thirds of the entrepreneurs that participated to this study are under 40 years old and the majority has at least some previous managerial experience. Generally, the people in the sample seemed to prefer to start an enterprise with (at least) one other person, often of the other sex. Then, regarding personality traits the sample showed evidence of high agreeableness, extraversion, and openness, and low conscientiousness. These findings are in line with previous research described in literature (e.g. Koe Hwee Nga & Shamuganathan, 2010), and suggest sustainability-driven entrepreneurs may not fully 'fit' Holland's traditional E-type (Entrepreneurial).

A final note on the entrepreneurs themselves in that the vast majority of the entrepreneurs in the sample is white and from a middle class socio-economic background. In reference to the dual view of South Africa's society as explained in the introduction and in Appendix x, the enterprises seem to be founded within the 'First Economy'. However, especially the ones with a strong social mission often work with people in the 'Second Economy', trying to improve their livelihoods. Through their mentorship models, they try to foster sustainable economic development of the 'Second Economy'. It seems these enterprises are thus contributing to the bridging of the gap between the 'First' and 'Second Economy', one of the countries mayor goals. As the findings on the performance and success measures also indicated, these findings suggest that the overall impact of these enterprises on the sustainable development of the region is considerable.

6 Discussion

This final chapter of this thesis contains a review of the methodology, discusses implications of the findings for policy makers and presents suggestions for future research.

There were no problems encountered regarding the research type, consisting of three different phases, nor with the data collection process. Although the targeted sample size was obtained, it might be argued that this n is critically small for regression analysis. It was deemed acceptable due to the explorative nature of this research, but needs to be larger in order to make harder claims. Also, the diversity of the sample in terms of racial and socio-economic background of the founders of the enterprises is very limited. Due to the digital approach in participant identification, most of them are founded by white people with at least a middle-class background and are based in the 'First Economy'. However, as the literature on which this study was based (Parrish, 2010) was also based on research amongst enterprises operating in developed market spheres, this particular sample might actually fit better than enterprises in the 'Second Economy'.

More considerable problems were encountered in the methods of measuring both the dependent and independent variables. The model that was used to approach sustainability-related performance and impact, based on quantified measurement of triple bottom line indicators, had not been used or tested before. Only a very limited amount of indicators per success scale could be included, in order to keep the questionnaire relatively easy and quick to fill out. Although the selection of indicators was based on research on relevant issues, dozens of others that are often used to measure sustainability performance could not be included. More over, although the business world nowadays is often required to approach their sustainability impact in an integrated way, it can be argued that combining a limited amount of indicators relating to three different performance areas into a one-figure encompassing success measure, is simplifying a complex reality too much.

A final note on the success variables is that some of the items used to measure performance were not applicable to one-man or very small enterprises, such as the items on policies. Such enterprises were often found to not (yet) have formal documents, but they often do consider the issues of focus in their operations. These items may thus have not always been filled out correctly.

Regarding the independent variables, some problems in measuring the capabilities were also encountered. What becomes instantly clear when looking at the data that was gathered is that the entrepreneurs on average scored themselves very high on all of the capabilities. Although the method of measuring the capabilities is based on two existing methods; the Capability Audit (Ulrich & Smallwood (2004) and two-step design (Grounded Theory and Organisational Capability Questionnaire (OCQ)) of Hase (2000), it can be questioned whether self-assessment yields the most reliable findings. More over, as the performance indicators were also based on self-assessment, most importantly by the same person, the chances of correlations between the two may be higher then with two objective measurements. Assessment by a (or several) researcher(s) would be more time consuming but might lead to more relative findings (comparing enterprises to each other) that better reflect reality. Also, this would allow for a more in-depth approach to the measurement of capabilities, which might better suit their complex nature then three short statements. With the limitations in terms of time and resources of this research project, there was no other measurement possibility but self-assessment. The interviews did provide qualitative data to nuance the quantitative data.

A final note concerns the three reversed items used in the questionnaire, as inspection of the data showed that the majority of the participants had not picked up on the reversion. This may however be due to inappropriateness of these items for reversal. The reversed items can be argued not to

measure the opposite of the capabilities, thus their (recoded) answers do not reflect the right implication for the capabilities. Whatever the cause, the issue resulted in unacceptably low reliability of the scales, meaning these items had to be excluded from the analysis, leaving the variables based on just two items.

All in all, although the methods used in this research are flawed in some ways, they do have a solid basis. The findings can serve as a valuable basis for suggestions to policy makers, involved institutions and for future research.

Several implications for policy makers and involved institutions can be based on the findings. First of all, the entrepreneurs made clear that more training and guidance, especially during the start-up and early phases, would be very valuable to them. The findings suggest that such training should include a focus on the capabilities 'strategic satisficing' and to a certain extent also 'resource perpetuation'. A practical mentorship might be advisable, as this seems the preferred model. On a higher level, the activities that the enterprises included in the sample perform and the impact they were found to have, indicate that these enterprises contribute to the bridging of the gap between the First and Second Economy. As this is one of the country's biggest hurdles in sustainable development, it may be effective to foster SdE as much as possible, meaning policy and institutions should be attuned to this goal as much as possible.

What remains are suggestions for future research. To start off with, it might be interesting to further investigate the translation of Parrish's (2010) principles into capabilities. Especially 'worthy contribution' deserves more attention, as the findings from this research contradict those of Parrish (2010). Moreover, although this research was already performed with a far larger n than Parrish (2010) and included enterprises beyond the service sector, a study on an even larger scale may yield stronger findings. Both a larger sample size as a more in-depth approach are suggested. It is also strongly recommended that a study is performed that includes both sustainability-driven and commercial enterprises. This may shine more light on the differing importance of generic and SdE-specific capabilities. Furthermore, the qualitative data in this research also pointed towards personality characteristics of sustainability-driven entrepreneurs themselves as an interesting topic for further research. Perhaps personality traits could even be related to sustainability-driven entrepreneurial competence. Then finally, what also might be theoretically and practically interesting is to perform this research in other countries. It is recommended that peer countries in the same continent, for example Uganda is looked at, potentially moving on to other efficiency driven economies such as Brazil. However, a comparison between such developing countries and Western countries might also return very interesting findings, especially since Parrish's (2010) work was based on Western organizations and his findings were applied to enterprises in a developing nation for this research.

With the important role that the enterprises included in this sample have been shown to play in bringing sustainable development and with the numerous options for further research, the phenomenon of sustainability-driven entrepreneurship deserves many future studies and publications.

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Maps

Direct link to Google Maps overview of the participating enterprise on page 28: goo.gl/Meo2G

APPENDIX A | List of participants and interviewees

Organization	Interviewee	Position	Date of interview	Questionnaire
BottleCraft SA	Jo Kearny	Founder	13 March 2012	Yes
Blue North	David Farrell	Partner	15 March 2012	Yes
The Green Cab	Amiene van der Merwe	Marketing Director	15 March 2012	No
Malcolm Worby Design + HAPPI	Malcolm Worby	Consultant + Founder	17 March 2012	No
Derrick	Myles Hoppe	Managing Director	20 March 2012	No
Impahla Clothing	William Hughes	Managing Director and Co-owner	28 March 2012	Yes
I Power SA	Paul van Dyk	Founder	28 March 2012	No
EcoPack	Lauren Clack	General Manager	28 March 2012	Yes
Green Talent	Elize Hattingh	Founder	29 March 2012	Yes
Atlantic Plastic Recycling	Steven Cheetham	Manager	02 April 2012	Yes
GreenEdge	Hugh Tyrell	Director	03 April 2012	Yes
Scarecrow Organics	Irene de Beer	Owner	04 April 2012	Yes
Khayelitsha Cookies	Adri Williams	Sales & Marketing Manager	05 April 2012	Yes
Oude Molen Eco-Village	John Holmes	Former chairperson of the Resident's Association	03 April 2012	No
Incite	Jonathon Hanks	Director	04 April 2012	Yes
Spier	Gerhard de Kock	Finance Director	16 April 2012	Yes
Green Life Store (Vegware SA)	Natashia Fox	Owner	18 April 2012	Yes
Reyneke Wines	Johan Reyneke	Owner	19 April 2012	No
Proudly Macassar Pottery	Johan de Meyer	Manager	23 April 2012	Yes
Living Green	Sam Adams	Owner and Director	24 April 2012	Yes
Thandi Wines	Vernon Henn	General Manager	25 April 2012	Yes
Original T-Bag Designs	Jill Heyes	Director	25 April 2012	No
Food Shed	Liz Metcalfe	Founder	26 April 2012	Yes
ProNature	Bernhard Lembeck	Member	02 May 2012	Yes
Icologie	Andy le May	Managing Director	03 May 2012	Yes
Green Renaissance	Michael Raimondo	Founder and Director	03 May 2012	Yes
Turqle Trading	Rain Morgan & Pieter Swart	Founders	13 May 2012	Yes

Green-Diesel	Craig Waterman	Owner and General Manager	09 May 2012	Yes
Burchells Foods	Debbie Alcock	Managing Director	14 May 2012	Yes
Lutzville Training Center	Johan Muller	Founder and member Board of Directors	15 May 2012	Yes
Carbon Calculated	Alex Hetherington	Founding Member and Consultant	15 May 2012	Yes
CocoaFair	Antonino Allegra	Co-Owner	16 May 2012	Yes
Hemporium	Tony Budden	Founding Member	22 May 2012	Yes
RLabs	Clinton Liederman	PR & Communications Manager	30 May 2012	Yes
She's the Geek	Monique Ross	Co-Founder	30 May 2012	Yes
African Shark Eco Charter	*No interview conducted*	-	-	Yes
GreenOFFICE	*No interview conducted*	-	-	Yes
Greenpop	*No interview conducted*	-	-	Yes
Heart (Heart Capital)	Peter Schrimpton	Founder and CEO	21 May 2012	No
UnLtd. South Africa	Tom Shutte	Programme Director	15 May 2012	No
Trickle Out Research Project	Diane Holt & David Littlewood	Principal Investigator & Research Fellow	27 April 2012	No
IZWA (Institute for Zero Waste in Africa)	Muna Lakhani	National Co-ordinator	20 April 2012	No
University of Cape Town (Graduate School of Business)	Ralph Hamann & Francois Bonnici	Research Director and Associate Professor & Director Bertha Centre for Social Innovation and Entrepreneurship	30 April 2012	No

APPENDIX B | Questionnaire sustainability-driven entrepreneurship in the Western Cape

1. General information

This questionnaire is confidential and anonymous.

Name organization: ……

Sector/industry: ……

1.1. Size (number of employees in full time employee equivalent (fte)):

1 fte	2 - 5 fte	6 - 10 fte	11 - 25 fte	26 - 100 fte	101 - 200 fte	201 - 500 fte
☒	☒	☒	☒	☒	☒	☒

1.2. Age (number of months/years organization exists): …… months / …… years

1.3. Business model (tick one box):

☒ Profit ☒ Non-profit ☒ Hybrid/dual (both profit and non-profit entities)

	Disagree				**Agree**
1.4. Our business' mission addresses social goals (circle one)	1	2	3	4	5
1.5. Our business' mission addresses environmental goals (circle one)	1	2	3	4	5

1.6. Percentage of workforce dedicated to sustainability related goals (social and/or environmental goals): ……%

1.7. Gender of founder(s):

☒ Only male ☒ Only female ☒ Combination of both male and female

1.8. Age of founder at start business: …… years

1.9. Founders' previous managerial experience:

☒ None ☒ Some experience (1-3 years) ☒ Very experienced (>3 years)

1.10. Founder(s) ethnic background:

☒ Black ☒ White ☒ Coloured ☒ Combination of ethnic backgrounds

1.11. Socio-economic background founder(s):

☒ Lower class ☒ Middle class ☒ Upper class

1.12. Please explain briefly the initial motivation for the starting of this organization:

……

……

……

Section 2 – performance

2.1. Best estimation of average yearly profit since start or over the last 3 years: …… % / year

2.2. Best estimation of percentage of inputs bought locally (Western Cape + 50 km.):

☒ 0 - 20 % ☒ 21 - 40 % ☒ 41 - 60 % ☒ 61 - 80 % ☒ 81 - 100 %

2.3. Best estimation of % of products/services going to:

local market (Western Cape + 50 km outside):	……%
national market:	……%
African markets:	……%
other:	……%

2.4. What is the factor of difference between the lowest and highest salaries within your organization: ……

2.5. We have policies **beyond legal requirements** on…	**Disagree**				**Agree**
… minimum wage	1	2	3	4	5
… health and safety	1	2	3	4	5
… equality (gender and race)	1	2	3	4	5
2.6. We invest (money and/or time) in the community in which we operate:	1	2	3	4	5
2.7. We have minimized our energy use in all possible ways or have concrete plans for the near future:	1	2	3	4	5
2.8. To minimize waste, we…					
… reduce our use of materials	1	2	3	4	5
… re-use materials	1	2	3	4	5
… recycle materials (internally or sorted and passed on to other party)	1	2	3	4	5
2.9. We invest (money and/or time) in the preservation of our natural environment:	1	2	3	4	5

Section 3 – general landscape

Definition 'direct network' = circle of business related contacts

	Disagree				Agree
3.1. In my country, most people consider starting an enterprise a desirable career choice	1	2	3	4	5
3.2. In my country, those successful at running an enterprise have a high level of status and respect	1	2	3	4	5
3.3. In my country, those who succeed at maintaining a sustainable enterprise get a higher level of status and respect than those successful at running a 'regular' enterprise	1	2	3	4	5
3.4. In my country, there is a culture of fear of failure	1	2	3	4	5
3.5. In my country, most people believe there is a need to be more sustainable	1	2	3	4	5
3.6. Within my direct network, most people consider starting an enterprise a desirable career choice	1	2	3	4	5
3.7. Within my direct network, those successful at running an enterprise have a high level of status and respect	1	2	3	4	5
3.8. Within my direct network, those successful at running an sustainable enterprise have a higher level of status and respect than those successful at running a 'regular' enterprise	1	2	3	4	5
3.9. Within my direct network, most people I meet are afraid to fail	1	2	3	4	5
3.10. Within my direct network, most people believe there is a need to be more sustainable	1	2	3	4	5
3.11. In my country, you will often see stories in the public media about successful enterprises	1	2	3	4	5
3.12. In my country, you will often see stories in the public media about sustainability	1	2	3	4	5
3.13. In my country, you will often see stories in the public media about successful sustainability enterprises	1	2	3	4	5
3.14 . Social, environmental or community problems are generally solved more effectively by entrepreneurs than by the government	1	2	3	4	5
3.15. In my country, there is a low level of corruption which facilitates running a business	1	2	3	4	5

3.16. In my country, legal and administrative procedures are not an important obstacle to starting a business	1	2	3	4	5
3.17. In my country, the costs associated with formally registering a business are an obstacle to starting a business	1	2	3	4	5
3.18. In my country, property rights are clearly delineated and protected by law	1	2	3	4	5
3.19. In my country, generally speaking, the government has been stimulating entrepreneurship over the last 3 years	1	2	3	4	5
3.20. In my country, generally speaking, the government has been stimulating sustainable development over the last 3 years	1	2	3	4	5
3.21. In my country, generally speaking, the government has been stimulating sustainability entrepreneurship over the last 3 years	1	2	3	4	5

3.22. Please indicate how the following acts and laws affected your business.

a. Broad Based Black Economic Empowerment (BBBEE)

……

……

b. Skills Development Act (SDA)

……

……

c. National Strategy for the Development of Small Business (NSDPSB)

……

……

3.23. Which regulations did you have to deal with in *starting* your business?

……

3.24. Which regulations did you have to deal with in *maintaining* your business?

……

3.25. Which regulations hinder(ed) you?

……

Section 4 – accessibility

4.1. What form of financial support did you use to initially finance your enterprise? Please place an X in the box for each type used, specifying at the same time what percentage of your total financing came from that source. <FINCom1>

Type of financing	**What percentage of total funding came from that source**?		
	> 80%	30 - 80%	< 30%
Bootstrapping (*funding from community, foregoing salary, bartering with suppliers, etc*)			
Friends & family			
Retail banks			
Microfinance			
Corporate foundations			
Development Finance Institutions			
Enterprise Development Intermediaries (Retail Finance Intermediaries)			
Socially Responsible Investment Funds			
Private Equity/ Venture Capital			
Local and/or National Government			
Grants or Donations			
Sector-Specific Funding			
Angel Investors			
Other			

If chose other, please list which sources you are referring to:

……

4.2. How many types/sources of financing did you apply for before you found funding? <FINPro1>

0	1 - 4	5 - 7	8 - 10	>10	
☒	☒	☒	☒	☒	

4.3. What were the main reasons you chose the financing route you specified above? Rank the following statements between 1 (least relevant) and 5 (most relevant) based on their level of relevance to your decision-making. If you choose either 'this was the best option' or 'other', please explain your choice. <FINBar1>

Reason:	**Ranking:**
This was the best option ***because…***	
Unaware of other options	
This/these were the only sources that granted me (us) financing	
Disenchanted with other options (i.e. believe they are inefficient or ineffective)	
Lacked resources to pursue other options (i.e. time, money, organized business plan or financial projections, etc)	
Other…	

4.4. How long did it take you to obtain all the funding needed to start your enterprise? …… month(s) ……year(s) <FINPro2>

4.5. Below, please list all the financial organizations that you considered applying to, applied to and/or received funding from. Furthermore, please indicate your level of satisfaction with that organization (i.e. the process, requirements, communication, etc) by circling a number 1 (dissatisfied) to 5 (satisfied). <FINE1>

Financial Organization	**Considered applying:**	**Applied for:**	**Level of satisfaction**				
			Dissatisfied				**Satisfied**
……	☒	☒	1	2	3	4	5
……	☒	☒	1	2	3	4	5
……	☒	☒	1	2	3	4	5
……	☒	☒	1	2	3	4	5
……	☒	☒	1	2	3	4	5

4.6. Based on your best estimate, how many contacts do you believe you have that have either assisted in the development of your business or whom you believe could assist in the development of your business? Please check the corresponding box. <NETSco1>

<10	10 - 25	26 - 50	51 - 75	76 - 100	>100
☒	☐☐☐☐☒	☐☐☐☐☐☒	☐☐☐☐☐☒	☐☐☐☐☐☒	☐☐☐☒

4.7. How would you characterize the type of relationship you have with your contacts specified above? Please check the corresponding box. <NETTyp1>

The majority are purely contacts acquired for business purposes	☒
There is an even combination of strictly business contacts and social contacts	☒
The majority are social contacts that have assisted with business transactions	☒

My main motives for networking are to…		**Disagree**				**Agree**	
4.8.	…secure financial support for my enterprise	1	2	3	4	5	<NETMot1>
4.9.	…secure training, skills, and/or industry knowhow	1	2	3	4	5	<NETMot2>
4.10.	…secure materials and supplies for my enterprise	1	2	3	4	5	<NETMot3>
4.11.	…secure market presence	1	2	3	4	5	<NETMot4>
4.12.	…secure a customer base	1	2	3	4	5	<NETMot5>
My methods of networking are…							
4.13.	… (sustainability) entrepreneurial organizations designed to facilitate networking	1	2	3	4	5	<NETMet1>
4.14	…industry-specific organizations	1	2	3	4	5	<NETMet2>
4.15	…industry/entrepreneurial conferences, workshops, competitions, etc	1	2	3	4	5	<NETMet3>
4.16	…through existing contacts	1	2	3	4	5	<NETMet4>
4.17	…online platforms (i.e. Facebook, LinkedIn, etc.)	1	2	3	4	5	<NETMet5>
4.18	…self-conducted research	1	2	3	4	5	<NETMet6>
4.19	…trade shows, fairs, sales events, etc	1	2	3	4	5	<NETMet7>
4.20	…other: ……						

4.21. Please specify any formal networks that you or your enterprise participates in. Furthermore, please check the box corresponding to your level of commitment and circle a number 1 (dissatisfied) to 5 (satisfied) depending on your level of satisfaction from your involvement with that network. <NETE1>

Network	Receive Communication (emails, newsletters, etc.)	Attend meetings, conferences, etc on a regular basis (if applicable)	Active member of the board or involved directly in the activities of the organization	Level of satisfaction
				Dissatisfied **Satisfied**
……	☒	☒	☒	1 2 3 4 5
……	☒	☒	☒	1 2 3 4 5
……	☒	☒	☒	1 2 3 4 5
……	☒	☒	☒	1 2 3 4 5
……	☒	☒	☒	1 2 3 4 5

4.22. Please indicate the highest level of education obtained by the founder(s). Check corresponding box. <EDUL1>

- ☒ Primary school
- ☒ High school
- ☒ Tertiary school
- ☒ Graduate school (Master's and/or PhD)
- ☒ Technical and vocational education and training (TVET) or further education and training (FET)

Please indicate on the following statements to what extent they apply to your educational background:

		Disagree				Agree	
4.23.	During my education I had courses in business and/or management	1	2	3	4	5	<EDUB1>
4.24.	During my education I had courses specifically about entrepreneurship	1	2	3	4	5	<EDUB2>
4.25.	During my education I was exposed to real entrepreneurs	1	2	3	4	5	<EDUB3>

4.26. During my education I was exposed to the concepts of sustainability entrepreneurship (i.e. social, eco-, sustainable entrepreneurship, etc.) 1 2 3 4 5 <EDUB4>

4.27. During my education I was encouraged to pursue entrepreneurship as a career 1 2 3 4 5 <EDUB5>

4.28. Of the entrepreneurship training you received, if any, how much of it did you intentionally seek out? (i.e. you signed up for a program or course with the intent of learning skills for or about entrepreneurship) <EDUT1>

0% <25% 25 - 50% 51 - 75% >75% 100%

4.29. Please list any education program and/ or institution that you either considered attending a course(s) with or actually attended a course(s) with that specifically targeted entrepreneurial skills. Check the boxes to indicate your level of involvement and circle a number between 1 (satisfied) and 5 (dissatisfied) that indicates your level of satisfaction with the course(s), if applicable. <EDUE1>

Educational Organization	**Considered attending a course(s) or program(s):**	**Attended course(s) or program(s) offer by organization**	**Level of satisfaction**				
			Satisfied				**Dissatisfied**
……	☒	☒	1	2	3	4	5
……	☒	☒	1	2	3	4	5
……	☒	☒	1	2	3	4	5
……	☒	☒	1	2	3	4	5
……	☒	☒	1	2	3	4	5

Section 5 – management

Please indicate for the following statements to what extent they apply to your organisation (not to you personally, but the **organisation as a whole**).

This organisation has the following capabilities/abilities:	**Disagree**				**Agree**	
5.1. **Talent**: attracting, motivating, and retaining competent and committed people	1	2	3	4	5	GTal
5.2. **Performance**: ensuring employees perform at their best	1	2	3	4	5	GPer
5.3. **Shared mind-set**: having a shared identity that reflects what we stand for and how we work	1	2	3	4	5	GSha
5.4. **Leadership**: having competent and accepted leaders	1	2	3	4	5	GLead
5.5. **Strategic unity**: articulating strategies and sharing them with all employees	1	2	3	4	5	GStra
5.6. **Internal network**: good internal communication and knowledge sharing	1	2	3	4	5	GInt
5.7. **Learning**: searching for continuous improvement	1	2	3	4	5	GLear
5.8. **Innovation**: good at doing something new in both content and process	1	2	3	4	5	GInn
5.9. **Customer connectivity**: forming lasting relationships of trust with customers	1	2	3	4	5	GCus
5.10. **Collaboration**: work together well with other organizations	1	2	3	4	5	GCol
5.11. **Speed**: acting quickly to make important things happen fast	1	2	3	4	5	GSpe
In trying to improve (or at least preserve) our natural environment, we…						
5.12. … have the expertise in house to do so	1	2	3	4	5	RP1
5.13. … have procedures in place to make sure this is done	1	2	3	4	5	RP2
5.14. … employ people that take personal responsibility	1	2	3	4	5	RP3
In trying to keep our people to feel and function as good as possible, we…						
5.15. … recognize employee needs as much as their skills	1	2	3	4	5	RP4
5.16. … exchange feedback with employees in order to make improvements	1	2	3	4	5	RP5
5.17. … engage with our local community	1	2	3	4	5	RP6
5.18. … consider the impact of our activities on our local community	1	2	3	4	5	RP7

In daily operations, this organization…	**Disagree**				**Agree**	
5.19. … tries to keep all processes at the lowest financial cost possible, no matter what	1	2	3	4	5	BS1
5.20. … is often able to find win-win situations, for itself and suppliers, customers or employees	1	2	3	4	5	BS2
5.21. … thinks about how to get most out of every single activity, going beyond financial gains	1	2	3	4	5	BS3
Regarding our strategy, we...						
5.22. … have formulated other goals besides profit generation	1	2	3	4	5	SS1
5.23. … make sure we have the skills in house to meet both financial and non-financial goals	1	2	3	4	5	SS2
5.24. … strive for “viable”, “ fair” and “ reasonable” outcomes for all goals, not maximization of one	1	2	3	4	5	SS3
In decision making processes, this organization…						
5.25. … focuses on continuous increase of production and sales	1	2	3	4	5	QM1
5.26. … regarding growth, assesses what is the best pace for itself **and** its people & environment	1	2	3	4	5	QM2
5.27. … allocates extra budget/time to improvements of workload & workplace quality for employees	1	2	3	4	5	QM3
5.28. … actively involves employees (for example in finding new business ideas)	1	2	3	4	5	STRU
Regarding the division of benefits (profits or other benefits created), we…						
5.29. ... have a clear policy on salary differences	1	2	3	4	5	WC1
5.30. … prioritize those with the most power (such as owners or shareholders)	1	2	3	4	5	WC2
5.31. … try to include the community around us (for example by choosing local suppliers)	1	2	3	4	5	WC3

What is the one top lesson you have learned through your experience and that would pass on to new sustainability-driven entrepreneurs?

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